TXC CORPORATION

Enterprise Vision

The core value of an enterprise lies with its published management philosophy and its attendant mission and the continuous development of an enterprise is ofen built on a long-term architecture, as well as its core value. In view of the imperativeness and importance of the enterprise’s core value for long-term development following gradual development of the company.

Vision Statement

To provide the frequency controlled application products for the computer, communication, optical, and automotive industry so as to become, the most outstanding company in FCP industry judged by performance matrix and managerial capability.

Mission Statement

Through the continuous improvement and the urge for discipline and execution to enhance the productivity to interact with tier one vendors' requests by promoting company's professionalism and globalization framework.

Corporate Culture

To strive for the declared goals in management philosophy and mission, the company shall further develops its founding spirit of Integrity, Practicality, Innovation and Services and convert the guildlines of Unity, Harmony and High Efficiency into a precise corporate culature.

Contents

Chapter 1 Letter to Shareholders

Dear Shareholders,

The global economy was generally severely affected by the impact of the US-China trade war in 2019. Only the United States still had a strong economic performance; the deflation situation in Japan has not improved significantly; Partial emerging countries are forced to come under pressure due to the strong appreciation of the US dollar; the impacts of Britain's successful Brexit and the confrontation between Italy and the EU in the euro zone, the crisis has slowly emerged. In 2020, although the US-China trade war tends to ease and the central bank's monetary policy in major countries continues to be easing, the global economy has been affected by the spread of the coronavirus pneumonia epidemic and had lowered their GDP targets. Even though the current economic situation still has many unfavorable factors and impacts that are causing relative danger, we continue to strive to break through the industry competition situation and finally return to the starting point of growth in 2019. For the company, the dormancy of the past few years will have a good turnaround and growth this year.

I. 2019 Operation Results

(I) Consolidated revenue and net profit

Unit: NT$1,000

Items \ Year	2019	2018	Increase (Decrease) Amount	Change Rate (%)
Net Revenue	8,430,970	8,156,268	274,702	3.37
Gross Profit	2,007,091	1,827,626	179,465	9.82
Net Profit	671,782	644,350	27,432	4.26

Consolidated statement of income and profitability

Item	Year	2019	2018
Financial Structure (%)	Debt/Assets Ratio	34.94	30.34
	Long-term Capital/ Fixed Assets Ratio	260.78	254.77
Debt-Paying Ability (%)	Current Ratio	284.10	340.73
	Quick Ratio	205.84	250.96
Profitability (%)	Return on Assets	5.32	5.09
	Return on Equity	7.70	7.19
	Earnings per Share（NT$）	2.17	2.08

(II) Budget Execution

The internal budget target set by the company each year does not disclose financial forecasts to the outside world. The overall revenue and profit will be affected by industry changes and product structure. The combined operating income and profit of 2019 are reached 100.79% and 99.42% of the budget target.

(III) Research and development

The company continuously enhancing Temperature Compensating Control Quartz Oscillator (TCXO)、Temperature Sensing Quartz Crystal (TSX)、Miniature Constant Temperature Control Quartz Crystal Oscillator (OCXO), Miniature Quartz Crystal (XO) 、Miniature Mobile Device Crystal(Crystal) 、Light sensors…etc., and actively deploy the relevant customers of the 5G industry and the Internet of Things application, laying the foundation for the subsequent market growth momentum.

(IV) Results from execution of other projects

(1) Green enterprise

In addition to ongoing promotion of green enterprise certification and other activities including the Greenhouse Gas Inventory (ISO14064-1) and routine Carbon Footprint checks, TXC was given the EPA's Product Carbon Footprint Emission Factor Database Establishment Award and earned low carbon marks. TXC has also been promoting kitchen waste and plastic bag use reduction activities. The company hands out environmentally-friendly bags to further reduce the use of environmentally hazardous plastic bags.

(2) Occupational safety and health

TXC has continued to promote Occupational Health and Safety Assessment Series certification to uphold labor safety under the guidance of the Occupational Safety & Health Committee and Labor-Management Conference. A number of health promotion activities such as Getting to Know Metabolic Syndrome health lecture, pap smear testing, HPV virus awareness lecture, CPR and Heimlick maneuver instruction, workplace quit smoking activity, oral cancer screening activity, individual weight reduction activity, stress relief activity, blood pressure monitoring activity and flu vaccine inoculation activity were held by TXC to help employees take positive steps towards a healthy lifestyle. TXC will continue on working to create of a safe work environment to provide maximum safety to our employees.

(3) System certification

With regard to the maintenance of various operating systems, TXC has received the following certifications: Quality Management System (ISO9001), Automotive Industry Quality Management System (ISO/TS16949), Environmental Management System (ISO14001), Taiwan Occupational Safety and Health Management System (CNS15506), Information Safety Management System (ISO/IEC27001), Hazardous Substance Process Management System (IECQ QC 080000:2012), Occupational Safety and Health Management System (ISO45001). The Ministry of Finance's Customs and Excise Department issues high-quality enterprises with safety certification, the Ministry of Economic Affairs and Industry Bureau issues the Taiwan Intellectual Property Management Specification (TIPS) Verification Level A, and the Ministry of Health and Welfare issues a healthy workplace certification-health promotion mark. As well as ISO 14064-1:2006 Greenhouse Gas Inventory, Product Carbon Footprint Verification (PAS 2050:2011) and Material Flow Cost Accounting Verification (ISO 14051:2011). TXC will continue to update its management systems to satisfy and surpass customer requirements

(4) Corporate governance and responsibility

TXC's was ranked among the top 20% of all listed companies for corporate governance ratings and the company continues to strive forward by embracing the spirit of open mindedness, dedication, honesty and happiness. Due to the long-term services provided by our company to neighboring disadvantaged families and orphanages. In addition, the company participation in a number of volunteer activities to show concern for local neighborhoods was included the CSR report. TXC Foundation was established to provide variously kind of support.

II. 2020 Business Plan Summary

1、Strengthening industrial deployment and increasing market share:

(1) Consolidate existing markets to enhance competitiveness and maintain market share

(2) Actively develop new markets, new industries, new applications, and new products, deepen China and strengthen the European, American and Japanese markets.

(3) Accelerate new product development, take root in high-end technology, and develop a blueprint for complete product technology

(4) Embrace future application products, actively deploy industries such as automobiles, IoT, 5G, etc. to grasp business opportunities

2、Optimize product mix and increase profitability:

(1) Improve product mix: combine production cost advantages to provide the best product mix and drive high-end, high-margin product sales

(2) Strengthen the advantages of each plant: through the integration of MES (Manufacturing Execution System) to improve production efficiency, cross-factory cooperation, leverage the advantages of each plant and keep flexibility.

(3) Smart production and management: Through intelligent technology and big data analysis to integrate the information of each plant in real time to improve production yield and reduce COPQ (Cost of Poor Quality)

(4) Reduce manufacturing costs: Value chain resource integration, optimized cost analysis, and improved process improvement capabilities

3、Strategic alliances and integration:

In the future competitive environment, the market and product life cycle are shortened, the transfer and learning speed of technology is increasingly fast. With strategic alliances and integration, we can accelerate the transfer of key technologies or capabilities and speed up the development of new products and processes to effectively enter new markets and actively seek potential cooperation opportunities. To strengthen the company's competitive advantage and expand the use of existing technologies or products to further create synergy.

Uncertainty has impacted the global economy, and the industrial competition environment is still severe. At the moment of the 5G commercial timing, we are faced with rapid response and grasping opportunities, but only rooted in technology, breakthrough innovation, and accelerated construction of intelligent platforms to improve business effectiveness to return to the growth track. We keep strengthening the competitiveness to achieve the goal of continuous growth and profit improvement and gain growth momentum to create new results.

Chapter 2 Company Profile

I. Date of Incorporation

TXC is a professional frequency control component and sensor component manufacturer. Since the company's founding in 1983, it has been devoted to research and development, design, production, and sale of quartz component product series. Products include high precision, high quality quartz crystal, automotive crystal, crystal oscillators, and timing modules. Market demand has led TXC to develop multiple kinds of sensors using independent core technology, products that are widely used in mobile communication, data and storage equipment, IoT, and automotive electronics, smart home, AI, medical, 5G…ext.

Over the years, we have upgraded customer value objectives and offered customers a variety of frequency control components for module design-in requirements to provide a total solution to satisfy the overall requirements of customers. TXC performance with regard to price, quality, delivery time and service continues to exceed customer expectations time and time again.

II. Company History

1983 Founded in Taiwan with US$95,000 capital.

1984 Began production on DIP type crystals and oscillators in Peitou factory.

1993 ISO9002 certified.

1995 Winner of the 4th National Award of Small and Medium Enterprises.

1997 Began production of SMD type crystals and oscillators in Taoyuan factory.

1998 Began production os SAW devices. Implemented Oracle ERP system.

1999 Established US sales office.

2000 Increased capital to US$25.3 million.

2001 IPO'ed with capital increased to US$37 million.

2002 Listed in the Taiwan Stock Exchange(Code-3042), ISO14001 certified.
Ranked among the top 10 worldwide frequency control product manufacturers.

2003 Began to offer value-added products(HF CXO/VCXO,OCXO,FX,etc.) for the telecom market.
Began production in new factory in NIngbo, China.

2004 Implemented QoS and 6-Sigma management systems. QS9000 certified.
Established US Technology Center.

2005 ISO/TS16949 certified.
Ranked number 6 among the worldwide frequency control product manufacturers.

2006 Expanding Tauouan factory. Adding production lines in Taiwan and China. The capacity reached to 70 million units per month. Authorized Capital: US$57.9 million.

2007 New factory in Pingzhen inaugurated, factory expansion project in Ningbo factory launched, Intel presented the Preferred Quality Supplier, promotion of the Six Sigma project to Ningbo plant green belt training, procurement of the Shenzhen office, implementation of employee stock option, CB conversion, and recapitalization of surplus to NT$2,415,530,000.

2008 Simultaneously expanded factories in Pingzhen, Taiwan and Ningbo, China; won Intel's Supplier Continuous Quality Improvement (SCQI) Award; won A+ evaluation for information disclosure and top 10 potential golden torch award; continued to promote the 6-Sigma black belt training program at Ningbo and Pingzhen plants. Set up sales operations in Osaka, Japan and Singapore to promote sales. Issued employee options and implement the treasury stock system. Set up subsidiary TXC Hongkong; execute employee option, CB conversion, surplus conversion to increase capitalization to NT$2,716,980,000.

2009 Second phase of Taiwan Pingchen and China Ningbo plant expansion initiated, received A+ ranking and top 10 award at sixth annual Information Disclosure and Transparency Ranking, on-the-job training plan launched for personnel at Ningbo and Pingchen plants, received Preferred Quality Supplier Award recognition again from Intel, strengthen company internal controls to ensure corporate governance effectiveness, promoted transparency of corporate governance information, exercised employee stock warrants, convertible bonds, capital increase by retained earnings to NT$2,887.27 million.

2010 Issued third convertible bond, received corporate governance system evaluation certification from the Taiwan Corporate Governance Associations, received industry model award for the Technology Industry B group from Commonwealth Magazine, awarded National Quality Award from Executive Yuan, continued to implement 6-Sigma black belt training plan for Ningpo and Pingchen plants, set up sales office in Europe to expand business, purchased offices in Shanghai and Suzhou, started third phase of plant expansion for Taiwan PCF, purchased 5,733 level ground of land, built the factories for new energy business unit, execute employee stock option and increase capital out of earning to 2.971 billion NT dollars.

2011 Completion and launch of Taiwan Pingzhen Third-Stage plant expansion and New Energy Division plant, establishment if TXC (Chongqing) Electronics Co., Ltd. production site, established TXC (Chongqing) Corporation and Ningbo Jingyu Company Limited, expansion of European subsidiary, receives A+ grade and top 10 award at Eighth Annual Information Disclosure and Evaluation, passed CGR report review, received Energy Conservation Elite, Outstanding Innovation Award and Commonwealth Corporate Citizen Award, received Taoyuan County Corporate Innovation Award, received ISO50001 Energy Management System, ISO28000 Supplier Chain Management System, ISO27001 Information Security Management System certification, Oracle ERP system upgraded to R12 version, valid assessment of remuneration fairness combined with performance evaluation, establishment of remuneration committee, exercise of employee stock warrants, NT$3,022,420,000 capital increase by capital surplus.

2012 TXC (Chongqing) Corporation plant construction, awarded Authorized Economic Operator (AEO) by the MOF Customs Administration, passed BSI greenhouse gas (ISO 14064-1), product carbon footprint (PAS 2050) inventory, product carbon neutralization (PAS 2060) inventory, given Corporate Citizenship Award by Commonwealth Magazine, received green sustainable enterprise award from BSI, external certification of CSR Report conformed to GRI G3.1 A+ and AA 1000 standards, passed CNS 15506 TOSHMS, awarded ninth annual Information Disclosure and Transparency A++ and top ten ranking, exercised employee stock options, convertible bond and NT$3,097,579,000 capital increase.

2013 Issued fourth convertible bond, TXC (Chongqing) Corporation begin formal mass production, received Taiwan Mittlestadt Award from the Ministry of Economic Affairs, passed review for R&D subsidy for a leading new product development project from the Industrial Development Bureau, was awarded CG6008 Advanced Corporate Governance certification, 10th annual A++ information disclosure assessment rating, passed greenhouse gas inventory (ISO14064-1), product carbon footprint inventory (PAS2050) and product carbon neutrality (PAS2060) verification, named as one of the top 50 Excellence in CSR Award winners by Commonwealth Magazine and a three star 3rd annual Happiest Company Award from the Taipei City Government Department of Labor

2014 TXC's Pingzhen Plant, Ningbo Plant and Chongqing Plant expanded in 2014, new offices in Shenzhen and Beijing were bought, won the A++ award for the Eleventh Information Disclosure Assessment, the Fourth Place in the 8th Global Corporate Citizens Award for Pillar Enterprises of Commonwealth Magazine, the 2nd Excellent Enterprise in Hiring Foreign Workers of Taoyuan County Government, the silver award of Taiwan Top50 Enterprises Sustainability Report Award for large high-tech electronics manufacturing industry of Taiwan's Sustainable Energy Research Foundation, and passed certification of Greenhouse Gas Inspection (ISO14064-1), Corporation Sustainability Report, Product Carbon Footprint (PAS2050), Product Carbon Neutralization (PAS 2060), Information Security Management System (ISO 27001), Supply Chain Security Management System (ISO 28000) and Water Footprint for Information Security Launching Award and the GRC Management Paradigm Award by the British Standards Institute.

2015 Taiwan Pingzhen factory and TXC (Chongqing) continued production line expansion; successfully renewed "Authorized Economic Operator (AEO)" certification; received 12th "Information Disclosure Evaluation" A++ award; ranked within the top 20% of well-administered companies for the first time; passed "Greenhouse Gas Inspection (ISO14064-1); recognized by Huawei as "2015 Core Supplier";

praised by the British Standards Institution with an “Outstanding Management Model Award”; recognized by CommonWealth Magazine as a “Commonwealth CSR Corporation”; promoted Industry 4.0 intelligent factory transformations; the company’s LED department officially established itself as a separate entity under the name TXC OPTECH Corporation.; the joint venture, Guangdong Failong Crystal Technology Co. Ltd., was officially listed on the Shenzhen Stock Exchange.

2016 Taiwan Pingzhen factory, Ningbo factory, and Chongqing factories continue expanding production lines; receives subsidies through the Department of Commerce Department of Industry Manufacturing Upgrade and Innovation Optimization Plan (particulate matter sensor development); ranked within the top 5% of well-administered companies; Awarded Authorized Economic Operator (AEO) certification by the Ministry of Finance, received EPA’s Product Carbon Footprint Emission Factor Database Establishment Award, received BSI’s Environment Governance Practice Award, BSI occupational safety and health certificcations and BSI CSR report verification.

2017 Continued expansion of the production lines at Taiwan’s Pingzhen Plant, Ningbo Plant and Chongqing plant. The 3rd corporate governance rating ranked within the top 5% of rated companies, received IDB ’’Corporate Volunteer Award’’, passsed Material Flow Cost Accounting (ISO 14051 MFCA),passed’’IATF 16949’’ verification、awarded’’BSI Sustainability Awards’’,’’BSI Occupational safety and health’’verification,’’BSI CSR AA1000/GRI G4’’ verification,passed Information Security Management System (ISO 27001) verification, established TXC Foundation.

2018 Awarded Authorized Economic Operator (AEO) certification by the Ministry of Finance, established TXC Europe GmbH, The 4th corporate governance rating ranked within the top 5% of rated companies, Won the international trade bureau's import certificate of excellence、the approvel of the Ministry of Economic Affairs, the research and development project of the Ministry of Economics、Received the "Perpetual Pilot Award" from the British Standards Association

2019 Taiwan Pingzhen Plant, Ningbo Plant and Chongqing Plant Continue to Plan Production Line Expansion、The fifth corporate governance evaluation is the top 6% ~ 20% of listed companies、Won the 2019 Huawei Gold Supplier Award、2019 Xiaomi Core Supplier Award、RBA Sustainable Development Award、Industry Contribution Award from the Ministry of Economic Affairs, INVENTEC Excellent Manufacturer Award、Passed the certification of "ISO 45001 Occupational Safety and Health System"、Passed the 108-year industrial upgrading and innovation platform counseling plan of the Ministry of Economics' Science and Technology Research and Development Project、Obtained Taiwan Intellectual Property Management Specification (TIPS) verification level A

Chapter 3 Company Governance

I. Organization

(I) Organizational Structure As of Dec.31, 2019

(II) Responsibilities and functions of major departments

Department	Responsibilities and Functions
Chairman office	• The formulation of the company's long-term business development strategy • New technology and investment feasibility risk and business opportunity assessment • Overall financial planning and investment management development • Risks and business opportunity assessment on the feasibility of new technology and investment • Supervision over the operations of overseas subsidiary
President office	• The Company's overall operating policies and objectives management, budget planning and setting • All kinds of business supervision and coordination, and management • The advises, modifications and implementation on major business decisions
Internal Audit Dept.	• Planning for the annual audit plan and perform audit operations based on the annual audit plan and present audit reports to CEO, Chairman, independent directors, the Audit Committee and the Board of Directors • Submit periodic reports to the Competent authority • Supervision over the subsidiary's internal control and audits • Assessment on the management performance of each unit and guidance on improvement • Modifications on the internal control system and implementation rules • Promote the practice of corporate ethical management

Department	Responsibilities and Functions
Sales & Marketing Center	• Product sales, PO processing and customer development & services • Analysis on the competitors, production and sales, product marketing strategies and, products’ marketing strategies and industrial market • Costs, prices and sample development management • Emerging market, new products and sales services development • Services and solution on customer’s product application issues • Formulating product marketing strategy • Set the operational (sales, costs, quality) goals, strategies planning
R & D Center	• New product R & D and introduction of mass production • Technology transfer of new products / materials and introduction of mass production • Studying, execution and introduction of the R & D project • New product features assessment and marketing development • Planning, promotion, technology transfer and manufacturing for the development of new miniaturized, high precision and highly reliable products • Developing and improving new product equipment, modules, instruments and jigs • Planning, promotion, technology transfer and manufacturing for the development project of new production processes technology • Studying, execution and introduction of the R & D project • Assist in the trial production and assessment on new product samples from each product-engineering unit
Manufacturing Center	• Coordinating the use of overall production center (Ping-Zhen Plant, Ning-Bo Plant & Chong-Qing Plant) resources (manpower, equipment, production capacity, budget investment, etc.) • Managing the KPIs (Key Performance Indicators) of each production plant under the production center • Executing the production capacity expansion plan required to achieve the Company’s operating goals • Acknowledge the overall production strategies and trends of the quartz crystal industry • Manufacturing for the products • Planning and improving the production flow • Improving and developing the production process flow • Management and maintenance operations for the production equipment • Production capacity & material requirements planning, production & sales control and arrangements, inventory and storage transportation management • Supervision and execution on industrial safety & health and environmental management system • Inspection and maintenance on public system equipment
MEMS/BLK Development and Manufacturing Center	• Coordinating the use of overall wafer production resources (equipment, production capacity, etc.) • Acknowledge the overall wafer production strategies and trends of the quartz crystal industry • Coordinating various management particulars under the MEMS chip center in terms of equipment, manpower and technology • Promotion of various managerial policies • Executing the wafer production capacity expansion plan and the product and technical development of micro-electromechanical system (MEMS) chips required

Department	Responsibilities and Functions
	to achieve the Company's operating goals • Wafer production • Development of wafer technology and improvement on oscillator properties • Planning and improving the production flow • Improving and developing the production process flow • Management and maintenance operations for the production equipment • Executing various production and sales coordination, material control and delivery management particulars • Supervision and execution on industrial safety & health and environmental management system
Quality Assurance Center	• Review and set company-wide annual quality / environment, health and safety (EHS) goals • Establishing, auditing and coordinating the company-wide quality, environmental and green product systems to ensure their effective operations • Formulate work plan and implementation of various annual quality-related activities; • Promote quality improvement operations and various quality certification systems • DCC's annual work planning and execution • Planning and execution for the quality control and inspection on purchased-materials feed, production processes of self-made wafers, finished goods and shipments • Products and materials quality management • Inspection and control on quality of the feed, production process and finished goods • Improving IQC test method to optimize inspection efficiency • Customer-complaint process management
Administrator Center	• Planning and formulating organizational system and departmental responsibilities of the Company • Establishment and implementation of various management systems of the Company; • Review on the effectiveness of intended promotion for the Company's annual budget preparation and review • The generation and analysis of the Company's various accounting processes, costs and financial accounting information • Financial management, capital movement and handling of shares of listed companies • Personnel salary, benefits, recruitment, selection, promotion, evaluation, training and development and other various human resource management • Handling employee relations and various conference activities • General affairs and administrative operations • The provision and management of the Company's operating information, and the establishment, development and maintenance of the Company's information operating systems • Planning, building and maintenance of network communication; planning and implementation of electronic processes • Security and management of information and network communication • Promoting corporate social responsibility (CSR), corporate governance and ethical management
Supply Chain Center	• Purchase and management of equipment, raw materials, semi-finished goods, finished goods and general supplies • Price inquiries, purchases, trade term negotiation, billing, follow up, etc. • Promoting operation of the supplier management system and developing supplier

Department	Responsibilities and Functions
	management • Formulating the production and sales balancing plan; allocating, executing and managing production capacity • Review and request payment for import and export transportations, custom declarations, custom clearances, insurances and other operational expenditures; • Management and analysis on the costs of feed • Developing new materials, alternative materials, common materials for each plant, new manufacturers or new equipment • Aggregation and trends analysis on supply market information (supply, demand, prices, technology, policies, etc.)
Labor Safety and Hygiene Office	• Leading the safety and health review, safety and health risk assessment and other EHS management, as well as being in charge of the planning for the safety and health management system and the enactment of various related procedures • Supervising the safety and health management particulars • Formulating, planning and promoting safety and health management particulars, as well as guiding related departments in the implementation • Responsible for collecting and identifying safety and health related laws and regulations • Consultation and communication on internal and external safety and health issues
Remuneration Committee	• Formulate and review the remuneration policies, systems, standards and structures • Regularly evaluate the reasonable basis for the remuneration and performance appraisal of the Company's directors and managers • Regularly supervise the implementation of the remuneration system
Audit Committee	• Establishment or modification of the internal control system and the assessment on the effectiveness of internal control system • Establishment or modification of the procedures for material financial business behaviors such as acquisition or disposal of assets, engaging in derivative commodity transactions, capital lending to others, endorsing or providing guarantees for others • Procedures for conduct major financial business activities • Assessment on matters concerning interests of the directors themselves • Assessment on major asset investments, major derivative commodity transactions, capital lending, endorsement or provision of guarantees • Assessment on the offering, issuing or private placement of equity securities • Evaluating the appointment, dismissal or remuneration of a Certified Public Accountant and the appointment or dismissal of a Chief Financial Officer, Chief Accounting Officer or chief audit executive • Review financial reports

II. Documents of directors, president, vice presidents, associate vice presidents, and managers of each departments and divisions

(I) Directors

1. Director Information

As of April 11, 2020

Position and Name	Gender	Nationality	Date Elected (Appointed)	Date First Elected	Major Academic (professional) Experience	Current Position in the Company or Other Companies
Chairman and CEO Lin, Wan-Shing	Male	Republic of China	2019/06/12	1989/11/05	Master in Management, National Taiwan University of Science and Technology Director and CEO of TXC Corporation	Director and CEO of TXC Corporation Chairman of TAIWAN CRYSTAL TECHNOLOGY INTERNATIONAL LIMITED Director of TXC JAPAN CORPORATION LTD Chairman of TAIWAN CRYSTAL TECHNOLOGY(HK) LTD Corporation Chairman of GROWING PROFITS TRADING LTD Corporation Chairman of TXC (NINGBO) CORPORATION Director of TXC (CHONGQING) CORPORATION Director of CHONGQING ALL SUNS COMPANY LIMITED Supervisor of Ningbo Longying Semiconductor Co., Ltd Chairman of Tai-Shing Electronics Components Corporation Nanjing Information Corporation
Director Lin, Jin-Bao	Male	Republic of China	2019/06/12	1989/11/05	MBA, West Texas A&M University, USA Chairman of TXC Corporation Founder of TXC Corporation	Director of TXC Corporation Director of Liang Shing EcLife Corp. Director of Tai-Shing Electronics Components Corporation Juristic-person director representative of uPI Semiconductor Corp Juristic-person director representative of Hantic precision technology , Inc Juristic-person director representative of Godsmith Sensor Inc. Director of Taiwan Quartz Crystal Industry Association

Position and Name	Gender	Nationality	Date Elected (Appointed)	Date First Elected	Major Academic (professional) Experience	Current Position in the Company or Other Companies
Director Chen Chueh, Shang-Hsin	Male	Republic of China	2019/06/12	2010/06/15	Master of management, Zhejiang University Director and vice president of TXC Corporation Director and vice executive officer of TXC Corporation	Director and vice executive officer of TXC Corporation Chairman of TXC (NINGBO) CORPORATION Chairman of TXC (CHONGQING) CORPORATION Director of CHONGQING ALL SUNS COMPANY LIMITED Supervisor of Ningbo Jingyu Company Limited Vice Chairman and Juristic-person director representative of Ningbo Longying Semiconductor Co., Ltd Chairman of Tai-Shing Electronics Components Corporation Juristic-person director of Tai Shin Electronics Corporation Director of Wei Lida Technology Co., Ltd
Director Kuo, Ya-Ping	Male	Republic of China	2019/06/12	2019/06/12	Boston University ,MBA President of Management Center of TXC Corporation	President of Management Center of TXC Corporation
Director Huang, Hsiang-Lin	Male	Republic of China	2019/06/12	2019/06/12	State University of New York at Albany, Master of Business Administration (MBA) Sales assistant manager of Marketing Center of TXC Corporation	Sales assistant manager of Marketing Center of TXC Corporation
Director Hsu, Hsing-Hao	Male	Republic of China	2019/06/12	2019/06/12	M.S. degree - Electrical and Computer Engineering, Colorado State University Chairman of Kang-Shuo Investment Corporation R&D Manager of Chan-Yu Corporation	Director of TXC Corporation Chairman of Kang-Shuo Investment Corporation R&D Manager of Chan-Yu Corporation
Director TLC Capital Co.,LTD					Director of TXC Corporation	Director of TXC Corporation
Representative：Peng, Chih-Chiang	Male	Republic of China	2019/06/12	2010/06/15	Ph. D. of National Chiao Tung University Institute of Management of Technology Master of institute of industrial engineering of University of Pittsburgh	Juristic-person director representative of Crystalwise Technology Inc. Juristic-person director representative of Topoint Technology Co., Ltd.

Position and Name	Gender	Nationality	Date Elected (Appointed)	Date First Elected	Major Academic (professional) Experience	Current Position in the Company or Other Companies
Independent Director Yu, Shang-Wu	Male	Republic of China	2019/06/12	2007/06/13	Ph.D.,Birmingham University Director of business and management college of Jinwen University of Science and Technology	Professor, Ming Chi University of Technology college of management and design Independent Director of Taisun Int'l (Holding) Corp. Independent Director of TXC Corporation Convenor of of TXC Corporation
Independent Director Tsai, Song-Qi	Male	Republic of China	2019/06/12	2013/06/19	Finance and Accounting Department of Shanghai University Business Administration, National Chengchi University Certified accountant and Executive Director of KMPG Taiwan	Chairman of EMCC Human Capital Solutions Inc
Independent Director Su, Yan-Syue	Female	Republic of China	2019/06/12	2016/06/07	Master in Industrial Management of Carnegie Mellon University, USA CIO and senior VP of Pegatron corporation CIO of ASUSTek Computer Manager director of UBS bank	Independent Director of Zhong Yang Technology Co., Ltd Independent Director of AU Optronics Corp. Juristic-person director representative of Kinsus Interconnect Technology Corp.
Independent Director Wang, Chuan -Fen	Female	Republic of China	2019/06/12	2016/06/07	Master in Law of Columbia University, USA	Partner of Chen & Lin Law Firm

When the chairman of the board of directors and the general manager or equivalent (top manager) are the same person, spouses or relatives of each other, the reasons, rationality, necessity, future improvement measures and other relevant information shall be stated:

The CEO of the company is responsible for the planning and implementation of the company's long-term business development strategy, the overall management of the group's business team and reporting to the board of directors, while the president is responsible for the planning and management of the daily operation of each plant area. The chairman of the board of directors of the company also serves as the CEO. The company is expected to plan and implement the company's long-term business development strategy in the direction of the concept of sustainable operation, and clearly divide the functions and powers of the chairman, the CEO and the president. In addition, the number of independent directors of the company is more than 4, and more than half of the directors are not employees or managers, so as to enhance the independence of the board of directors.

2. Major shareholders of the corporate shareholders

As of April 11, 2020

Name	Major Shareholder	Share (%)
TLC Capital Co., LTD	United Microelectronics Corporation	100%

3. Major shareholders are corporate shareholders

Name	Major Shareholder	Share (%)
United Microelectronics Corporation	JPMorgan Chase Bank, N.A. acting in its capacity as depositary and representative to the holders of ADRs	5.56
	Hsun Chieh Investment Co., Ltd.	3.50
	Silchester International Investors International Value Equity Trust	2.57
	Nan Shan Life Insurance Company, Ltd.	2.52
	Silicon Integrated Systems Corp.	2.26
	Prudential Assurance Company Ltd.	1.73
	Dimensional Emerging Markets Value Fund	1.48
	Silchester International Investors International Value Equity Group Trust	1.44
	Taiwan Life Insurance Co., Ltd.	1.34
	JPMorgan Chase Bank N.A., Taipei Branch in custody for Vanguard Total International Stock Index Fund, a series of Vanguard Star Funds	1.27

Note1: Names of the major shareholders (who shareholding percentage shall be top 10) of the corporate shareholders and its shareholding percentage.

Note 2: The ex-dividend date of the year is on April 14, 2019.

4. Training of the directors

Title	Name	Date of on Board	Training Date From	Training Date To	Organizer	Course Name
Director	Lin, Wan-Shing	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations
Director	Lin, Jin-Bao	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations
Director	Chen Chueh, Shang-Hsin	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations
Director	Kuo, Ya-Ping	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations
			2019/07/17	2019/07/17	Securities and Futures Institute	Briefing session on insider equity trading laws compliance announcement
			2019/10/25	2019/10/25	Taiwan Corporate Governance Association	Corporate management and media news crisis management strategies
Director	Huang, Hsiang-Lin	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations
			2019/07/17	2019/07/17	Securities and Futures Institute	Briefing session on insider equity trading laws compliance announcement
			2019/11/12	2019/11/12	Taiwan Academy of banking and finance	Analysis of important corporate governance judgments
Director	Hsu, Hsing-Hao	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations
			2019/07/24	2019/07/24	Securities and Futures Institute	Briefing session on insider equity trading laws compliance announcement
			2019/10/01	2019/10/01	Taiwan Corporate Governance Association	Director Responsibility and Risk Management under the Latest Corporate Governance Blueprint
			2019/11/06	2019/11/06	Taiwan Stock Exchange Corporation	Publicity meeting for effective use of directors' functions
Director	TLC Capital Co.,LTD (Peng, Chih-Chiang)	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations

Title	Name	Date of on Board	Training Date		Organizer	Course Name
			From	To		
Director	Yu, Shang-Wu	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations
Director	Tsai, Song-Qi	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations
Director	Su, Yan-Syue	2019/06/12	2019/04/29	2019/04/29	Taiwan Corporate Governance Association	Corporate governance and securities regulations
			2019/05/24	2019/05/24	Chinese National Association of Industry and Commerce	The latest trends and important regulations for preventing money laundering and combating capital terrorism
Director	Wang, Chuan -Fen	2019/06/12	2019/07/11	2019/07/11	Taiwan Corporate Governance Association	Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee
			2019/07/11	2019/07/11		In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations

5. Information on directors’ independence

Qualification / Name	Does he/she have more than 5yrs of work experience and the following professional qualifications?			Degree of independence (Note)												Number of independent directors serving concurrently as other public companies
	Public and private universities lecturer (or above) in business, legal, financial, accounting or other fields related to the business of the Company	Judge, prosecutor, lawyer, accountants or other certified professionals and technicians in the fields related to the business of the Company	Work experience in business, legal, financial, accounting or fields related to the business of the Company	1	2	3	4	5	6	7	8	9	10	11	12	
Lin, Wan-Shing			V					V	V			V		V	V	none
Lin, Jin-Bao			V					V	V	V		V		V	V	none
Chen Chueh, Shang-Hsin			V			V		V	V			V	V	V	V	none
Kuo, Ya-Ping			V		V	V		V	V	V	V	V	V	V	V	none
Huang, Hsiang-Lin			V		V			V	V	V	V	V	V	V	V	none
Hsu, Hsing-Hao			V	V	V	V	V	V	V	V	V	V	V	V	V	none
TLC Capital Co.,LTD			V	V	V	V	V	V	V	V	V	V	V	V		none
Yu, Shang-Wu	V		V	V	V	V	V	V	V	V	V	V	V	V	V	1
Tsai, Song-Qi		V	V	V	V	V	V	V	V	V	V	V	V	V	V	none
Su, Yan-Syue			V	V	V	V	V	V	V	V	V	V	V	V	V	2
Wang, Chuan -Fen		V	V	V	V	V	V	V	V	V	V	V	V	V	V	none

Note: Please add "✓" in the field under each criteria number if the director meets the criteria two years prior to being elected and during his/her term of service.

(1) Not an employee of the Company or any of its affiliates.

(2) Not a director or supervisor of the Company or any of its affiliates. (Do not apply to independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, the Company and its parent or subsidiary or a subsidiary of the same parent.)

(3) Not a natural-person shareholder who holds shares, together with those held by the person’s spouse, minor children, or held by the person under others’ names, in an aggregate amount of 1% or more of the total number of issued shares of the Company or is ranked in the top 10 in shareholdings.

(4) Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of a managerial officer under (1) or any of the persons under (2) and (3).

(5) Not a director, supervisor, or employee of a corporate shareholder that directly holds five percent or more of the total number of issued shares of the company, or that ranks among the top five in shareholdings, or that designates its representative to serve as a director or supervisor of the company under Article 27, paragraph 1 or 2 of the Company Act. (Do not apply to independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, the Company and its parent or subsidiary or a subsidiary of the same parent.).

(6) Not a director, supervisor, or employee of other company if a majority of the company's director seats or voting shares and those of that other company are controlled by the same person. (Do not apply to independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, the Company and its parent or subsidiary or a subsidiary of the same parent.).

(7) Not a director, supervisor, or employee of other company or institution if the chairman, general manager, or person holding an equivalent position of the company and a person in any of those positions at that other company or institution are the same person or are spouses.

(8) Not a director, supervisor, officer, or shareholder holding five percent or more of the shares, of a specified

company or institution that has a financial or business relationship with the company. (Do not apply in cases where the specified company or institution holds more than 20 percent but less than 50 percent of the Company's issued shares and are the independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, the Company and its parent or subsidiary or a subsidiary of the same parent.)
(9) Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that, provides auditing services to the company or any affiliate of the company, or that provides commercial, legal, financial, accounting or related services to the company or any affiliate of the company for which the provider in the past 2 years has received cumulative compensation exceeding NT$500,000, or a spouse thereof; provided, this restriction does not apply to a member of the remuneration committee, public tender offer review committee, or special committee for merger/consolidation and acquisition, who exercises powers pursuant to the Act or to the Business Mergers and Acquisitions Act or related laws or regulations.
(10) Not a spouse or a relative within the second degree of kinship to any director.
(11) Not been involved in any of situations defined in Article 30 of the Company Act.
(12) Not elected on behalf of a government agency or corporate or as a representative of these organizations as defined in Article 27 of the Company Act.

(II) Documents of president, vice president, assistant vice president, and chief of divisions

As of April 11, 2020

Title / Name	Gender	Nationality	Date of Apointmentt	Major academic (professional)	Other Part Time Position with Other Companies
Chairman and CEO (Note 1) Lin, Wan-Hsing	Male	Republic of China	1989/11/11	Master in Management, National Taiwan University of Science and Technology	Chairman of Tai Shin Electronics Corporation Chairman of TXC (NINGBO) CORPORATION Chairman of GROWING PROFITS TRADING LTD Corporation Chairman of TAIWAN CRYSTAL TECHNOLOGY(HK) LTD Corporation Director of TXC (CHONGQING) CORPORATION Director of TXC JAPAN CORPORATION LTD Director of CHONGQING ALL SUNS COMPANY LIMITED
Vice CEO (Note 1) Chen Chueh, Shan-hsing	Male	Republic of China	2002/04/01	Master of management, Zhejiang University	Director of TXC (NINGBO) CORPORATION Chairman of TXC (CHONGQING) CORPORATION Chairman of Tai-Shing Electronics Components Corporation Director of Tai Shin Electronics Corporation Director of CHONGQING ALL SUNS COMPANY LIMITED
President (Note 1) Kuo, Ya-Ping	Male	Republic of China	2009/08/01	BOSTON UNIVERSITY, MBA	-
TXC(NGB) President (Note 2) Chao, Min-Chiang	Male	Republic of China	2012/01/01	Ph.D., Naval Architecture & Ocean Engineering, National Taiwan University Engineer, Biomedical Engineering Center, ITRI	President of TXC (NINGBO) CORPORATION
TXC(CKG) President (Note 2) Chou, Chien-Fu	Male	Republic of China	2017/04/01	Master of National Taiwan of Science and Technology	President of TXC (CHONGQING) CORPORATION Chairman of Chongqing All Sun Company Limited
Executive Vice President (Note 3) Yu, Fang-Ming	Male	Republic of China	2012/01/01	Department of Electronic Engineering, Oriental Insitute of Technology	Executive Vice President of TXC (CHONGQING) CORPORATION
Vice President Lin, Shi-Bo	Male	Republic of China	2011/01/31	Master of Physics, UC, Riverside, USA	-
Vice President Chang, Chien-Tsung	Male	Republic of China	2012/01/01	City University of Macau, MBA Plant Manager, Taitien Electronics Co., Ltd.	Vice President of TXC (NINGBO) CORPORATION

Title / Name	Gender	Nationality	Date of Apointmentt	Major academic (professional)	Other Part Time Position with Other Companies
Vice President Cheng, Li-Wei	Male	Republic of China	2018/01/01	Ph D., Materials Science and Engineering of National Tsing Hua University	-
Chief Technology Officer Chu, Chih-Hsun	Male	Republic of China	2017/12/18	Ph D., Materials Science and Engineering of National Tsing Hua University	-
Vice President Kuo, Ya-Han	Female	Republic of China	2009/08/01	West Coast University, MBA	-
Vice President (Note 4) Su, Jing-Sheng	Male	Republic of China	2015/12/05	Master of Department of Electrical Engineering, National Tsing Hua University	-
Chief Engineer Chang, Qi-Zhong	Male	Republic of China	2006/04/01	Executive Master of Business Administration, EMBA National Chiao Tung University College of Management	-
Assistant Vice President Lin, Su-fen	Female	Republic of China	2010/07/01	Electrical Department of Kaohsiung Institute	-
Assistant Vice President Su, Zhe-Ming	Male	Republic of China	2011/01/31	Department of Electrical Engineering, National Taiwan Ocean University	-
Assistant Vice President Liu, Hsu-Er	Male	Republic of China	2015/06/01	Master of Department of Materials Science and Engineering, National Taiwan University	Assistant Vice President of TXC (NINGBO) CORPORATION
Assistant Vice President Chiu,Chih-Hung	Male	Republic of China	2019/06/01	Master of Executive Master of Business Administration	-
Assistant Vice President Pao,Shih-Yung	Male	Republic of China	2019/06/01	Ph.D of National Taiwan University Institute of Applied Mechanics	-
Assistant Vice President Huang, Hsiang-Lin	Male	Republic of China	2019/09/01	State University of New York at Albany, Master of Business Administration (MBA)	-
Chief Financial Officer (CFO) Hong, Guan -Wen	Female	Republic of China	2003/03/11	MBA, National Taipei University	Supervisor of Win win precision technology Supervisor of Godsmith Sensor Inc.

Title / Name	Gender	Nationality	Date of Apointmentt	Major academic (professional)	Other Part Time Position with Other Companies
When the chairman of the board of directors and the general manager or equivalent (top manager) are the same person, spouses or relatives of each other, the reasons, rationality, necessity, future improvement measures and other relevant information shall be stated: The CEO of the company is responsible for the planning and implementation of the company's long-term business development strategy, the overall management of the group's business team and reporting to the board of directors, while the president is responsible for the planning and management of the daily operation of each plant area. The chairman of the board of directors of the company also serves as the CEO. The company is expected to plan and implement the company's long-term business development strategy in the direction of the concept of sustainable operation, and clearly divide the functions and powers of the chairman, the CEO and the president. In addition, the number of independent directors of the company is more than 4, and more than half of the directors are not employees or managers, so as to enhance the independence of the board of directors.					

Note 1: The board of directors appointed Mr. Lin Wan-Shing as the CEO, Mr. Chen Chueh, Shang-Hsin as the deputy CEO and Mr. Kuo, Ya-Ping as the president on Jun. 12, 2019.
Note 2: In response to the concept adjustment of the organization, vice predident Mr. Chao, Min-Chiang is hereby appointed as the president of TXC (NINGBO) CORPORATION and Mr. as the president of TXC (CHONGQING) CORPORATION in Dec. 2019.
Note 3: Mr. Yu, Fang-Ming was promoted to executive vice president of TXC (CHONGQING) CORPORATION on Aug. 8, 2019.
Note 4: Associate vice president Mr. Su, Jing-Sheng of manufacturing center was promoted to vice president on Nov. 1, 2019.
Note 5: Mr. Chiu, Chih-Hung, director of R & D center and Mr. Pao, Shih-Yung, senior special assistant (Level 3), were promoted to deputy technical director on June 1, 2019.
Note 6: Mr. Huang, Hsiang-Lin, director of the marketing center, was promoted to associate vice president of the marketing center on Sep. 1, 2019.

III. Remuneration and Compensation Paid to Directors, and President and Vice President

(I) Remuneration Paid to Directors

December 31, 2019 Unit: Shares, NT$ 1,000

Title Name	Director's Remuneration								Total Remuneration (A+B+C+D) as a % of Net Income (Note 10)		Compensation Earned by a Director Who is an Employee								Total Compensation (A+B+C+D+E+F+G)as a % of Net Income (Note 10)		Compensation Paid to Directors from Non-Consolidated Affiliates (Note 11)
	Base Compensation(A) (Note 2)		Severance Pay and Pensions (B)		Compensation to Directors (C) (Note 3)		Allowances (D) (Note 4)				Base Compensation, Bonuses and Allowances (E) (Note 5)		Severance Pay and Pensions (F)		Compensation to Employees (G) (Note 6)						
	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC		From All Consolidated Entities (Note 7)		From TXC	From All Consolidated Entities (Note 7)	
															Cash	Stock	Cash	Stock			
Chairman and CEO Lin, Wan-Shing Director Lin, Jin-Bao Director Chen Chueh Shang-Hsin Director Kuo, Ya-Ping Director Huang, Hsiang-Lin Director Hsu, Hsing-Hao Director TLC Capital Co.,LTD Representative: Peng, Chih-Chiang Representative: Chang Wen-Chin Director Golden Talent Investment Holding co., Limited Representative: Chou,Ming-chih Director Hsu, Der-Jun Director Go, Tien-Chong	0	0	0	0	7,725	7,725	840	840	1.2750	1.2750	7,635	12,253	900	900	4,100	0	4,100	0	3.1559	3.8432	4,203

Title Name	Director's Remuneration								Total Remuneration (A+B+C+D) as a % of Net Income (Note 10)		Compensation Earned by a Director Who is an Employee								Total Compensation (A+B+C+D+E+F+G)as a % of Net Income (Note 10)		Compensation Paid to Directors from Non-Consolidated Affiliates (Note 11)
	Base Compensation(A) (Note 2)		Severance Pay and Pensions (B)		Compensation to Directors (C) (Note 3)		Allowances (D) (Note 4)				Base Compensation, Bonuses and Allowances (E) (Note 5)		Severance Pay and Pensions (F)		Compensation to Employees (G) (Note 6)						
															From TXC		From All Consolidated Entities (Note 7)				
	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	From TXC	From All Consolidated Entities (Note 7)	Cash	Stock	Cash	Stock	From TXC	From All Consolidated Entities (Note 7)	
Independent Director Yu, Shang-Wu Independent Director Tsai, Song-Qi Independent Director Su, Yan-Syue Independent Director Wang, Chuan -Fen	0	0	0	0	4 ,200	4,200	960	960	0.7681	0.7681	0	0	0	0	0	0	0	0	0.7681	0.7681	0

1. Please describe the policy, system, standards and structure of independent directors' remuneration, as well as the connection between the amount of remuneration paid and director's responsibilities, risks, time investment and other factors: the remuneration of the directors of the Company is determined by the board of directors in accordance with the Articles of Incorporation, issued based on the director's participation in the Company's operations and contribution, with reference to both domestic and foreign market standards. If the Company has a profit, the board of directors will determine the amount of directors' remuneration in accordance with the Company's Articles of Incorporation. Independent directors are ex-officio members of the audit committee. In addition to the general remuneration paid to directors, the Company takes into account of each director's individual responsibilities, risks and investment time, and also determines different reasonable remunerations.
2. In addition to the information disclosed in the table above, has any Director provided services to TXC Corporation and its subsidiaries and received compensation for such services (e.g. serving as a consultant that is not an employee): None.

Note: The representative of TLC Capital Co., LTD, the legal director, was changed from Mr. Chang Wen-Chin to Mr. Peng, Chih-Chiang on February 18, 2019. Mr. Kuo, Ya-Ping, Mr. Huang, Hsiang-Lin and Mr. Hsu, Hsing-Hao were elected as the new directors; Golden Talent Investment Holding co., Limited, Mr. Hsu, Der-Jun and Mr. Go, Tien-Chong, the legal directors, resigned; Mr. Lin, Wan-Shing,the director of the board of directors, was elected as the chairman of the board of directors, and appointed Mr. Lin, Wan-Shing as the CEO, Mr. Chen Chueh Shang-Hsin as the deputy CEO, and Mr. Kuo, Ya-Ping was appointed as the president at the general meeting of shareholders on Jun. 12, 2019.

Table of Remuneration Scale

Remuneration Paid to Directors	Director Names			
	Total Remuneration (A+B+C+D)		Total Compensation (A+B+C+D+E+F+G)	
	From TXC (Note 8)	From All Consolidated Entities (Note 9) H	From TXC (Note 8)	From All Consolidated Entities (Note 9) I
Less than NT$1,000,000	Hsu, Hsing-Hao, Peng, Chih-Chiang , Chang Wen-Chin, Chou, Ming-chih ,Hsu, Der-Jun, Go Tien-Chong, Golden Talent Investment Holding co., Limited、TLC Capital Co., LTD	Hsu, Hsing-Hao, Peng, Chih-Chiang , Chang Wen-Chin, Chou, Ming-chih ,Hsu, Der-Jun, Go Tien-Chong, Golden Talent Investment Holding co., Limited、TLC Capital Co., LTD	Hsu, Hsing-Hao, Peng, Chih-Chiang , Chang Wen-Chin, Chou, Ming-chih ,Hsu, Der-Jun, Go Tien-Chong, Golden Talent Investment Holding co., Limited、TLC Capital Co., LTD	Hsu, Hsing-Hao, Peng, Chih-Chiang , Chang Wen-Chin, Chou, Ming-chih ,Hsu, Der-Jun, Go Tien-Chong, Golden Talent Investment Holding co., Limited、TLC Capital Co., LTD
NT$1,000,000 –NT$1,999,999	Lin, Wan-Shing, Lin, Jin-Bao, Chen Chueh Shang-Hsin, Kuo, Ya-Ping, Huang, Hsiang-Lin, Yu, Shang-Wu, Tsai, Song-Qi, Su, Yan-Syue, Wang ,Chuan –Fen	Lin, Wan-Shing, Lin, Jin-Bao, Chen Chueh Shang-Hsin, Kuo, Ya-Ping, Huang, Hsiang-Lin, Yu, Shang-Wu, Tsai, Song-Qi, Su, Yan-Syue, Wang ,Chuan –Fen	Shang-Wu, Tsai, Song-Qi, Su, Yan-Syue, Wang ,Chuan –Fen	Shang-Wu, Tsai, Song-Qi, Su, Yan-Syue, Wang ,Chuan –Fen
NT$2,000,000 –NT$3,499,999			Chen Chueh Shang-Hsin、Huang, Hsiang-Lin	Huang, Hsiang-Lin
NT$3,500,000 –NT$4,999,999			Lin, Jin-Bao, Lin, Wan-Shing, Kuo, Ya-Ping	Lin, Jin-Bao, Kuo, Ya-Ping
NT$5,000,000 - NT$9,999,999				Lin, Wan-Shing, Chen Chueh Shang-Hsin
NT$10,000,000 - NT$14,999,999				
NT$15,000,000 - NT$29,999,999				
NT$30,000,000 - NT$49,999,999				
NT$50,000,000 - NT$99,999,999				
NT$100,000,000 and above				
Total	17 persons (included 2 corporate directors)	17 persons (included 2 corporate directors)	17 persons (included 2 corporate directors)	17 persons (included 2 corporate directors)

Note 1: Director names shall be listed separately (the shareholder name and representative shall be listed separately for corporate directors) and each payment amount shall be disclosed as a summary. If directors concurrently serve as president and vice presidents, list in this Table and Tables (3-1) or (3-2) below.

Note 2: 2019 director remuneration (includes director salary, allowances, severance pay, various bonuses and incentives).

Note 3: 2020 compensation to directors passed by the Board of Directors in 2019.

Note 4: Related 2019 director allowances (including travel expenses, special expenses, all kinds of allowances, accomodations, substantive objects offered in the form of vehicles and etc.). If real estate, cars and other transportation or exclusive personal expenses are offered, the asset category and cost, actual rent or rent calculated at fair market value, fuel expenses and other payments shall be disclosed. If a driver is assigned, attach an explanation of the driver's related compensation but do not include the compensation into the remuneration.

Note 5: 2019 directors who concurrently hold positions in the company (including the president and vice presidents, other managers and employees) receive remunerations including salary, duty differential pay, severance pay, all kinds of bonuses, incentive pays, accomodations, and substantive objects offered in the form of vehicles. If real estate, cars and other transportation or exclusive personal expenses are offered, the asset category and cost, actual rent or rent calculated at fair market value, fuel expenses and other payments shall be disclosed. If a driver is assigned, attach an explanation of the driver's related compensation but do not include the compensation into the remuneration.

Note 6: 2019 directors concurrently hold positions in the Company (including the president and vice presidents, other managers and employees) who receive employee bonuses (including stock and cash) shall disclose the 2019 employee compensation amounts passed and distributed by the 2020 Board of Directors meeting. If estimation is not possible, calculate this year's proposed distribution amounts based on the actual percentages distributed for the previous year and list in Table 1-3.

Note 7: The total of all compensation items from all consolidated entities (including the Company) paid to Company directors shall be disclosed.

Note 8: The total of each of the remuneration items paid by the Company to each director are disclosed under the corresponding director name in the scale.

Note 9: The total of each of the remunderation items paid by all consolidated entities to Company directors shall be disclosed under the corresponding director name in the scale.

Note 10: Net Income refers to 2019 net income: Those who have adopted IFRS, net income refers to the net income in individual or separate financial reports for the most recent year.

Note 11: a. This column shall clearly list the related remuneration amounts from reinvested companies other than subsidiaries.

b. If Company directors receive remuneration from reinvested companies other than subsidiaries, the remuneration received by Company directors from reinvested companies other than subsidiaries is included in the Remuneration Scale column and the column is renamed All Reinvested Entities.

c. Compensation and remuneration refers to the compensation and remuneration (employee, director and supervisor remuneration), business execution expenses and other related remuneration received by Company directors as directors, supervisors and managers of reinvested entities other than subsidiaries.

(II) Compensation Paid to President and Vice Presidents

December 31, 2019 Unit: Thousand Shares, NT$ 1,000

<table>
<tr><th rowspan="3">Title</th><th rowspan="3">Name</th><th colspan="2">Base Compensation (A) (Note 2)</th><th colspan="2">Severance Pay and Pensions (B)</th><th colspan="2">Bonuses and Allowances (C) (Note 3)</th><th colspan="4">Employee Compensation (D) (Note 4)</th><th colspan="2">Total Compensation as a % of Net Income (A+B+C+D) (Note 8）</th><th rowspan="3">Compensation Paid to Directors from Non-Consolidated Affiliates (Note 9)</th></tr>
<tr><th rowspan="2">From TXC</th><th rowspan="2">From All Consolidated Entities (Note 5)</th><th rowspan="2">From TXC</th><th rowspan="2">From All Consolidated Entities (Note 5)</th><th rowspan="2">From TXC</th><th rowspan="2">From All Consolidated Entities (Note 5)</th><th colspan="2">From TXC</th><th colspan="2">From All Consolidated Entities (Note 5)</th><th rowspan="2">From TXC</th><th rowspan="2">From All Consolidated Entities (Note 5)</th></tr>
<tr><th>Cash</th><th>Stock</th><th>Cash</th><th>Stock</th></tr>
<tr><td>Chairman &CEO</td><td>Lin, Wan-Shing</td><td rowspan="12">16,907</td><td rowspan="12">22,583</td><td rowspan="12">1,953</td><td rowspan="12">1,953</td><td rowspan="12">5,598</td><td rowspan="12">11,036</td><td rowspan="12">9,600</td><td rowspan="12">0</td><td rowspan="12">9,600</td><td rowspan="12">0</td><td rowspan="12">5.0698</td><td rowspan="12">6.7242</td><td rowspan="12">3,868</td></tr>
<tr><td>Deputy CEO</td><td>Chen Chueh Shang-Hsin</td></tr>
<tr><td>President</td><td>Kuo, Ya-Ping</td></tr>
<tr><td>TXC(NGB) President</td><td>Chao, Min-Chiang</td></tr>
<tr><td>TXC(CKG) President</td><td>Chou, Chien-Fu</td></tr>
<tr><td>Executive Vice President</td><td>Yu, Fang-Ming</td></tr>
<tr><td>Vice President</td><td>Lin, Shi-Bo</td></tr>
<tr><td>Vice President</td><td>Chang, chien-Tsung</td></tr>
<tr><td>Vice President</td><td>Cheng, Li-Wei</td></tr>
<tr><td>Chief Technology Officer</td><td>Chu,Chih-Hsun</td></tr>
<tr><td>Vice President</td><td>Kuo,Ya Han</td></tr>
<tr><td>Vice President</td><td>Su, Jing-Sheng</td></tr>
</table>

＊Regardless of the position, those positions equivalent to President and Vice President (i.e.: President, CEO and Director) have all been disclosed.

Compensation Scale

Compensation Paid to Senior Executives	Names of Senior Executives	
	The Company (Note 6)	The Company in the financial report（Note 7）(E)
Less than NT$1,000,000		
NT$1,000,000 –NT$1,999,999	Chen Chueh Shang-Hsin, Chang,Chien-Tsung,	
NT$2,000,000 –NT$3,499,999	Chao,Min-Chiang, Chou, Chien-Fu, Yu,Fang-Ming, Lin, Shi-Bo, Cheng, Li-Wei, Chu,Chih-Hsun, Kuo,Ya Han, Su, Jing-Sheng	Lin, Shi-Bo, Chang,Chien-Tsung, Chu,Chih-Hsun, Su, Jing-Sheng
NT$3,500,000 –NT$4,999,999	Lin, Wan-Shin, Kuo, Ya-Ping	Lin, Wan-Shin, Chen Chueh Shang-Hsin , Kuo, Ya-Ping, Chao,Min-Chiang, Chou, Chien-Fu,, Yu,Fang-Ming, Cheng, Li-Wei, Kuo,Ya Han
NT$5,000,000 - NT$9,999,999		
NT$10,000,000 - NT$14,999,999		
NT$15,000,000 - NT$29,999,999		
NT$30,000,000 - NT$49,999,999		
NT$50,000,000 - NT$99,999,999		
NT$100,000,000 and above		
Total	12 persons	12 persons

Note 1: The names of president and vice general presidents shall be listed separately (the shareholder name and representative shall be listed separately for corporate directors) and each payment amount shall be disclosed as a summary. If there are directors that concurrently serve as a president and vice general presidents, list in this Table and Tables (1-1) or (1-2) below.

Note 2: Lists 2019 salary, allowances and severance pay for the general and vice general managers.

Note 3: Lists 2019 president and vice general presidents bonuses, incentives, travel expenses, special expenses, all kinds of allowances, accomodations, substantive objects offered in the form of vehicles and other remuneration). If real estate, cars and other transportation or exclusive personal expenses are offered, the asset category and cost, actual rent or rent calculated at fair market value, fuel expenses and other payments shall be disclosed. If a driver is assigned, attach an explanation of the driver’s related compensation but do not include the compensation into the remuneration

Note 4: 2019 directors concurrently hold positions in the Company (including the president and vice general presidents, other managers and employees) who receive employee bonuses (including stock and cash) shall disclose the 2019 general manager and vice general manager employee compensation amounts passed and distributed by the 2020 Board of Directors meeting. If estimation is not possible, calculate this year’s proposed distribution amounts based on the actual percentages distributed for the previous year and list in Table 1-3. Net Income refers to the most recent year’s net income: Those who have adopted IFRS, net income refers to the net income in individual or separate financial reports for the most recent year.

Note 5: The total of all compensation items from all consolidated entities (including the Company) paid to Company president and vice general presidents shall be disclosed.

Note 6: The total of each of the remuneration items paid by the Company to each general and vice general manager shall be disclosed under the corresponding general manager and vice general manager names in the scale.

Note 7: The total of each of the remuneration items paid by all consolidated entities (including the Company) to each general and vice general manager shall be disclosed under the corresponding president and vice general presidents' name is the scale.

Note 8: Net Income refers to 2019 net income: Those who have adopted IFRS, net income refer to the net income in individual or separate financial reports for the most recent year.

Note 9: a. This column shall clearly list the related remuneration amounts from reinvested companies other than subsidiaries.

b. If Company general and vice general managers receive remuneration from reinvested companies other than subsidiaries, the remuneration received by Company directors from reinvested companies other than subsidiaries is included in Remuneration Scale Column E and the column is renamed All Reinvested Entities.

c. Remuneration refers to the compensation and remuneration (employee, director and supervisor remuneration), business execution expenses and other related remuneration received by Company general and vice general managers serving as directors, supervisors and managers of reinvested entities other than subsidiaries.

＊There are differences in the income concept in the remuneration information disclosed in this Table and income tax laws so this Table is used for information disclosure and not taxation purposes.

＊Regardless of the position, those positions equivalent to President and Vice President (i.e.: President, CEO and Director) have all been disclosed.

(III) Profit Sharing Distributed to Managers (Proposed 2019 Employee Profit Sharing Amounts)

December 31, 2019 Unit: Thousand Shares, NT$ 1,000

	Title	Name	Stock	Cash	Total	% of Net Income
Managers	Chairman and CEO	Lin, Wan-Shing	0	15,000	15,000	2.2329
	Deputy CEO	Chen Chueh Shang-Hsin				
	President	Kuo, Ya-Ping				
	TXC (NGB) President	Chao, Min-Chiang				
	TXC (CKG) President	Chou, Chien-Fu				
	Executive Vice President	Yu, Fang-Ming				
	Vice President	Lin, Shi-Bo				
	Vice President	Chang, Chien-Tsung				
	Vice President	Cheng, Li-Wei				
	Chief Technology Officer (CTO)	Chu, Chih-Hsun				
	Vice President	Kuo, Ya-Han				
	Vice President	Su, Jing-Sheng				
	Chief Engineer	Chang, Qi-Zhong				
	Assistant Vice President	Lin, Su-fen				
	Assistant Vice President	Su, Zhe-Ming				
	Assistant Vice President	Liu, Hsu-Er				
	Deputy CTO	Chiu,Chih-Hung				
	Deputy CTO	Pao,Shih-Yung				
	Assistant Vice President	Huang, Hsiang-Lin				
	Chief Financial Officer (CFO)	Hong, Guan -Wen				

Note 1: Name and title of individuals shall be disclosed but earning distribution shall be disclosed in summarized form.

Note 2: Employee remuneration amounts (including stocks and cash) for managers passed by the 2020 Board of Directors meeting. If estimation is not possible, calculate this year's proposed distribution amounts based on the actual percentages distributed for the previous year. Net Income refers to 2019 net income: Those who have adopted IFRS, net income refers to the net income in individual or separate financial reports for the most recent year.

Note 3: The scope of application for managers is determined according to the rules set down in the March 27, 2003 Tai-tsai-cheng-san no. 0920001301 letters. The scope is as follows:

(1) President and equivalent level personnel

(2) Vice president and equivalent level personnel

(3) Assistant vice president and equivalent level personnel

(4) Financial department supervisor

(5) Accounting department supervisor

(6) Other persons handling company management affairs and with signature authority.

Note 4: If directors, presidents and vice presidents receive employee compensation (including stocks and cash), the compensation shall be listed in Table 1-2 and additionally in this Table.

Note 5: Remuneration by the Company to individual directors shall be disclosed under the following circumstances:

1. Remuneration to individual directors shall be disclosed if there have been consecutive after-tax losses for the previous three year: Not applicable.
2. Remuneration to individual directors shall be disclosed in the event of insufficient director shareholdings for three consecutive months in the most recent year: Not applicable
3. If there are directors with an average pledged share ratio of over 50% for any three months in the most recent years, the individual director(s) with the average pledged share ratio exceeeding 50% for each of these months shall be disclosed: Not applicable.
4. If all Directors receive the directors' remuneration of all companies in the financial report accounting for more than 2% of the after tax net profit, and individual directors receive the remuneration of more than NT$15 million: None.
5. Where the results of the corporate governance evaluation of a listed or OTC company in the most recent year are at the last level, or where the trading method has been changed, the trading has been stopped, or the listed and OTC company has been terminated in the most recent year and up to the date of printing the annual report, or where the approval of the corporate governance evaluation committee indicates that the company should not be evaluated: None.
6. This restriction shall not apply to full-time employees of a listed or OTC company whose average annual salary for the most recent year is less than NT$500,000: None.

(IV) Individually compare and explain the analysis of the remuneration paid to Company directors, president and vice presidents as a percentage of net income by the Company and all consolidated entities over the past two years and explain the remuneration payment policy, standard and mix, procedure for setting remuneration and operation performance and future risk correlation.

1. Remuneration Paid to Company Directors, President and Vice Presidents as a Percentage of Net Income by the Company over the Past Two Years

Unit: %

Title	Remuneration as Percentage of Net Income			
	2019		2018	
	From TXC	From All Consolidated Entities	From TXC	From All Consolidated Entities
Director	3.92	4.61	3.46	4.28
President and Vice Presidents	5.07	6.72	4.82	6.72

Note 1 2019 director and president and vice president remuneration amounts are passed and distributed by the 2020 Board of Directors meeeting so the remuneration at percentage of net income calculations in this column are temporary estimates.

2. Company director remuneration is determined based on the Company’s Articles of Incorporation. Fair remuneration is provided by considering Company operation results and contributions towards company performance. Peesident and vice presidents remuneration payment policy is based on the Company’s Salary Management Rules and salary levels for that job position in the industry market, the scope of authority of that job position inside the Company and degree of contribution toward operation targets. The procedure for setting remuneration follows evaluation and review procedures in the Company’s Director and Manager Performance Evaluation Rules. In addition to referring

to the Company’s overall operational performance, future industry risks and development trends, individual performance achievement rates and contribution towards company performance is considered in order to provide fair compensation. The fairness of related performance evaluations and remuneration are reviewed by the salary and compensation committee and Board of Directors. The remuneration system is discussed at appropriate times based on actual operating conditions and with respect to related laws to achieve a balance between sustainable company operation and risk control.

IV. Implementation of Corporate Governance

(I) Operation of the Board of Directors

In 2019, the Board of Directors had held 7 meetings (A), the attendance of which as as follows:

December 31, 2019

Title	Name	Actual number of attendees (B)	Number of proxy attendees	Actual rate of attendance (%) [B/A]	Remarks
Chairman	Lin, Wan-Shing	7	0	100	
Director	Lin, Jin-Bao	7	0	100	
Director	Chen Chueh, Shang-Hsin	7	0	100	
Director	Kuo, Ya-Ping	5	0	100	Jun. 12, 2019 newly elected
Director	Huang, Hsiang-Lin	5	0	100	
Director	Hsu, Hsing-Hao	5	0	100	
Director	TLC Capital Co., LTD (Peng, hih-Chiang)	6	0	86	
Director	Hsu, Der-Jun	2	0	100	Jun. 12, 2019 resigned
Director	Go, Tien-Chong	1	0	50	
Director	GoldenTalent Investment Holding co., Limited (Chou, Ming-chih)	1	1	50	
Independent Director	Yu, Shang-Wu	7	0	100	
Independent Director	Tsai, Song-Qi	7	0	100	
Independent Director	Su, Yan-Syue	6	1	86	
Independent Director	Wang, Chuan -Fen	7	0	100	

Other items to be recorded:

1. The date, session, agenda, opinions of all independent directors and the Company’s means of processing the opinions of independent directors shall be specified if one of the following circumstances occurred in the operation of the board of directors:
   (1) Matters listed under Article 14-3 of the Securities and Exchange Act: Not applicable, since the Company has established an audit committee; matters listed under Article 14-5 of the Securities and Exchange Act shall be applicable instead;
   (2) Other board resolutions recorded and stated in writing with opposing or reserved opinions from independent directors other than those mentioned above: None; there was no opposing or reserved opinions of the period from the independent directors.

2. Directors' implementation on the avoidance of interest-related motions:
   (1) Date: 2019/04/25
   Agenda: 2018Annual Performance Appraisal on the Directors and Managers.
   Directors avoiding conflicts of interest: Chairman Lin, Jin-Bao, President Lin, Wan-Shing, Director Chen Chueh, Shang-Hsin
   Reasons for the avoidance of conflict of interests and participation in voting: Whereas Chairman Lin, Jin-Bao, President Lin, Wan-Shing, Director Chen Chueh, Shang-Hsin are the Company’s managers, the parties in question shall avoid conflict of interests by not participating in the discussion and voting pursuant to Item 2, Article 206 of the Company Act. Chairman LIN had appointed Independent Director Yu, Shang-Wu to preside in the discussion and voting on behalf of the Chairman.
   Resolutions of the Board of Directors: Except for the above-mentioned directors who avoided conflict of interests, the remaining directors have passed the motions without objection.

   (2) Date: 2019/04/25
   Agenda: Q2 / 2019 performance bonus amount.
   Directors avoiding conflicts of interest: Chairman Lin, Jin-Bao, President Lin, Wan-Shing, Director Chen Chueh, Shang-Hsin
   Reasons for the avoidance of conflict of interests and participation in voting: Whereas Chairman Lin, Jin-Bao, President Lin, Wan-Shing, Director Chen Chueh, Shang-Hsin are the Company’s managers, the parties in question shall avoid conflict of interests by not participating in the discussion and voting pursuant to Item 2, Article 206 of the Company Act. Chairman LIN had appointed Independent Director Yu, Shang-Wu to preside in the discussion and voting on behalf of the Chairman.
   Resolutions of the Board of Directors: Except for the above-mentioned directors who avoided conflict of interests, the remaining directors have passed the motions without objection.

   (3) Date: 2019/08/08
   Agenda: Review the 2018 annual payment of employee compensation and directors’ remuneration.
   Directors avoiding conflicts of interest: Chairman Lin, Wan-Shing, President Kuo, Ya-Ping, Director Chen Chueh, Shang-Hsin, Huang, Hsiang-Lin
   Reasons for the avoidance of conflict of interests and participation in voting: Whereas Chairman Lin, Wan-Shing, President Kuo, Ya-Ping, Director Chen Chueh, Shang-Hsin, Huang, Hsiang-Lin are the Company’s managers, the parties in question shall avoid conflict of interests by not participating in the discussion and voting pursuant to Item 2, Article 206 of the Company Act. Chairman LIN had appointed Independent Director Yu, Shang-Wu to preside in the discussion and voting on behalf of the Chairman.

Resolutions of the Board of Directors: Except for the above-mentioned directors who avoided conflict of interests, the remaining directors have passed the motions without objection.

(4) Date: 2019/08/08
Agenda: Review the case of salary and remuneration of first-level supervisor's assignment
Directors avoiding conflicts of interest: Chairman Lin, Wan-Shing, President Kuo, Ya-Ping, Director Chen Chueh, Shang-Hsin
Reasons for the avoidance of conflict of interests and participation in voting: Whereas Chairman Lin, Wan-Shing, President Kuo, Ya-Ping, Director Chen Chueh, Shang-Hsin are the Company's managers, the parties in question shall avoid conflict of interests by not participating in the discussion and voting pursuant to Item 2, Article 206 of the Company Act. Chairman LIN had appointed Independent Director Yu, Shang-Wu to preside in the discussion and voting on behalf of the Chairman.
Resolutions of the Board of Directors: Except for the above-mentioned directors who avoided conflict of interests, the remaining directors have passed the motions without objection.

(5) Date: 2019/10/28
Agenda: Proposed the reassignment case of the legal representative of the subsidiary TXC (Ningbo) Corporation
Directors avoiding conflicts of interest: Director Chen Chueh, Shang-Hsin
Reasons for the avoidance of conflict of interests and participation in voting: Whereas Director Chen Chueh, Shang-Hsin is the Company's manager; the parties in question shall avoid conflict of interests by not participating in the discussion and voting pursuant to Item 2, Article 206 of the Company Act.
Resolutions of the Board of Directors: Except for the above-mentioned directors who avoided conflict of interests, the remaining directors have passed the motions without objection.

(6) Date: 2019/10/28
Agenda: Review the case of first-level supervisor assignment
Directors avoiding conflicts of interest: Director Huang, Hsiang-Lin
Reasons for the avoidance of conflict of interests and participation in voting: Whereas Director Huang, Hsiang-Lin is the Company's manager; the parties in question shall avoid conflict of interests by not participating in the discussion and voting pursuant to Item 2, Article 206 of the Company Act.
Resolutions of the Board of Directors: Except for the above-mentioned directors who avoided conflict of interests, the remaining directors have passed the motions without objection.

(7) Date: 2019/12/25
Agenda: 2019 performance bonus amount
Directors avoiding conflicts of interest: Chairman Lin, Wan-Shing, President Kuo, Ya-Ping, Director Chen Chueh, Shang-Hsin, Huang, Hsiang-Lin
Reasons for the avoidance of conflict of interests and participation in voting: Whereas Chairman Lin, Wan-Shing, President Kuo, Ya-Ping, Director Chen Chueh, Shang-Hsin, Huang, Hsiang-Lin are the Company's managers, the parties in question shall avoid conflict of interests by not participating in the discussion and voting pursuant to Item 2, Article 206 of the Company Act. Chairman LIN had appointed Independent Director Yu, Shang-Wu to preside in the discussion and voting on behalf of the Chairman.
Resolutions of the Board of Directors: Except for the above-mentioned directors who avoided conflict of interests, the remaining directors have passed the motions without objection.

3. The interval and period of self-assessment (or peer assessment) made by the Board of Directors of the Company, the assessment scope, method, and content, and the implementation:

Interval	Period	Scope	Method	Content
Annually	January 2019 to December 2019	Board of Directors, individual members, and functional Committees	Interal self-assessment	The performance of the Board of Directors and its individual members includes five major aspects: the degree of participation in the Company's operations, the decision-making quality of the Board of Directors, the composition and structure of the Board of Directors, selection and appointment of directors and continuous education and internal control. The performance assessment of the Functional Committees and its individual members includes five major aspects: the degree of participation in the Company's operations, the awareness of duties of theFunctional Committees, the decision-making quality of the Functional Committees, the composition and election of the Functional Committees, and internal control.
Every three years	January 2019 to December 2019	Board of Directors	External professional organizations	The questionnaires and field visits were used to evaluate the effectiveness of the board of directors on the four major aspects of the board ’s professional functions, decision-making effectiveness, internal control, and corporate social responsibility.

4. The goals of the year and the most recent year on the strengthening of the board of directors' functions (such as establishing an audit committee, improving information transparency, etc.) and performance evaluation:

(1) The Company's first Audit Committee was duly established on June 19, 2013 consisted by 3 independent directors and convenes meeting at least once every quarter. It is responsible for reviewing the proper presentation of the Company's financial statements, the selection (dismissal), independence and performance of the Certified Public Accountant, and the effective implementation of the Company's internal control, the Company's compliance with relevant laws and regulations and the Company's control over existing or potential risks. The shareholders' meeting re-elected in 2016 and in 2019 to increase 1 independent director for the purpose of strengthening corporate governance; there are currently 4 independent directors in the Audit Committee. Since the date the Audit Committee was established, the Audit Committee has invited Certified Public Accountant and related personnel to attend each meeting and participate in the discussion. The communication meetings were convened as-needed. Please see the Company's website for the communication records: investors relations / corporate governance / the Board of Directors / independent directors' information. The second the Audit Committee has convened 5 meetings in 2019 and all carried out successfully.

(2) The Company's first Remuneration Committee was duly established on December 28, 2011 along with its charter. he second Remuneration Committee was appointed upon the resolution of the Board of Directors on July 10, 2013 to be responsible for formulating and periodically reviewing the performance assessment and remuneration policies, system, standards and structure for the directors and managers, regularly evaluating and setting the remuneration of the directors and managers, as well as completing annual assessment before the first quarter of

the following year pursuant to the Company's "Performance Assessment Method for the Directors and Managers". The third and the fourth Remuneration Committee were appointed upon the resolution of the Board of Directors which consisted by 4 independent directors. The 2019 annual asssessment was completed on March 23, 2020 and reported to the Remuneration Committee and the Board of Directors. All related personnel have attended and participated in the discussion during the Remuneration Committee's meetings. There were 5 meetings in 2019 and all carried out successfully.

(3) The Company continued to strengthen its corporate governance. where the "CG6005 general version of corporate governance assessment and authentication" and the "CG6008 advanced corporate governance assessment and authentication" were certified by the Corporate Governance Association in in March 2012 and May 2013, respectively, and the minutes of the Board of Directors, the Audit Committee and the Remuneration Committee and the rules and regulations of the Company are all posted on the Company's website. The Company has always adhered to the principle of information transparency, actively safeguards interests of the shareholders, and discloses important resolutions on Market Observation Post System and the Company's website upon resolutions of the Board of Directors, which had earned it four consecutive years of A++ in Information Disclosure and Transparency Ranking and has awarded the top 6% ~ 20% of the listed companies since the first session. From the 2nd to the 4th session, it has been won the top 5% of the listed companies for three consecutive years. The 5th session was awarded the top 6% ~ 20% of listed companies.

(II) Operation of the Audit Committee

1. Operations of the Audit Committee

The Company's first Audit Committee was duly established on June 19, 2013 consisted by 3 independent directors and elected the independent director, YU, SHANG-WU, to serve as the convener. The shareholders' meeting re-elected in 2016 and in 2019 to increase 1 independent director for the purpose of strengthening corporate governance; therefore, there are currently 4 independent directors in the Audit Committee convening meeting at least once every quarter. It is responsible for reviewing the proper presentation of the Company's financial statements, the selection (dismissal), independence and performance of the Certified Public Accountant, the effective implementation of the Company's internal control, the Company's compliance with relevant laws and regulations and the Company's control over existing or potential risks. Its primary authorities are as follows:

(1) To establish or modify the internal control system as prescribed in Article 14 of the Securities and Exchange Act;
(2) To evaluate the effectiveness of the internal control system;
(3) To establish or modify the procedures for material financial business behaviors such as acquiring or disposing assets, engaging in derivative commodity transactions, lending capital to others, endorsing or providing guarantees for others as prescribed in Article 36-1 of the Securities and Exchange Act;
(4) Matters concerning the directors' personal interests;
(5) Material assets or derivative commodities transactions;
(6) Material capital lending, endorsement or provision of guarantees;
(7) Offering, issuance or private placement of equity securities;
(8) Appointment, dismissal or remuneration of Certified Public Accountant;
(9) Appointment or dismissal of chief financial officer, chief accounting officer or chief audit executive;
(10) Annual financial statements and semi-annual financial statements; and
(11) Other matters required by the Company or the competent authority.

In 2019, the Audit Committee had held 5 meetings (A), the attendance of which as as follows:

Job title	Name	Actual number of attendees (B)	Number of proxy attendees	Actual rate of attendance (%) [B/A]	Remark
Independent Director	Yu, Shang-Wu	5	0	100	
Independent Director	Tsai, Song-Qi	5	0	100	
Independent Director	Su, Yan-Syue	4	1	80	
Independent Director	Wang, Chuan -Fen	5	0	100	

Other items to be recorded:

1. The date, session, agenda, resolution of the Audit Committee and the Company’s means of processing the opinions of the Audit Committee shall be specified if one of the following circumstances occurred in the operation of the Audit Committee:

    (1) Matters listed under Article 14-5 of the Securities and Exchange Act:

Meeting date (session)	Agenda	Resolutions and opinion of all members
2019/03/22 (15th meeting of the second session)	1. Undertaking of derivative financial commodities 2. 2018 business report and financial statements 3. Internal audit report 4. Annual internal control self-inspection reports, Statement on Internal Controls and auditing reports 5. To Revise the "Procedures for Acquisition or Disposal of Assets" 6. To Revise the "Procedures for Financial Derivatives Transactions" 7. To Revise the "Procedures for Lending Funds to Other Parties" 8. To Revise the "Procedures for Endorsement & Guarantee"	Approved by all independent director; it was sent to the board of directors for resolution without any approval by the audit committee and more than two-thirds of all directors.
2019/04/25 (16th meeting of the second session)	1. 2018 Profit Distribution Proposal 2. Review on the independence and performance appraisal of the accountant 3. Review on the change of the accountant and the independence appraisal of the accountant 4. Q1 / 2019 financial statements 5. Undertaking of bank credit extensions and derivative financial commodities 6. Internal audit report	
2019/08/08 (1st meeting of the third session)	1. To elect the convener of the third session of Audit Committee 2. Q2 / 2019 financial statements 3. Undertaking of bank credit extensions and derivative financial commodities 4. Capacity expansion plan 5. Internal audit report	
2019/10/28 (2nd meeting of the third session)	1. Q3 / 2019 financial statements 2. Undertaking of bank credit extensions and derivative financial commodities 3. Internal audit report	
2019/12/25 (3rd meeting of the third session)	1. 2020 annual operating plans and annual budgets 2. 2020 annual review on the accountant fees 3. Internal audit report 4. To revise the internal control audit rules and 2020 annual audit plan	

    (2) Except for the foregoing, other matters that were not approved by the Audit Committee but were approved by more than two-thirds of all directors: None.

2. Implementation of the independent directors’ avoidance of motion with conflict of interests (please specify the independent director’s name, content of the motion, reasons for the avoidance of conflict of interests, and participation in voting): None.

3. Communication between the independent directors and chief audit executive and accountant (include major topics, methods and results relating to the Company's financial and business status that shall be communicated)：

(1) There are channels of direct contact between the independent directors and chief audit executive and the Certified Public Accountant and the communication condition is good;

(2) The Company convenes the Audit Committee meeting on regular basis, which will invite accountant, chief auditing executive to attend and invite related supervisors to attend if necessary.

(3) The chief audit executive submits aggregated auditing report to the Audit Committee on monthly basis according to the annual audit plan.

(4) Evaluate the performance and independence of the accountant annually and submit to the Audit Committee for review. The 2019 annual evaluation on the accountant's performance and independence was approved by the Audit Committee on March 23, 2020 and submitted to the Board of Directors. Please visit the Company's website for the assessment results.

(5) Due to accouting firm internal reorganization, TXC did CPA replacement from 2019 first quarter. The Audit Committee conducted CPA selection and independent evaluation on Apr. 25 2019.

(6) The Company's independent directors and accountant or auditors convene communication meetings on as need basis.

4. Annual key functions and operations:

(1) Annual Key functions

a. Communicate results of audit report with the head of internal audit regularly according to the annual audit plan.

b. Communicate with CPA regularly over financial statement review or audit results in each quarter.

c. Review financial reports.

d. Asessment of the effectiveness of internal control system.

e. Review the hiring, dismissal, compensation and service matters concerning CPAs in advance.

f. Evaluate the independence of the CPA who provide audit and non-audit services.

g. Review the Company's operational procedures and material transactions of assets, derivatives, capital lending and endorsement/guarantees.

h. Legal compliance.

i. Handle any grievances/reporting incidents submitted to the Audit Committee Mailbox

(2) 2019 operations: Proposals of the Audit Committee meetings have all been reviewed or approved by members of the Audit Committee with no dissent from any of the Independent Directors.

(III) Corporate governance and variations with management principles of publicly-listed companies and reasons

Assessment Items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
1. Comply with General Guideline of publicly-listed companies and disclose company's practical guideline in corporate governance?	Yes		TXC has formulated the Practical Guideline for Corporate Governance, and set up effective regulations governing corporate governance framework, protection of the rights and benefits of shareholders, strengthening the function of the board of directors, bringing up the function of the Auditing Committee, showing respect for the rights and benefits of the stakeholder, and enhancing the transparency of information. For details refer to the company website	Comply with best-practice principles, no discrepancy
2. Company shareholding Structure and shareholders' rights				
（1）Has the Company formulated internal operating procedures for handling proposals, doubts, disputes and litigation of shareholders and follow procedures for implementation.	Yes		TXC has formulated procedures for handling proposals, doubts, disputes and litigation for protection of communication between the stakeholders and the company management, and timely find out and handle the various problems, as well as having dedicated persons for handling relevant matters. TXC also handles proposals and rights and benefits of relevant shareholders for subsidiaries. For details refer to the company website	Comply with best-practice principles, no discrepancy
（2） Has the Company the list of the major shareholders with de fact control of the Company and the final controllers of the major shareholders?	Yes		In accordance with Article 25 of the Securities Trading Act, requires monthly posting of changes in shareholding of the internal staff including directors, managers and shareholders with over 10% equities, on the open information observation website specified by the Securities and Futures Bureau.	Comply with best-practice principles, no discrepancy
（3）Has the Company set up a firewall mechanism for executing risk control of affiliated enterprises?	Yes		Aside from formulation of various risk control mechanisms, the Company also has formulated relevant operation methods for the operation, business and finance with the affiliated enterprises. For instance, in the subsidiary operation method TXC has formulated decision making and approval for the subsidiaries, the management of trading by the associates, specific companies, associates and group trading operation procedures, aside from counseling internal control for the subsidiaries in writing. Moreover, similar to that of the parent company, the acquisition or disposal of assets handling procedures, endorsement method, operation method for loaning to other persons, handling procedures for trading of derivative financial commodities so as to implement the risk control mechanism for subsidiaries. Subsidiaries have already formulated respective risk control mechanisms, and set up risk control mechanisms and firewalls with the affiliated enterprises according to the relevant operating methods of the Company.	Comply with best-practice principles, no discrepancy

<table>
<tr><th rowspan="2">Assessment items</th><th colspan="3">Operation status (Note1)</th><th rowspan="2">Discrepancy with best-practice principles of TWSE/GTSM listed companies</th></tr>
<tr><th>Yes</th><th>No</th><th>Summary</th></tr>
<tr><td>（4）Has the Company formulated internal regulations prohibiting internal staff utilizing information not yet open to the market for trading of securities?</td><td>Yes</td><td></td><td>In 2012 the Company formulated the Operating Procedure for Prevention of Insider Trading and 「 Regulations on whistle-blowing of illegal and unethical or dishonest conduct 」 to prohibit the internal staff utilizing information not yet open to the market for trading securities.
The company conducts educational advocacy on the prevention of insider transaction management operation procedures and related laws and regulations for current directors, managers and employees at least once a year. The human resources unit will give education and announcement during pre-employment training.
The relevant directors, managers and employees have been educated on June 12, 2019 and on November 13,2019. The content of the course includes laws related to the prevention of insider trading, maintenance of business secrets, etc., and the briefing of the course is placed on internal staff The education and training system provides reference for those who are not present on the day.</td><td>Comply with best-practice principles, no discrepancy</td></tr>
<tr><td colspan="5">3. Members and duties of board of directors</td></tr>
<tr><td>（1） Has the Board of Directors drafted policies for a diversified board framework?</td><td>Yes</td><td></td><td>The composition of the Board of Directors shall be determined by taking diversity into consideration. It is advisable that directors concurrently serving as the Company's managers not exceed one-third of the total number of the Board members, and that an appropriate policy on diversity based on the Company's business operations, operating dynamics, and development needs be formulated and include, without being limited to, the following two general standards:
1. General conditions and values: Gender and age.
2. Professional knowledge and skills: Professional background, professional skills and industrial experience.
The specific management objectives and achievement of the Company's diversity policy are as follows:
<table><tr><th>Management objectives</th><th>Progress</th></tr><tr><td>Become younger in Directors’ age</td><td>Achieved</td></tr><tr><td>At least two seats of Directors are females</td><td>Achieved</td></tr></table>The members of board of directors possess a diverse range of expertise in the fields of industry, law, finance, accounting, investment management and operations management. The relevant fields of expertise are stated in Note 2.
The number of directors who concurrently served as company managers exceeded one-third of the number of seats. In consideration of the succession and inheritance plan of the members of the board of directors, the company added the new management team when the shareholders' meeting was re-elected on June 12, 2019.</td><td>Comply with best-practice principles, no discrepancy</td></tr>
</table>

Assessment items	Operation status (Note1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
（2） Aside from setting up the Remuneration Committee and the Auding Committee according to the law, is it willing to set up other function committees?	Yes		Aside from setting up the Remuneration Committee and the Auditing Committee according to the law, the Company also has set up the Environmental and Social Committee and the Economic Committee, and formulated operating methods for the economic, environmental and social committees. The company plans to set up an investment review committee in 2020 to review related investment projects of the company.	Comply with best-practice principles, no discrepancy
（3） Has the company formulate the performance evaluation methods for the Board of Directors, conduct performance evaluations annually and regularly, and report the results of the performance evaluations to the Board of Directors, and use them as a reference for individual directors' remuneration and nomination and renewal?	Yes		The Company has formulated the Directors and General Manager Performance Assessment Method. The performance of the board of directors is regularly evaluated (at least once per year), and regularly carry out performance assessment of the board every year and forward to the Remuneration Committee and the Board of Directors for discussion. Director performance evaluations are performed externally at least once every three years. The evaluation procedure divides the assessment into three sections: 1. Self assessment： The Company conducts internal performance evaluations on the "Board of Directors" and "Functional Committee" every year, which are executed by the members of the Board of Directors, members of the functional committee and the deliberative unit. The contents of the board performance evaluation include: the degree of participation in the company's operations, the quality of the board's decisions, the composition and structure of the board, the selection and continuous training of directors, and internal control. The contents of individual directors 'performance evaluation include: grasp of company goals and tasks, recognition of directors' responsibilities, participation in company operations, internal relationship management and communication, professional and continuous education of directors, internal control, etc. The content of the performance evaluation of the functional committee includes: the degree of participation in the company's operations, the recognition of the functional committee's responsibilities, the quality of the functional committee's decision-making, the composition of the functional committee and the selection of members, and internal control. The total score of the evaluation result must be at least 80 points. In 2019, the company's "Board" and "Functional Committee" self-assessment results were 96 points, and there were no major improvement projects. The results have been reported to the directors on the board at March 23, 2020, and as a member of the board and the functional committee References to performance, remuneration and nominated performance. 2 External assessment： In November 2019, the company commissioned an external organization, a corporate legal person, Taiwan Chengzheng Management and Anti-fraud Forensic Society, to conduct a	Comply with best-practice principles, no discrepancy

Assessment items	Operation status (Note1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
			board effectiveness evaluation for the period from January 2019 to December 2019. The agency appointed three evaluation experts to evaluate the board's effectiveness through questionnaires and field visits on the four major aspects of the board's professional functions, decision-making effectiveness, internal control, and corporate social responsibility. The total number of independent directors who have been rated as the board of directors is 4. With the participation of multiple professional directors, the evaluated companies can get multiple opinions. The members of the board of directors also said that there are full opportunities for discussion in the meeting and that they are in line with the protection of labor rights and environmental protection regulations. They all have high requirements to ensure compliance with relevant laws and regulations and to implement their corporate social responsibility by deeply linking corporate social responsibility with their daily business activities. The company has reported the evaluation results to the board of directors on March.23, 2020. The board of directors will use the recommendations of the society as a reference for continuous improvement of the functions of the board. 3.Article 19 of the Articles of Association of the Company stipulates that the remuneration of directors of the company shall not be higher than 2% of the profit for the year, and the directors ’remuneration will be determined according to the results of the board ’s performance evaluation. For details refer to the company website.	
(4) Has the Company regularly assessed the independence of the certified accountant?	Yes		In order to strengthen the independence of the CPA and his /her familiarity with company business, an evaluation of CPA independence, competency and performance is performed by the company each year and an assessment is done based on the CPA Evaluation and Performance Assessment Procedure. The results are submitted to the Audit Committee and board of directors for discussion. The evaluation items include 10 independence indicators including no direct or significant indirect financial interest between the CPA and client, financial statements of the institution serviced may not have been audited within two years, CPA and all audit service team members may not have client shareholdings and other performance indicator items including financial statement completion date, interaction between CPA and the company, did the CPA actively submit recommendations regarding company systems and internal auditing. The company’s 2019 CPA performance evaluation has been completed and it passed review by the audit committee on March 23, 2020 and board of directors on March 23, 2020. The results will be used to implement corporate governance and improve the function of the board of directors. The CPA performance evaluation results have been posted on the	Comply with best-practice principles, no discrepancy

<table>
<tr><th rowspan="2">Assessment items</th><th colspan="3">Operation status (Note1)</th><th rowspan="2">Discrepancy with best-practice principles of TWSE/GTSM listed companies</th></tr>
<tr><th>Yes</th><th>No</th><th>Summary</th></tr>
<tr><td></td><td></td><td></td><td>company website. Refer to the company website.

If a situation occurs in which the CPA needs to be replaced, the chairman and general manager shall understand the reason for replacement and hold an interview for the replacement CPA. A profile of the CPA and other related information is submitted to the Review Committee for review and then it is passed to the Board of Directors for discussion. Afterward, the CPA may be invited to board of director meetings if necessary.</td><td></td></tr>
<tr><td>4. Have public listed companies established dedicated (ad-hoc) corporate governance units or personnel responsible for corporate governance matters (including but not limitd to providing information needed by directors and supervisors to perform their duties, handle matters related to the board of directors meeting and shareholders’ meeting, handle company registration and registration of related changes, preparation of the board of directors and shareholders meeting minutes)?</td><td>Yes</td><td></td><td>The company has set up a corporate governance work team. The General Manager was appointed to serve as convenor, on the board of March 22, 2019, the new company secretary was appointed at the Chief Financial Officer Ms. Hong, Guan -Wen (extension: 3230) as the head of corporate governance, who is responsible for the supervision and planning of corporate governance. Her qualifications meet the requirements of more than three years of experience in the management of the company's finance, stock affairs or deliberationsin according to the Taipei Exchange Directions for Compliance Requirements for the Appointment and Exercise of Powers of the Boards of Directors of TWSE/TPEx Listed Companies. The head of corporate governance’s duties include: provide directors and Audit Committee with the information required for the implementation and the latest regulations pertaining to the Company's operations, assist directors and Audit Committee in complying with laws and regulations, report regularly to the Corporate Governance Committee and the Board of Directors on corporate governance operations, handle affairs relating to the board and shareholder meetings in accordance with the law, produce the minutes of the Board of Directors and shareholders' meetings, assist directors and members of Audit Committee in their appointments and continuing education, etc., all are performed by the Board’s secretary unit.
The implementation of the corporate governance in the year of 2019 are as follows:
1. 7 board meetings, 5 audit committees were held.
2. Hold annual shareholders' meeting
3. Board members complete at least 6 credits of refresher courses
4. Insured liability insurance for directors and key staff and reported to the board of directors
5. Conduct performance evaluation of the board of directors and functional committees, the evaluation results reached 96 points
6. Conduct external performance evaluations of the board of directors for 2019
7. The results of the fifth corporate governance evaluation are the top 6 ~ 20% of listed companies
8. 3 meetings of independent directors and accountants, internal audits, etc.</td><td>Comply with best-practice principles, no discrepancy</td></tr>
</table>

<table>
<tr><th rowspan="2">Assessment items</th><th colspan="3">Operation status (Note1)</th><th rowspan="2">Discrepancy with best-practice principles of TWSE/GTSM listed companies</th></tr>
<tr><th>Yes</th><th>No</th><th>Summary</th></tr>
<tr><td></td><td></td><td></td><td>In 2019, the training hours for the head of corporate governance totaled 18 hours
<table>
<tr><th>Date</th><th>Organizer</th><th>Course</th><th>Hours</th></tr>
<tr><td>2019/04/26</td><td>Securities and Futures Institute</td><td>2019 Annual Conference on Prevention of Insider Trading</td><td>3</td></tr>
<tr><td>2019/07/11</td><td rowspan="2">Taiwan Corporate Governance Association</td><td>Corporate Governance Blueprint and Operational Practice of Audit Committee and Remuneration Committee</td><td>3</td></tr>
<tr><td>2019/07/11</td><td>In response to the recent New Deal across the Taiwan Straits, opportunities for Taiwanese businessmen and related tax risk considerations</td><td>3</td></tr>
<tr><td>2019/08/07</td><td rowspan="2">Securities and Futures Institute</td><td>Briefing session on insider equity trading laws compliance announcement</td><td>3</td></tr>
<tr><td>2019/08/12</td><td>Discussion on the Influence of Sino-US Trade Disturbance on the Risks of Chinese Enterprises</td><td>3</td></tr>
<tr><td>2019/10/22</td><td>Taiwan Corporate Governance Association</td><td>Director and supervisory responsibilities of corporate mergers and acquisitions</td><td>3</td></tr>
</table></td><td></td></tr>
<tr><td>5. Any communication channel between the Company and the stakeholders? Any special zone on the website for the stakeholders for properly responding to the topic of corporate social responsibility where the stakeholders are concerned?</td><td>Yes</td><td></td><td>A dedicated CSR area, a dedicated stakeholder area, spokesman system and website has been established to provide communication channels and provide the latest news of the company and its subsidiaries. A dedicated shareholder mailbox and investor relations mailbox have also been established. Corresponding windows have been set up for business management and operation items. If company stakeholders have any relevant recommendations, questions or complaints, the mailbox in the dedicated stakeholder area or the dedicated stakeholder contact window may be used to contact the chairman, general manager, independent director or audit office of the company forming an effective and free-flowing communication channel.</td><td>Comply with best-practice principles, no discrepancy</td></tr>
<tr><td>6. Any assigned professional stock affairs handling agency for shareholders' affairs?</td><td>Yes</td><td></td><td>The company has appointed Yuanta Securities to serve as the company's stock affairs agent and assist the company in handling matters related to the shareholders' meeting.</td><td>Comply with best-practice principles, no discrepancy</td></tr>
</table>

Assessment items	Operation status (Note1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
7. Information Disclosure				
（1） Has the company set up website for disclosing finance, business and corporate governance?	Yes		The company and its subsidiaries have set up a website to provide financial and business information. A dedicated person has been assigned to be responsible for the updating of this information. For details refer to the company website	Comply with best-practice principles, no discrepancy
（2） Are there other ways of information disclosure (such as English website, assign dedicated person for collection and disclosure of company information? Any spokesman system for implementation? Full process of briefing by the legal person posted on the company website)?	Yes		In addition to its Chinese language website, the company also provides English and Japanese languages websites. A dedicated person is responsible for collecting information and disclosure of major company information. External communication is handled by a spokesperson. Audio and video files of the company's institutional investor conferences are posted on the company's information disclosure website for general reference. Relevant information is posted on the Market Observation Post System designated by the competent authorities.	Comply with best-practice principles, no discrepancy
（3） Has the company announce and report the annual financial report within two months after the end of the fiscal year, and announce and file the first, second and third quarter financial reports and operating conditions of each month as early as possible before the prescribed deadline?	Yes		Although the company's 2018 annual consolidated and individual financial reports were not announced and reported within two months after the end of the fiscal year, they were all completed in accordance with the regulations before the deadline. The financial reports for the first to third quarters of 2019 and the monthly revenue situation are also announced and declared at the MOPS before the stipulated deadline, and the company voluntarily announces and declares the monthly self-financing profit and loss status, and simultaneously uploads relevant information to the company website.	Comply with best-practice principles, no discrepancy
8. Are there other important information for helping understand the operation of corporate governance (including but not limited to employee rights and benefits, employee care, investor relations, supplier relations, the rights and benefits of the stakeholders, further studies for directors and supervisors, risk control policy, and execution of risk assessment standard, client policy implementation, purchase of liability risk for directors and supervisors, others)?	Yes		1. Employee rights: Employee rights are handled by the company in accordance with the Labor Standards Act in the company's annual report for information regarding other employee welfare measures, the pension system, continuing education and other related employee rights. The employee rights at our subsidiaries are handled in accordance with their respective national laws and regulations 2. Employee concern: In addition to setting up medical offices at the company and its subsidiaries that are staffed with professional medical care providers, a labor safety & health committee has been established for safety and health procedures for specialist personnel and personnel assistance projects including psychology, medical and health. A wide range of channels have been provided for personnel to express their opinions to create excellent two-way communication channels 3. Supplier relations and stakeholder rights are handled in accordance with the company and subsidiary work procedures and the contracts with cooperating companies to maintain the legal rights of both parties. No related lawsuits have been brought as of today. 4. Investor relations: The company and its subsidiaries are very concerned about investor rights. In addition to posting related information in a timely fashion on the Market	Comply with best-practice principles, no discrepancy

Assessment items	Operation status (Note1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
			Observation Post System and the company website, the company has been awarded an A+ information disclosure assessment rating for the fourth straight year, named a transparent voluntary information disclosure company for eight straight years and received an A++ rating for four straight years, ranked within the top 20% of public listed companies in the 1st corporate governance assessment and within the top 5% of listed companies in the 2nd ~4th assessments. The fifth term was ranked the top 6-20% of the listed company. 5. Stakeholder rights: In holding the beliefs of integrity and honesty, the company is committed to building long-term relationships with stakeholders based on transparency and sincerity. Related information please refer to the company’s annual report and website for information regarding stakeholder communication. 6. The company’s directors attend financial, business and professional knowledge continuing education courses on an irregular basis. Refer to the director and supervisor education and training table in the company’s annual report. 7. Implemention of the company’s risk management policy and risk measurement standard: In the company’s annual report for information regarding the risk management policy, organization structure and related risk control work of the company and its subsidiaries. In addition, the company and its subsidiaries analyze, track and respond to possible high risk events caused by operation targets to establish a sound risk management system. 8. Protecting consumers or customer policy implementation: Our ‘customer first, mission focused’ philosophy demonstrates our determination and commitment to our customers, our dedication to quality and hard work to earn customer approval over the years. The company has been given best supplier awards from a number of companies as a form of encouragement. 9. The company purchases liability insurance for directors and managers every year. The current insurance coverage is US$ 5,000,000 and it is proposed to report the amount of insurance, insurance coverage and insurance rate during the renewal of the contract. The board of directors and board meeting minutes are detailed on the company website.	
9. Succession Plan and Operations of Members of the Board of Directors and Key Managerial Officers	Yes		The composition of the board of directors of the company considers its own operations, operating types and development needs to formulate appropriate diversification policies. In order to meet the future strategic development and transformation planning, the professional knowledge, technology and experience required by the directors of the company are reviewed regularly. The number of people and the conditions that should be met to plan the succession plan and selection of directors, addeded the new management team members during the re-election of the shareholders' meeting at June 12, 2019 to make the directors younger and familiar with the operation of the board of directors earlier to assist the company's strategic planning.	Comply with best-practice principles, no discrepancy

Assessment items	Operation status (Note1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
			The company's succession planning is based on the premise of constructing an evaluation system, mainly based on personality traits, performance and future potential. In addition to having excellent work performance, the enthusiasm and philosophy of the company must be consistent, and the personality traits must include integrity, commitment, breakthrough thinking, and a keen insight. In order to meet the needs of the management and inheritance of the future management, planning the cultivation mechanism of potential talents and leaders, which mainly includes four major training modules: management ability, professional ability, Individual Development Program (IDP) and job rotation. Encourage potential talents to participate in the master's degree in business management to improve business management capabilities; implement job rotation, task assignment and other work experience to cultivate decision-making judgment, and then achieve the inheritance effect, to ensure the company's sustainable management. The Company will also arrange important management to serve as members of the Board of Directors of the Company or investment enterprise, familiarize them with the operation of the Board of Directors, and have them participated in the planning of the Company's or investment enterprise's long-term strategic direction and vision. No	

10. Please provide information on the status of improvement regarding the results of corporate governance evaluation published by the TWSE Corporate Governance Center in the most recent year. For improvements not yet implemented, state the areas and policies the Company has set as priority for improvement:

The company has obtained the top 20% of the companies in first corporate governance evaluation, the top 5% of the listed companies from the second to the fourth evaluations, and the top 6 to 20% of the listed companies from the fifth evaluation. The efforts to implement corporate governance have been affirmed. The relevant matters are described as follows:

(1) Improvements：

In November 2019, Taiwan Chengzheng Operation and Corruption Identification Society, an external organization and legal person, was entrusted to carry out the board effectiveness evaluation for the period from January 1, 2019 to December 31, 2019, and the evaluation results were reported to the board of directors on March 23, 2020.

(2) Matters to be improved：

1. To convene shareholders' general meeting before the end of May: the company shall actively carry out evaluation planning and convene shareholders' meeting in advance to facilitate shareholders' participation.
2. Establishment of functional committees other than statutory ones: the company plans to establish a nomination committee to ensure more transparency and fairness in the nomination process.

Assessment items	Operation status (Note1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
3. Among the current 11 directors of the board of directors of the company, there are two female independent directors (one of them is currently a lawyer), in implementation of the gender equality policy and conformance to multiple backgrounds and competency. However, if any gender does not reach more than one third of the number of directors, the plan is to be evaluated continuously. 4. To publish the annual financial report within two months after the end of the fiscal year: to discuss with the accountant as it is the goal of the company. 5. Voluntary disclosure of remuneration of individual directors and supervisors in the annual report: due to the protection of personal data, it is not disclosed temporarily, and it is planned to be evaluated and disclosed in the future. 6. Signing of group agreements between the company and its employees: the company has not established a professional association, and it is not necessary to sign a group agreement in accordance with the group agreement law. If the association is established, it will be implemented in accordance with the laws and regulations.				

Note 1: Explanations should be provided in the summary column regardless of whether ‘yes’ or ‘no’ is checked under operating conditions.

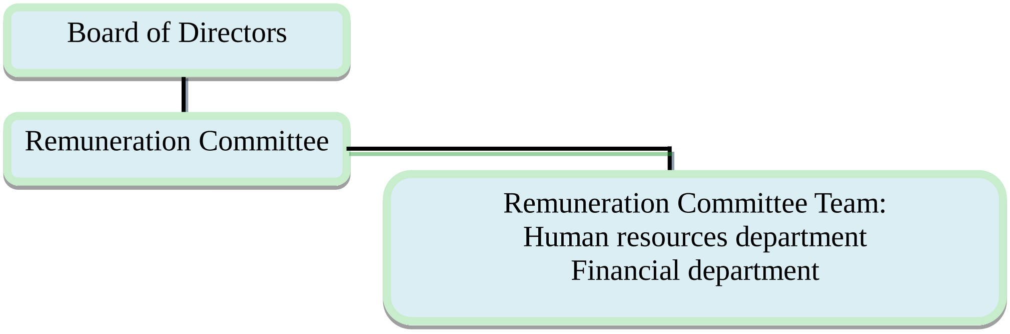
Note 2: Descriptions of directors' fields of expertise

Diversity items / Name of director	Basic Component										Industry experience				Professional competence			
	Nationality	Gender	Work in TXC	Age				Indepenedent directors Tenure of tenure			Electronic Technology Manufacturing	R & D technology	business development	Finance and Investment and M & A	Accounting and financial analysis	legal	Information Technology	Business management
				41 ~ 50	51 ~ 60	61 ~ 70	71 ~ 75	<3	3~9	>9								
Lin, Wan-Shing	ROC	Male	V			V					V	V	V		V			V
Lin, Jin-Bao	ROC	Male	V			V					V	V	V		V			V
Chen Chueh, Shang-Hsin	ROC	Male	V			V					V	V	V		V		V	V
Kuo, Ya-Ping	ROC	Male	V	V							V		V		V			V
Huang, Hsiang-Lin	ROC	Male	V	V							V		V		V			V
Hsu, Hsing-Hao	ROC	Male		V							V	V					V	V
TLCCapital Co., LTD (Peng, Chih-Chiang)	ROC	Male			V						V		V	V	V		V	V
Yu, Shang-Wu	ROC	Male			V					V			V	V	V		V	V
Tsai, Song-Qi	ROC	Male				V			V				V	V	V			V
Su, Yan-Syue	ROC	Female		V					V				V	V	V			V
Wang, Chuan -Fen	ROC	Female		V					V				V	V		V		V

(IV) Composition, duties, and operations of the Remuneration committee

1. The company established the remuneration committee on December 28, 2011. The third and fouth term of the remuneration committee was composed of four independent directors by board resolution. Independent director Yu Shang-Wu was reelected as convenor. The qualification review of this term's members includes member academic background, member qualification review sheet, statement and related confidentiality agreements. Refer to the company website for more detailed information.

The committee organization is as follows:



2. Information on the members of the Remuneration Committee

Position (Note 1)	Name\ Criteria	Meets the Following Professional Qualification Requirements and Has at Least Five Years of Work Experience			Meets Indepence Criteria (Note 2)										Number of Other Public Companies Concurrently Serving as Member of Compensation Committee	Note
		An Instructor of Higher Position in a Department of Commerce, Law, Finance, Accounting or Other Academic Department Related to the Business Needs of the Company in a Public of Private Junior College, College or University	A Judge, Public Proscutor, Attorney, CPA or Other Professional or Technical Specialists Who Has Passed a National Examination and Been Awarded a Certificate in a Profession Necessary for the Business of the Company	Have Work Experience in the Area of Commerce, Law, Finance, Accounting or Otherwise Necessary for the Business of the Company	1	2	3	4	5	6	7	8	9	10		
Independent director (Convenor)	Yu, Shang-Wu	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1	
Independent director	Tsai, Song-Qi		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	
Independent director	Su, Yan-Syue			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	2	
Independent director	Wang, Chuan -Fen		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	

Note 1: Write director, independent director or other for position.

Note 2: Please check "✓" the corresponding box if the following circumstances apply to the director in the two-year period before being elected and during the term of office.

(1) Not an employee of the Company or any of its affiliates.

(2) Not a director or supervisor of the Company or any of its affiliates. (Do not apply to independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, the Company and its parent or subsidiary or a subsidiary of the same parent.)

(3) Not a natural-person shareholder who holds shares, together with those held by the person's spouse, minor children, or held by the person under others' names, in an aggregate amount of 1% or more of the total number of issued

shares of the Company or is ranked in the top 10 in shareholdings.

(4) Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of a managerial officer under (1) or any of the persons under (2) and (3).

(5) Not a director, supervisor, or employee of a corporate shareholder that directly holds five percent or more of the total number of issued shares of the company, or that ranks among the top five in shareholdings, or that designates its representative to serve as a director or supervisor of the company under Article 27, paragraph 1 or 2 of the Company Act. (Do not apply to independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, the Company and its parent or subsidiary or a subsidiary of the same parent.)

(6) Not a director, supervisor, or employee of other company if a majority of the company's director seats or voting shares and those of that other company are controlled by the same person. (Do not apply to independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, the Company and its parent or subsidiary or a subsidiary of the same parent.)

(7) Not a director, supervisor, or employee of other company or institution if the chairman, general manager, or person holding an equivalent position of the company and a person in any of those positions at that other company or institution are the same person or are spouses.

(8) Not a director, supervisor, officer, or shareholder holding five percent or more of the shares, of a specified company or institution that has a financial or business relationship with the company. (Do not apply in cases where the specified company or institution holds more than 20 percent but less than 50 percent of the Company’s issued shares and are the independent directors appointed in accordance with the Act or the laws and regulations of the local country by, and concurrently serving as such at, the Company and its parent or subsidiary or a subsidiary of the same parent.)

(9) Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that, provides auditing services to the company or any affiliate of the company, or that provides commercial, legal, financial, accounting or related services to the company or any affiliate of the company for which the provider in the past 2 years has received cumulative compensation exceeding NT$500,000, or a spouse thereof; provided, this restriction does not apply to a member of the remuneration committee, public tender offer review committee, or special committee for merger/consolidation and acquisition, who exercises powers pursuant to the Act or to the Business Mergers and Acquisitions Act or related laws or regulations.

(10) Not been involved in any of situations defined in Article 30 of the Company Act.

3. Remuneration Committee Operation Status

(1) The company’s remuneration committee has 4 members.

(2) The current term of remuneration committee members is: July 11, 2019 to June 11, 2022. The Committee had held 5 meetings (A) in 2019. The member qualifications and attendance status is as follows:

Position	Name	Attendence in Person (B)	By Proxy	Attendence Rate in Person (%) (B/A) (Note)	Note
Independent director (Convenor)	Yu, Shang-Wu	5	0	100%	
Independent director	Tsai, Song-Qi	5	0	100%	
Independent director	Su, Yan-Syue	4	1	80%	
Independent director	Wang, Chuan-Fen	5	0	100%	

Other mentionable items:

1. If the Board of Directors declines to adopt or modifies a recommendation of the remuneration committee, the date of the board of directors meeting, term, content of motions, board resolution results and company handling of remuneration committee opinions (if the resolution

passed by the board of directors exceeds the recommendations of the remuneration committee, the circumstances and cause of the difference shall be specifically stated): No such circumstances.

2. If any committee member has an objection or qualified opinion together with a record or written statement regarding a remuneration committee resolution, the remuneration committee date, term, content of motions, all member opinions and how member opinions were handled: No such circumstances.
3. Refer to the company website for more detailed information regarding the company's remuneration committee operation conditions and meeting minutes.
4. The discussion of the remuneration committee and the handling of the company's opinions:

Meeting date (session)	Agenda	Resolutions and opinion of all members
2019/03/22 (10th meeting of the third session)	1. 2018 annual employee compensation and report on the distribution of directors' compensation	Approved as proposed and reported to the Board of Directors for resolution
2019/04/25 (11th meeting of the third session)	1. Performance appraisal of directors and managers in 2018 2. 2019 Q2 performance bonus issue	Approved as proposed and reported to the Board of Directors for resolution
2019/08/08 (1st meeting of the fourth session)	1. Review of 2018 employee compensation and directors' compensation 2. Review the case of first-level supervisor's assignment of salary and remuneration 3. First-level supervisor assignment	Approved as proposed and reported to the Board of Directors for resolution
2019/10/28 (2nd meeting of the fourth session)	1. First-level supervisor assignment 2. Amendment to the "Resignation and Retirement Measures for Appointed Managers" case 3. Review the salary adjustment case for managers	In response to the revision of the "Appointed Managers 'Retirement and Retirement Measures" case, all the members present agreed to the amendments. However, the regulations have been established for a long time, and some of the contents are out of date. Therefore, in order to make the appointment of managers' retirement and retirement planning more secure, it is recommended After the human resources unit is invited to do more extended market research and planning, it will be re-discussed. The board of directors agrees with the recommendation of the remuneration committee, and invites the HR unit to plan again after detailed planning. The human resources unit has collected relevant market information and revised the version, and discussed the content with the remuneration committee in advance at December 25, 2019; it is expected for furthur discussion in 2020. The rest of the proposals were approved by the chairman of the salary committee and all the members present without objection and passed the proposal, and submitted to the board of directors for resolution
2019/12/25 (3rd meeting of the fourth session)	1. 2019 performance bonus payment amount 2. 2020 annual employee compensation and directors' compensation ratio 3. Amendments to some provisions of the company's "Directors and Managers Performance Evaluation Measures"	Approved as proposed and reported to the Board of Directors for resolution.

5. Remuneration committee duties

In accordance with the charter of the company's remuneration committee, the remuneration committee has the following duties and its recommendations are submitted to the board of directors for discussion:

(1) Regular review on the charter and submission of amendment recommendations.

(2) Determine and regular review the policies, system, standards and structure for company director and officer performance evaluations and remuneration.

(3) Regularly evaluate the remuneration of company directors and officers.

The following principles must be followed before performance of the above remuneration committee duties:

(1) Ensure the company's remuneration arrangements conform to related laws and are sufficient to attract talent.

(2) Performance assessments and compensation levels of directors, supervisors and executive officers shall take into account the general pay levels in the industy, the time spent by the individual and their responsibilities, the extent of goal achiecement, their performance in other positions and the compensation paid to employees holding equivalent positions in recent years. The evaluation should also cover the reasonableness of the correlation between the individual's performance and the company's operational performance and future risk exposure, with respect to the achievement of short and long-term business goals and the financial position of the company.

(3) There shall be no incentive for directors or executive officers to pursue compensation by engaging in activities that exceed the tolerable risk level of the company.

(4) The percentage of the bonus to be distributed based on short-term performance and the time for payment of any variable compensation for directors and executive officers shall be determined based on industry characteristics and company business attributes.

(5) A committee member may not enter into discussions or voting when the committee is deciding on that member's individual remuneration.

(6) The decision making and handling of director and officer remuneration matters for subsidiaries is delegated to the subsidiary but requires the ratification of the company's board of directors. The company's remuneration committee is aksed to submit recommendation before the matter is submitted to the board of directors for discussion.

Refer to the company website for more detailed information on the company's remuneration committee charter. For details refer to the website: http://www.txccorp.com/

(V) Fulfillment of Corporate Social Responsibility and variations with management principles of publicly-listed companies and reasons

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary (Note 2)	
1. Does the company conduct risk assessment on environmental, social and corporate governance issues related to the company's operation in accordance with the principle of materiality, and formulate relevant risk management policies or strategies? (Note 3)	Yes		1. In order to cope with major global economic, social and environmental risks, a systematic risk response policy and process shall be established in accordance with the principle of materiality and ISO 31000 risk management guidelines. The company has a risk response organization. The general manager of the company acts as the convener, coordinates and directs the promotion and operation of the risk management plan, reviews the risk identification work of the company, and has various risk response authority and responsibility units under it. Each year, the company reviews the situation from the perspective of enterprise sustainability, including financial and non-financial risks. In addition to mitigating the risks, it also seeks opportunities for corresponding risks. 2. The risk identification process considers the frequency of occurrence, impact degree and control degree for quantitative evaluation, covering 1. Business/laws/regulations/standards 2. Political environment change 3. Economic/financial environment change 4. Natural disasters (climate change) 5. Technology and information 6. Competitive environment 7. Facilities/equipment 8. Business/market operation 9. Supply chain related 10. Financial operation 11. Community/environmental safety and health 12. Personnel, etc., identify 88 types of risks and prioritize them by matrix analysis. 3. In 2019, 21 risks were assessed. The main risks outside the organization were product competition and market strategy, and the impact of Sino-U.S. trade, while the key risks inside the organization were personnel shortage and supply chain response. The management of risks outside the organization is to continuously focus on the overall strategy, with high-precision products, high-quality technology and origin conversion, strengthen the competitive advantage, create benefits for the company, and the management of risks inside the organization is to continuously supplement human resources, retain key talents, and strengthen the management of supply chain.	Comply with the best-practice principles, no discrepancy

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary (Note 2)	
2. Has the Company established exclusively (or concurrently) dedicated units to implement CSR, and has the board of directors appointed executive-level positions with responsibility for CSR, and to report the status of the handling to the board of directors?	Yes		We will also report the implementation status and resource requirements to the chairman and the general manager from time to time on weekdays, so as to grasp the progress in time and adjust the implementation strategy and direction in response to current events and emergencies at any time. Due to different local laws and regulations, overseas subsidiaries set up "social responsibility management system" for operation, which is under the overall responsibility of the administration. There are four units under it, namely, "labor and ethics group", "safety and health group", "environmental energy group" and "system management group". The above groups and the company's safety committee, according to the annual plan, include the issues of each stakeholder into the routine work, annual plan and annual management review report, so as to continuously promote the implementation of enterprise responsibility related activities and verification. And the board of directors authorizes the general manager of the company to be the highest person in charge of the system, and regularly reports the operation of the system to the board of directors every year.	Comply with the best-practice principles, no discrepancy
3. Environmental issues				
（1） Does the company establish appropriate environmental management system according to its industrial characteristics?			The environmental, safety and health policies of the company and its subsidiaries are as follows: In the process of R & D, manufacturing, testing and sales, it is required to comply with laws and regulations and other relevant requirements, so as to prevent occupational disasters and continuously improve the operation of the management system, thereby to implement the company's sustainable operation policy. We are committed to protecting our employees and protecting the planet: • To ensure the safety and health of employees is the primary responsibility and obligation of the company's supervisors at all levels. • Prevent work-related injuries, ill health, illness and accidents to protect all plant personnel. • Comply with laws and regulations, reduce the impact of environmental pollution, and develop standard operating procedures and methods. • Communicate policies to employees, suppliers, customers, contractors and stakeholders and provide necessary education and training to ensure that they have awareness of environmental safety and health and correct behaviors. • Continuously improve management system operation and performance. •Encourage employees to provide suggestions, establish and maintain a good communication channel between the company's supervisors and employees. •Production of green products, promotion of waste reduction campaign and continuous rectification to create a safe and healthy environment. The company promises to take the most advanced international and domestic environmental safety and health standards as the basis for self-improvement. See the company's website for details.	Comply with the best-practice principles, no discrepancy

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary (Note 2)	
(2) Is the company committed to improving the utilization efficiency of resources and using recycled materials with low impact on environmental load?	Yes		The company and its subsidiaries continue to promote energy-saving and carbon reduction programs, such as solar power generation system installation, the use of energy-saving lighting fixtures throughout the plant, adjustment of public lighting time in the plant along with sunrise/sunset time, adjustment of air conditioning start/stop time and hot water supply time in the living area according to the weather and temperature, recycling of process condensed water for toilet flushing, recycling of scrap products and leftovers to qualified waste metal resources recovery manufacturers extract residual value of precious metals such as gold and silver, and promote process waste heat recovery and reuse and new heat pump system energy saving. Continuously establish and publicize relevant environmental protection knowledge and concepts of employees, so as to fulfill the responsibility and effort to protect the earth. See the company website for details.	Comply with the best-practice principles, no discrepancy
(3) Does the company assess the potential risks and opportunities of climate change for the enterprise now and in the future, and take measures to deal with climate related issues?	Yes		In response to the important issues of climate change, the company continues to actively promote relevant activities, in addition to "greenhouse gas verification" (ISO 14064-1) to master the company's carbon emissions, and to disclose the data related to natural capital management such as carbon, water, forest, etc. through CDP questionnaire, and to understand the relevant risks and opportunities according to the scoring results, so as to serve as a measurement factor for subsequent related activity decision-making and investment selection. In addition, through the ISO14001 management review meeting, the company reviewed the actual implementation measures of carbon reduction in the previous year and inspected the implementation results, and actively faced the measures of carbon reduction. Taking stock of risks and opportunities arising from climate change, including direct or indirect physical impacts, impacts of regulatory, technological or market demand transformation. Through the identification of relevant units, we can strengthen the climate change governance of the company to reduce risks and grasp business opportunities.	Comply with the best-practice principles, no discrepancy

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary (Note 2)	
(4) Does the company make statistics of greenhouse gas emissions, water consumption and total weight of waste in the past two years, and formulate policies for energy conservation and carbon reduction, greenhouse gas reduction, water consumption reduction or other waste management?			The company and its subsidiaries have carried out "greenhouse gas verification" (ISO 14064-1) and "product carbon footprint verification" (PAS) 2050) on a regular basis to thoroughly understand the actual production of "carbon" and "greenhouse gases" by the company through inventory, and then to formulate improvement measures to achieve the goal of carbon dioxide emission reduction, so as to demonstrate the company's commitment to environmental protection. See the company website for details. The company established the ISO 14001 system in 2002. Through this system standard, it strengthens the autonomous management, continuously improves the environmental performance, and effectively and properly maintains the overall operation. The company complies with the relevant requirements of government laws, regulations and other applicable international regulations. In terms of pollution control, the company has obtained the "fixed pollution source operation license", "water pollution control license", "enterprise waste cleaning plan" and "toxic chemical substance operation license document" according to law, and regularly carries out spot inspection, maintenance, declaration and testing in accordance with its provisions. See the company website for details.	Comply with the best-practice principles, no discrepancy
4 Social issues				
(1) Does the company formulate relevant management policies and procedures in accordance with relevant laws and regulations and international human rights conventions?	Yes		In order to protect the rights and interests of workers, the company and its subsidiaries have formulated "labor rights and ethics policy", respectively following the recognized human rights principles such as local labor laws and regulations and the code of conduct of responsible business alliance, and formulated "labor rights and ethics policy" to protect the legitimate rights and interests of employees, and formulated "management measures for the operation of corporate social responsibility system" and "prohibition of forced labor" in accordance with the policy requirements labor control procedures, control procedures for the protection of child and juvenile workers, anti discrimination control procedures, control procedures for the prohibition of corporal punishment and abuse, and management procedures for employees' free association, etc. shall be reviewed in the quarterly employee-employer meetings to see whether the policies formulated need to be amended and adjusted in order to comply with corporate ethics and social responsibility. See the company website for details.	Comply with the best-practice principles, no discrepancy

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary (Note 2)	
(2) Does the company establish and implement reasonable employee welfare measures (including compensation, vacation and other benefits), and properly reflect the operating performance or results in employee compensation?			The company and its subsidiaries set salary scales according to the relative contribution of their positions, in line with the company's operation and development strategy, and based on the employees' personal performance, future development potential and the company's operation status as the basis for salary adjustment and bonus payment, so as to encourage the employees to make positive efforts to encourage excellent performance and achieve the "internal fairness" and "individual fairness" pursuant to the salary; and to encourage employees to create business results, allocate a certain proportion of profit-making earnings as the basis of employee dividends, share the earnings results with colleagues, consider the benchmark enterprises of the industry, regularly check the rationality of various salary and welfare systems by the "remuneration committee", maintain the company's high level employee welfare, attract outstanding talents to join and stay for a long time. In order to improve the salary level of employees, the comprehensive salary adjustment was adopted, with an average salary adjustment rate of 6% in 2020. In addition, the company also has an employee welfare committee, which is based on the concept of "work/life balance", to plan and promote diversified employee welfare and activities, and promote a workplace culture that can achieve work/family balance. In the "performance appraisal management measures", the supervisor may give appropriate rewards in performance appraisal depending on the input and cooperation of employees in corporate social responsibility related activities.	Comply with the best-practice principles, no discrepancy
(3) Does the company provide a safe and healthy working environment for its employees and conduct regular safety and health education for them?	Yes		The company and its subsidiaries set up an Occupational Safety and Health Committee to review the progress of work quarterly, and discuss environmental safety and health issues to ensure the safety and health of the working environment. The company's employees engaged in labor safety and health related work have obtained relevant licenses according to law, and from time to time, they have sent personnel to attend seminars held by government agencies or academic institutions. In addition, a clinic is also set up to provide professional medical consultation services by resident doctors and full-time nurses. Health information (including disease prevention)/lectures are held irregularly. Please refer to the company website for relevant health management activities. The company's Ningbo plant and Chongqing plant respectively set up an environmental health and safety committee and a production safety management committee to review the progress of work once a month, and discuss environmental protection, safety and health issues. A number of new human health education and promotion courses are held regularly every year, and health life is promoted to all colleagues in the form of email every month. Health information is also provided on the company's internal web pages and e-mails from time to time to enhance the health knowledge of employees and their dependents.	Comply with the best-practice principles, no discrepancy

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary (Note 2)	
(4) Does the company establish an effective career development training program for its employees?	Yes		The company and its subsidiaries plan employee training courses in accordance with the job/grade system and actual needs, so as to strengthen the professional knowledge, skills and expertise of employees, and further improve their work performance. The training courses include rookie training, professional training, supervisor ability training, general training, self inspired growth, project training and online learning platform. The company has also built a talent echelon for key positions to strengthen the real-time information management with the data management platform	Comply with the best-practice principles, no discrepancy
(5) Does the company comply with relevant laws and regulations and international standards for customer health and safety, customer privacy, marketing and labeling of products and services, and formulate relevant policies and complaint procedures to protect the rights and interests of consumers	Yes		To ensure that the products manufactured by the company can meet international standards, and simultaneously protect the use rights and interests of consumers. Since 2005, we have insured all our products against full product liability insurance from a reputed international insurance company. Since the company's products are mainly active and passive components that generate frequency, even if the product loses function (poor frequency or unable to vibrate), it will not cause physical injury to the agents of the sales channel or the users of the product. Therefore, the company's long-term goal of insuring product liability insurance is to meet its own requirements with the highest ethical standards, so as to share the risks and responsibilities of sales channel partners and improve after-sales service and guarantee. The company will regularly arrange meetings to communicate with customers, and carry out customer satisfaction surveys every year to identify five aspects of contact with customers. Each aspect has its own unit responsible for the establishment of satisfaction indicators and objectives, and for the implementation of satisfaction monitoring. If the analysis of satisfaction data fails to meet the requirements, the responsible unit shall implement the improvement strategy and conduct an audit at the senior management review meeting. In case of product application and quality related problems, corresponding business representatives are responsible for handling related issues and launching internal response, improvement and tracking platform.	Comply with the best-practice principles, no discrepancy
(6) Does the company have a supplier management policy that requires suppliers to follow relevant specifications and their implementation in environmental protection, occupational safety and health, labor rights and other issues?	Yes		In order to ensure that the requirements and spirit of CSR are implemented to our supplier partners, our suppliers need to regularly sign the "integrity commitment letter", "environment, occupation, safety, health status questionnaire", "industry code commitment letter", "green products and environmental protection statement" and "non conflict financial statement" to enable suppliers to follow the CSR scope. In addition, relevant organizations and units of the company regularly evaluate suppliers to ensure that suppliers can meet the medium and long-term development plan of the company, comply with relevant international standards, and maintain long-term high-quality partnership	Comply with the best-practice principles, no discrepancy

<table>
<tr><th rowspan="2">Assessment items</th><th colspan="3">Operation Status (Note 1)</th><th rowspan="2">Discrepancy with best-practice principles of TWSE/GTSM listed companies</th></tr>
<tr><th>Yes</th><th>No</th><th>Summary (Note 2)</th></tr>
<tr><td>5. Does the company prepare corporate social responsibility reports and other reports that disclose the company's non-financial information in accordance with the international reporting standards or guidelines? Is the disclosure report confirmed or guaranteed by a third party certification unit?</td><td>Yes</td><td></td><td>Since 2009, the company has issued corporate social responsibility report. In order to fully disclose the practices and achievements in corporate social welfare, corporate operation management and environmental safety and health, we have compiled the report in accordance with the guidelines for global sustainable development report (GRI) and AA1000 norms over the years. Since 2017, we have followed the new version of GRI Standards based on the latest published standards as the basis for continuous improvement of the three aspects of social responsibility.
All the data disclosed in the report are in accordance with the corresponding management system specifications, of which the financial related results are calculated in NTD and verified by the accountant; theSince 2009, the company has issued corporate social responsibility report. In order to fully disclose the practices and achievements in corporate social welfare, corporate operation management and environmental safety and health, we have compiled the report in accordance with the guidelines for global sustainable development report (GRI) and AA1000 norms over the years. Since 2017, we have followed the new version of GRI Standards based on the latest published standards as the basis for continuous improvement of the three aspects of social responsibility. environment, safety and health management system is subject to the external audit of ISO 14001 and OHSAS 18001 in addition to the regular internal audit. The greenhouse gas emission data is calculated by using the coefficients used in the "greenhouse gas emission coefficient management table (version 6.0.3)" provided by the Environmental Protection Agency, while the carbon dioxide emission data of the product carbon footprint is obtained by using the coefficients and calculation rules provided by the DoITPro: 2013 database of the Institute of Industrial Technology.</td><td>Comply with the best-practice principles, no discrepancy</td></tr>
<tr><td colspan="5">6. If a company has its own corporate social responsibility code in accordance with the code of practice for corporate social responsibility of listed and OTC companies, please state the difference between its operation and the code：
The company prepares a corporate social responsibility report every year. The report content and related operations are consistent with the corporate social responsibility code of practice for listed and OTC companies, and there is no significant difference. It has been disclosed at the public information observatory and the company website. Please refer to the company website.</td></tr>
<tr><td colspan="5">7. Other important information to understand the operation of CSR：
For information about corporate social responsibility of the company and its subsidiaries, such as corporate governance, environmental safety and health, and social welfare, please refer to the company website.</td></tr>
</table>

Note 1: If "yes" is checked in the operation, please indicate the important policies, strategies, measures and implementation; if "no" is checked in the operation, please explain the reasons and explain the plans for adopting relevant policies, strategies and measures in the future.

Note 2: If the company has prepared the CSR report, the summary may indicate the way of consulting the CSR report and substitutedby the index page numbers.

Note 3: Materiality principle refers to those issues related to environment, society and corporate governance that have a significant impact on the company's investors and other stakeholders.

(VI) Implementation of Ethical Corporate Management and variations with management principles of publicly-listed companies and reasons

The company's "integrity operation code" has been adopted by the board of directors and submitted to the general meeting of shareholders on June 19, 2013 and the "integrity operation procedure and code of conduct" adopted by the board of directors on April 24, 2017. Meanwhile, the "internal control system and internal audit implementation rules for integrity" have been formulated, which will be included in the actual audit project. The company will follow this "code of conduct for integrity" in the future. In order to improve the effect of the company's integrity operation, and to implement the integrity operation principle more effectively, the company shall establish an integrity operation corporate culture and sound development, pay attention to the development of relevant domestic and foreign integrity operation norms at any time, and encourage directors, independent directors, managers and employees to put forward suggestions, so as to review and improve the integrity operation rules formulated by the company, and at the end of each year the company's performance of corporate social responsibility shall be reported to the board of directors.

1. Performance of integrity operation and the difference between integrity operation rules of listed and OTC companies and the reasons

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
1. Establish integrity business policies and plans				
(1) Does the company have an integrity operation policy approved by the board of directors, and clearly state the integrity operation policy and practice in the regulations and external documents, as well as the commitment of the board of directors and senior management to actively implement the operation policy?	Yes		The "code of integrity" adopted by the board of directors and the "code of conduct" handbook in both Chinese and English are adopted by the company. Therefore, all colleagues and board members of the company and its subsidiaries have understood the relevant codes and need to sign the "Declaration of responsibility" attached to the handbook to ensure that all colleagues have "received", "read" and "understood" "Accept" and agree to "maintain" all contents of this handbook as the principle for all colleagues to carry out business, and report the operation and implementation of integrity to the board of directors at least once a year and publish it on the company's website	Comply with the best-practice principles, no discrepancy
(2) Does the company establish an evaluation mechanism for the risk of dishonest behavior, regularly analyze and evaluate the business activities with high dishonest behavior risk within the business scope, and formulate a plan for preventing dishonest behavior based on it, and at least cover the preventive measures for the behaviors in Article 7, paragraph 2, of the code of honest operation for listed and OTC companies?	Yes		The company has formulated a risk assessment mechanism for dishonest behavior, and set out in the business code of corporate integrity the preventive measures for dishonest behavior: 1. Offering and receiving bribes; 2. Providing illegal political contributions; 3. Improper charitable donation or sponsorship; 4. Providing or receiving unreasonable gifts, hospitality or other improper benefits 5. Infringement of business secrets, trademark rights, and patent rights, copyright and other intellectual property rights 6. Engaging in unfair competitive behavior 7. Directly or indirectly damaging the rights and interests, health and safety of consumers or other interested parties when products and services are used in R & D, procurement, manufacturing, supply or sale. In the "information security management measures", "confidential document management measures" and "employment contract", preventive measures are formulated to protect business secrets. The company regularly analyzes and evaluates the business activities with high risk of dishonest	Comply with the best-practice principles, no discrepancy

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
			conduct within the business scope, and in 2019, 7 sessions of publicity courses and 21 platform publicity articles were held for the current directors, managers and employees. The contents of the courses include laws and regulations on prevention of insider trading, maintenance of business secrets, intellectual property rights and other legal knowledge. The course briefs were placed in the internal staff education and training system to provide references for those who did not attend on that day and abide by the work related business when necessary.	
(3) Does the company specify operating procedures, conduct guidelines, disciplinary and grievance systems for violations in the prevention of dishonest conduct plan, implement them, and regularly review and amend the aforementioned scheme?	Yes		The company and its subsidiaries have "guidelines for integrity operation procedures and conduct" and "code of ethical conduct", which encourage employees to report to the board of directors, managers, internal audit directors or other appropriate personnel when they suspect or find any violation of laws, regulations or code of ethical conduct. In order to encourage employees to report violations, the company has established relevant procedures or mechanisms, and let employees know that the company will do its best to protect the safety of the informant from being revenged. In addition, when a director or manager violates the code of ethical conduct, the company shall deal with it in accordance with the disciplinary measures set by the director or manager in the code of ethical conduct, and immediately disclose the information such as the title, name, date of violation, cause of violation, violation and treatment of the person who violates the code of ethical conduct at the public information observatory. The company submits the implementation of honest operation to the board of directors every year, and regularly reviews and revises the previous disclosure scheme to meet the needs of the times. Please refer to the company website.	Comply with the best-practice principles, no discrepancy
2. Implement integrity operation				
(1) Does the company assess the integrity records of its counterparties and specify the integrity terms in the contracts it enters into with them?	Yes		The company and its subsidiaries will conduct credit rating on the suppliers and customers of the cooperation, and require the suppliers to sign a letter of commitment of integrity to fulfill the contract of business activities in a fair and ethical manner and in strict accordance with relevant laws, regulations and contract terms. In case of dishonesty, the contract may be terminated or terminated provisions of the contract at any time.	Comply with the best-practice principles, no discrepancy
(2) Does the company set up a dedicated unit under the board of directors to promote the integrity operation of the enterprise, and regularly (at least once a year) report to the board of directors its integrity operation policies, plans to prevent dishonest behavior and supervision of implementation?	Yes		In order to implement and improve the management of the company and its subsidiaries, the management center is the special unit responsible for the integrity management. The top director of the center is responsible for the formulation and implementation of the integrity management policy and prevention plan, and the audit unit is responsible for the supervision. At the end of each year, the company shall regularly report to the board of directors on the implementation of the above-mentioned integrity operation, and report to the board of directors on December 25, 2019. Please refer to the website of the company. In order to practice the integrity management policy, the new employees shall specify the company's relevant specifications and honest moral requirements when they report to the company, and the moral requirements shall be stated in the employment contract. At the same time, in the	Comply with the best-practice principles, no discrepancy

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
			regular department meetings, economic management meetings and lectures, the company continued to publicize the corporate integrity policy and elaborated the importance of integrity management. In 2019, 127 publicity and training sessions were held, for a total of 2,745 person/times. Directors and senior management have signed the "statement of compliance with integrity management policy". Please refer to the company website for the implementation of the integrity operation.	
(3) Does the company have a conflict of interest prevention policy, provide appropriate presentation channels and implement them?	Yes		The company and its subsidiaries have established "code of practice for corporate governance", "code of integrity operation", "code of conduct", "Article 15 of the code of procedure of the board of directors", "code of conduct" and "code of integrity operation procedure and code of conduct". In case of any conflict of interest, the company and its subsidiaries shall also avoid the matters that need to be avoided. If a director, supervisor or manager violates the code of ethical conduct, the company shall deal with it in accordance with the disciplinary measures set out in the employee reward and punishment management measures, and disclose the date, cause, code and handling situation of the violation of the code of ethical conduct at the public information observatory in a timely manner. The company has established a special area for stakeholders, and has established "procedures for handling suggestions, doubts, disputes and litigation of stakeholders". See the company website. If any of our colleagues is involved in any illegal circumstances in the trading process, they can be informed by the honest and fair trading mailbox. We shall be fully responsible for confidentiality and investigate and deal with according to law.	Comply with the best-practice principles, no discrepancy
(4) Has the company established an effective accounting system and internal control system for the implementation of integrity operation, and the internal audit unit shall, according to the assessment results of the risk of dishonest behavior, draw up relevant audit plans, and according to the compliance of the plan for preventing dishonest behavior, or entrust an accountant to carry out the audit?	Yes		The company and its subsidiaries shall establish an "internal control system" and an audit office and an external accountant audit mechanism. The audit office shall regularly assess risks and draw up an audit plan, and carry out relevant audits in accordance with the plan to ensure the continuous and effective implementation of the internal control system. Report the audit results to the audit committee and the board of directors on a regular basis. There has been no corruption in the company over the years.	Comply with the best-practice principles, no discrepancy
(5) Does the company regularly conduct internal and external education and training for integrity operation?	Yes		The company and its subsidiaries, when each new comer joined the company, provided education and training to remind the colleague of the need to implement the code of conduct, and held education and training of the code of ethics from time to time for the colleague of the company. There were 127 publicity and training sessions in 2019, for a total of 2,745 person/times, to ensure that the colleague did implement and would not be unfamiliar with the relevant content due to time elapsing.	Comply with the best-practice principles, no discrepancy
3. Operation of the company's whistleblowing system				

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
(1) Does the company have a specific reporting and reward system, establish a convenient reporting channel, and assign appropriate personnel to the reported object?	Yes		Integrity is one of the core corporate cultures of the company. It is based on the belief of integrity and honesty when the company and its subsidiary's related enterprises conduct transactions with their partners, and on the basis of transparency and fairness, in order to establish a long-term partnership. For this purpose, the company has set up a special interest area, and has formulated measures for handling cases of illegal, unethical or dishonest conduct. Please refer to the company website. If any of our colleagues is involved in any illegal circumstances in the course of trading, they may be informed by the mailbox of the stakeholding area. We shall be fully responsible for confidentiality and investigate and deal with according to law. In addition, a barrier free e-mail communication channel is set up on the company's website. All interested parties can communicate and appeal to the independent director, chairman and general manager of the company by e-mail at any time, so as to keep the communication and appeal channels with all interested parties unblocked.	Comply with the best-practice principles, no discrepancy
(2) Does the company establish the standard operating procedures for investigation of reported matters, follow-up measures to be taken after investigation and relevant confidentiality mechanisms?	Yes		The company and its subsidiaries have formulated the "social responsibility handbook", "employee handbook", "employee complaint (complaint/report) control procedure", "measures for handling reporting of illegal and unethical or dishonest cases" and "Regulations for employees to participate in industrial safety and health consultation, communication operation specifications" and other reporting, investigation, confidentiality mechanisms and follow-up related measures.	Comply with the best-practice principles, no discrepancy
(3) Does the company take measures to protect whistleblowers from improper handling due to whistleblowing?	Yes		The company and its subsidiaries have clearly defined "employee code of conduct" and "employee complaint (complaint/report) control procedure" documents: during the whole process of complaint/report handling, relevant personnel shall keep secrets, and those who divulge secrets will be punished in accordance with relevant regulations; those who retaliate against the Complainant/whistleblower will be punished in accordance with relevant regulations.	Comply with the best-practice principles, no discrepancy
4. Enhance information disclosure Does the company disclose the content and promotion effect of its code of conduct for integrity operation on its website and public information observatory?	Yes		The websites of the company and its subsidiaries provide explanations in Chinese, English and Japanese simultaneously. For financial information, stock price and dividend information, organizational structure and business results related to corporate governance, they are fully disclosed in the quarterly report, annual report and the company webpage, so as to quickly and truly reflect all kinds of business information, so as to enable stakeholders to grasp the company's business dynamics in a timely manner. For details of corporate governance, please refer to the company website.	Comply with the best-practice principles, no discrepancy
5. If a company has its own code of conduct for integrity in accordance with the code of conduct for listed and OTC companies, please state the difference between its operation and the code: The company and its subsidiaries have formulated the "code of integrity operation" to continue to promote and cooperate with various publicity and guidance in accordance with the code, and to strengthen the awareness of business level colleagues. Its content and related operations are not significantly different from the "code of integrity operation on the listed and OTC market".				

Assessment items	Operation Status (Note 1)			Discrepancy with best-practice principles of TWSE/GTSM listed companies
	Yes	No	Summary	
6. Other important information helpful to understand the company's operation integrity: (such as the company's review and amendment of the integrity operation rules, etc.) The company and its subsidiaries negotiate and perform the contract with customers in good faith and integrity, and strive for, negotiate and perform all contracts in a fair and moral way.				

2. Systems and practices adopted for social responsibility

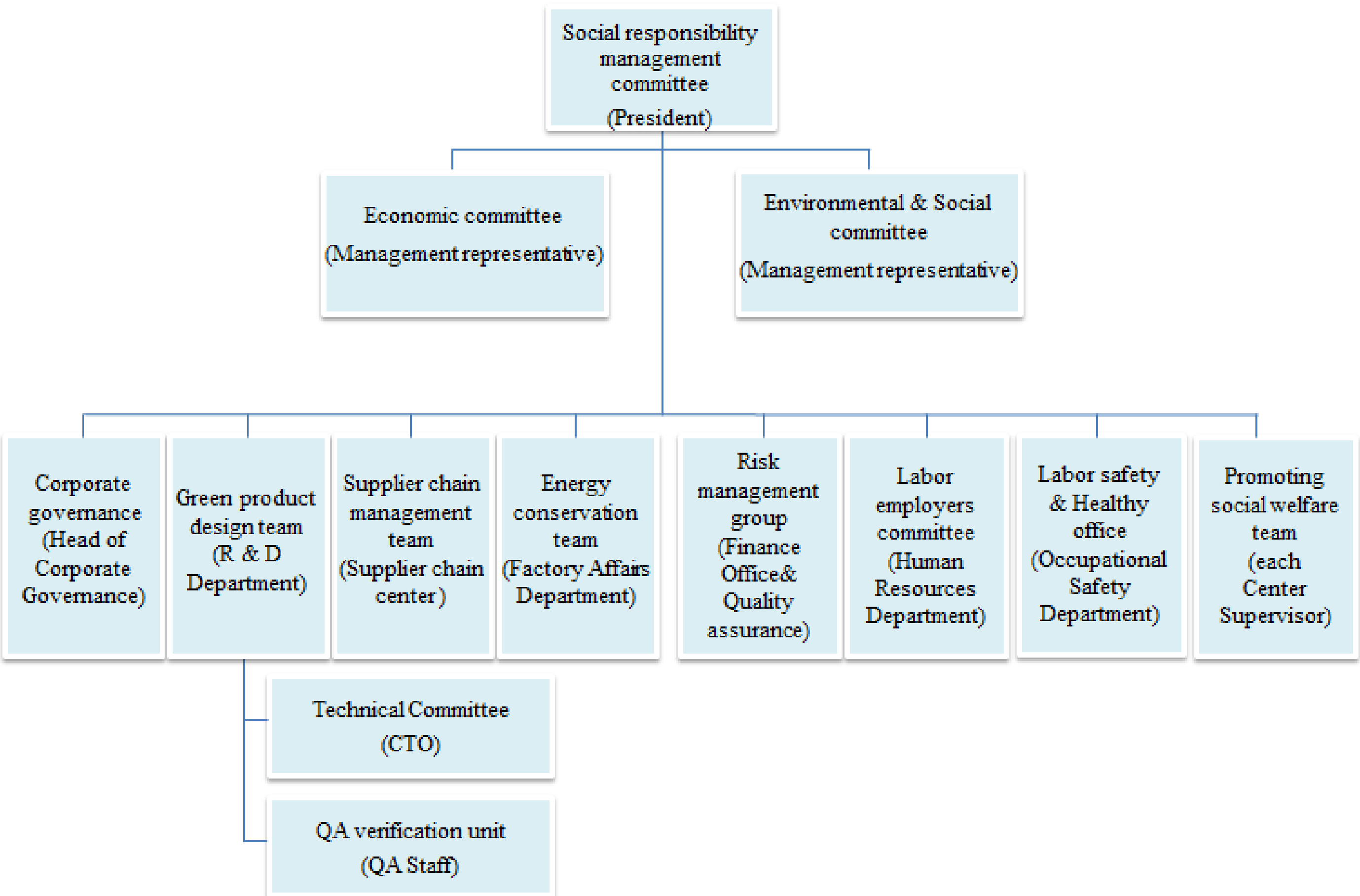
The CSR policies launched by the company are as follows:

1. Combine internal and external resources to launch various corporate social philanthropy activities.
2. Uphold shareholder rights, implement each corporate governance requirement.
3. Maintain the Earth's sustainability; implement environment safety & health procedures.
4. Form promotional organizations and give them the respective resources to reach CSR goals.
5. Continue to strengthen promotional functions in accordance with domestic and international CSR-related laws and regulations.

Besides investment of company resources, the implementation of the above policies also depends on the care and effort invested by all employees to ensure the effective promotion of the above policies. A Corporate Social Responsibility Management Committee has been established internally by the company to promote various CSR matters, adhere to laws and regulations, uphold shareholder rights and organize upstream and downstream companies to jointly provide resources to create a harmonious and content society.

The company's volunteer club has been established for three years now. Adopting the motto of 'everyone join in for charity and philanthropy, do your part to show that you care', the club is involved in community concern and year-end loving care donation activities such as nursing home pit barbecue family recreation activities and the Taoyuan spring beach cleaning activity, Refer to company website for more information about these activities. Http://www.txccorp.com/

3. Corporate social responsibility organization structure



4. Fulfillment of social responsibility

Major activities sponsored by the company

(included TXC Foundation) December 31, 2019

Item	Activity theme	Date	Donee / Cooperating organization
A	Community participation, social contribution, service and charity		
1	Joint charity fundraising	2019/03	The Carpenter's House, Lohas Preschool
2	Visit social welfare organizations and offer care	2019/03、06、09、10、11	Lohas Preschool, Hong-hua Children's Care Center
3	Public welfare activities of TXC Corp.	2019/02、03	The Carpenter's House, Huashan Social Welfare Foundation, Andrew Charity Association
4	Blood donation activity	2019/05、11	Hsinchu Blood Center, TBSF
5	Caring for elderly people living alone	2019/02	Yongan Li (Vil.)
6	Mid July (Chinese Lunar Calendar) rice and food donation	2019/09	Yongguang, Yongan, and Yongfeng Vil.
7	Year-end and winter caring for underprivileged families	2019/01	Yongguang, Yongan, and Yongfeng Vil.
8	Donation of grants and scholarships	2019/01-12	Jieshou, Xiayun, and Ruifang elementary and middle schools
9	Senior education series courses	2019/07-12	Senior citizens more than 60 years old in Beitou Dist.
B	Consumer rights: TXC ’s business model is B2B-oriented. In order to protect the rights and interests of corporate customers, TXC holds a “Customer Satisfaction Survey” every year, reviews customers feedback and responds to their opinions appropriately and effectively. The information obtained from the satisfaction survey has also become one of the references for the company's business performance in the coming year. Our company's products are electronic components, and even if they fail, they will not cause personal injury to the users. However, in order to make the consumers confident of our products, the company still purchases full "product liability insurance" to show that we take the full responsibility of oir products. When our product fails for some reason, we conduct failure analysis and root cause judgment, the company will also resolve the failure problem in accordance with the principle of good faith and the requirements of the contract signed with the customer. We honestly and responsibly perform the warranty or offer compensation when necessary.		
C	Safeguard employees' rights and implement safety and health measures: Refer to the annual report.		

Major sponsorships and activities of subsidiaries (Ningbo and Chongqing plants)

December 31, 2019

Item	Activity theme	Date	Donee / Cooperating organization
A	Environmental protection		
1	Annual exhaust emission source testing (NGB)	2019/04	Pony Testing International Group Shanghai Co. Ltd.
2	Improvement of wastewater biochemical system (replacement of anaerobic tank, oxidation tank) (NGB)	2019/05	Suzhou Dengfeng Environmental Engineering Co., Ltd.
3	Monthly wastewater quality testing (NGB)	2019/01-12	Suzhou Dengfeng Environmental Engineering Co., Ltd.
4	Quarterly unorganized exhaust gas inspection (NGB)	2019/01-12	Suzhou Dengfeng Environmental Engineering Co., Ltd.
5	Soil testing (NGB)	2019/10	Zhejiang Zhongyi Testing and Research Institute Co., Ltd.
6	Investigation of zero sewage disposal (NGB)	2019/11	Ningbo Guangqiang Robot

			Technology Co., Ltd.
7	Sludge filter press replacement（CKG）	2019/11	Zhejiang Shangpin Electromechanical Engineering Co., Ltd.
8	Quartz oscillator production line and supporting facilities project (Four phases) Project environmental impact assessment, professional assessment, safety assessment（CKG）	2019/12	Zhejiang Shangpin Electromechanical Engineering Co., Ltd.
9	Washing machine pure hot water recycling project（CKG）	2019/03	Chongqing Pinge Electromechanical Installation Engineering Co., Ltd.
10	Annual inspection of boiler and generator exhaust emission sources (CKG)	2019/07	Chongqing City Drawing Testing Technology Co., Ltd.
11	Removal and transportation of sludge in the sedimentation tank of the ground oil interception wastewater tank（CKG）	2019/10	Chongqing Pinge Electromechanical Installation Engineering Co., Ltd.
12	Rectification of the pipeline of the medicine adding machine in the wastewater treatment station and replacement of the filler in the inclined pipe of the sedimentation tank (CKG)	2019/05	Chongqing Junquan Water Treatment Equipment Co., Ltd.
13	Waste exhaust thin strip tower and Lasi ring cleaning (CKG)	2019/04	Chongqing Junquan Water Treatment Equipment Co., Ltd.
14	Cleaning of water boiler and furnace in production area (CKG)	2019/04	Toyo Boiler Installation and Maintenance Co., Ltd.
15	Soiled material disposal permit（CKG）	2019/11	Chongqing Jiulongpo District Environmental Protection Bureau
16	Environmental inspection for renewal of soiled material disposal permit (CKG)	2019/10	Chongqing Weizhong Testing Technology Co., Ltd.
17	Quarterly and annual wastewater testing (CKG)	2019/01-12	Chongqing Weizhong Testing Technology Co., Ltd.
B	Community participation, social contribution, service and charity		
1	Beilun District Federation of Trade Unions "New Orientation Run (Cycling / Marathon)"	2019/01	Beilun District Federation of Trade Unions
2	Dagang community's "Youth Attention to Create a Smart City" First Run in Spring	2019/03	Dagang community
3	The 6th "Dagang Good Voice" Young Singer Competition	2019/04	Dagang community
4	Dagang Trade Union Youth Carnival	2019/05	Dagang Trade Union
5	2019 Beilun District 2nd Youth Kayaking Competition	2019/06	Beilun Association
6	Dagang Community "Youth Helps Bringing Melodic Community" Singer Competition with enterprise joint effort	2019/06	Dagang community
7	Dagang community free blood donation	2019/07	Dagang community
8	Xinqi Sub-district Federation of Trade Unions Second Employees Fun Games	2019/11	Xinqi Sub-district Federation of Trade Unions
9	Alliance Spring Festival Tour (CKG)	2019/03	High-tech Zone Electronic Information Industry Alliance
10	Park Marathon (CKG)	2019/05	High-tech Zone Electronic Information Industry Alliance
11	Donate to outstanding students of Jinfeng Elementary and Middle School (CKG)	2019/04	High-tech Zone Electronic Information Industry Alliance
12	Alliance-wide "Double Seven" Qixi Outdoor Film Festival (CKG)	2019/08	High-tech Zone Electronic Information Industry Alliance
13	Blood donation to Sichuan Province (CKG)	2019/08	High-tech Zone Electronic Information Industry Alliance
14	Alliance-wide E-sports events (CKG)	2019/10	High-tech Zone Electronic

			Information Industry Alliance
15	Chongqing AAA level harmonious labor relations enterprise (CKG)	2019/09	Chongqing Federation of Industry and Commerce
C	Consumer rights: None		
D	Implement safety and health measures		
1	Plant drinking water quality inspection (once every two months, once a year for all drinking water points in the plant) (NGB)	2019/12	Pony Testing International Group Shanghai Co. Ltd.
2	Annual canteen tableware hygiene inspection (NGB)	2019/11	Pony Testing International Group Shanghai Co. Ltd.
3	Annual canteen drinking water quality test (NGB)	2019/11	Pony Testing International Group Shanghai Co. Ltd.
4	Workplace occupational health and safety evaluation and report (NGB)	2019/10	Zhejiang Duopu Testing Technology Co., Ltd
5	Workplace radiation protection testing (NGB)	2019/10	Zhejiang Duopu Testing Technology Co., Ltd
6	Canteen cooking fume emission concentration inspection (NGB)	2019/11	Zhejiang Duopu Testing Technology Co., Ltd
7	Canteen cooking fume pipe cleaning (CKG)	2019/03	Chongqing Jianniu Environmental Service Co., Ltd.
8	Annual canteen tableware hygiene inspection (CKG)	2019/07	Pony Testing International Group Shanghai Co. Ltd.
9	Workplace occupational health and safety evaluation and report (including X-ray) (CKG)	2019/11	Chongqing Chemical Research Institute Safety Technology Service Co., Ltd.
10	Plant drinking water quality inspection (once every two months, once a year for all drinking water points in the plant) (CKG)	2019/06	Chongqing Qingze Water Quality Testing Co., Ltd.
11	Annual canteen drinking water quality test (CKG)	2019/08	Chongqing Qingze Water Quality Testing Co., Ltd.
12	Annual plant septic tank cleaning (CKG)	2019/09	Chongqing Ruitai Cleaning Co., Ltd.
E	Uphold employee rights		
1	Labor-management meeting (CKG)	2019/12	TXC (Ningbo) Union
2	Workers' Congress (NGB)	2019/07	TXC (Chongqing) Union

(7) Disclose the inquiry methods if the company has established a Corporate Governance Code of Conduct and other relevant regulations

1. In order to establish sound corporate governance, the company's board of directors have approved the drafting of the Code of Ethical Conduct and Corporate Governance Best Practice Principles and continue to draft more concrete and detailed regulations and procedures such as Related Party Transaction Management, Specific Company, Related Party and Group Company Transaction Procedure, Scope of Independent Director Duties and Responsibilities, Subsidiary Supervision Procedure, Procedure Governing Financial and Business Matters with Affiliated Enterprises, Risk Control Procedure, Important Internal Information Handling Procedure, Procedure for Handling Stakeholder Recommendations, Questions, Disputes and Litigation Matters, Procedure for Handling the Reporting Cases of Illegal, Unethical or Dishonest Conduct as well as the TXC Code of Conduct, Ethical Corporate Governance Best Practice Principles and Ethical Corporate Management Procedures and Guide of Good Conduct. In addition to their regular announcement, the company also posts this information for public access on the company website to regulate the conduct and ethics of company directors and all subordinate personnel. An ethical management section has been set up on the company website to provide full disclosure and

complete explanations of ethical management policy implementation and the drafting and promotion of subsequent preventative programs. The company website also has a dedication section on social responsibility. Refer to the information provided on the company website.

The company's Ningbo and Chongqing plants have established ethical corporate management code best practice principles and continue to draft more concrete and detailed regulations and procedures such as Related Party, Specific Company and Group Company Transaction Procedure, Board of Directors Agenda Procedure, Business Ethics Control Procedure, Subsidiary Operation Management Procedure, Debt Commitment and Contingency Management Procedure, Financial and Non-Financial Information Management Procedure, Derivative Financial Product Transaction Handling Procedure and regular announce this information to regulate the conduct and ethics of company directors and all subordinate personnel.

2. With regard to the announcement of related insider stock transactions, regular education courses are organized for directors and the announcements of competent authorities are posted on the company website for reference by insiders. Refer to the information on the company website.

3. The Corporate Social Responsibility Best Practice Principles drafted by the company has been approved by the board of directors. The principles are directed at the overall operation activities of the company and group companies including the active fulfillment of corporate social responsibility while performing company operations to conform to the international trends of balancing environmental, social and corporate governance developments and use corporate civic commitment to raise national economic contribution, improve the living quality of employees, communities and society to create competitive advantage based on corporate responsibility. Refer to the company website for information on CSR policy, organization, promotion and results.

   The subsidiary Ningbo and Chongqing plants have drafted Social Responsibility Manuals. The manual is directed at the overall operation activities of the company including the active fulfillment of corporate social responsibility while performing company operations to conform to the international trends of balancing environmental, social and corporate governance developments and use corporate civic commitment to raise national economic contribution, and improve the living quality of employees, communities and society to create competitive advantage based on corporate responsibility.

(8) Other important information which is sufficient to understand corporate governance operation status must also be disclosed

1. Refer to the information in the company website for company director candidate nomination system, director and independent director nomination and selection method, nomination process, candidate information (conformance with qualification criteria), election process and election results.

2. In order to improve corporate governance, the company communicates with its CPA, independent directors, audit supervisor and accounting supervisors on an ad hoc basis. Refer to the information in the company website for status of communication.

3. In order to strengthen corporate governance, the company pays special attention to open disclosure of information and posts related financial information on the company website. Important information is concurrently disclosed on the company website and to company directors so related persons can clearly

understand the operation status of the company and investors and stakeholders promptly receive important information from the company. Refer to the relevant information on the company website.

4. The effort invested and results obtained by the company in corporate governance and information disclosure has been widely recognized. The company has been awarded an A++ information disclosure assessment rating for four straight years, named a transparent voluntary information disclosure company for eight straight years, and has awarded the top 6% ~ 20% of the listed companies since the first session. From the 2nd to the 4th session, it has been won the top 5% of the listed companies for three consecutive years. The 5th session was awarded the top 6% ~ 20% of listed companies.

(IX) Statement on Internal Control

Public Company's Statement on Internal Control
Represents the effectiveness of both the design and execution
(This statement is applicable when all laws and ordinances are complied herewith)

Where accountant was commissioned to perform ad hoc review on the internal control system, the accountant review report required to be disclosed: N/A.

(X) In the most recent years and as of the date of publication of the annual report, in case its employees were punished by law or punishments were imposed by the company due to employee's violation of the company's internal control rules, and in case such punishments may have great impacts on the owners' equity or the company's stock prices, the company should disclose the content of such punishments, the major misconduct, and improvements: None.

(XI) Important resolutions of the shareholders' meeting and the Board of Directors during the most recent year and until the publication date of the annual report

Important resolutions of the board of directors

Date	Board meeting	Important resolution	Resolution result
2019/03/22	Board meeting	1. Accountants' internal control evaluation opinions, the company's annual internal control effectiveness self-assessment report and internal control statement 2. 2018 annual business report and financial statements 3. 2018 report on the distribution of employees' compensation and directors' compensation 4. Undertaking of the derivative financial products 5. Matters related to the regular shareholders meeting in 2019 6. At regular shareholders meetings, matters related to shareholders' proposal rights will be addressed 7. Matters related to shareholders' nomination of candidates for directors 8. Full re-election of directors 9. Revision of "corporate charter" 10. Amendment to the "Procedure for Obtaining or Disposing of Assets" 11. Amendment to the "Procedures for Dealing with Derivative Financial Commodities" 12. Amendment to the "Procedure for Lending Fund to Other Parties" 13. Amendment to the "Guarantee Endorsement Regulations" 14. Amendment to the "Corporate Governance Code of Practice" 15. Standard Operating Procedures for Dealing with Directors' Requests" was newly formulated 16. Appointment of corporate governance supervisor	1. Passed by all attending directors without objection 2. Passed by all attending directors without objection 3. Passed by all attending directors without objection 4. Passed by all attending directors without objection 5. Passed by all attending directors without objection, and proposed to hold the annual shareholders meeting on Jun. 12, 2019. 6. Passed by all attending directors without objection 7. Passed by all attending directors without objection 8. Passed by all attending directors without objection, elected 11 directors (included 4 independet directors) 9. Passed by all attending directors without objection 10. Passed by all attending directors without objection 11. Passed by all attending directors without objection 12. Passed by all attending directors without objection 13. Passed by all attending directors without objection 14. Passed by all attending directors without objection 15. Passed by all attending directors without objection 16. Passed by all attending directors without objection
2019/04/25	Board meeting	1. 2018 annual surplus distribution 2. Planning of the surplus of the subsidiary in mainland China 3. Examine the case of shareholders nominating directors (including independent directors) 4. Lift the restriction of new director's being prohibited from engaging in business that competes with the current company 5. 2018 performance evaluation of directors and managers 6. Accountant's independence, performance evaluation. 7. Change the company's auditing accountant and assessment of the independence of the company's accountant 8. Assessment of the first quarter financial statements of 2019 9. Extension of bank credit period and undertaking of derivative financial products 10. Distribution of performance bonus for the 2nd quarter of 2019 11. Chongqing Zhongyang Real Estate Project Progress Report and related discussions	1 Passed by all attending directors without objection Each share is issued NT2.0 cash dividends. 2 Passed by all attending directors without objection 3 Passed by all attending directors without objection 4 Passed by all attending directors without objection 5 Passed by all attending directors without objection 6 Passed by all attending directors without objection 7 Passed by all attending directors without objection 8 Passed by all attending directors without objection 9 Passed by all attending directors without objection 10 Passed by all attending directors without objection 11 Passed by all attending directors without objection
2019/06/12	Board meeting	1. Election of the new chairman 2. Proposed dismissal and appointment of the company's general manager 3. Proposed dismissal and appointment of the company's chief executive officer(CEO)	1 Passed by all attending directors without objection, and elected Mr. Lin, Wan-Shing as the new chairman. 2 Passed by all attending directors without objection, appointed Mr. Kuo, Ya-Ping as the president, and dismissed Mr. Lin, Wan-Shing as the president 3 Passed by all attending directors without objection, and appointed Mr. Lin, Wan-Shing as CEO and Mr. Chen Chueh, Shang-Hsin as deputy CEO.

Date	Board meeting	Important resolution	Resolution result
2019/07/11	Board meeting	1. Discussion of distribution of 2018 annual surplus and other related matters 2. Appointment of members of the 4th Remuneration Committee 3. Proposed dismissal and appointment of the general manager of subsidiary TXC (Ningbo) Electronics Co., Ltd	1 Passed by all attending directors without objection 2 Passed by all attending directors without objection 3 Passed by all attending directors without objection
2019/08/08	Board meeting	1. Reviewed 2019 Q2 financial statements. 2. Extension of bank credit period and undertaking of derivative financial products 3. The company's expansion plan 4. Reviewed the distribution plan of employees' compensation and directors' compensation of fiscal year 2018 5. Reviewed the appointment and salary remuneration of the first-tier supervisor 6. Assignment of the first-tier supervisor	1. Passed by all attending directors without objection 2. Passed by all attending directors without objection 3. Passed by all attending directors without objection 4. Passed by all attending directors without objection 5. Passed by all attending directors without objection 6. Passed by all attending directors without objection
2019/10/28	Board meeting	1. Reviewed 2019 Q3 financial statements 2. Extension of bank credit period and undertaking of derivative financial products 3. Amended the "Code of Management Based on Integrity" 4. Proposed reassignment of the institutional representative of the mainland subsidiary of TXC (Ningbo) Electronics Co., Ltd 5. Reviewed the appointment of the first-tier supervisor. 6. Amended the "Resignation and Retirement Measures for Appointed Managers" 7. Reviewed the salary adjustment for managers	1 Passed by all attending directors without objection 2 Passed by all attending directors without objection 3 Passed by all attending directors without objection 4 Passed by all attending directors without objection 5 Passed by all attending directors without objection 6 Passed by all attending directors without objection 7 Passed by all attending directors without objection
2019/12/25	Board meeting	1. Revision of internal control audit rules and the 2020 audit plan 2. Discussion of 2019 annual performance bonus plan 3. 2020 annual employee compensation and directors' compensation ratio 4. 2020 Operation Plan and Annual Budget 5. Reviewed 2020 accountant fee 6. Amended certain provisions of the Company's "Directors and Managers Performance Evaluation Measures" 7. Discussion of matters related to the liquidation and dissolution of overseas company Growing Profits Trading Ltd. (GPT)	1. Passed by all attending directors without objection 2. Passed by all attending directors without objection 3. Passed by all attending directors without objection 4. Passed by all attending directors without objection 5. Passed by all attending directors without objection 6. Passed by all attending directors without objection 7. Passed by all attending directors without objection

Date	Board meeting	Important resolution	Resolution result
2020/03/23	Board meeting	1. Accountants' internal control evaluation opinions, the company's annual internal control effectiveness self-assessment report and internal control statement. 2. 2019 Employee Compensation and Director Compensation Distribution Report 3. Discussion of 2019 annual business report and financial statements 4. 2019 earnings distribution 5. Planning of the disposition of the earnings of the Company's mainland subsidiary. 6. Surplus transfer arrangement of offshore company 7. Extension of bank credit period and undertaking of derivative financial products. 8. Accountant's independence, performance evaluation 9. The company's expansion plan. 10. Matters related to the holding of the 2020 regular shareholders meeting 11. At regular shareholders meetings, matters related to shareholders' proposal rights will be addressed. 12. Lift the restriction of director's being prohibited from engaging in business that competes with the current company 13. Formulated the Company's "Shareholder Meeting Rules" and abolished the original "Shareholder Meeting Rules". 14. The company's reinvestment plan in OO company	1 Passed by all attending directors without objection 2 Passed by all attending directors without objection 3 Passed by all attending directors without objection 4 Passed by all attending directors without objection (NT2.5 cash dividends per share) 5 Passed by all attending directors without objection 6 Passed by all attending directors without objection 7 Passed by all attending directors without objection 8 Passed by all attending directors without objection 9 Passed by all attending directors without objection 10 Passed by all attending directors without objection (to be held on June 9, 2020) 11 Passed by all attending directors without objection 12 Passed by all attending directors without objection 13 Passed by all attending directors without objection 14 Passed by all attending directors without objection; authorize the chairman to execute within NT $ 30 million, and report its execution to the board of directors, and plan to set up an investment evaluation committee this year

2. Important Resolutions of the 2019 annual shareholders' meeting

Time: 9:30 am, June 12, 2019 (Wendnesday)

Place: No. 4 Pingzhen Industrial Park 6th Rd., Pingzhen City, Taoyuan County

Implementation of major resolutions:

(1) Recognize 2018 business report and financial statement; resolution approved by the 2019 shareholders’ meeting.

(2) Recognize distribution of 2018 profits; 2019 shareholders’ general meeting, cash dividend of NT$2.0 per share, full amount issued on September 11, 2019 in accordance with the shareholders’ meeting resolution.

(3) Revis the Articles of Incorporation; resolution approved by the 2019 shareholders’ meeting and complete regislation on July 3, 2019 (by letter No. 10801080510) and was posted on the company website.

(4) Amendment to the "Procedure for Obtaining or Disposing of Assets": The amendment was passed at the 2019 Shareholders' Meeting, and announced on the company's website.

(5) Amendment to the "Procedures for Dealing with Derivative Financial Commodities": The amendment was passed at the 2019 Shareholders' Meeting, and was posted on the company's website.

(6) Amendment to the "Procedure for Lending Fund to Other Parties": The amendment was passed at the 2019 Shareholders' Meeting, and was posted on the company's website.

(7) Amendment to the "Guarantee Endorsement Regulations": The amendment was passed at the 2019 Shareholders' Meeting, and was posted on the company's website.

(8) Full re-election of directors: According to the corporate charter, the candidate nomination system is adopted, and 11 directors (including 4 independent directors) are elected. The newly elected directors were Lin, Wan-Shing, Lin, Jin-Bao, Chen Chueh, Shang-Hsin, Kuo, Ya-Ping , Huang,

Hsiang-Lin, Hsu, Hsing-Hao, TLC Capital Co., LTD, Yu, Shang-Wu, Tsai, Song-Qi, Su , Yan-Syue, and Wang, Chuan –Fen. The board of directors appointed Mr. Lin Wan-Shing as the CEO, Mr. Chen Chueh, Shang-Hsin as the deputy CEO and Mr. Kuo, Ya-Ping as the president on Jun. 12, 2019. The registration of the change was completed (by Jingshoushang Zi letter No. 10801080510) and was posted on the Company's website.

(9) Lifted the restriction of new director's being prohibited from engaging in business that competes with the current company: Such restriction was lifted against board directors Lin, Wan-Shing, Chen Chueh, Shang-Hsin, TLC Capital Co.,LTD, Yu, Shang-Wu, and Su, Yan-Syue

(XII) Main content of recorded or written statements of dissenting opinions filed by directors or supervisors in connection with important resolutions passed by the board of directors in recent years up to the publication date of the annual reports: None.

(XIII) Summary of company chairman, general manager, accounting supervisor, finance supervisor, internal audit supervisor and R&D supervisor resignations and dismissals in recent years up to the publication date of the annual report:

Title	Name	Resignation/ Conge Date	Reason
Chairman	Lin, Jin-Bao	2019/06/12	Retirement
President	Lin-Wan Shing	2019/06/12	Elected to be Chairman

V Information on CPA fees

(I) Change of Certified Public Accountant in 2019

Accounting Firm	Accountant's Name		Audit Period	Remark
Deloitte & Touche	Hsieh, Ming-Chung	Su, Yu-Hsiu	From Jan. 1, 2019 to December 31, 2019	Internal Adjustment

Accountant fees for the year 2019 Unit：NT$1,000

Items / Range of Amount		Auditing Fees	Non-Auditing Fees	Total
1	Less than NT$2,000,000		V	
2	NT$2,000,000 ~ NT$3,999,999	V		
3	NT$4,000,000 ~ NT$5,999,999			V
4	NT$6,000,000 ~ NT$7,999,999			
5	NT$8,000,000 ~ NT$9,999,999			
6	NT$10,000,000 and above			

(1) If the non-auditing fees for the Certified Public Accountant and his/her firm and its affiliate(s) are more than one quarter of the auditing fees, the auditing and non-auditing fees amount and non-auditing services shall be disclosed.

(2) The Company's non-auditing fees are discloed as follows:

Unit：NT$1,000

Name of the Accounting Firm	Accountant name	Auditing fees	Non-auditing Fees					Accountant's audit period	Remark
			System design	Business registration	Human resource	Other (Note 2)	Subtotal		
Deloitte & Touche	Hsieh, Ming-Chung	3,755	0	32	0	542	574	From Jan. 1, 2019	The transfer price is NT$200,000, typing and printing NT$102,000, travel cost NT$236,000 and freight NT$4,000.
	Su, Yu-Hsiu							to December 31, 2019	

Note 1: If the company changes its accountant or accounting firm in the current year, please list their audit periods separately and explain the reasons for replacement in the "remark" field. Please disclose the auditing and non-auditing fees in sequence.

Note 2: Please list the non-auditing fees separately according to the service items. If the "others" non-auditing fees amount to 25% of the total non-auditing fees, its service content shall be listed in the remark field.

(II) The amount, ratio and reasons for the decrease in auditing fees shall be disclosed if there is a change in accounting firm and the auditing fees in the year of such change is less than the auditing fees in the previous year: None.

(III) The amount, ratio and reasons for the decrease in auditing fees shall be disclosed if the auditing fees was decrease by more than 15% comparing to that of in the previous year: None.

VI. Information on change of accountant's information:

(I) Regarding the former accountants

<table>
<tr><td>Date of change</td><td colspan="3">2019/04/25</td></tr>
<tr><td>Reasons and explanations of change</td><td colspan="3">Internal Adjustment</td></tr>
<tr><td rowspan="3">Explanation whether it was the appointer or the accountant who called for termination or declined the appointment</td><td>the parties
situation</td><td>accountant</td><td>appointer</td></tr>
<tr><td>Proactively terminate the appointment</td><td>V</td><td></td></tr>
<tr><td>Declined (discontinued) the appointment</td><td></td><td></td></tr>
<tr><td>Any issuance of audit report with reserved opinions within the past two years and the reasons thereof.</td><td colspan="3"></td></tr>
<tr><td rowspan="6">Any different opinion with the issuer?</td><td rowspan="4">Y</td><td></td><td>Accounting the principle or practice</td></tr>
<tr><td></td><td>Disclosure of financial statements</td></tr>
<tr><td></td><td>Scope or steps of audit</td></tr>
<tr><td></td><td>Other</td></tr>
<tr><td>N</td><td colspan="2">V</td></tr>
<tr><td colspan="3">Explanation</td></tr>
<tr><td>Other disclosures (matters to be disclosed pursuant to Sub-paragraph 1.4 to 1.7 Paragraph 6, Section 10 of the Guidelines)</td><td colspan="3">None</td></tr>
</table>

(II) Regarding the new accountant

Name of the firm	Deloitte & Touche
Accountant name	Hsieh, Ming-Chung, Su, Yu-Hsiu
Appointment date	2019/04/25
Pre-appointment consultations regarding the accounting treatment or accounting principles for specific transactions and opinions on the possible issuance of financial reports and the results thereof.	None
Written opinions of new accountant stating different opinions to that of the previous accountants	None

(III) Former accountant's reply to the matters stated in Sub-paragraph 1 and 2.3, Paragraph 6, Session 10 of the Guidelines: N/A

VII. Where the company's chairman, general manager or any officer in charge of finance or accounting matters has in the most recent year held a position at the accounting firm of is CPA or at an affiliated enterprise of the accounting, the name and position of the person and the period during which the position was held, shall be disclosed: None.

VIII. Any transfer of shareholdings and changed equity pledge from the directors, managers and shareholder(s) holding more than 10% of the shares during the most recent year and as of the publication date of the annual report:

(I) Changes in equity among the directors, manager and large shareholder(s)

Title (Note1)	Name	2019		As of April 11, 2020	
		Increase (decrease) in number of shareholding	Increase (decrease) in number of pledged shares	Increase (decrease) in number of shareholding	Increase (decrease) in number of pledged shares
Chairman / CEO	Lin, Wan-Shing (note 5)	0	0	50,000	0
Director	Lin, Jin-Bao	0	0	0	0
Director / Deputy CEO	Chen Chueh, Shang-Hsin (note 5)	0	0	0	0
Director / President	Kuo, Ya-Ping (note 4,5)	275,000	(102,000)	0	0
Director /Assistant Manager	Huang, Hsiang-Lin (note 4,8)	1,042,000	2,410,000	650,000	829,000
Director	Hsu, Hsing-Hao (note 4)	405,000	0	0	0
Corporate Director	TLC Capital Co., LTD	0	0	0	0
	Chang Wen-Chin (note 2)	0	0	0	0
	Peng,Chih-Chiang	0	0	0	0
Director	Hsu, Der-Jun (note 4)	(169,000)	0	-	-
Director	Go, Tien-Chong (note 4)	(13,000)	0	-	-
Corporate Director	Golden Talent Investment Holding co., Limited (note 4)	0	0	-	-
	Chou, Ming-chih	0	0	-	-
Independent Director	Yu, Shang-Wu	0	0	0	0
Independent Director	Tsai, Song-Qi	0	0	0	0
Independent Director	Su , Yan-Syue	0	0	0	0
Independent Director	Wang, Chuan -Fen	0	0	0	0
TXC(NGB) President	Chao, Min-Chiang (note 7)	166	0	0	0
TXC(CKG) President	Chou, Chien-Fu (note 7)	0	0	0	0
Vice President	Chang, Chien-Tsung	0	0	0	0
Executive Vice President	Yu, Fang-Ming (note 6)	0	0	0	0
Vice President	Lin, Shi-Bo	0	0	0	0
Chief Technology Officer (CTO)	Chu,Chih-Hsun	0	0	0	0
Vice President	Cheng, Li-Wei	0	0	0	0
Vice President	Kuo, Ya-Han	0	0	0	0
Vice President	Su, Jing-Sheng (note 8)	0	0	0	0
Assistant Vice President	Lin, Su-Fen	0	0	5,000	0
Assistant Vice President	Su, Che-Ming	0	0	0	0

Title (Note1)	Name	2019		As of April 11, 2020	
		Increase (decrease) in number of shareholding	Increase (decrease) in number of pledged shares	Increase (decrease) in number of shareholding	Increase (decrease) in number of pledged shares
Assistant Vice President	Liu, Hsu-Er	0	0	0	0
Chief Engineer	Chang, Qi-Zhon	0	0	0	0
Deputy CTO	Chiu,Chih-Hung (note 3)	0	0	0	0
Deputy CTO	Pao,Shih-Yung (note 3)	0	0	0	0
Chief Financial Officer (CFO) / Company Secretary	Hong, Guan -Wen	0	0	18,000	0

Note 1: The Company has no major shareholders holding more than 10% of the shares.
Note 2: Starting Feb. 18, Mr. Peng,Chih-Chiang was assigned as the representative for TLC Capital Co., LTD to replace Mr. Chang Wen-Chin.
Note 3: Mr. Chiu, Chih-Hung, director of R & D center and Mr. Pao, Shih-Yung, senior special assistant (Level 3), were promoted to deputy technical director on June 1, 2019.
Note 4: A board director reelection was held on June 12, 2019. The newly elected directors were Lin, Wan-Shing , Lin, Jin-Bao, Chen Chueh, Shang-Hsin, Kuo, Ya-Ping , Huang, Hsiang-Lin, Hsu, Hsing-Hao, TLC Capital Co., LTD, Yu, Shang-Wu, Tsai, Song-Qi, Su , Yan-Syue, and Wang, Chuan –Fen.
Note 5: The board of directors appointed Mr. Lin Wan-Shing as the CEO, Mr. Chen Chueh, Shang-Hsin as the deputy CEO and Mr. Kuo, Ya-Ping as the president on Jun. 12, 2019.
Note 6: Mr. Yu, Fang-Ming was promoted to executive vice president of TXC (CHONGQING) CORPORATION on Aug. 8, 2019.
Note 7: Mr. Huang, Hsiang-Lin, director of the marketing center, was promoted to associate vice president of the marketing center on Sep. 1, 2019.
Note 8: Associate vice president Mr. Su, Jing-Sheng of manufacturing center was promoted to vice president on Nov. 1, 2019.
Note 9: In response to the concept adjustment of the organization, vice predident Mr. Chao, Min-Chiang is hereby appointed as the president of TXC (NINGBO) CORPORATION and Mr. as the president of TXC (CHONGQING) CORPORATION in Dec. 2019.

(II) Equity transfer information

April 11, 2020 Unit: shares

Name (Note)	Equity transfer reasons	Transactions Date	Counterparty	Counterparty's relations with the Company, its director, supervisor and shareholder holding more than 10% of the shares	Number of Shares	Transactions Prices
Hsu, Der-Jun	Gift	2019/01/21	Kang, Li-Yan	Huasband-Wife	100,000	NA
Hsu, Der-Jun	Gift	2019/01/21	Hsu, Hsing-Hao	Father-Son	69,000	NA
Kang, Li-Yan	Gift	2019/01/28	Hsu, Hsing-Hao	Mother-Son	66,000	NA

Note : There is no transfer of shareholding by the Company's shareholder(s) holding more than 10% of the shares.

(III) Information of the counterparty of an equity pledge who is also a related party: None.

IV. Information of relationships between TOP 10 shareholders are related parties:

April 11, 2020 Unit: shares

Name	Own held shares		Shares held by spouse, children under twenty (20) years of age		Shareholding in the name of others		Where the relationship among the top 10 shareholders is a related party, spouse, and/or a relative by blood or marriage within second degree of kinship or relationship, please specify the name and relationship		Remark
	number of shares	shareholding ratio	number of shares	shareholding ratio	number of shares	shareholding ratio	name	relationship	
Fubon Life Insurance Co., Ltd. proxy: Tsai, Ming-Hsing	22,115,000	7.14%	0	0%	0	0%	None	None	
Cathay Life Insurance Company, Ltd. proxy: Huang Tiao-Kuei	11,802,457	3.81%	0	0%	0	0%	None	None	
Norges Bank Investment Account entrusted in Citibank Taiwan	6,981,032	2.25%	0	0%	0	0%	None	None	
Aramis II Securities Co., Ltd. Account entrusted in Citibank Taiwan	6,200,000	2.00%	0	0%	0	0%	None	None	
Lin, Jin-Bao	6,071,263	1.96%	25,163	0.01%	0	0%	Lin, Wan-Shing	Brother	
Edbertson Asia Stock Trust Investment Account entrusted in the Bank of Taiwan	6,041,000	1.95%	0	0%	0	0%	None	None	
Huang, Hsiang-Lin	5,789,399	1.87%	0	0%	0	0%	None	None	
Taipei Fubon Commercial Bank entrusted with trust propertySpecial account	5,053,485	1.63%	0	0%	0	0%	None	None	
Lin, Wan-Shing	5,030,722	1.62%	152,991	0.05%	0	0%	Lin, Jin-Bao	Brother	
Chunghwa Post Co., Ltd. proxy: Wu,Hung-Mou	4,916,000	1.59%	0	0%	0	0%	None	None	

Note 1: The top ten shareholders shall be listed in full; corporate shareholder shall list its name and the names of its proxy separately.

Note 2: The calculation of the shareholding percentage refers to the percentage of shares held in his/her/its own name, or under the name of his/her/its spouse, children under twenty (20) years of age, or others.

Note 3: The relationship between above-listed juristic person shareholders and natural person shareholders shall be disclosed pursuant to the regulations governing the preparation of financial reports of the issuer.

Top 10 Shareholder	Major Shareholders of the Juristic Person
Fubon Life Insurance Co., Ltd. proxy: Tsai, Ming-Hsing	Fubon Financial Holding Co., Ltd. (100%)
Cathay Life Insurance Company, Ltd. proxy: Huang Tiao-Kuei	Cathay Financial Holding Co. Ltd. (100%)
Chunghwa Post Co., Ltd. proxy: Wu,Hung-Mou	Ministry of Transportation and Communications (100%)

10. The number of shares held by the company, the company's directors, supervisors, managers, and businesses directly or indirectly controlled by the Company in the same joint venture, and the combined shareholding percentage.

December 31, 2019 Unit: shares, %

Investees	Investments of the Company		Investments of the directors, supervisors, managers and their investment in business which they have direct or indirect control of.		Comprehensive investements	
	Number of Shares	Share (%)	Number of Shares	Share (%)	Number of Shares	Share (%)
TAIWAN CRYSTAL INTERNATIONAL LIMITED	42,835,294	100	0	0	42,835,294	100
TXC Technology Inc.	300,000	100	0	0	300,000	100
TXC Japan Corporation	2,100	100	0	0	2,100	100
Taiwan Crystal Technology International (HK) Limited	80,000	100	0	0	80,000	100
TXC Europe GmbH	50,000	100	0	0	50,000	100
TAI SHING ELECTRONICS COMPONENTS CORP.	8,179,000	30.98	3,173,500	12.02	11,352,500	43
Godsmith Sensor Inc.	2,350,000	35.10	0	0	2,350,000	35.10
Growing Profits Trading LTD	0	0	50,000	100	50,000	100
TXC (NINGBO) CORPORATION	0	0	45,835,294	100	45,835,294	100
TXC (CHONGQING) CORPORATION	0	0	247,876,609	100	247,876,609	100
CHONGQING ALL SUNS COMPANY LIMITED	0	0	140,000,000	100	140,000,000	100
Ningbo Jingyu Company Limited	0	0	2,500,000	100	2,500,000	100
NINGBO FREE TRADE ZONE DING KAI INVESTMENT MANAGEMENT COMPANY	0	0	35,050,000	100	35,050,000	100
Ningbo Longying Semiconductor Co., Ltd	0	0	2,000,000	40	2,000,000	40

Note: Equity investments of the Company.

Chapter 4 Capital Overview

I. Capital and Shares

(I) Source of Capital

1. Capitalization

April 11, 2020 Unit: Shares, NT$

Year/ Month	Issue Price	Authorized Share Capital		Paid-In Capital		Remark		
		Shares	Amount	Shares	Amount	Source of Capital	Capital Increase by Assets Other Than Cash	Other (Approval document no.)
1983.12	10	310,000	3,100,000	310,000	3,100,000	Registered capital	Nil	-
1984.03	10	3,315,200	33,152,000	3,315,200	33,152,000	Capital increase by cash	Nil	-
1989.03	10	8,500,000	85,000,000	8,500,000	85,000,000	Capital increase by cash	Nil	-
1989.10	10	18,000,000	180,000,000	18,000,000	180,000,000	Capital increase by cash	Nil	-
1990.07	10	21,060,000	210,600,000	21,060,000	210,600,000	Capital increase by cash, by capital surplus	Nil	07/10/1990 (79) Tai-Tsai-Cheng(1) no. 01530
1991.08	10	60,000,000	600,000,000	31,590,000	315,900,000	Capital increase by cash, by earnings, by capital surplus	Nil	08/01/1991 (80) Tai-Tsai-Cheng(1) no. 02111
1992.07	10	60,000,000	600,000,000	41,067,000	410,670,000	Capital increase by earnings, by capital surplus	Nil	07/07/1992 (81) Tai-Tsai-Cheng(1) no. 01518
1993.07	10	60,000,000	600,000,000	47,300,000	473,000,000	Capital increase by earnings	Nil	07/14/1993 (82) Tai-Tsai-Cheng(1) no. 30047
1994.07	10	60,000,000	600,000,000	51,557,000	515,570,000	Capital increase by earnings, by capital surplus	Nil	07/07/1994 (83) Tai-Tsai-Cheng(1) no. 31774
1995.06	10	60,000,000	600,000,000	55,681,560	556,815,600	Capital increase by earnings	Nil	06/22/1995 (84) Tai-Tsai-Cheng(1) no. 36958
1996.09	10	100,000,000	1,000,000,000	75,681,560	756,815,600	Capital increase by cash	Nil	09/05/1996 (85) Tai-Tsai-Cheng(1) no. 53631
2000.09	10	100,000,000	1,000,000,000	82,201,820	822,018,200	Capital increase by earnings	Nil	09/06/2000 (89) Tai-Tsai-Cheng(1) no.5237
2001.07	10	260,000,000	2,600,000,000	110,348,515	1,103,485,150	Capital increase by earnings	Nil	05/14/2001 (90) Tai-Tsai-Cheng(1) no. 129296
2001.08	10	260,000,000	2,600,000,000	120,348,515	1,203,485,150	Capital increase by cash	Nil	06/12/2001 (90) Tai-Tsai-Cheng(1) no.135132
2002.09	10	260,000,000	2,600,000,000	137,673,100	1,376,731,000	Capital increase by earnings, by capital increase	Nil	08/21/2002 (91) Tai-Tsai-Cheng(1) no. 0910146351
2003.08	10	260,000,000	2,600,000,000	144,140,534	1,441,405,340	Capital increase by earnings	Nil	08/12/2003 Tai-Tsai-Cheng(1) no. 0920136359
2004.08	10	260,000,000	2,600,000,000	151,810,534	1,518,105,340	Convertible bonds, exercise of employee stock options	Nil	08/18/2004 Ching-Shou-Shang-Zi no. 09301157450
2004.10	10	260,000,000	2,600,000,000	160,779,678	1,607,796,780	Capital increase by earnings	Nil	10/13/2004 Ching-Shou-Shang-Zi no.09301188710
2004.10	10	260,000,000	2,600,000,000	160,784,678	1,607,846,780	Convertible bonds	Nil	10/19/2004 Ching-Shou-Shang-Zi

Year/ Month	Issue Price	Authorized Share Capital		Paid-In Capital		Remark		
		Shares	Amount	Shares	Amount	Source of Capital	Capital Increase by Assets Other Than Cash	Other (Approval document no.)
								no. 09301199790
2005.05	10	260,000,000	2,600,000,000	163,133,882	1,631,338,820	Convertible bonds	Nil	05/03/2005 Ching-Shou-Shang-Zi no. 09401077580
2005.07	10	260,000,000	2,600,000,000	168,068,138	1,680,681,380	Convertible bonds. exercise of employee stock options	Nil	07/25/2005 Ching-Shou-Shang-Zi no. 09401135020
2005.09	10	260,000,000	2,600,000,000	178,181,410	1,781,814,100	Capital increase by earnings	Nil	09/23/2005 Ching-Shou-Shang-Zi no. 09401185020
2005.10	10	260,000,000	2,600,000,000	181,557,883	1,815,578,830	Convertible bonds, exercise of employee stock options	Nil	10/20/2005 Ching-Shou-Shang-Zi no. 09401207340
2006.01	10	260,000,000	2,600,000,000	186,198,661	1,861,986,610	Convertible bonds, exercise of employee stock options	Nil	01/23/2006 Ching-Shou-Shang-Zi no. 09501010180
2006.03	10	260,000,000	2,600,000,000	188,908,827	1,889,088,270	Convertible bonds, exercise of employee stock options	Nil	04/17/2006 Ching-Shou-Shang-Zi no. 09501068450
2006.07	10	260,000,000	2,600,000,000	188,942,532	1,889,425,320	Convertible bonds	Nil	07/20/2006 Ching-Shou-Shang-Zi no. 09501152420
2006.09	10	300,000,000	3,000,000,000	203,711,768	2,037,117,680	Capital increase by earnings	Nil	09/04/2006 Ching-Shou-Shang-Zi no. 09501198120
2006.10	10	300,000,000	3,000,000,000	204,815,282	2,048,152,820	Convertible bonds, exercise of employee stock options	Nil	10/16/2006 Ching-Shou-Shang-Zi no.09501232600
2007.01	10	300,000,000	3,000,000,000	205,698,282	2,056,982,820	Exercise of employee stock options	Nil	01/16/2007 Ching-Shou-Shang-Zi no. 09601010470
2007.04	10	300,000,000	3,000,000,000	206,032,282	2,060,322,280	Exercise of employee stock options	Nil	04/14/2007 Ching-Shou-Shang-Zi no. 09601078450
2007.07	10	300,000,000	3,000,000,000	206,624,577	2,066,245,770	Convertible bonds	Nil	07/27/2007 Ching-Shou-Shang-Zi no. 09601180970
2007.08	10	300,000,000	3,000,000,000	230,7397,19	2,307,397,190	Capital increase by earnings	Nil	08/28/2007 Ching-Shou-Shang-Zi no.09601210120
2007.10	10	300,000,000	3,000,000,000	240,243,456	2,402,434,560	Convertible bonds	Nil	10/22/2007 Ching-Shou-Shang-Zi no. 09601258520
2008.01	10	300,000,000	3,000,000,000	241,552,590	2,415,525,900	Convertible bonds	Nil	01/29/2008 Ching-Shou-Shang-Zi no. 09701022010
2008.01	10	300,000,000	3,000,000,000	241,552,590	2,415,525,900	Convertible bonds	Nil	01/29/2008 Ching-Shou-Shang-Zi no. 09701022010
2008.04	10	300,000,000	3,000,000,000	241,627,148	2,416,271,480	Convertible bonds	Nil	04/11/2008 Ching-Shou-Shang-Zi no. 09701087040
2008.08	10	300,000,000	3,000,000,000	242,464,833	2,424,648,330	Convertible bonds	Nil	08/05/2008 Ching-Shou-Shang-Zi no.09701191720
2008.08	10	350,000,000	3,500,000,000	270,395,056	2,703,950,560	Capital increase by earnings	Nil	08/28/2008 Ching-Shou-Shang-Zi no. 09701819210
2008.11	10	350,000,000	3,500,000,000	271,698,090	2,716,980,900	convertible bonds	Nil	11/17/2008 Ching-Shou-Shang-Zi no. 09701293960
2009.09	10	400,000,000	4,000,000,000	287,312,523	2,873,125,230	Capital increase	Nil	09/11/2009

Year/ Month	Issue Price	Authorized Share Capital		Paid-In Capital		Remark		
		Shares	Amount	Shares	Amount	Source of Capital	Capital Increase by Assets Other Than Cash	Other (Approval document no.)
						by earnings		Ching-Shou-Shang-Zi no. 0980120690
2009.11	10	400,000,000	4,000,000,000	287,340,930	2,873,409,300	Convertible bonds	Nil	11/11/2009 Ching-Shou-Shang-Zi no. 09801260380
2010.01	10	400,000,000	4,000,000,000	288,727,249	2,887,272,490	Convertible bonds	Nil	01/26/2010 Ching-Shou-Shang-Zi no. 09901016750
2010.04	10	400,000,000	4,000,000,000	290,907,037	2,909,070,370	Employee stock options and convertible bonds	Nil	04/21/2010 Ching-Shou-Shang-Zi no. 09901078530
2010.09	10	400,000,000	4,000,000,000	296,665,178	2,966,651,780	Capital increase by earnings	Nil	09/02/2010 Ching-Shou-Shang-Zi no.09901199850
2010.11	10	400,000,000	4,000,000,000	297,183,178	2,971,831,780	Employee stock options	Nil	11/18/2010 Ching-Shou-Shang-Zi no. 099001257750
2011.04	10	400,000,000	4,000,000,000	296,305,178	2,963,051,780	Employee stock options treasury stock retired	Nil	4/15/2011 Ching-Shou-Shang-Zi no. 100001075170
2011.07	10	400,000,000	4,000,000,000	296,316,207	2,963,162,070	Convertible bonds	Nil	7/26/2011 Ching-Shou-Shang-Zi no. 100001171400
2011.08	10	400,000,000	4,000,000,000	302,242,310	3,022,423,100	Capital increase by earnings	Nil	8/25/2011 Ching-Shou-Shang-Zi no.100001197910
2013.01	10	500,000,000	5,000,000,000	309,757,040	3,097,570,400	Employee stock options and convertible bonds	Nil	1/17/2013 Ching-Shou-Shang-Zi no.10201011600

2. Types of Stock

April 11, 2020 Unit: Share

Type of Stock	Authorized Share Capital			Remarks
	Listed (Note)	Unlisted	Total	
Common Stock	309,757,040	190,242,960	500,000,000	

Note：The above stocks are listed company stocks. Statistics from the April 11, 2020 book closure date.

3. Shelf Registration Related Information: N/A.

(II) Composition of Shareholders

April 11, 2020 Unit: Person/Share/%

No.\ Composition	Government Agencise	Financial Institutions	Other Judicial Persons	Individuals	Foreign Institutions and Individuals	Total (Note)
No. of Shareholders	6	15	190	32,765	236	33,212
Shareholding	7,381,197	48,162,457	29,283,400	118,711,003	106,218,983	309,757,040
Shareholding Percentage	2.38%	15.55%	9.46%	38.31%	34.30%	100.00%

Note 1: The above share amount statistics are from the April 11, 2020 book closure date.

Note 2: TSWE primary listed, GTSM primary listed and emerging stock companies shall disclose Chinese capital shareholding percentages: N/A.

(III) Equity Dispersion

April 11, 2020 Unit: Share

Share types	Number of Shareholders	Shares	Shares %
1~999	16,773	1,053,577	0.34
1,000~5,000	13,029	25,858,920	8.35
5,001~10,000	1,698	13,146,600	4.24
10,001~15,000	517	6,503,253	2.10
15,001~20,000	302	5,598,043	1.81
20,001~30,000	245	6,294,788	2.03
30,001~50,000	204	8,166,361	2.64
50,001~100,000	170	12,166,902	3.93
100,001~200,000	101	14,171,729	4.58
200,001~400,000	66	19,118,761	6.17
400,001~600,000	27	13,610,816	4.39
600,001~800,000	21	14,753,431	4.76
800,001~1,000,000	11	9,893,673	3.19
1,000,001 above	48	159,420,186	51.47
Total	33,212	309,757,040	100

(IV) List of Major Shareholders

Name(s), amount and proportion of shares held by shareholder(s) with shareholding ratios that accounted for more than 5% of the equity ratio or accounted for the top ten shareholders:

April 11 2020 Unit: Person/Share/%

Shares Major Shareholders	Shares	Shares (%)
1、 Fubon Life Insurance Co., Ltd.	22,115,000	7.14%
2、 Cathay Life Insurance Company, Ltd.	11,802,457	3.81%
3、 Norges Bank Investment Account entrusted in Citibank Taiwan	6,981,032	2.25%
4、 Aramis II Securities Co., Ltd. Account entrusted in Citibank Taiwan	6,200,000	2.00%
5、 Lin, Jin-Bao	6,071,263	1.96%
6、 Edbertson Asia Stock Trust Investment Account entrusted in the Bank of Taiwan	6,041,000	1.95%
7、 Huang, Hsiang-Lin	5,789,399	1.87%
8、 Taipei Fubon Commercial Bank entrusted with trust propertySpecial account	5,053,485	1.63%
9、 Lin, Wan-Shing	5,030,722	1.62%
10、 Chunghwa Post Co., Ltd.	4,916,000	1.59%

(V) Data on share price, net value, profit, and dividend of the past two years

Item	Year		2018	2019
Marketprice / share (Note 1)	Highest		44.80	49.20
	Lowest		30.00	31.50
	Average		36.35	37.12
Net value per share (Note 2)	Before distribution		28.25	28.08
	After distribution		26.25	(Note 9)
Earnings Per Share	Weight average number of shares (1000's share)		309,757	309,757
	Earnings Per Share (Note 3)	Before adjustment	2.08	2.17
		After adjustment	2.08	(Note 9)
Dividend Per share	Cash dividend		2.00	(Note 9)
	Stock dividend without compensation	Earnings per share	-	(Note 9)
		Stock dividend	-	(Note 9)
	Accrued undistributed dividend (Note 4)		-	(Note 9)
Analysis of rate of return	P/E (Note 5)		17.48	17.11
	P/C (Note 6)		18.18	(Note 9)
	C/P (Note 7)		5.50%	(Note 9)

＊ If use profits or capital reserve for raising capital shares appropriate, then it should announce the information of the number of appropriate shares and retroactivlye adjust market price and cash dividend.

Note 1：list the hightest and lowest price of the common stocks in that year, and the average market price for that year is calculated based on the transaction values and transaction amounts.

Note 2：Use the number of circulated shares at the end of the year as the base, then the dividend distributed determined in the coming year's stockholders' meeting.

Note 3：If there is any retroactive adjustment from the stock dividend without compensation, then it should list earning per share on before and after adjustment.

Note 4：If the equity investment has constraint that limits the undistributed dividend for that year and it is cumulated until to later profitable year. Then it should disclose the cumulative undistributed dividend up to that year.

Note 5：P/E＝current year average share price at closing／earning per share.

Note 6：P/C＝current year average share price at closing／cash dividend per share.

Note 7：C/P＝ cash dividend per share／current year average share price.

Note 8：The financial statements of TXC Corporation were audited or view or certified by CPA.

Note 9：As of 2020/03/23, the retained earnings of 2019 has not yet admitted by the stockholders' meeting.

(VI) Company's dividend policy and its current implementation status

1. Dividend policy as defined in the articles of incorporation：

If the company generates annual profit, no less than 3% of that profit will be provided to employees as a bonus in the form of cash or company shares, as determined by the board of directors. Receipients of this bonus will include company employees who fulfill certain conditions. The company must apportion a directors' bonus of no greater than 2% of posted profit figures, following the board of directors' decision. Employee and director bonuses are announced at the general meeting of shareholders. However, the company shall retain a portion of funds prior to incurring losses, the amount beyond which will be distributed as bonuses according to the aforementioned proportion.

If there is a profit at the final settling of accounts after paying all taxes and offsetting of losses from previous years, the Company shall first set aside ten percent of the profits as legal reserve. This shall not apply when the legal reserve amounts to the total authorized capital. Director remuneration shall be no more than 2% and employee bonus shall be no lower than 3% of the special reserve allocated from the profits in accordance with the law or after reversal. The remainder together with undistributed earnings from previous periods after an appropriate amount is reserved depending on operating conditions is distributed as shareholder dividends as resolved by the shareholders' meeting. The board of directors is authorized to determine the counterparts for employee stock dividend distribution which include those company employees that conform to certain conditions.

The Company's dividend distribution policy is made in consideration of factors such as industry development being in a growth phase, long-term financial planning and shareholder cashflow requirements. Therefore, the earnings available for distribution for that year, after allocation of the legal reserve and special reserve in accordance with the law, shall be distributed as provided in the previous paragraph. Of this, the cash dividend portion of shareholder dividends shall not be lower than 20% of total dividends.

Specific dividend policy: Dividend payment over the years

Year	Cash Dividend	Stock dividend		X/R transactions date	Shareholders' meeting date	Cash dividend	Stock dividend
		Retained earnings transferred to common stock	Capital surplus transferred to common stock			payment date	payment date
1999	0	0.8	0	2000/09/14	2000/05/13	N/A	2000/11/16
2000	0	2.9	0	2001/06/05	2001/04/26	N/A	2001/07/31
2001	0.2	0.8	0.5	2002/09/12	2002/05/30	2002/10/17	2002/11/27
2002	0.10222	0.4089	0	2003/09/09	2003/06/16	2003/10/16	2003/11/11
2003	0.2999	0.499901	0	2004/09/13	2004/06/24	2004/10/15	2004/11/12
2004	0.480681	0.480681	0	2005/08/31	2005/06/13	2005/10/21	2005/10/21
2005	0.99982162	0.59989298	0	2006/08/09	2006/06/15	2006/09/20	2006/09/20
2006	1.94210210	0.97105104	0	2007/08/09	2007/06/13	2007/09/20	2007/09/20
2007	1.98486059	0.9924303	0	2008/08/12	2008/06/13	2008/09/18	2008/09/18
2008	2	0.5	0	2009/08/24	2009/06/16	2009/09/30	2009/09/30
2009	1.99640807	0.1996408	0	2010/08/12	2010/06/15	2010/09/21	2010/09/21
2010	2.49990694	0.19999253	0	2011/08/03	2011/06/10	2011/09/09	2011/09/09
2011	2.2	0	0	2012/08/20	2012/06/13	2012/09/13	N/A
2012	2.2	0	0	2013/08/19	2013/06/19	2013/09/17	N/A
2013	2.2	0	0	2014/08/17	2014/06/18	2014/09/05	N/A
2014	2.5	0	0	2015/08/20	2015/06/16	2015/09/18	N/A
2015	2.5	0	0	2016/08/11	2016/06/07	2016/09/13	N/A
2016	2.8	0	0	2017/08/15	2017/06/08	2017/09/15	N/A
2017	2.5	0	0	2018/08/15	2018/06/05	2018/09/18	N/A
2018	2.0	0	0	2019/08/15	2019/06/12	2019/09/11	N/A
2019	2.5	0	0	Undetermined	2020/06/09	Undetermined	N/A

Although the company's articles of association do not specify the distribution ratio of the dividends of the shareholders, the ratio of the distribution of the surplus of the preceding paragraph may be adjusted according to the relevant factors such as the actual pre-tax profit, capital budget and capital status of the year, and shall be handled after the resolution of the shareholders' meeting.

Estimated dividend distribution policy for the next three years

1. Employee bonus is 9%~12%
2. Directors' compensation is 1%~2%

The total dividend is based on more than 60% of the current year's profit (net of statutory surplus reserve) or not less than 30% of the total distributable surplus, and the cash dividend shall not be less than 20% of the total cash dividend and stock dividend.

2. Suggested dividend appropriate in this shareholders' meeting：

Profit distribution for 2019

Unit：NT$

Item	Amount	
	Sub-total	Sum
Beginning period undistributed profits		1,955,120,458
Disposal of equity instruments at fair value through other comprehensive income. Total gain of disposal transferred from other equity to retained earnings.		174,805,391
Adjusted retained earnings from investments accounted for using equity method		60,883
Remeasurement of defined employee benefit plans to retained earnings		(12,331,894)
Adjusted undistributed profits		2,117,654,838
Net profit after tax for this year		671,782,753
Setting aside 10% legal reserve		(67,178,275)
Setting aside special reserve		(269,465,266)
Profits available for distribution		2,452,794,050
Distribution Item:		
Cash Dividends (NT$2.5 per share)	(774,392,600)	(774,392,600)
End period of undistributed profits		1,678,401,450

Note: Allocation of 2019 undistributed profit shall be given priority for the above profit distribution.

Chairman: **Peter Lin** Manager: **Kevin Kuo** Accounting Supervisor: **Hong Guan-wen**

(VII) The effect of the shareholder's proposed stock grants on the Company's business performance and earnings per share: N/A (The Company did not offer stock grants this time).

(VII) Employee bonus and rewards for directors and auditors

1. The principle of surplus distribution in accordance with company regulations:

If the company generates annual profit, no less than 3% of that profit will be provided to employees as a bonus in the form of cash or company shares, as determined by the board of directors. Receipients of this bonus will include company employees who fulfill certain conditions. The company must apportion a directors' bonus of no greater than 2% of posted profit figures, following the board of directors' decision. Employee and director bonuses are announced at the general meeting of shareholders. However, the company shall retain a portion of funds prior to incurring losses, the amount beyond which will be distributed as bonuses according to the aforementioned proportion.

If there is a profit at the final settling of accounts after paying all taxes and offsetting of losses from previous years, the Company shall first set aside ten percent of the profits as legal reserve. This shall not apply when the legal reserve amounts to the total authorized capital. Director remuneration shall be no more than 2% and employee bonus shall be no lower than 3% of the special reserve allocated from the profits in accordance with the law or after reversal. The remainder together with undistributed earnings from previous periods after an appropriate amount is reserved depending on operating conditions is distributed as shareholder dividends as resolved by the shareholders' meeting. The board of directors is authorized to determine the counterparts for employee stock dividend distribution which include those company employees that conform to certain conditions.

The Company's dividend distribution policy is made in consideration of factors such as industry development being in a growth phase, long-term financial planning and shareholder cashflow requirements. Therefore, the earnings available for distribution for that year, after allocation of the legal reserve and special reserve in accordance with the law, shall be distributed as provided in the previous paragraph. Of this, the cash dividend portion of shareholder dividends shall not be lower than 20% of total dividends.

2. Accountant procedures if a current period's estimated employee dividend, the basis of director/supervisor bonus amounts and calculations for stock dividend figures differ from the amounts that are actually apportioned:
   (1) The basis of estimating the current period's estimated employee bonus and director/sup bonus figures: please see the aforementioned (VI).1. Stock dividend policy.
   (2) The basis for calculating stock dividends apportions: if the company has not apportioned stock dividends during this period, please disregard.
   (3) Accounting procedures if the current period's actual apportioned value differs from the estimated figures: when a significant change occurs to the dividend value approved by the board of directors, that adjustment is due to annual expenses. If the figure remains changed by the day of the general meeting of shareholders, the matter will be processed according to the updated accounting estimate, and amounts transferred onto accounts according to general meeting of shareholder decision.

3. Proposal by the Board of Directors for surplus distribution in 2019:

As proposed by the Board of Directors on March 23, 2020 surplus distribution for employee bonus and directors' compensation are as follows:

(1) Propose to allocate employee bonus in cash amounting to NT$ 71,552,151 and directors'

compensation to NT$11,925,359. There is no difference between the planned allocation amount from expense for employee bonus and surplus in the 2019 financial statement. So, no adjustment for income and loss is required.

(2)Propose to allocate employee bonus and directors' compensation in accordance with par value setting earnings per share at: NT$2.17.

4. The Company Board of Directors on surplus allocation in 2018:

The actual surplus allocation of employee bonus and directors' compensation is according to resolution adopted by the shareholders meeting on June 12, 2019.

(1) Actual employee bonus and directors' compensation in cash are respectively: NT$69,072,417 and NT$11,512,070.

(2) No difference between the proposed allocation adopted by the Board of Directors and the resolution by shareholders meeting.

(IX) Buyback of Common Stock: None

II. Convertible Corporate Bond: None

III. Preferred Shares：None

V. Issuance of Oversea Depositary Shares：None

VI. Status of Employee Stock Option Plan：None

VII. Status of Employee Restricted Stock：None

VIII. Status of New Share Issuance in Connection with Mergers and Acquisitions: None

VIII. Financing Plans and Implementation: None

Chapter 5 Business Information

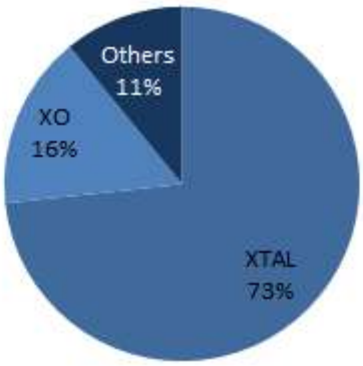
I. Business Contents

(I) Business Scope

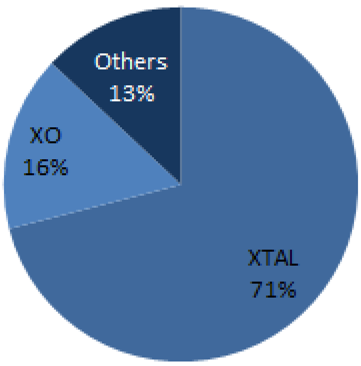
(1). Major Business Contents

TXC is a professional frequency control component and sensory component manufacturer. Since the company's founding in December, 1983, it has been devoted to research and development, design, production, and sale of quartz component product series. Products include high precision, high quality quartz crystal, automotive crystal, crystal oscillators, and timing modules. Market demand has led TXC to develop multiple kinds of sensors using independent core technology, products that are widely used in mobile communication, wearable devices, IoT, and automotive electronics markets. Over the years, we have upgraded customer value objectives and offered customers a variety of frequency control components for module design-in requirements to provide a total solution to satisfy the overall requirements of customers. TXC performance with regard to price, quality, delivery time and service continues to exceed customer expectations time and time again.

(2). Business Proportions

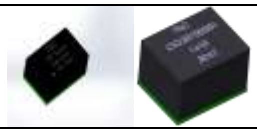


2019 Consolidated Revenue
NTD 8,430,970 thousands



2018 Consolidated Revenue
NTD 8,156,268 thousands

(3). Company’s current products

Product Type	Type	Product Size	Product Picture
Crystals	Metal Can Type Crystals	HC-49S / HC-49S SMD	
	SMD Glass Sealing Crystals	5.0 x 3.2mm，3.2 x 2.5mm 2.5 x 2.0mm，2.0 x 1.6mm	
	SMD Seam Sealing Crystals	5.0 x 3.2mm，3.2 x 2.5mm 2.5 x 2.0mm，2.0 x 1.6mm 1.6 x 1.2mm，1.0x 0.8mm	
	SMD AuSn Sealing Crystals	1.6 x 1.2mm，1.2 x 1.0mm	
	SMD Seam Temperature Sensing Crystals (TSX)	2.5 x 2.0mm，2.0 x 1.6mm 1.6 x 1.2mm	
	SMD kHzCrystals(Tuning Fork)	3.2 x 1.5mm，2.0 x 1.2mm 1.6 x 1.0mm	
Oscillators	SMD Crystal Oscillators (CMOS)	7.0 x 5.0mm，5.0 x 3.2mm 3.2 x 2.5mm，2.5 x 2.0mm 2.0 x 1.6mm，1.65x1.25mm	
	SMD Crystal Oscillators (Differential)	7.0 x 5.0mm，5.0 x 3.2mm 3.2 x 2.5mm	
	SMD kHz Crystal Oscillators	7.0 x 5.0mm，5.0 x 3.2mm 3.2 x 2.5mm，2.5x 2.0mm	
	SMD Voltage Controlled Crystal Oscillators (VCXO)	7.0 x 5.0mm 5.0 x 3.2mm，3.2 x 2.5mm	
	Oven Controlled Crystal Oscillators (OCXO)	9 x 14 mm(SMD type) 9.7 x7.5 mm(SMD type)	
	SMD Temperature Compensated Crystal Oscillators (TCXO)	3.2 x 2.5mm，2.5 x 2.0mm 2.0 x 1.6mm，1.6 x 1.2mm	
	Precise SMD Temperature Compensated Crystal Oscillators (TCXO Stratum-3)	7.0 x 5.0mm (4 Pad) 7.0 x 5.0mm (10Pad) 5.0 x 3.2mm	
Sensors	Light Sensors	2.5 x 2.0mm	
Automotive	DIP / Glass Sealed Crystal / Seam Sealed Crystal /XO/TCXO /TSX/kHz Crystal Oscillators/ kHz Crystals(Tuning Fork)	HC49S/HC-49S SMD/ 8.0 x 4.5mm/5 x 3.2mm/ 3.2 x 2.5mm/3.2 x 1.5mm/2.5 x 2 mm/2.0 x 1.6 mm/2.2 x 1.65mm /1.6x1.2mm	

(4). Scheduled new products development

According to the development strategy and market demand, the company will continue to invest in R & D resources, actively develop new technologies, take "miniaturization, high stability, modularization" as the product development policy, and expand the market share of high-end applications and high added value products. Based on the company's core technology, the company has developed horizontally and actively entered the fields of optics, microelectronics, sensors and medical electronics. In the face of rapid changes and fierce competition in domestic and foreign markets, the company plans to focus on the following new product development:

i. Development of miniaturized products

After years of taking root in quartz component technology, the company has been synchronized with the world's leading manufacturers. In 2018, the company successfully mass produced the smallest 1.0x 0.8x0.35mm quartz crystal component on the market. In 2019, the company started the R & D planning of miniaturized 0.8 x 0.6 x 0.3mm quartz crystal component, as the main force of the next generation of miniaturized products. In order to meet the needs of future product miniaturization and 5G related requirements, the company will continue to develop higher precision process technology, achieve the pre layout of its own engineering technology, and realize product development with high cost-performance ratio, low energy consumption, high vibration resistance and large frequency and wide range.

ii. Development of automotive electronics products

TXC won the IATF-16949 quality operating system certification and completed the version conversion of ISO 9001/IATF 16949-2016. The products continue to move forward in technology, safety, quality and other aspects to improve to the highest quality reliability of grade 0. Currently, the products developed are small-scale, wide temperature range temperature compensated quartz oscillator (TCXO) and suitable for grade 0 quartz components. We are ready for the growth momentum of automotive electronic products.

iii. Development of advanced crystal vibrator and oscillator and module products

Continue to engage in development of advanced products including for 5G Networking, and low consumption TCXO, HFF Low jitter XO(>250MHz) for optical fiber telecommunications module、high precision miniature OCXO for base station use、Stratum-3 TCXO and HFF VCXO etc. Such products can accommodate booming growth of telecommunications systems for 5G.

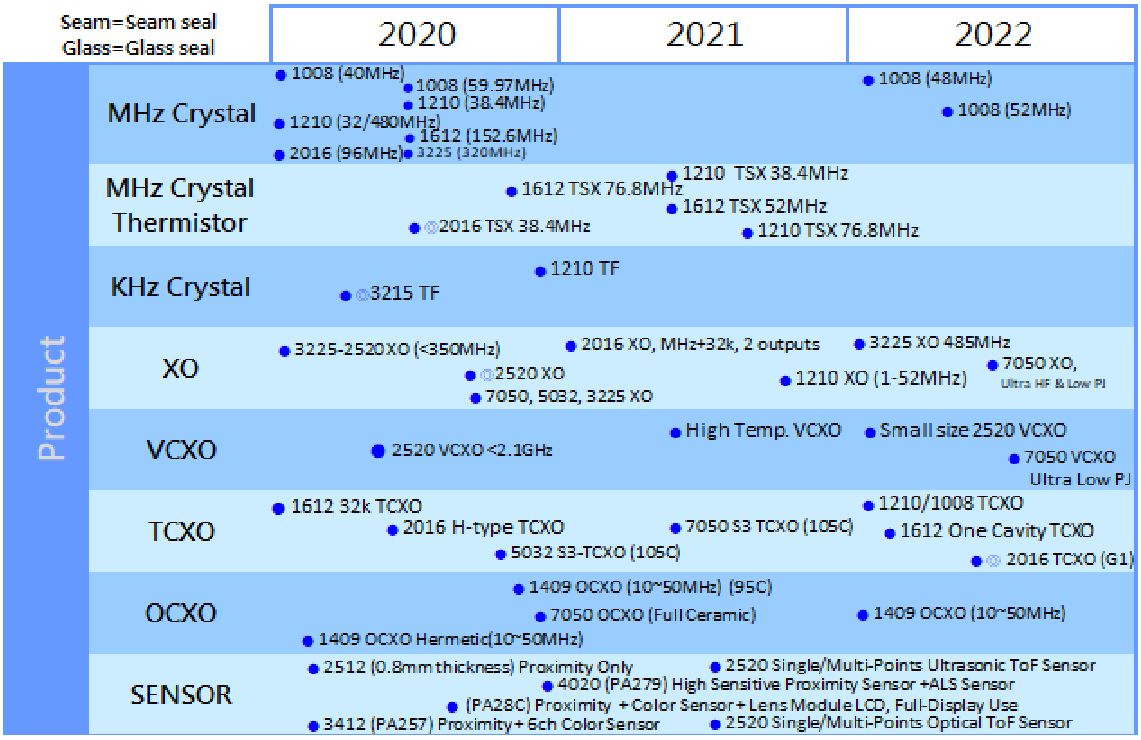
iv. Sensor application product development

Continue to invest in the development of advanced oscillators to meet the high-performance requirements of emerging 5G applications. In 5G mobile phones, we will focus on the miniaturization of temperature compensated quartz oscillator (TCXO) with high stability, low phase noise and low power consumption to meet the technical requirements of new generation millimeter wave. In 5G network equipment, most of the equipment needs to be equipped with optical fiber communication module to complete high-speed data transmission. The miniaturized HFF low jitter XO (more than 400MHz) required by the module is the focus of the company's development investment. In 5G base station, various new application specifications such as low noise, high stability, high temperature resistance, anti vibration, airtightness and miniaturization need to be meTXC's miniaturized high-precision constant temperature controlled oscillator module (Miniature OCXO), wide temperature range high stability temperature compensated quartz oscillator (Stratum-3 TCXO) and high frequency oscillator/voltage controlled oscillator (HFF XO/VCXO) products will continue to be put into use to meet the application and development of 5G or next generation communication technology.

v. Development of sensing application products

In the light sensor market, we will continue to develop proximity sensor, ambient light sensor and RGB sensor with miniaturized ceramic packaging technology and evaluate the combination with temperature sensing for Smart Handheld Devices and wearable devices. In the thermal image sensing layout, we are working with partners to develop far-infrared thermal imagers for automatic driving night vision. The developed vacuum ceramic heterojunction packaging technology will be extended to the monitoring and action sensing temperature sensor packaging services.

vi. Development trend of future terminal application products



(II) The Industry

(1). Current industry status and development

The current domestic quartz industries are mainly for producing components such as crystals, crystal oscillators, and crystal filters. The basic manufacturing process of making crystals starts from cutting the quartz, and then after grinding and polish to the desired sizes; followed by depositing thin metal film electrodes on its surface under the vaccum, and subsequently, it is connected with condut wires; afterward it is packaged. In addition, by assembling and packaging the crystal components with IC oscillators then it will result the crystal oscillators. Assembling and packaging the crystal components and capacitors, wires, and resistors then it will be the crystal filters.

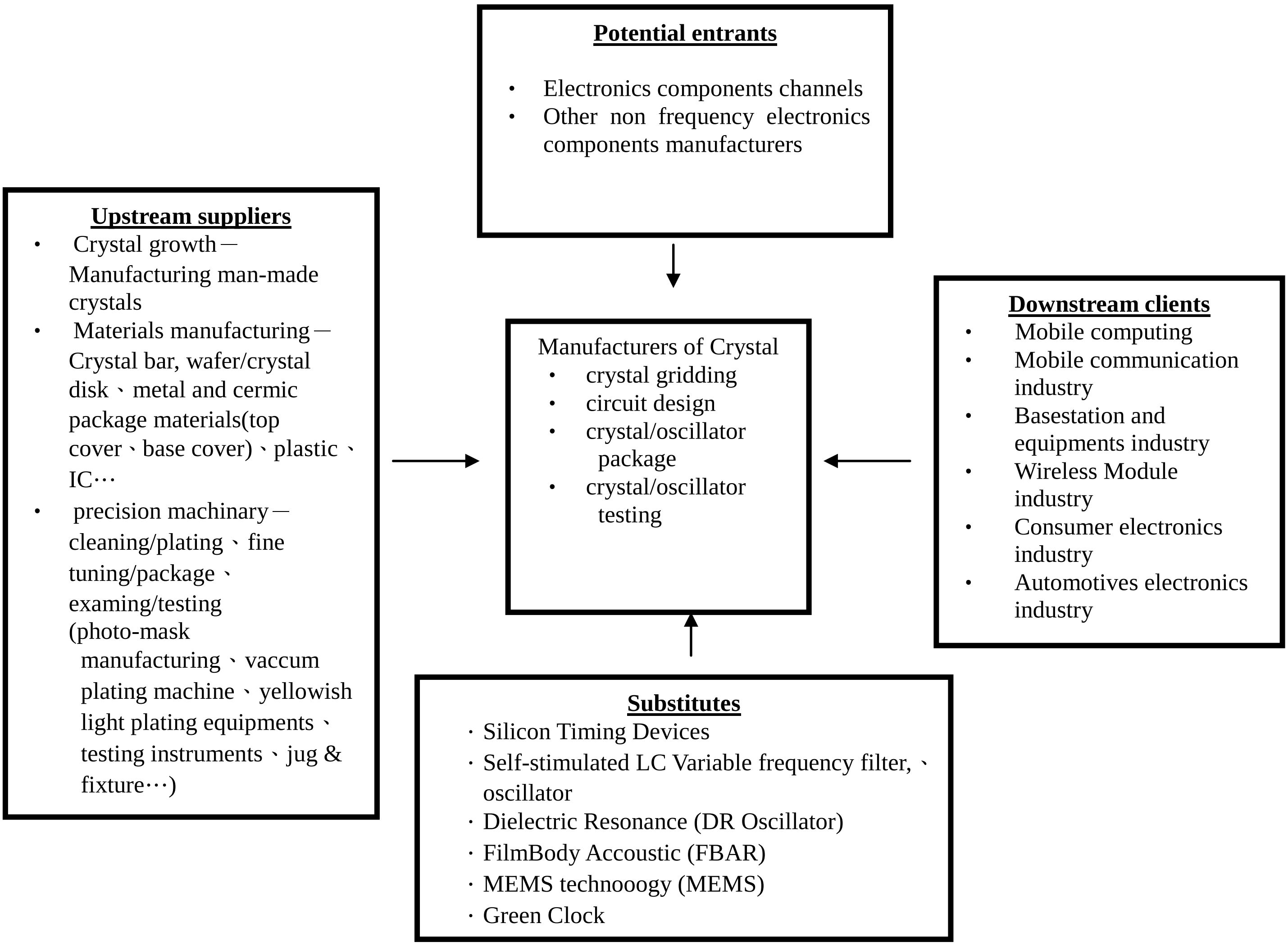
When you comparing the three crystal technologies: frequency, precision, and size dimension you can see that the European and U.S manufacturers are strong in the frequencies development. It was because of their development of the wireless technology that it gives them an advantage in the design and development; but production efficiency is lower. Japan manufacturers are the technology leaders and they are excellent in the precision and the scale size of the products. They have the advantages of products improvement, and can further to make it in mass production and automatic production. To the Taiwanese manufacturers, most of them are buying the material and know-how, machinery equipments, or purchasing the manufacturing process of which usually lead to a faster time in marketing the product. But recently, the manufacturers have improved their manufacturing process, and the manufacturing equipments; also the learning of the manufacturing process further improves it. Presently, the mainland manufacturers mainly produce low-end products wherein 80% of them are for export and their products still have not effectively satisfied the demand of their massive domestic market. In recent years Chinese manufacturers are aggressively to promote their technology abilities and to advance to the middle and high end. Below table is a comparison of advantages/disadvantages of competitions from the major producers.

Key element	European, USA manufactures	Japanese manufactures	Taiwanese manufactures	China manufactures
Frequency	Middle	Very high	Very high -middle	Middle-low
Precision	Middle	Very high	Very high -middle	Middle-low
Size	Middle	Very high	Very high -middle	Middle-low

Currently, in Taiwan the major crystal manufacturers are TXC Corp, Siward Crystal Technology, Taitien Electronics, Tai-Saw Technology, Harmony Electronics, and EChina Technology. Currently TXC Corp has the highest market share in Taiwan.

(2). Market relationship of up, middle, and down stream companies

Crystal components are our major product and it is also the basic electronics parts. Our upstream industries include crystal growth, material manufacturing, and precision machinery. The downstream applications include information technology, wire and wireless communications, consumer electronics, and network products etc. The relationship between the up, middle, and downstream manufacturers is given in the below diagram:



(3). Development Trend of Crystal Industry

i. Quartz components industry development trend

Quartz component products are important components of electronic products. In order to match the vigorous development and trend of future terminal applications, its future product type, product precision and size will develop towards the following trends:

(a). Miniaturization, SMD trend

The goal of miniaturization will focus on the development of technologies such as single chip IC, chip design and manufacturing, packaging and testing; taking SMD type frequency components as an example, the current length and width dimensions have been developed from 3 × 2.5mm, 2.5 × 2.0mm, 2.0 × 1.6mm, and then to 1.6 × 1.2mm, 1.2 × 1.0mm, 1.0 × 0.8mm, or even smaller 0.8 × 0.6mm; the height of the components has also been from 1.2mm, 0.9mm, 0.8mm, 0.7mm, 0.5mm to 0.35mm , 0.30mm, 0.25mm improvement. In addition to the size reduction achieved by SMD packaging, it can also be connected with the industrial chain of downstream customers; including the technology development trend of front-end chipset, product design trend of brand customers and SMT production of related customers, etc., and all can achieve adaptation.

(b). High frequency low noise, high precision and high stability oscillator module

5G wireless communication system is mainly composed of RRU or AAU, front-haul network, BBU or CU/DU, back-haul network, core network and access network.

High frequency and low noise: through the high frequency basic wave crystal matching etching technology autonomously developed by our company, we have completed the development of high frequency (> 200MHz) and low noise crystal oscillator (XO) and voltage controlled crystal oscillator (VCXO) to meet the requirements of 5G communication optical module and RF system.

High precision: the TCXO with high precision (+ / - 100ppb) and high temperature (- 40 ~ 105 ° C) is developed to meet the needs of 5G AAU requirements through the customized dual circuit temperature compensation circuit and low disturbance quartz crystal matching customized temperature compensation algorithm.

High stability: the first constant temperature crystal oscillator (OCXO) in the industry is completed through the innovative patented embedded ceramic heater packaging technology, surface mounted SC-cut crystal and customized temperature control circuit. This product has the advantages of miniaturization (9.7×7.5mm), and is especially suitable for providing the synchronous system of the basic frequency unit.

Based on the evolution of various high-speed transmission systems, the corresponding frequency components move towards the direction of high frequency, modularization, high precision and high stability. We have developed all kinds of oscillator modules through our own packaging, resonators and customized IC technologies, which is conducive to the simplification of customer circuit design to meet the performance requirements of 5G applications.

The products are as the below list

No	Projects	PKG (mm)	Type	Features
1	High Frequency XO (~2GHz)	7.0×5.0 5.0×3.2 3.2×2.5 2.5×2.0	CMOS LVPECL LVDS HCSL	High Frequency High Precision Low Noise
2	High Frequency VCXO (~2GHz)	7.0×5.0 5.0×3.2 3.2×2.5	CMOS LVPECL LVDS	High Frequency High Precision Low Noise High Pull

No	Projects	PKG	Type	Features
3	High Frequency SO (above 150MHz)	7.0×5.0 5.0×3.2	LVPECL LVDS	High Frequency Low Noise
4	TCXO	3.2×2.5 2.5×2.0 2.0×1.6 1.6 × 1.2	Clipped Sine	High Stability
5	Stratum 3 TCXO	7.0×5.0 5.0×3.2	Clipped Sine CMOS	Ultra High Stability
6	OCXO	36 × 27 25 × 25 14 × 9.0 9.7×7.5	LVCMOS HCMOS Sinewave	Ultra High Stability

ii. Sensor industry development trend

Full screen has become an important feature of smart phones. There are two major development directions: (1) to keep part of the bang space; (2) to narrow the frame. The product form, size and characteristics of optical sensor will develop towards the following trends::

(a) Miniaturization

Proximity sensor + ambient light sensor + IR Emitter) are being integrated in a single structure and we lead the market in size, realizing the world's smallest integrated optical distance sensor. The product size is 2.5x2.0mm, and continues to develop 2.0x1.6mm, 2.5x1.2mm and other miniaturized products to meet the design requirements of customers' different types of comprehensive screen smart phones. At the same time, miniaturization can meet the needs of increasing intelligent functions of wearable products in limited space, especially after TWS (true wireless stereo) enhances the noise canceling function, the space of the distance sensor left for in-ear detection is severely squeezed, and the 2.0x1.6mm miniaturized distance sensor permits customers for simpler and convenient design and stacking.

(b) Underneath the screen

At present, the full screen design, no matter the extremely narrow frame or the bang screen, is a transitional design. In the end, the application of optical sensor in the smart phone will develop towards underneath the screen, that is, hidden under the touch panel and cover glass. The challenge of optical sensor is how IR penetrates OLED or LCD and does not affect the image of the screen, and how to maintain stable and consistent performance under the working environment of less than 5% ink transmittance.

(4). Competition Situation

i. Frequency components:

Due to the unreasonable price cutting competition in the frequency component industry for a long time, the Japanese industry has been unable to get rid of the financial deficit for years. With the application trend of 5G, AIoT high stability, high temperature and ultra miniaturization products, the manufacturers are limited by their technical ability, have the capacity and ability to provide the frequency component manufacturers that meet 5G and AIoT products, and have been focused on the top 5 in the market. Therefore, frequency components with the continuous development of 5G and AIoT industries, it is expected that 5G will accelerate the situation favoring big players and promote the transformation of industrial ecology.

However, products with high stability, high temperature and ultra miniaturization are in urgent need of rigorous product design and stringent production conditions, including investment and preparation of special production equipment are a test of the R & D and manufacturing capabilities of manufacturers, especially the ability to optimize cost structure. The marketing team of the company has grasped the trend of production materials, market supply and demand, long-term operation and cultivation of clients, which has made the prices return to a reasonable level, to promote the company to build a reasonable profit, and improve the health of the industrial chain.

ii. Sensors

In the past two years, the appearance design of smart phones has changed rapidly, which has affected the size and functional requirements of the sensor of customers. In addition, the main competitors have launched various customized designs, leading to the company's past competitive advantage in small single hole facing severe challenges, and directly affecting the adoption of new cases in major customers. Secondly, the competitor's product design adopts plastic packaging, which has a comparative advantage in cost, simultaneously impacts the sensor market price, affects the order receiving and faces severe alternative competition.

3. Technology and Recent Research and Development

(1) Ratio of R&D expense of total revenue during recent years up to 2019/12/31

Units：NT$ 1,000，%

Year	2018	2019
Net Revenue	8,156,268	8,430,970
R&D expense	519,906	582,776
R&D Expense/Net Revenue (%)	6.37	6.91

(2) Research and Development Results

Products development	1、SMD 9.7 x 7.5mm Miniaturized Oven-Controlled Crystal Oscillator for telecommunication, stratum-level and base-station. 2、SMD 4.0 x 2.4mm Ambient Light Sensor and Proximity Sensor with Integrated IR LED for Mobile Phone. 3、SMD 2.5 x 2.0mm Ambient Light Sensor and Proximity Sensor with Integrated IR LED for Mobile Phone. 4、SMD 3 in 1 Light Sensor 2.5 x 2.0 mm for Smartphone, Tablet, DSLR, Smart wearable , Fitness devices. 5、SMD 3 in 1 Light Sensor 4.5 x 0.9 mm for Smartphone, Tablet, Smart wearable , Fitness devices. 6、SMD Crystal 2.5 x 2.0 mm for Automotive. 7、SMD Crystal 2.0 x 1.6 mm for Automotive. 8、SMD Crystal 1.6 × 1.2 mm for SIP.

	9、 SAW-based Oscillator for SAN. 10、 SMD Seam CXO 2.0 × 1 .6 mm 2~54 MHz for digital camera, Portable TV. 11、 SMD 3.2 x 2.5 mm TCXO for GPS and Mobile. 12、 SMD 2.5 x 2.0 mm TCXO for GPS and Mobile. 13、 SMD 2.0 x 1.6 mm TCXO for GPS and Mobile. 14、 SMD 1.6 x 1.2 mm TCXO for GPS and Mobile. 15、 SMD 5.0 x 3.2 mm Stratum-3 VC-TCXO for Base Station, Small-cell, Networking Infrastructure. 16、 SMD 7.0 x 5.0 mm Stratum-3 TCXO for Base Station, Small-cell, Networking Infrastructure. 17、 SMD Crystal 1.2×1.0mm for WiFi & BT 18、 SMD Crystal 1.0x0.8mm for WiFi & BT 19、 Inverted MESA BLK 1.3 × 1.03mm 20、 Inverted MESA BLK 1.6 × 1.14mm 21、 Inverted MESA BLK 2.49 × 1.83mm 22、 SMD 1.2 x 1.0 mm TSX for GPS 23、 SMD 1.6 x 1.2 mm TSX for GPS 24、 SMD 3.2 x 1.5 mm Tuning Fork 25、 SMD 3.2 x 1.5 mm Tuning Fork for Automotive. 26、 SMD 2.0 x 1.2 mm Tuning Fork 27、 SMD 1.6 x 1.0 mm Tuning Fork 28、 SMD 7.0 x 5.0 mm Oscillator for HCSL 29、 SMD 5.0 x 3.2 mm Oscillator for HCSL 30、 DIP 25 x 25 mm OCXO for stratum-level and base-station. 31、 RTC 10.1 x 7.4 mm for smart utilities devices, electric meters, gas meters. 32、 1.6 x 1.6 mm 3-axis electronic compass for Sensor application 33、 SMD 3.2 x 2.5 mm TCXO for Automotive. 34、 SMD 2.5 x 2.0 mm TSX for Automotive. 35、 SMD 2.5 x 2.0 mm Oscillator for Automotive. 36、 SMD 2.0 x 1.6 mm Oscillator for Automotive. 37、 SMD 7.0mm X 5.0mm High Frequency CXO (2.1GHz) for Base Station, Networking, Infrastructure. 38、 SMD 7.0mm X 5.0mm High Frequency VCXO (2.1GHz) for Base Station, Networking, Infrastructure. 39、 SMD 2.5 x 2.0 mm TCXO for Automotive. 40、 SMD 2.0 x 1.6 mm TCXO for Automotive. 41、 SMD 7.0 x 5.0 mm Stratum-3 TCXO with high temperature and low phase noise for Base Station 42、 SMD 1.6 x 1.2 mm Oscillator for Automotive. 43、 SMD 1.6 x 1.2 mm 32k TCXO for wearable device. 44、 SMD 14x 9 mm OCXO for telecommunication, stratum-level and base-station. 45、 SMD 3.2 x 2.5 mm HFF VCXO for Base Station, Networking, Infrastructure.
Patents and Academic publications	Patent： 1. Electrode of the piezoelectric crystal oscillator components 2. Vacuum gas-tight system integration package structure 3. Structure and production method of the piezoelectric quartz oscillator chip

	4. The production of piezoelectric quartz oscillator chip 5. Quartz crystal oscillator 6. Crystal oscillator with layout structure for the miniaturization of size 7. Piezoelectric material thinning device 8. Wafered composite material thinning device 9. Grooved resonator unit packaging structure 10. Light sensor chip packaging structure 11. Stacked light sensor chip packaging structure 12. Thru-hole resonator device wafer level packaging structure 13. Thru-hole resonator device wafer level packaging structure manufacturing method 14. Improved resonator wafer grade packaging structure 15. Strengthen hermetic sealing of oscillator wafer grade packaging structure 16. Partition and serial-type light sensor chip packaging structure 17. Partitioned side-by-side photo-sensing chip package structure 18. Micro aerosol sensing components 19. Micro aerosol sensing device with self-cleaning function 20. Quartz oscillator plate For the patents or possible patents of TXC, please refer to relative patent database http://www.tipo.gov.tw/ch/ Paper： 1、 Highly Stable Miniaturized OCXO with HeaterEmbedded Ceramic Package (English), 2018. 2、 Development of High-Stability Miniaturized Oven Controlled Crystal Oscillator (English), 2016. 3、 Anchor loss reduction of quartz resonators utilizing phononic crystals. (English), 2015. 4、 A Perspective for the Quartz Crystal Devices Industry and Technologies in Taiwan and China. (English), 2014. 5、 A Study for the Relationship between Drive Level and the Activity Energy in Arrhenius Accelerated Aging Model for the Small Quartz Resonators. (English), 2014. 6、 A Study on Raising the Fundamental TS-mode Resistance by Energy Trapping for 3rd Overtone. (English), 2014. 7、 Laser Measurement and Identification of Vibration Modes of AT-cut Quartz Crystal Resonators. (English), 2013. 8、 The Study of Aging Frequency Drift Mechanism for Quartz Crystal Resonators. (English), 2013. 9、 Advanced TSV-Based Crystal Resonator Devices Using 3-D Integration Scheme With Hermetic Sealing. (English), 2013. 10、 TSV-based quartz crystal resonator using 3D integration and Si Packaging technologies. (English), 2013. 11、 A Brief View of the Current State of the Development and Aging Performance of Fixed Frequency Surface Acoustic Wave (SAW) Oscillator (English), 2012. 12、 Properties of Miniature X- and Z′-Elongated Rectangular AT-CUT Quartz Resonators of Different Sizes (English), 2012.

	13、 Vibration Mode Identification and Coupling Assessment with the Mindlin Plate Equations and Measurements is a Quartz Crystal Plate (English), 2012. 14、 Aging Performance of Small Size MHz Quartz Crystal Under High Drive (English),2011 15、 Inharmonic Overtones in Partially Plated AT-cut Quartz Crystal Plates (English),2011 16、 The Study of Activation Energy (Ea) by Aging and High Temperature Storage for Quartz Resonators' Life Evaluation (English), 2011. 17、 An Efficient AT-cut quartz Crystal Resonator Design Tool for Activity Dip in Working Temperature Range (English), 2011. 18、 Quartz Crystal Industry of China at Crossroads (English), 2011. For relative paper, please refer to the website of TXC: http://txccorp.com/

4. Long and short term sales and marketing plan

(1). Short-term Development Plan

i. Marketing Strategy

- Accelerate the layout and import of tier 1 customers in 5G/Automobile/Internet of things industries.
- Pay close attention to the situation of market competition and supply-demand balance, flexibly use the price strategy, and strive for the company's profit optimization.
- Continue to import flow automation and customer order demand B2B (system docking) according to the objectives of each stage, refine the flow and manpower, and improve the response speed of demand scheduling.
- Through the practice of intelligent, actionable and big data analysis in the information system, to assist the sales strategy formulation and judgment of sales.
- The project-based leadership organization and the lean team work together to improve the operational efficiency and combat readiness.

ii. SMD Manufacturing Strategy

- Integrate the information exchange of manufacturing resource engineering between the two sides of the Straits and construct the MES (Manufacturing Execution System) production system of the group T-MOM (manufacturing operations management), construct and optimize the production capacity and benefit distribution under the big data analysis framework, so as to maximize the company's profits.
- Continue to integrate the existing production management system with the concept of iFactory 4.0, and integrate the key indicators of economic management into the manufacturing intelligence center to review the production information (COPQ/WIP/machine health index, etc.) in series, grasp the production information in real time, optimize the operation and management efficiency and make the production more competitive.
- The whole staff reviews COPQ (cost of poor quality) and total cost, pursues quality and various improvements with the thinking mode of neural circuit diagram, further improves benefit, and adds AI operation to assist judgment to improve engineering judgment, so as to make engineering improvement faster.

- In response to the wave of 5G construction, the high-frequency, high stability and a small quantity diversification (OCXO) are available for 5G infrastructure construction. The urgent production demand of S3-TCXO will become a trend in the future. Only by continuously cultivating key process technology, combining big data and artificial intelligence for data analysis, can we quickly respond to small quantity diverse needs. The demand for 5G terminal application is a large number of miniaturization needs. In the next year, by continuously expanding the miniaturization production line, we can achieve the basic concept of time to volume, time to market.
- In response to the challenge of industrial change, we should strengthen the logic of engineering thinking and the "keen sense" of the production personnel, gather the spirit of "group struggle" of the personnel, build the core spirit of the production unit with the management concept of "customer first", and continuously optimize the "response force + control force + integration force = core competitiveness".
- High quality operation and management and promote the efficiency of project management to make the production more competitive.

iii. MEMS Strategy

- Focus on the development of wafer processing technology, quartz etching technology, yellow light development technology, and accumulate the chip development and design capabilities to provide products with miniaturization, high frequency, high stability and high temperature resistance, so as to meet the market demand of 5G, IoT and vehicle mounted high growth products.
- In response to 5G demand, OCXO is developed using SC-cut chip technology. This product needs to use dual angle chip, and has two resonance modes of B and C. It needs to combine two core technologies of chip design and wafer process technology.
- In response to the 5G demand, the inverted-MESA chip technology will be strengthened. Due to the 5G development, this product will be converted from a small number of special needs to a large number of production needs. Using the inverted-MESA chip technology in high-frequency miniaturized products has the advantages of good product characteristics. This chip product needs to be combined with chip design, wafer process technology, quartz etching technology, yellow light development technology, and through the innovative process to acquire mass production capability.
- Due to the development of photo-AT chip technology in response to the demand of IoT miniaturization, this type of product has extremely high requirements for chip process. Therefore, it is necessary to combine chip design, wafer process technology, quartz etching technology and yellow light development technology. Only a few companies in the market can provide such products.
- Combine internal and external resources of the group, reduce the proportion of low added value process, and concentrate resources to develop core technologies and products. Through the company's intelligent construction team, build technology and process mental map, and based on this, develop intelligent chemical plants, improve process stability, and reduce the proportion of abnormalities.

iv. Quality Assurance Strategy

- The quality assurance center continuously aims to promote zero defect management, strengthen risk identification and risk management of customer application requirements and product development, and introduce DFM (Design for manufacturing) operation to reduce internal and external failure costs.

- Adjusting resources focuses on the process participation and process audit of NPI (new product introduction).
- Strengthen the supplier quality management of main raw materials.
- Continuously review the rationality and effectiveness of the operation process to promote the precise objectives of the operation and personnel.
- Actively introduce the automatic measurement system and data integration and analysis ability of reliability laboratory, so as to increase the laboratory capacity, improve the ability of product estimation, and reduce resource consumption.

v. Product R&D Strategy

- According to the market demand and marketing layout, plan the company's technology strategy and product development direction.
- Formulate the company's technology development strategy and technology map, and develop the products required by the market with leading technology
- Implement project management, shorten R & D time, respond to customer demand flexibly and grasp every business opportunity.
- Continue to strengthen the R & D team, improve professional training and systematization of technical database, and move forward to the world's first R & D team.
- Implement the connection between reward system and R & D management mechanism, and continuously improve the morale and development efficiency of R & D team.
- We will make good use of the resources of schools, research institutions and the government to accelerate the development of new products, and feedback to relevant industries in Taiwan after success.
- From the beginning of product research and development, we should consider friendly environment, energy conservation and carbon reduction, and do our best for the earth and the next generation.

vi. Supply chain strategy

- The group's capacity construction is arranged in advance to meet the needs of the development of automobile, IoT and 5G industries and meet the needs of customers in terms of supply.
- The product supply strategy adopts the levelized production to avoid the over expansion of production capacity and take into account the demand in the slack season and peak season.
- Through joint group purchase, supplemented by the introduction of the second supply source, to obtain the most favorable material cost and improve product competitiveness.
- In the future, it is estimated that the demand for miniaturization and high-end products is still strong. With the competitive advantage of cost and high flexibility in mass production deployment, the market share in clients will be increased, and the turnover and profit margin will be increased.
- The introduction of intelligent system simplifies the operation process, and the introduction of demand forecast and order shipment big data analysis system, so as to more accurately grasp the market trend and reduce the risk of goods preparation.
- With the strategic alliance of suppliers, expand the scope of precision packaging technology services, and thereby improve the breadth of product development. In addition,

forge strategic alliance of suppliers in key products or materials, and sign strategic cooperation contracts to ensure the supply of goods.

- Actively introduce the cost reduction scheme to do the best cost management, supplemented by the price management mechanism, and continuously improve the gross profit rate.
- Master the development progress of new products and promote sales, and timely introduce them to the market and customers.

(2). Long-term Development Plan

i. Pay attention to 5G's business operation schedule in various countries, and the technological development pace of major manufacturers, actively invest resources in R & D of relevant application products, and layout 5G target customers.

ii. We are committed to developing high-precision frequency control components for high-level products applied to infrastructure including: fiber channel, Gigabit Ethernet, SDH-SONET (synchronous optical fiber transmission), small cell (small base station), and office communication.

iii. Continue to develop miniaturized products to meet the application trend of Internet of things modularization, mobile communication and consumer electronic products.

iv. Actively expand the customer base of automotive electronics and deepen the customer base relationship, and continuously develop the frequency control components used in automotive electronics, with the primary goal of meeting the stringent quality and stability requirements.

v. All sales operations will continue to deepen and actively expand the Korean market, and strengthen the distribution of sales channels in Southeast Asia, India, Vietnam, Israel and other markets, so as to provide localized customer services in line with the customers in various regional markets. Based on the market of Greater China, we will continue to explore the demand of emerging markets to expand market share, and continue to pursue the growth goal of becoming a global leader in quartz crystal industry

vi. We will continue to develop timing and sensor products in line with the market and customer applications. To explore new product applications and diversified product management strategies to open up blue ocean business opportunities.

II. Marketing & Sales Situation

(I) Market Analysis

(1) Market for our major products

The product trend is toward to small and light. The products that use the SMD crystal will have a higher percentage than others. In the future, Asia still is the major OEM center, and the products from Asia are still very high. TXC would still need to work hard on the market expansion in America, Europe and Japan.

Regional sales distribution of our major products in the past two years：

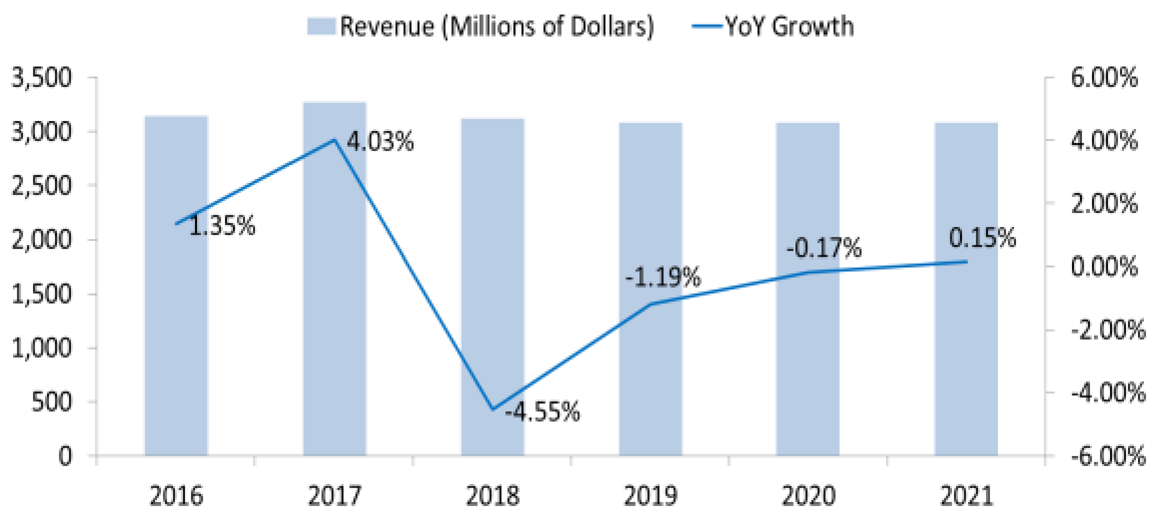
Unit: NT$ 1,000

Rigion \Year	2018		2019	
	Amount	%	Amount	%
America	218,158	2.67	206,637	2.45
Europe	139,057	1.70	123,731	1.47
Asia	7,226,799	88.61	7,824,156	92.80
Taiwan	572,254	7.02	276,446	3.28
Total	8,156,268	100.00	8,430,970	100.00

(2) Market share

According to a CS&A industry report in 2019, it is predicted that the output value of frequency component market will recover to a positive growth by 2021, 5G and AIoT will still be the growth momentum of frequency components. Looking forward to 2020, CS&A's estimate of total output value in 2020 will still have a slight negative growth of 0.17% due to the continued trade risks between China and the United States, driving the customer demand of automobile and electronic manufacturing industry, and the company's order will continue to be fully loaded from the second half of 2019. In addition, 5G industrial demand is expected to be ready in the second half of 2020. The company's marketing team is cautiously optimistic about the overall demand in 2020-2021, but continues to pay attention to the development of China-US trade situation, and locks in the core application of 5G and AIoT industries and target customer development and new cases.

Globel Timing Market (Millions of Dollars)



Source：TXC, CS&A, 2019

(3) Product applications

The company's product line is complete and diversified, which is in line with the technological development of electronic products in various application fields. The general trend of Internet of things (IoT) drives the Internet business opportunities of various industries, and the future growth momentum is expected.

i. Market side

According to the prediction of IoT Analytics, the number of active IoT devices in the world will reach 10 billion in 2020, and 22 billion in 2025. In addition, according to the prediction of Enterprise CIO, the global IoT market will grow to US$457 billion in 2020, with an annual compound growth rate of 28.5%.

Internet of things (IOT) continues to drive relevant applications, including the vigorous development of smart home, smart industry, smart car, smart Internet, smart medical and various terminal products, including wearable products, mobile devices, virtual reality and UAVs.

(a) Master 5G three application scenarios time evolution (3GPP R15 ~ R17) for deployment of 5G infrastructure development (three application scenarios: enhance mobile broadband, ultra reliable low delay and large-scale device interconnection)

In 2019, the market development of 5G applications has been fully launched. In recent years, 5G key infrastructure network construction, intelligent platform and device interconnection will rapidly bring up the demand of scale development.

Among them, the deployment of new equipment for network construction will bring more demand opportunities such as timing high-level products OCXO, S3TCXO and XO (including high-frequency XO/differential XO/VCXO). In response to the technical development of 5G era to support the interconnection of Intelligent Platforms and devices, the formation of a ubiquitous connectivity ecosystem will continue to drive the growth of TCXO, XO (including high-frequency XO/differential XO) and crystal.

- **Infrastructure**
  5G NR (New Radio) base station equipment (NSA: Non Standalone network still uses 4G core network, SA: standalone independent network uses 5G core network) has been rapidly deployed around the world in the second half of 2019. According to a report by Qualcomm Technologies, Inc. on product release in December 2019, 50 operators in 27 countries have officially provided 5G communication business services. Within three to five years, 5G macro base stations will be mainly sub-6Ghz, while millimeter wave technology will also deploy 5G small stations synchronously. Therefore, OCXO, S3TCXO and XO series of timing high-level products used from AAU (Active Antenna Unit), CU (Centralized Unit)/DU (Distributed Unit) to core network will meet the growth momentum demand of new 5G network construction.

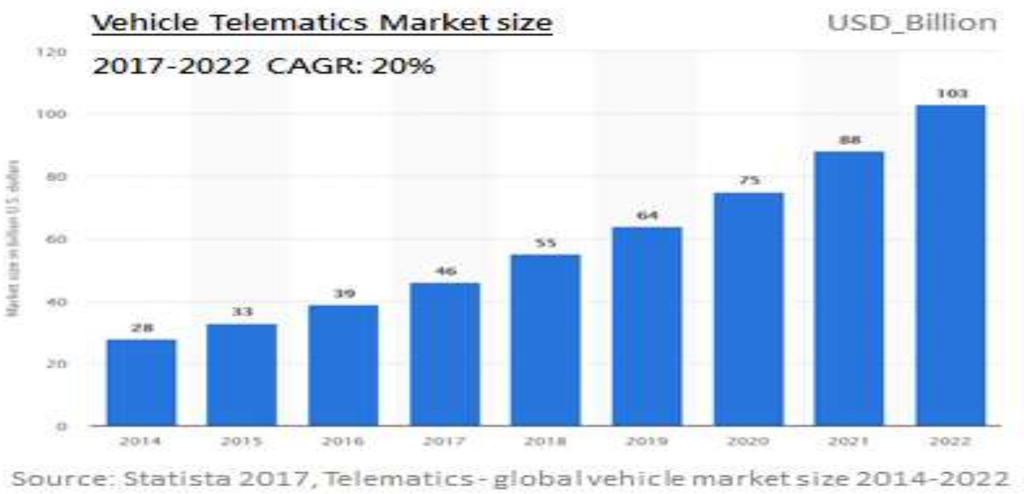
- **Intelligence Platform**
  5G ultra reliable low delay will drive the cloud/edge computing Server/Switch/Storage and other requirements to meet the feedback of real time data processing, and then cooperate with AI (Artificial Intelligence). According to Gartner's report in December 2019, data centers with more than 500 server cabinets in the world continue to grow at the rate of 50 per year. At the same time, in order to meet the requirements of 5G transmission rate (max 20 GB/s), the upgraded PAM4 100G/200G/400G optical communication module must be fully matched with the equipment transmitted between the core network and the data center. The above application development will also promote the strong growth demand of timing product XO, differential XO and Crystal.

- **Device Interconnection**
  At present, the fastest fermentation of 5G mobile terminal devices is mainly smart phones and CPE (Customer Premises Equipment). According to the report of Canalys in July 2019, it is estimated that the total number of new 5G smart phones shipped during 2020-2023 will reach 1.9 billion. 5G CPE will play the role of FWA (Fixed Wireless Access). From 5G NR to Wi-Fi 6, FWA applications will be widely used in 5G era. Therefore, the main leading demand opportunities for 5G terminal mobile will include mobile phone, CPE and WiFi-6 applications. In addition, the plentiful Internet of things devices will strengthen and connect the communication technology of various standard protocols, such as NB IoT, LoRa, 5G NR, GPS, Wi-Fi, ZigBee, BT, NFC, UWB and others, in order to benefit the expected connected ecosystem in 5G era, according to the report of Strategy Analytics, a research and development organization, in 2019, the total number of networked devices shipped in 2018 is 22 billion, and the number of shipped devices is expected to reach 38.6 billion in 2025. The relevant applications of the above device interconnection will continue to maintain strong demand for timing products such as TCXO, TSX and Crystal, while the trend of specification requirements is expected to develop towards high frequency and miniaturization.

At the beginning of 2020, the sudden outbreak of novel coronavirus (COVID-19) hit the world, leading the government, enterprises and people to pay more attention to the use and development of three No economies (zero contact, unmanned production and unlimited application) and four zero contact industries (remote learning, remote medical treatment, remote work and catering delivery) in the face of the change of work mode and ordinary life style. In response to the impact of the epidemic, the development of 5G applications will be accelerated in an all-round way and a new wave of growth momentum of quartz crystal industry will be clearly driven.

ii. Automotive Electronics

5G's new high-speed network transmission technology is promoting the transformation of automobile supply chain. Its impact on automobile industry is not only technology, but also the upgrading of business model, so that we can imagine the future of "sharing" and "unmanned" automobile industry. The recent outbreak of novel coronavirus (COVID-19) has affected the global car market, and the demand for industrial transformation has increased. The integration of technology applications and electric vehicles will become the future development trend. work, and the C-V2X（Cellular Vehicle-to-Everything）vehicle networking technology will be embedded in 15% of the world's vehicles. At present, the United States, Europe and China are the three fastest growing markets of the Internet of vehicles. It is known that by 2024, the value of the global Internet of vehicles market is expected to reach about US$130 billion, with a compound annual growth rate of more than 15% in 2018-2024. According to the plan of the U.S. Department of Transportation (DOT), from 2020, all new vehicles will be equipped with the vehicle networking (v2x) device to prevent collision. National laws and regulations have listed the automatic emergency brake, swerving off-lane warning and other functions as new vehicle scoring items. The new generation of vehicles will be introduced into ADAS (Advanced Driver Assistance System) key equipment and components to improve driving safety. The market scale of ADAS will show explosive growth, and then the demand for electronic, sensor, camera components and other components for motor cars will spike.



iii. Sensors

(a) Light Sensor

As an important component of smart phone, it can have the functions of ambient light sensor and proximity sensor at the same time. It can save power, space and cost by encapsulating the two together, so as to meet the trend of smaller, lighter and power-saving consumer electronics. With exclusive ceramic 3D stack packaging patent and strategy partner chip optimization design, size miniaturization leads the market. In 2015, industry's smallest integrated optical distance sensor, 2.5x2.0mm, was launched. In response to the trend of bang screen application, the industry's smallest and narrowest integrated optical distance sensor, 3.4x1.2mm, was launched in 2018 to meet the narrow frame design requirements of customers' smart phones. In 2019, industry's smallest distance sensor, 2.0x1.6mm, was launched, and famous TWS (True Wireless Stereo) brand customers adopt and are currently working hard to develop the "three in one" light perception under the screen, which is expected by the smart phone market. It is planned to be mass produced and listed in 2020.

(b) Gas Sensing Module

Fine particles (PM2.5) have become the air pollutants of high concern in the world. At present, the prototype of PM2.5 sensing module has been developed. It is planned to carry out mass production of PM 2.5 QCM detector and add gas sensing capabilities such as VOC, carbon dioxide, formaldehyde, etc. to the detector of QCM base. Products are expected to be used in Internet of things and air purification related markets, such as mobile appliances or other smart systems.

(c) Thermal Imaging Module

Due to the growing maturity of sensing technology, the body temperature of human body or animals is detected by measuring far-infrared rays. The location and mobile modules will extend from the military and aerospace fields to the market of vehicle and safety and people's livelihood. The use of ceramic packaging containing vacuum and air tightness will be the trend of technical requirements. The products are expected to include high-level infrared thermal imagers, low- and medium-level low pixel hot spot detectors, NTIR gas detection, etc.

4. Niches competition, the advantages/disadvantages of the future development, and the response strategies.

Strengths	Weaknesses
1. We will further develop the market and provide local services for the design and manufacturing of customers. 2. Global logistics management, high delivery flexibility. 3. Professional manufacturing team, stable quality and mass production cost advantage. 4. High precision and miniaturized products continue to be developed and introduced into mass production, constantly narrowing the technical distance with Japanese manufacturers. 5. Professional marketing and application engineering team to meet the needs of customers, and provide technical support for the design and mass production process of various products.	1. We need to continue to strengthen the capacity of mass production of ultra miniaturized products. 2. Restricted by front-end process automation of chips. 3. The equipment and key raw materials have a long lead time in delivery, so it is difficult to meet the sudden demand of the market. 4. The inadequate sensor components development layout and the lack of early planning lead to the product not being launched in time to meet customer needs.
Opportunities	**Threatness**
1. Deeply cultivate the technology leaders of various industries in China, and the brand customer management strategy drives TXC to stabilize its capacity. 2. The design centers of automotive electronics supply chain and chipset plant have been moved to the mainland China one after another, which has the same competitive advantage. 3. 5G and the Internet of things industry continue to drive peripheral products and related applications, which will inject future growth momentum. 4. The high-level, high-precision and high stability products and market construction are becoming more and more complete, and seeking niche market and products continue to be the stable profit source of the company. 5. Successively won various awards and certifications, and passed the " IATF 16949" certification dedicated to the automobile industry, improving the brand exposure and helping to establish the company image. 6. Eliminate US components in Made in China manufacturing, TXC aims to deeply explore the advantages developing China market and increase the opportunities of importing materials.	1. Japanese manufacturers have comparative advantages in brand, raw material production and technical ability, and cost structure. 2. Customer design to use cost saving material or integrated material design. 3. Alternative competitive products such as MEMS, green clock and HCR threaten some low-level applications and put pressure on current product quotations. 4. The adjustment of government labor law results in the increase of labor cost. 5. Trade disputes between China and the United States remain unresolved, and global economic risks remain. 6. Trade disputes between China and the United States affect the transfer of customer manufacturing location. 7. The demand of Chinese automobile customers is affected by tariff. 8. Countries are afraid of China's 5G technology development and need to diversify regional customer group business risks. 9. The demand of ultra miniaturized products is excessively concentrated in a single customer, and there is a risk of fluctuation.

Respond Strategies
1. Strengthen the overseas marketing team and actively develop tier 1 customers in Europe, the United States, Japan, South Korea, etc. 2. Continue to tap into China's domestic demand market and channels, and actively become China's largest brand. 3. Strengthen the engineering and technical capabilities of all factories and accelerate the promotion of smart production. 4. Continue to introduce domestic and foreign professional communication and auto industry component R & D talents. 5. To create superior products, some products adopt strategic alliance, division of labor and cooperation, and reduce costs. 6. Strengthen product R & D capability and focus on time to market strategic planning. 7. Plan the cost structure to optimize roadmap and strive for future profit space. 8. Accelerate the expansion of sensor products and market layout. 9. Timely and close confirmation of client demand for flexible deployment, and continuous attention to the development of alternative products. 10. Strengthen the development of new products, new markets and new customers, and adjust strategies and resources in time. 11. Lean management, continuous optimization of all management links and improvement of operation efficiency.

II Major products' important applications and their manufacturing process

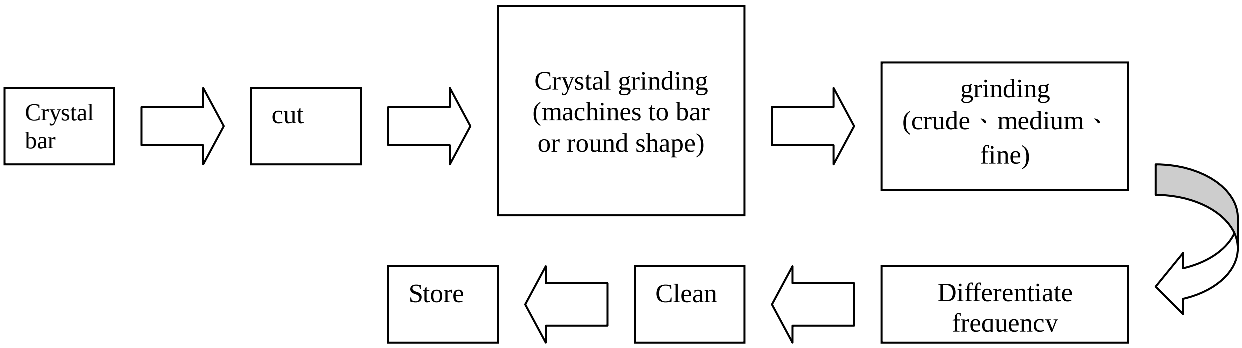
(1) Major products' important applications

Product		Major Application
Crystals		Mobile phone、 wireless equipment、W-LAN、wireless telephone、WiFi Module、Sip Module、 bluetooth、telephone terminal、automotive、 STB、NB/DT、Wearable、AR/VR、Game Console、storage
Crystal Oscillators	CXO、SO	Base station、wireless equipments、W-LAN、coxial cable communication、fiber optics communication、telphony terminal equipments、counter/sythesizers、intelligent transport(ITS)、computer、storage device、printer、audio-isual device、camera、games
	VC-TCXO、TCXO	Mobile phone、basestation、wireless equipment、satellitecommunication、W-LAN、bluetooth、global positioning systems、coaxial cable communication、fiber optics communication
	VCXO、VCSO	Base Station, Satellite Communication, Fiber Optics Communication, phony terminal equipment、counter/synthesizer
	OCXO	Base Station, Satellite Communication, GPS/GNSS, Wired/Wireless, Fiber Optics Communication、counter/synthesizer
Sensor		Mobile device
Tuning Fork		Smart phone/Future Phone, Smart Home, DSC, Wireless Networking, NB/DT, Automotives, Wearable

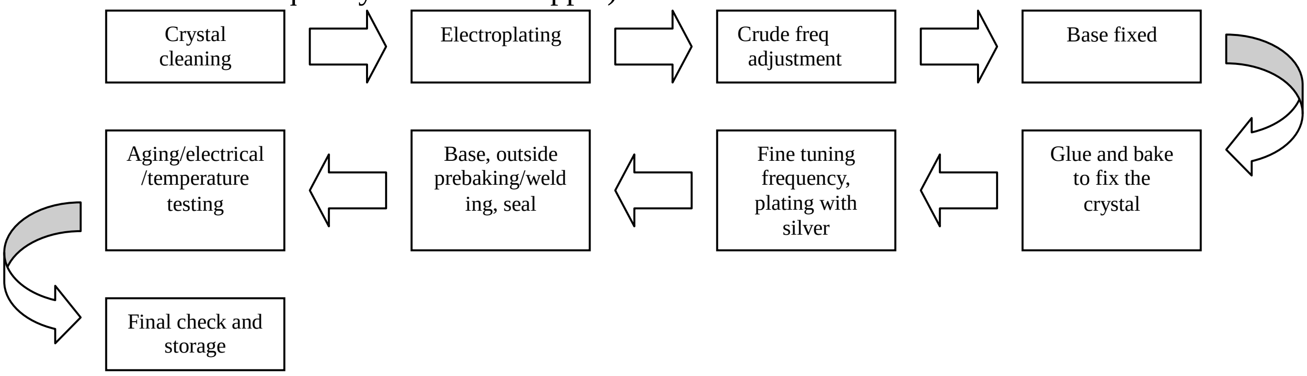
(2) Manufacturing Process

Steps for crystal components manufacturing are: first we need to manufacture the quartz crysal needed for the electrical material. It involves the cutting, polish, cleaning of the wafer form. Then with the mechanical arms to place the wafer on the base and fixed with the silver based glue. Then package it under vaccum. For oscillators it is necessary to add one more unit of oscillating circuit IC with golden line conduction via amplified output of crystal chip oscillation. It requires more IC placement and wire bonding process compared to the quartz crystal.

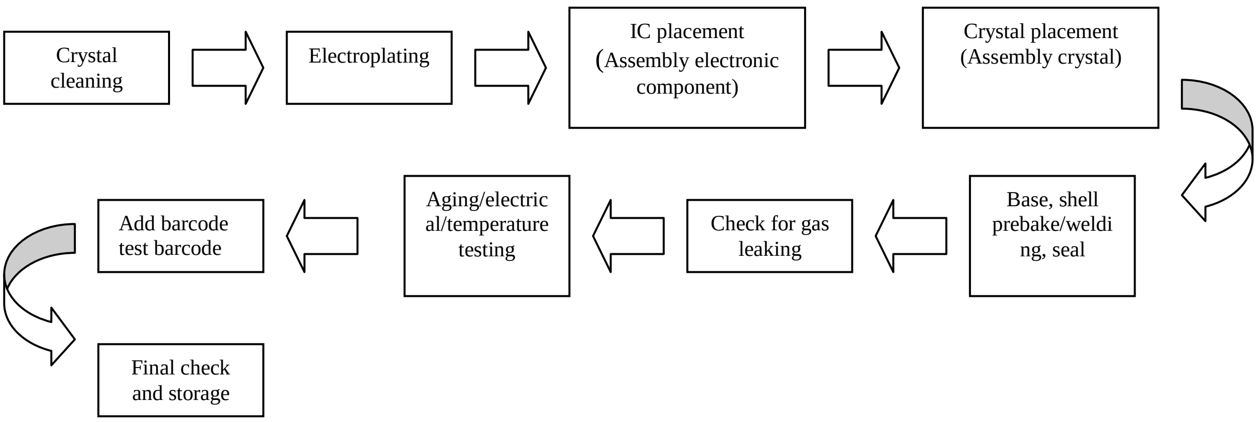
i. Pre-manufacturing process－quartz crystal.



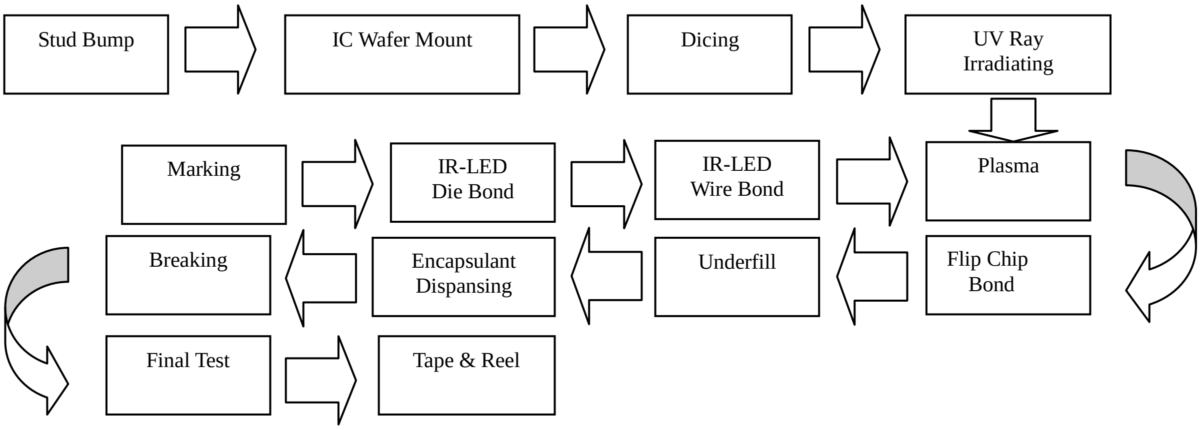
ii. Post-manufacturing process－quartz crystal (use silver, gold, nickel for electroplating, and the process would reduce crystal frequency. Fine tuning the electroplating that would reduce frequency error to 3~10ppm)



iii. Post manufacturing process－crystal oscillator (use silver, gold, nickel for electroplating, and the process would reduce crystal frequency.)



(3)Light Sensor manufacturing process



III. State of the major materials suppliers

The major materials for crystal and crystal oscillators include the base, wire bond, IC package, crystal slice and crystal bars. Major materials in light sensors are ceramic substrate, IC, VCSEL and packaging tape.

(1) All the materials come from the at least two suppliers, and this would minimize the risk of all materials coming from a single supplier. Our company's procurement depends on the buying terms, state of supply, and specifications; before the materials to be ordered. And, it also depends on some special conditions that we would adjust the ratio of buying materials and this approach would help us not too concentrated the ordering from a single supplier, or running the risks of the orders being interrupted.

(2) All the suppliers have long term relationship with us. And, our friendship is good. With our company is growing strongly, these suppliers would also take highest priority to satisfy our company needs。Annually, we also meet with our suppliers on regular or irregular base to review our purchasing terms and any room for the improvement. This also helps a stable and continuous relationship in the materials supply.

(3) In considering the steady material supply, our company will provide the Rolling Forecast，to the suppliers and the production preparations. This can shorten the delivery time and an assurance of on time delivery. If there is any unusual situation, these suppliers will accommodate our needs to assure a stable supply.

IV. The suppliers and customers over than 10% of the past two years

(I) Main Suppliers

Unit：NT$1,000

2018				2019			
Company	Amount	Percentage of annual procurement (%)	Relationship with TXC	Company	Amount	Percentage of annual procurement (%)	Relationship with TXC
K Company	765,597	16.84%	—	K Company	865,929	25.13%	—
				S Company	378,850	11.00%	—
Others	3,780,116	83.16%		Others	2,200,650	63.87%	
Total	4,545,713	100.00%		Total	3,445,429	100.00%	

(II) Main Clients

Unit：NT$1,000

2018				2019			
Company	Amount	Percentage of annual sales (%)	Relationship with TXC	Company	Amount	Percentage of annual sales (%)	Relationship with TXC
F Company	1,172,264	14.37%	—	F Company	1,201,028	14.25%	—
Others	6,984,004	85.63%		Others	7,229,942	85.75%	
Total	8,156,268	100.00%		Total	8,430,970	100.00%	

V. Production and monetary values for the past two years

Unit: 1000 PCS/NT$1000

Year Major products\	2018			2019		
	Capacity	Production	Value	Capacity	Production	Value
DIP Crystal Product	110,000	101,620	107,016	90,000	78,651	84,393
SMD Crystal Product	3,300,000	2,939,621	4,840,292	3,500,000	3,156,922	5,615,880
Others	-	2,004,887	1,308,337	-	2,435,323	2,106,476
Total	3,410,000	5,046,128	6,255,645	3,590,000	5,670,896	7,806,749

VI. Volumes of sales and monetary values of the past two years

Unit: 1000 PCS/NT$1000

Year Major products\	2018				2019			
	Domestic sales		Export		Domestic sales		Export	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
DIP Crystal Product	10,073	13,241	118,718	185,867	7,773	10,227	87,464	136,685
SMD Crystal Product	96,566	244,130	2,913,339	6,632,131	85,100	239,190	3,087,182	7,084,934
Others	18	2,402	1,647,935	1,078,497	7,124	7,964	1,460,484	951,970
Total	106,657	259,773	4,679,992	7,896,495	99,997	257,381	4,635,130	8,173,589

III Employees' average years in service, age, and educational background

distribution

Year		2018	2019
Total Number Employees	Engineer	564	598
	Administrative	429	459
	Sale	119	115
	Technicians/Operators	1,748	1,609
	Total	2,860	2,781
Average Age		32.69	33.52
Average Years in Service		5.53	6.17
Distribution of Educational Background	Ph.D.	0.70%	0.55%
	M.S.	6.07%	5.55%
	B.S.	36.33%	40.97%
	High School	33.90%	30.84%
	Below High School	23.00%	22.09%

IV Data on our environmental protection expense

(I) Description of environmental punishment

Pingzhen plant, Ningbo plant and Chongqing plant of the company have no relevant environmental penalty issues.

(II) Description of the application, payment or establishment of a pollution facility establishment permit or pollution discharge permit or a pollution prevention and control fee or a person of a special unit for environmental protection that is required by law

(1) Pingzhen factory is responsible for the production of chips and quartz components. According to the regulations, it has applied to the local competent authority for relevant license documents for waste, waste water and fixed pollution sources generated in the production process, and set up relevant environmental protection personnel to operate and maintain according to the requirements of the license documents, so as to maintain the effective operation of relevant treatment facilities. In 2019, we cooperated with the Industrial Bureau to complete the waste heat recovery and reuse plan. In the future, we will continue to work out the feasibility of waste water recovery and reuse and other measures to save energy in the plant area. We hope that we can continue to do our best to reduce environmental impact. In 2010, the total expenditure was NT$5.07 million, mainly including air pollution cost, environmental cleaning, operating environment detection, pollution control equipment operation and maintenance, protective equipment and other costs.

(2) Ningbo plant continues to maintain the largest production capacity of quartz components in the world. In the process of production and operation, it pays special attention to environmental governance and social contribution, so as to actively respond to the requirements of the newly implemented "environmental protection law",

strictly abide by the bottom line and meet and exceed the requirements of local environmental protection law enforcement. In 2019, a total of RMB680,000 yuan was spent on environmental protection, including the comprehensive replacement of anaerobic hydrolysis tank and biological contact oxidation tank of wastewater treatment biochemical system. In order to implement the main responsibility system of solid waste pollution prevention and control, the enterprise has greatly improved its daily environmental protection awareness. In order to implement the main responsibility system of solid waste pollution prevention and control, the seven key pollutant indicators tested by the enterprise are 100% in line with DB33_T 892-2013 technical guidelines for risk assessment of polluted sites concerning the selected values of soil risk assessment of pollutants, indicating that the environmental protection measures of the enterprise are effective and the soil is not polluted. There are 3 unorganized waste gas sampling points in the plant boundary, and the 5 key pollutant indexes tested are 100% in line with the national control air quality standard, with a superior rate of 80%, indicating that the air pollution control measures of the enterprise are effective.

The enterprise actively cooperates with the government to promote the construction of "zero sewage discharge" for industrial enterprises in the region, completes the transformation of rainwater and sewage diversion within the plant area of the enterprise with high quality, and repairs the abnormal rainwater and sewage pipe network.

(3) Chongqing plant has smooth operation of environmental protection facilities, stable product quality, and good operation status of all equipment. In order to meet the "environmental protection law" and local environmental protection requirements, and ensure the hardware requirements of operation, maintenance and management of environmental protection facilities, a total of RMB770,000 yuan was spent on environmental protection treatment in 2019, completing the optimization and maintenance of environmental protection facilities prevention and treatment equipment, including the operation and maintenance of wastewater and waste gas treatment facilities, detection and replacement of various environmental monitoring instruments, internal and external cleaning of waste gas and washing tower, capacity expansion and transformation of reaction tank, improvement of sludge filter and replacement facilities, legal disposal of hazardous wastes and disposal cost of RMB540,000 yuan, purchase of emission right, environmental detection, etc.; relying on self-monitoring and third-party regular detection data, the treatment facilities carried out operation optimization, maintenance and adjustment to achieve 100% emission up to standard. In November 2019, it successfully passed the local third-party license change monitoring, purchased the emission right from Chongqing United Property Rights Exchange in accordance with the law, and successfully renewed the emission permit. It is expected to reduce the impact on the environment by actively studying the feasibility of recycling waste isopropanol and waste alcohol

(III) The implementation of safety and health

(1) Pingzhen factory has set up the Occupational Safety and Health Committee since 2009. There are 10 members in total, 4 of whom are elected. The occupational safety and health meeting is held regularly every quarter to deal with issues related to occupational safety and health. Our factory participated in the "industrial working environment improvement plan" promoted by the Industrial Bureau in 2018, aiming at ISO 45001 occupational safety and health management system standard and started to prepare and receive guidance before certification, and has successfully completed the certification of the system in 2019, expecting to improve the safety and health technology of the plant, reduce the overall operation risk and reduce the operation loss through the promotion process of this new standard. In addition, the training on occupational safety and health in the plant area is carried out in accordance with the requirements of relevant laws and regulations, and the accidents in the plant area are investigated, improved and reported to the competent authority in accordance with relevant regulations. In addition, the health promotion activities such as employee health examination, intraocular pressure test and healthy movement are also carried out, and the health position management plan and health publicity for foreign employees are jointly carried out with the health authority. Other details can be found on our website.

(2) Since 2012, based on EICC (renamed RBA in October 2017), "code of conduct for responsible business alliance", Ningbo plant has integrated six resources including labor rights, health and safety, environment, business ethics and management system to form the company's social responsibility management system. Under the leadership of the safety production committee, the company aims to achieve zero accidents and relies on the safety of all units. Safety production inspection shall be carried out at least once a month, and the hidden danger elimination rate shall be 100%; the daily operation improvement and promotion of safety, health and health management shall be carried out in PDCA circulation mode, and the safety production standardization (Level 3) of Ningbo city shall be passed, and there shall be no major safety accidents throughout the year. Since July 2019, the company has started three-level safety production education at factory level, workshop level and team level in full compliance, with a coverage rate of 100% In 2019, the company carried out on-site first-aid personnel training once to ensure that the number of certified first-aid personnel accounts for more than 10% of the total number of employees in the production line. The company fully cared about the health management of employees, launched occupational health and safety propaganda for each batch of new employees, organized 10 free clinics of traditional Chinese medicine, and regularly carried out health consultation and free clinics by external cooperation units of free clinics of traditional Chinese medicine. In the aspect of occupational health management, through the detection and evaluation of occupational hazards in the working environment and the evaluation of occupational hazard control effect, the risk sources are eliminated, replaced, engineering control system implemented, administrative management and PPE protection and other improvement measures to continuously improve the potential environment of occupational hazards caused by noise, dust and chemical poisons. The occupational health management team composed of the assistants of each department shall check and inspect the occupational health examination of the current month at least once a month to ensure that all the colleagues of the hazardous positions participate in the occupational health examination in accordance with the law. In 2019, 116 physical examinations were carried out and no cases of occupational diseases occurred. In 2019, the company organized general physical examination for senior executives, with a coverage rate of 100%. Through physical examination,

understand the top 10 diseases of the company's supervisor in charge of individual physical examination abnormality, publicize relevant prevention and control knowledge to the supervisors, let the supervisors pay attention to the abnormal items, and then achieve the goal of healthy life from the aspects of healthy diet, proper sports, positive mentality, etc.

(3) Chongqing factory established the "safety production management committee" in March 2013, which has been carrying out safety production management activities in accordance with the "safety production law of the People's Republic of China" and the requirements of the government's safety production supervision and management department, and also in line with the "Chongqing safety production supervision and management regulations". In 2015, it completed the recognition of the "three level certificate of safety production standardization enterprise" according to the requirements of the government, and completed the review work in 2018 (once every three years). In order to achieve the goal of zero work safety accidents, the safety production office organizes each unit to conduct a cross department safety inspection every month. The production unit is divided into departments, and carries out weekly safety inspection and team safety inspection every day. In addition, the safety production office holds a meeting every month to track the missing improvement to ensure that the safety hazards are eliminated in time. At the same time, the work safety office also has a perfect mechanism for investigation, declaration and handling of work safety incidents. Up to now, there are no major safety accidents in the factory. The Safety Supervision Bureau inspects the factory about 10 times a year irregularly, and no obvious violations or deficiencies are found.

(IV) Description of hazardous substance management system

The protection of the global environment is an important issue in the 21st century. Based on the belief of protecting the earth and benefiting the next generation, as well as the corporate responsibility of environmental protection to jointly maintain the overall ecological environment, the company undertakes the mission of contributing to the society and actively promotes environmental management activities in a prudent manner.

The Company’s zero hazardous substances policies are as follows:

In order to fulfill the goal of green earth citizens, we promise:

(1) According to the most stringent regulations or customer requirements, to be the best green product partner for customers.

(2) Confirm the operation of the organization and provide resources, promote environmental education, and strengthen the environmental awareness and objectives of all staff and supply partners.

(3) Design green products, pay attention to products and production process without harmful substances.

(4) Carry out continuous improvement through relevant activities of the company to achieve the goal of sustainable operation of the company.

The company complies with RoHS 2.0 (2011/65/EU), (EU) 2015/863, WEEE (2012/19/EU), PFOS (2006/122/EC), (EU) no 757/2010, REACH(EC) No 1907/2006 Directive requirements that lead

(PB), cadmium (CD), mercury (Hg), hexavalent chromium (Cr6 +, PBB, PBDE, DiBP, DEHP, DBP, BBP, PFOS and other substances shall be prohibited in accordance with international standards since July 1, 2006. Based on regulations and customer requirements, in addition to IECQ QC 080000 certification of hazardous substance process management system, and green purchasing activities as the basis for continuous provision of green products to users; in order to ensure product quality in line with green related environmental protection regulations, strictly control the use of environmental management substances in products, and also require the supplier's products to comply with the company's regulations on environmental management substances, so that from design to manufacture of products, all goods can meet the conditions of non use, non mixing and non pollution, in order to reduce the impact of products and services on the environment; in order to strengthen the management of green products in the supply chain, suppliers are encouraged to import IECQ QC 080000 hazardous material system outside the basic ISO 9001 quality system, so as to enforce the implementation of environmental management activities.

(V) Other supplementary briefing

In order to strengthen the implementation of corporate social responsibility, Pingzhen factory completed the "greenhouse gas inventory report" in 2019 and passed BSI certification. Carry out the version transfer certification of environmental management system (ISO 14001:2015); for the 2019 corporate social public welfare activities, please refer to the company website for details.

After that, we will continue to promote various activities related to environmental safety and health in the plant, ensure the safety and health of the working environment, and ensure the safety of our colleagues. The promotion and tracking of environmental protection are detailed on our website.

Items	Main contents of EHS promotion
1	Low energy consumption lighting lamps (LED) are adopted in the plant area
2	Process waste heat recovery and reuse new heat pump system energy saving plan
3	ISO 45001 management system version transfer
4	Health promotion exercises
5	Health physique management plan

V Labor Relations

(I) Employee welfare measures

(1) Employee welfare

Since the establishment of the company, there has been a harmonious relationship between employer and employee. As of the latest year and the date of printing of the annual report, there has been no loss caused by employer/employee disputes. Since the establishment of the company, there has been no major labor and capital disputes. In addition to handling employer/employee meetings, employee opinion surveys, employee symposiums and foreign employee symposiums in accordance with the law, the company has also set up employee opinion boxes and other opinion response channels to protect the rights and interests of employees. We have spared no efforts in preserving employee benefits. The welfare measures of employees are as follows:

Insurance & retirement	Labor, health, group insurance, retirement reserve, housing fund (mainland subsidiary), social insurance (mainland subsidiary)
Profit sharing	Employee compensation, shareholding trust, Spring Festival bonus, autumn festival bonus and performance bonus
Gift money	Three festivals gift money, birthday gift money, marriage gift money, childbirth gift money, hospitalization gift money, funeral gift money
Medical insurance	1. Group insurance: life insurance, major disease insurance, accident injury insurance, accident medical treatment, hospitalization medical treatment, occupational disaster insurance 2. Regular health examination: physical examination, blood routine examination, vision examination, hearing examination, liver function examination, blood lipid examination, urine examination, chest X-ray photography, etc 3. Supervisor health examination 4. Old age commercial insurance, serious illness medical insurance and basic medical insurance (mainland subsidiary)
Activities	Tourism activities at home and abroad, staff sports meeting, yearly events, various ball games, special store discounts, diversified staff association activities, staff stress courses/activities, health lectures, quit smoking classes/weight reduction classes, family days, various theme activities held according to festivals
Emergency relief	Subsidy according to the actual situation of employees
Book reading	Buy all kinds of books, magazines, newspapers, VCD/DVD multimedia for employees to read and enjoy
Other welfare	Improve promotion channels, overseas company development opportunities and overseas company training opportunities, pay performance bonus

	according to operation conditions, commendation of senior excellent employees, annual outstanding project commendation, annual outstanding employee commendation, employee proposal award, employee children scholarship, patent award, project award, further education subsidy
Facilities	Staff canteen, staff dormitory, bike/car parking space, billiard room, basketball court, badminton court, gymnasium, nursing (milk collection) room, infirmary, convenience store, training classroom, library, chess and card room (mainland subsidiary)

(2) Employee education and training

i. The Company provides employees a multiple learning environment. Colleagues can continually challenge their growth limit through internal／external training, OJT, KM （knowledge management system）, reading clubs, online／physical library, and supervisor／peer instruction. At the same time, through the new employees／professional technology／supervisor coaching／general knowledge course／self-development education and training system to bring maximun satisfaction for employees! On the other hand, through planning of job category／job level, work rotation, project allocation and overseas assignments to integrate their lives with their careers and enable them enjoy the happiness of growth in knowledge and skills and develop a bright future.

ii. The Company has established Education and Training Guidelines and Mandatory Occupational Course Guidelines and our subsidiaries have established Employee Promotion and Reassignment Guidelines to plan related training courses in accordance with occupational and professional requirements in order to improve employee knowledge and skills, overall quality of employees and operation performance. Related education and training performance in 2018 is listed in the table below:

(a) PCF Factory

Item	No. of Class	No. of Sessions	No of Trainees	No. of Hours	Expense(NTD)
1. Management Training	6	6	206	1,275	123,533
2. Job Training	121	198	5,118	9,315	919,108
3. General Training	14	33	3,608	505	0
4. New employees Training	15	15	98	428	0
Total	156	252	9,030	11,523	1,042,641

(b) NGB Factory

Item	No. of Class	No. of Sessions	No of Trainees	No. of Hours	Expense(RMB)
1. Management Training	21	29	418	4,196	12,930
2. Job Training	34	49	1,147	5,657	173,020
3. General Training	33	157	15,170	51,909	1,800
4. Other Training	5	6	68	761	12,154
Total	93	241	16,803	62,523	199,904

(c) CKG Factory

Item	No. of Class	No. of Sessions	No of Trainees	No. of Hours	Expense(RMB)
1. Management Training	6	6	252	1,450	3,721
2. Job Training	17	18	769	2,225	3,220
3. General Training	26	38	5,781	6,128	720
4.Project Training	14	17	481	2,766	11,235
5. Other Training	1	1	24	72	2,000
Total	64	80	7,307	12,641	20,896

iii. The financial people obtained the relevant license specified by the competent authority

- The Company's three finance supervisor qualified for Professional Certification of Finance and Accounting Supervisor of Publicly-listed Companies sponsored by the R.O.C. Accounting Research Development Fund.
- One financial staffs of the Company acquired the Internal Auditor Certificate issued by the Internal Auditing Association.
- One financial staff of the Company acquired the Stock Professional Services certification test issued by the Securities and Futures Bureau, Financial Supervisory Commission.
- One financial staff of the Company acquired the Certified Public Accountant issued by the Ministry of Examination.
- Two financial staff of the Company acquired the Certified Accountant issued by the Ministry of Examination.
- One financial staffs of the Company acquired the Certificate of Securities Salespeerson issued by the Ministry of Examination.
- Two financial staffs of the Company acquired the Certificate of PMP (Project Management Professional
- Two of the Company's financial officer has obtained the "Certificate of Proficiency Test for Associated Persons of Securities Firms" issued by the Securities and Futures Institute
- One of the Company's financial officer has obtained the "Certificate of Proficiency Test for Elementary Loan Officer" issued by the Securities and Futures Institute
- Two financial personnel of the company have obtained the certificate of basic corporate governance aptitude test issued by the Certification Foundation

(3) Pension System Implementation

TXC's employee retirement measures are fixed according to labor standard laws; in accordance with period legal reminders, reseave 9% of monthly salary for retirement preparatory funds are paid into the Bank of Taiwan, and an Occupational Retirement Preparatory Fund Supervisory Committee is then responsible for managing and using the retirement fund. Starting July 1st, 2005, in accordance with labor retirement fund regulations, reseave 6% of monthly salary for monthly retirement payments are transferred into special individual retirement accounts established by the department of labor; A separate appointed agent retirement fund was established in January 2007, reseave 8% of monthly salary for employee pension to ensure that retirement plans are managed professionally.

(4) Labor and Management Negotiations and Employee Rights

In addition to handling labor-management meetings in accordance with the law, the company also organizes employee satisfaction surveys, employee discussions, and foreign personnel meetings, and sets up multiple channels of communication such as employee suggestion boxes, and is committed to providing a smooth communication channel so that the company's direction and employees' opinions can be fully realized. Communicate and serve as the basis for improving and providing a better working environment and conditions. Based on the protection of employees' work safety and the protection of the work environment and personal safety of employees, in addition to the establishment of the "Occupational Safety and Health Committee", regular committee meetings are held to review the effectiveness of business promotion and occupational safety and health matters, and various management measures are also in place. And ask their colleagues to fully implement. In addition to insuring group insurance every year, the company regularly holds occupational safety and health lectures, and sends people to participate in relevant occupational safety and health courses, and set up "TXC Emergency Response Plan" and "Environmental Safety Management Manual" to ensure the protection of their colleagues. Please refer to our website for safety and calm response to emergencies. In order to achieve the goal of zero disasters, the company will revise the annual emergency contingency plan and the environmental safety management manual from time to time, and then formulate detailed execution operations according to the content of the plan, and the implementation of the project schedule and content by the public institution, and then through the audit system. Exploring the lack of implementation, setting the emergency contingency plan for the next year, the management manual for environmental safety and health, and reviewing the amendments at any time according to the implementation process and auditing, etc., to reduce the risk of damage to the public institutions, in order to achieve the ultimate goal of zero disaster.

(II) The losses suffered in the recent years due to labor disputes, and the estimated current and future estimated amounts and corresponding measures: None.

(III) Ether there is a defined employee behavior or ethical code

The company has set a second edition of the "TXC Code of Conduct" in both Chinese and English to regulate the behavioral ethics of all subordinates of the company.

(IV) Fulfillment of social responsibility

There company’s corporate social responsibility has always including three aspects: corporate philanthropy, corporate governance and environmental safety & health. In the future, related resources from external units that have been cooperating over a long period with our company will be fully integrated. This combined with the high level of enthusiasm and caring shown by our volunteer employees and the newly established charity and compassion foundation will show our commitment to displaying a spirit of ‘giving back to society’, making maximum use of limited resources and encouraging the joint participation of neighboring communities and companies. By making a greater impact with our philanthropic activities, TXC will set out a path for sustainable operations and expand the reach of our philanthropy. Please refer to the company’s website.

VI Important Contracts

Contractual Nature	Contract Party	Start Date-End Date	Main Content	Limitation Clause	Subsidiary
Contracting	China Construction Eighth Engineering Bureau Co., Ltd	2018/07/20~2021/09/30	Zhongyang project construction contract	Nil	CHONGQING ALL SUNS
Software licensing	American Oracle Co., Ltd.	2002/09~ Permanent licensing	Oracle ERP R12.1.3	Licensing, transfer prohibited	PCF
Software licensing	Hualing Technology Co., Ltd.	2002/09~ Permanent licensing	Signing flow Agentflow	Licensing, transfer prohibited	PCF
Software licensing	American Oracle Co., Ltd.	2011/04~ Permanent licensing	Oracle Agile PLM	Licensing, transfer prohibited	PCF
Software licensing	Zitong Computer Co., Ltd.	2011/08~ Permanent licensing	GUI/VAT Product licensing	Licensing, transfer prohibited	PCF
Software licensing	American Oracle Co., Ltd.	2013/12~ Permanent licensing	Oracle WebLogic & WebCenter Portal	Licensing, transfer prohibited	PCF
Software licensing	Shuowang Information Co., Ltd.	2014/10~ Permanent licensing	(SmartKMS 8)Knowledge Management System	Licensing, transfer prohibited	PCF
Software licensing	XuLian Technology Co., Ltd	2015/03~ Permanent licensing	Training Master (CTMS)	Licensing, transfer prohibited	PCF
Software licensing	XuLian Technology Co., Ltd	2015/03~ Permanent licensing	Power Master (CSAS)	Licensing, transfer prohibited	PCF
Software licensing	Zitong Computer Co., Ltd	2019/11~ Permanent licensing	CiMes Software product licensing	Licensing, transfer prohibited	PCF
Software licensing	Feixunte Technology Co., Ltd	2020/01~ Permanent licensing	EAP SECS Development Tools - Runtime License RMS Site Limited License	Licensing, transfer prohibited	PCF
Software licensing	Hangzhou Jinmai Software Co., Ltd.	2010/07~ Permanent licensing	CAD Internet version software licensing	No transfer without consent	NGB
Software licensing	Hangzhou Yinyang Information Co., Ltd.	2017/05~ Permanent licensing	Office2016 and WinPro Licensing	Licensing, transfer prohibited	NGB
Software licensing	Yanwei Trading (Shanghai) Co., Ltd.	2017/12~ Permanent licensing	SolidWorks standard 2017 package	Licensing, transfer prohibited	NGB
Software licensing	Guangzhou Saiyi Information Technology Co., Ltd.	2018/06/28~ Permanent licensing	Smart factory	Licensing, transfer prohibited	NGB
Software licensing	Shanghai Ouxin Information Technology Co., Ltd.	2018/07 ~2021/06	F-Secure Antivirus software	Licensing, transfer prohibited	NGB
Software licensing	Shanghai Chuangsheng Information Technology Co., Ltd.	2018.10~ Permanent licensing	UG10000-WISD and NX11110	Licensing, transfer prohibited	NGB

Software licensing	Shanghai Hupu Information Technology Co., Ltd.	2014.08~ Permanent licensing	Intranet security management software	Licensing, transfer prohibited	CKG
Software licensing	Ningbo Sijie Information Technology Co., Ltd.	2019.08~2020.07	F-Secure Antivirus software	Licensing, transfer prohibited	CKG
Bank financing	China Trust Bank	2015.04.30~2020.04.30	Medium and long term loans	None	PCF
Bank financing	China Trust Bank	2018.05.28-2020.05.28	Medium and long term loans	None	NGB
Bank financing	China Trust Bank	2019.09.25~2020.09.24	Short-term loans	None	CKG

Chapter 6 Financial Information

I. Abbreviated Balance Sheets and P/L Statements for the Past 5 Years

(I) Abbreviated Consolidated Balance Sheets (IFRS)

Unit：NT$ 1,000

		Financial information for the post 5 years (Note1)				
		2015	2016	2017	2018	2019
Current assets		8,573,807	8,818,130	7,983,192	7,117,289	7,945,036
Property, plant and equipment (Note 2)		4,570,352	4,277,905	4,369,810	4,110,722	4,054,149
Intangible assets		11,921	10,798	8,013	21,831	27,816
Other assets (Note 2)		2,424,335	1,735,135	1,041,784	1,311,884	1,341,769
Total assets		15,580,415	14,841,968	13,402,799	12,561,726	13,368,770
Current liabilities	Before distribution	3,444,554	3,156,105	2,276,802	2,088,860	2,796,519
	After distribution	4,218,947	4,023,425	3,051,195	2,708,374	(Note 6)
Long-term liabilities		1,935,897	1,396,615	1,912,681	1,961,406	1,874,500
Total liabilities	Before distribution	4,841,169	5,068,786	4,238,208	3,810,886	4,671,019
	After distribution	5,615,562	5,936,106	5,012,601	4,430,400	(Note 6)
Interests attributable to parent company		10,739,246	9,719,652	9,122,699	8,750,840	8,697,751
Common stock		3,097,570	3,097,570	3,097,570	3,097,570	3,097,570
Capital surplus		1,662,181	1,665,224	1,665,224	1,665,116	1,666,690
Retained earnings	Before distribution	3,940,109	4,163,101	4,242,994	4,243,060	4,457,863
	After distribution	3,165,716	3,295,781	3,468,601	3,623,546	(Note 6)
Other interests		2,039,386	793,757	116,911	(254,906)	(524,372)
Treasury Stock		0	0	0	0	0
Non-controlling interests		0	53,530	41,892	0	0
Total stockholders' equity	Before distribution	10,739,246	9,773,182	9,164,591	8,750,840	8,697,751
	After distribution	9,964,853	8,905,862	8,390,198	8,131,326	(Note 6)

＊ If individual financial reports are prepared, the Company shall also prepare condensed balance sheets and statements of income for the past five years.

＊ For financial data that has used international accounting reporting standards for less than five years, table (2) should be prepared separately with financial data which uses our country's financial accounting standards.

Note 1: The years which have not yet been audited and certified by a CPA should be noted.

Note 2: The assessment date and reassessed value amount should be listed for assets which have been reassessed in that year.

Note 3: Listed companies or companies with securities sold by securities firms should list the annual report publishing dates up to the previous quarter. Whether or not the financial data has been certified, audited or both should also be noted.

Note 4: For the above amounts after distribution, the amounts listed should be based on the following year's shareholders meeting resolution.

Note 5: For financial data which requires self-correction or revision as notified by the competent authorities, the corrected or revised amounts should be listed and the circumstances and reasons should be noted.

Note 6: Earnings in 2019 have not yet passed shareholders' meeting resolution as of March 23, 2020.

(II) Abbreviated Balance Sheets (IFRS)

Unit：NT$ 1,000

		Financial information for the post 5 years (Note1)				
		2015	2016	2017	2018	2019
Current assets		4,812,193	4,650,756	4,068,933	3,896,214	3,924,645
Property, plant and equipment (Note 2)		1,968,448	2,055,749	2,109,112	1,894,487	1,961,704
Intangible assets		3,832	2,638	543	170	3,692
Other assets (Note 2)		7,975,571	7,195,572	6,526,246	6,162,079	6,214,496
Total assets		14,760,044	13,904,715	12,704,834	11,952,950	12,104,537
Current liabilities	Before distribution	2,649,503	2,561,647	1,628,509	1,626,245	1,794,064
	After distribution	3,423,896	3,428,967	2,402,902	2,245,759	(Note 6)
Long-term liabilities		1,371,295	1,623,416	1,953,626	1,575,865	1,612,722
Total liabilities	Before distribution	4,020,798	4,185,063	3,582,135	3,202,110	3,406,786
	After distribution	4,795,191	5,052,383	4,356,528	3,821,624	(Note 6)
Interests attributable to parent company		10,739,246	9,719,652	9,122,699	8,750,840	8,697,751
Common stock		3,097,570	3,097,570	3,097,570	3,097,570	3,097,570
Capital surplus		1,662,181	1,665,224	1,665,224	1,665,116	1,666,690
Retained earnings	Before distribution	3,940,109	4,163,101	4,242,994	4,243,060	4,457,863
	After distribution	3,165,716	3,295,781	3,468,601	3,623,546	(Note 6)
Other interests		2,039,386	793,757	116,911	(254,906)	(524,372)
Treasury Stock		0	0	0	0	0
Non-controlling interests		0	0	0	0	0
Total stockholders' equity	Before distribution	10,739,246	9,719,652	9,122,699	8,750,840	8,697,751
	After distribution	9,964,853	8,852,332	8,348,306	8,131,326	(Note 6)

＊ If individual financial reports are prepared, the Company shall also prepare condensed balance sheets and statements of income for the past five years.
＊ For financial data that has used international accounting reporting standards for less than five years, table (2) should be prepared separately with financial data which uses our country's financial accounting standards.
Note 1: The years which have not yet been audited and certified by a CPA should be noted.
Note 2: The assessment date and reassessed value amount should be listed for assets which have been reassessed in that year.
Note 3: Listed companies or companies with securities sold by securities firms should list the annual report publishing dates up to the previous quarter. Whether or not the financial data has been certified, audited or both should also be noted.
Note 4: For the above amounts after distribution, the amounts listed should be based on the following year's shareholders meeting resolution.
Note 5: For financial data which requires self-correction or revision as notified by the competent authorities, the corrected or revised amounts should be listed and the circumstances and reasons should be noted.
Note 6: Earnings in 2018 have not yet passed shareholders' meeting resolution as of March 23, 2020.

(III) Abbreviated Consolidated P/L Statements (IFRS)

Unit：NT$ 1,000

Year / Item	Financial information for the post 5 years (Note1)				
	2015	2016	2017	2018	2019
Net operating revenue	9,265,656	9,637,101	8,781,552	8,156,268	8,430,970
Gross profit	2,235,175	2,554,069	2,186,077	1,827,626	2,007,091
Operating income	908,335	1,114,394	802,056	533,301	632,138
Nonoperating gains and losses	179,275	77,878	272,877	200,196	132,439
Income before income tax	1,087,610	1,192,272	1,074,933	733,497	764,577
Continuing operations net Income	938,203	1,013,692	951,017	644,249	671,782
Discontinuing operations net Loss	0	0	0	0	0
Net income (loss)	938,203	1,013,692	951,017	644,249	671,782
Other comprehensive income（net amount）	1,680,945	(1,264,408)	(692,288)	(246,756)	(106,931)
Total comprehensive income	2,619,148	(250,716)	258,729	397,493	564,851
Net income attributable to parent company	938,203	1,016,164	962,655	644,350	671,782
Net income attributable to non-controlling interests	0	(2,472)	(11,638)	(101)	0
Comprehensive income attributable to parent company	2,619,148	(248,244)	270,367	397,594	564,851
Comprehensive income attributable to non-controlling interests	0	(2,472)	(11,638)	(101)	0
Earnings per share	3.03	3.28	3.11	2.08	2.17

＊If individual financial reports are prepared, the Company shall also prepare condensed balance sheets and statements of income for the past five years.

＊For financial data that has used international accounting reporting standards for less than five years, table (2) should be prepared separately with financial data which uses our country’s financial accounting standards.

Note1: The years which have not yet been audited and certified by a CPA should be noted.

2: Listed companies or companies with securities sold by securities firms should list the annual report publishing dates up to the previous quarter. Whether or not the financial data has been certified, audited or both should also be noted.

3: Gains (losses) from discontinued operations are listed as net amounts after income tax deduction.
4: For financial data which requires self-correction or revision as notified by the competent authorities, the corrected or revised amounts should be listed and the circumstances and reasons should be noted.
5: Earnings in 2019 have not yet passed shareholders' meeting resolution as of March 23, 2020.

(IV) Abbreviated P/L Statements (IFRS)

Unit：NT$ 1,000

Year / Item	Financial information for the post 5 years (Note1)				
	2015	2016	2017	2018	2019
Net operating revenue	7,898,695	7,887,769	7,054,964	6,556,906	6,672,071
Gross profit	1,367,717	1,633,015	1,256,789	1,015,820	1,074,968
Operating income	559,524	767,750	452,816	324,442	303,472
Nonoperating gains and losses	475,633	364,143	572,854	362,445	408,074
Income before income tax	1,035,157	1,131,893	1,025,670	686,887	711,546
Continuing operations net Income	938,203	1,016,164	962,655	644,350	671,782
Discontinuing operations net Loss	0	0	0	0	0
Net income (loss)	938,203	1,016,164	962,655	644,350	671,782
Other comprehensive income （net amount）	1,680,945	(1,264,408)	(692,288)	(246,756)	(106,931)
Total comprehensive income	2,619,148	(248,244)	270,367	397,594	564,851
Net income attributable to parent company	938,203	1,016,164	962,655	644,350	671,782
Net income attributable to non-controlling interests	0	0	0	0	0
Comprehensive income attributable to parent company	2,619,148	(248,244)	270,367	397,594	564,851
Comprehensive income attributable to non-controlling interests	0	0	0	0	0
Earnings per share	3.03	3.28	3.11	2.08	2.17

＊If individual financial reports are prepared, the Company shall also prepare condensed balance sheets and statements of income for the past five years.

＊For financial data that has used international accounting reporting standards for less than five years, table (2) should be prepared separately with financial data which uses our country’s financial accounting standards.

Note1: The years which have not yet been audited and certified by a CPA should be noted.

2: Listed companies or companies with securities sold by securities firms should list the annual report publishing dates up to the previous quarter. Whether or not the financial data has been certified, audited or both should also be noted.

3: Gains (losses) from discontinued operations are listed as net amounts after income tax deduction.

4: For financial data which requires self-correction or revision as notified by the competent authorities, the corrected or revised amounts should be listed and the circumstances and reasons should be noted.

5: Earnings in 2019 have not yet passed shareholders’ meeting resolution as of March 23, 2020.

(V) Name and audit opinions of the Certified Public Accountant during the past 5 years

Year	Accounting firm	Certified Public Accountant	Audit opinions
2015	Deloitte & Touche	Kung, Shuang-Hsiung, Weng, Po-Jen	No reserved opinions
2016	Deloitte & Touche	Lin, I-Hui, Weng, Po-Jen	No reserved opinions
2017	Deloitte & Touche	Lin, I-Hui, Weng, Po-Jen	No reserved opinions
2018	Deloitte & Touche	Lin, I-Hui, Weng, Po-Jen	No reserved opinions
2019	Deloitte & Touche	Hsieh, Ming-Chung, Su, Yu-Hsiu	No reserved opinions

Note: 1. Explanation for the change of accountants during the past five years:
Due to organizational changes, mergers and internal personnel and work arrangements of the accounting firm, as well as to be in line with the corporate governance measures.

II Financial Analysis for the past 5 Years

(I) Consolidated Financial Analysis (IFRS)

Unit：NT$ 1,000

Item	Year	Financial analysis for the post 5 years				
		2015	2016	2017	2018	2019
Capital Structure Analysis	Debt ratio (%)	31.07	32.83	31.62	30.34	34.94
	Long-term fund to fixed asstes ratio (%)	265.53	273.17	254.61	254.77	260.78
Liquidity Analysis	Current Ratio (%)	248.91	279.40	350.63	340.73	284.10
	Quick Ratio (%)	201.84	227.49	277.70	250.96	205.84
	Times interest earned (%)	2,610	4,349	5,000	3,696	3,389
Operating performace Analysis	Average AR turnover(times)	3.12	3.18	3.05	3.02	2.99
	Average AR turnover(days)	116.94	114.77	119.67	120.86	122.07
	Average inventory turnover(times)	4.41	4.64	4.36	3.81	3.33
	Average payment turnover(times)	6.45	5.64	5.02	4.96	4.30
	Average inventory turnover(days)	82.85	78.66	83.71	95.80	109.60
	Fixed assets turnover(times)	1.91	2.18	2.03	1.92	2.07
	Total assets turnover(times)	0.63	0.63	0.62	0.63	0.65
Profitability Analysis	Turn on total assets (%)	6.67	6.82	6.86	5.09	5.32
	Turn on total equity (%)	9.56	9.79	10.04	7.19	7.70
	Paid-in capital ratio (%)	35.11	38.49	34.70	23.68	24.68
	Net margin (%)	10.13	10.52	10.83	7.90	7.97
	Earnings per share(Basic) Note I	3.03	3.28	3.11	2.08	2.17
Cash Flow	Cash flow ratio (%)	65.35	78.70	73.06	51.15	59.49
	Cash flow adequacy ratio (%)	104.28	123.42	127.04	116.90	113.47
	Cash flow reinvestment ration (%)	9.83	10.87	4.92	1.87	6.29
Leverage	Operating leverage	2.0825	1.8273	2.0191	2.5348	2.2142
	Financial Leverage	1.0501	1.0258	1.0281	1.0398	1.0382
	Please explain the reasons of changes in financial ratio for the post two years (No needs for analysis if change of financial ratio is less than 20%) The increase in the cash reinvestment ratio was due to the increase in net cash flow from operating activities and investment expenditures after deducting cash dividends compared to the same period last year.					

Note：Glossary：

1. Capital StructureAnalysis
   (1) Debt ratio＝Total liabilities／Total assets
   (2) Long-term fund to fixed asstes ratio＝（Total stockholders' equity＋Long-term liabilities）／Net Fixed Assets
2. Liquidity Analysis
   (1) Current Ratio＝current assets／current liabilities
   (2) Quick Ration＝（current assets－Inventories－Prepaid expenses）／current liabilities
   (3) Times interest earned＝Earnings before interest and taxs／Interest expenses
3. Operating performace Analysis
   (1) Average collection turnover＝ Net sales／Average trade Receivables
   (2) Days sales outstanding＝365／Average collection turnover
   (3) Average inventory turnover＝Cost of good sold／Average inventory。
   (4) Average payment turnover＝Cost of good sold／Average trade Payables
   (5) Average inventory turnover(Days)＝365／Average inventory turnover
   (6) Fixed assets turnover＝Net sales／Net Fixed Assets
   (7) Total assets turnover＝Net sales／Total assets
4. Profitability Analysis
   (1) Turn on total assets＝〔Net income＋Interest expenses×（1－Effective tax rate）〕／Average total assets。
   (2) Turn on total equit＝Net income／Average stockholders' equit。
   (3) Net margin＝Net income／net sales。
   (4) Earnings per share＝（Net income－Perferred stock dividend）／ Weighted average number of shares outstanding
5. Cash Flow
   (1) Cash flow ratio＝Net cash provided by operating activities／current liabilities
   (2) Cash flow adequacy ratio＝Five-year sum of cash from operations／Five-year sum of capital expenditures, inventory additions, and cash dividend.
   (3) Cash flow reinvestment ration＝(Cash provided from operating activities – Cash dividend) ／（Grosss fixed assets + investment + Other assets + Working capital）
6. Leverage
   (1) Operating leverage＝（Net sales – Variable cost）／Income from operations
   (2) Financial Leverage＝Income from operations ／（Income from operations－Interest expenses）

(II) Financial Analysis (IFRS)

Unit：NT$ 1,000

Item	Year	Financial analysis for the post 5 years				
		2015	2016	2017	2018	2019
Capital Structure Analysis	Debt ratio (%)	27.24	28.69	28.20	26.79	28.14
	Long-term fund to fixed asstes ratio (%)	615.23	551.77	525.17	545.09	525.59
Liquidity Analysis	Current Ratio (%)	181.63	181.55	249.86	239.58	218.76
	Quick Ration (%)	145.87	143.09	190.42	177.65	169.02
	Times interest earned (%)	3,377	6,630	6,818	5,620	5,805
Operating performace Analysis	Average AR turnover(times)	3.07	3.16	3.01	2.98	2.96
	Average AR turnover(days)	118.73	115.50	121.26	122.48	123.31
	Average inventory turnover(times)	6.52	6.80	6.16	5.67	5.99
	Average payment turnover(times)	5.51	5.18	4.77	4.73	4.45
	Average inventory turnover(days)	56	53.67	59.25	64.37	60.93
	Fixed assets turnover(times)	3.36	3.92	3.39	3.28	3.46
	Total assets turnover(times)	0.57	0.55	0.53	0.53	0.55
Profitability Analysis	Turn on total assets (%)	6.95	7.19	7.24	5.31	5.67
	Turn on total equity (%)	9.56	9.84	10.22	7.21	7.70
	Paid-in capital ratio (%)	33.42	36.54	33.11	22.18	22.97
	Net margin (%)	11.88	12.88	13.65	9.83	10.07
	Earnings per share(Basic) Note I	3.03	3.28	3.11	2.08	2.17
Cash Flow	Cash flow ratio (%)	40.27	52.59	38.87	32.50	47.04
	Cash flow adequacy ratio (%)	96.22	109.27	98.70	87.45	83.22
	Cash flow reinvestment ration (%)	2.44	4.66	(1.77)	(1.93)	1.68
Leverage	Operating leverage	1.894	1.5353	1.8095	1.9043	2.0813
	Financial Leverage	1.0598	1.0231	1.0349	1.0399	1.0429
	Please explain the reasons of changes in financial ratio for the post two years (No needs for analysis if change of financial ratio is less than 20%) 1. The increase in cash flow ratio is mainly due to the increase in net cash flow and current liabilities from operating activities over the same period last year. 2. The increase in the cash reinvestment ratio was due to the increase in net cash flow from operating activities and investment expenditures after deducting cash dividends compared to the same period last year.					

Note：Glossary：

1. Capital StructureAnalysis
   (1) Debt ratio＝Total liabilities／Total assets
   (2) Long-term fund to fixed asstes ratio＝（Total stockholders' equity＋Long-term liabilities）／Net Fixed Assets
2. Liquidity Analysis
   (1) Current Ratio＝current assets／current liabilities
   (2) Quick Ration＝（current assets－Inventories－Prepaid expenses）／current liabilities
   (3) Times interest earned＝Earnings before interest and taxs／Interest expenses
3. Operating performace Analysis
   (1) Average collection turnover＝ Net sales／Average trade Receivables
   (2) Days sales outstanding＝365／Average collection turnover
   (3) Average inventory turnover＝Cost of good sold／Average inventory。
   (4) Average payment turnover＝Cost of good sold／Average trade Payables
   (5) Average inventory turnover(Days)＝365／Average inventory turnover
   (6) Fixed assets turnover＝Net sales／Net Fixed Assets
   (7) Total assets turnover＝Net sales／Total assets
4. Profitability Analysis
   (1) Turn on total assets＝〔Net income＋Interest expenses×（1－Effective tax rate）〕／Average total assets。
   (2) Turn on total equit＝Net income／Average stockholders' equit。
   (3) Net margin＝Net income／net sales。
   (4) Earnings per share＝（Net income－Perferred stock dividend）／ Weighted average number of shares outstanding
5. Cash Flow
   (1) Cash flow ratio＝Net cash provided by operating activities／current liabilities
   (2) Cash flow adequacy ratio＝Five-year sum of cash from operations／Five-year sum of capital expenditures, inventory additions, and cash dividend.
   (3) Cash flow reinvestment ration＝(Cash provided from operating activities – Cash dividend) ／（Grosss fixed assets + investment + Other assets + Working capital）
6. Leverage
   (1) Operating leverage＝（Net sales – Variable cost）／Income from operations
   (2) Financial Leverage＝Income from operations ／（Income from operations－Interest expenses）

III Audit Committee's Review Report

TXC Corporation
Audit Committee's Review Report

The Board of Directors has prepared the Company's 2019 business report, consolidated financial statements, the individual financial statements and proposal of earnings distribution, of which the consolidated financial statements and the individual financial statements have been audited by independent auditors Mr. Hsieh, Ming-Chung and Ms. Su, Yu-Hsiu of Deloitte & Touche. The business report, consolidated financial statements, the individual financial statements and proposal of earnings distribution have been recognized by Audit Committee according to Article 14-4 of the Securities Exchange Act and Article 219 of the Corporate Act. Pleas examine.

2020 shareholder meeting of the company

Convener of the Audit Committee： **Yu, Shang-Wu**

March 23, 2020

IV Consolidated Financial statements of the most recent year:

Please refer to Appendix 1

V The Company's individual financial statements audit by a certified public accountant for the most recent year:

Please refer to Appendix 2

VI Where there is any financial difficulty in the Company and affiliates during the most recent year and as of the date the annual report was published, impact thereof on the financial status of the Company:N/A

Chapter 7 Review of Financail Conditions, Operating Results, and Risk Managment

I. Financial Statement

Unit: NT$1,000

Year / Item	2019	2018	Difference	
			Amount	%
Current Assets	7,945,036	7,117,289	827,747	11.63
Non Current Assets	5,423,734	5,444,437	(20,703)	(0.38)
Total Assets	13,368,770	12,561,726	807,044	6.42
Current Liabilities	2,796,519	2,088,860	707,659	33.88
Non Current Liabilities	1,874,500	1,722,026	152,474	8.85
Total Liabilities	4,671,019	3,810,886	860,133	22.57
Share Capital	3,097,570	3,097,570	0	0.00
Capital Surplus	1,666,690	1,665,116	1,574	0.09
Retainded Earnings	4,457,863	4,243,060	214,803	5.06
Other Equity	(524,372)	(254,906)	(269,466)	105.71
Non-Controlling Interests	0	0	0	0
Total Equity	8,697,751	8,750,840	(53,089)	(0.61)

Explanation for the analysis on the changes during the past two years. (This analysis can be exempted if the change is less than 20%)Explanation:

1. The increase in current liabilities and total liabilities was mainly due to the increase in accounts payable, other payables, short-term loans, and long-term loans payable within one year.
2. The decrease in other equities is mainly due to the decrease in the foreign currency exchange difference converted from the financial statements of foreign business operating agencies.

II. Financial Performance

(I) Comparative analysis table for the operating results

Unit: NT$1,000

Year / Items	2019	2018	Increase(Decrease) Amount	Change %
Sales	8,430,970	8,156,268	274,702	3.37
Cost of Goods Sold	(6,423,879)	(6,328,642)	(95,237)	1.50
Gross Profit	2,007,091	1,827,626	179,465	9.82
Operating Expenses	(1,374,953)	(1,294,325)	(80,628)	6.23
Profit from Operations	632,138	533,301	98,837	18.53
Non-Operating Income and Expenses	132,439	200,196	(67,757)	(33.85)
Profit before Income Tax	764,577	733,497	31,080	4.24
Income Tax Expense	(92,795)	(89,248)	(3,547)	3.97
Net Profit for The Year	671,782	644,249	27,533	4.27
Other Comprehensive Income (Loss)	(106,931)	(246,756)	139,825	(56.67)
Total Comprehensive income (Loss) for The Year	564,851	397,493	167,358	42.10

Explanation for the analysis on the changes during the past two years. (This analysis can be exempted if the change is less than 20%)Explanation:

1. The decrease of operating revenue is due to a decrease in net foreign currency exchange (loss) gains, benefits by disposing of investment real estates, and disposal of financial assets compared to last year.
2. Other comprehensive profit and loss, and the increase in total comprehensive profit and loss for the current period are due to the increase in the amount of items that are not reclassified to profit or loss.

(II) Expected sales quantity and its basis

In 2020, the Company will maintain a prudent and conservative attitude. In addition to the support of purchase orders from existing customer, it still plans to expand the production capacity of new products and optimize the production process of products. As the Company gradually obtains customer’s certification and recognition for products in the automotive industry and high-end precision products, it is expected that the revenue of automotive, high-end precision and new products will contribute, and it will continue to develop miniaturized, high frequency and low energy consumption precision products. Under the condition of effectively building good customer relationships and producing of a wide variety of products, the total sales of precision products are expected to reach more than 3.6 billion pieces, and the global market shares can be maintained at about 8% to 10%. It is estimated that the top five manufacturers in the global quartz industry ranking can still be maintained.

III. Cash Flow

Unit: NT$1,000

Beginning Cash Balance	Net Cash Provided by (Used in) Operating Activities of the year	Cash Inflow (Outflow) of the year	Cash Over and Short	Cash shortage remedy	
				Investing plan	Financing plan
1,305,402	1,663,626	680,833	1,986,235	NA	NA

(I) Analysis on changes in cash flow of the year:

The Company's net cash inflow for the year 2019 was NT$680,833,000 and the changes in cash flow from various operating activities are as follows:

(1) Operating activities: inflow amount NT$1,663,626,000

(2) Investing activities: outflow amount NT$554,846,000

(3) Financing activities: outflow amount NT$336,383,000

(II) Remedy for cash shortage and liquidity analysis: None.

(III) Cash liquidity analysis for the coming year:

Unit: NT$1,000

Beginning Cash Balance	Net Cash Provided by (Used in) Operating Activities of the year	Cash Inflow (Outflow) of the year	Cash Over and Short	Cash shortage remedy	
				Investment plan	Financing plan
1,986,235	1,500,000	200,000	2,186,235	NA	NA
Expected cash shortage remedy and liquidity analysis: None					

IV. Impact of major annual capital expenditure on financial operations

(I) The use of major capital expenditure and source of funds

Unit: NT$1,000

Project	Actual or expected source of funds	Actual or expected completion date	Total funds required	Actual or intended use of funds				
				2020	2021	2022	2023	2024
Purchase equipment to expand production line	Bank loans and working capital	2020 ~ 2024	$1,500,000	$500,000	$500,000	$200,000	$200,000	$100,000

Note: Explanation shall be provided if there will be significant changes in the carrying cost or debt and capital addition policies related to the expected future raise in debt and capital addition

(II) Expected benefits

Expected increase in production and sales volume, production and sales value and gross profit:

Year	Item	Output q'ty (1,000 PCS)	Sales volume (1,000 PCS)	Sales revenue (NT$1,000)	Gross revenue (NT$1,000)
2020	SMD Crystal	97,500	97,500	390,000	117,000
2021	SMD Crystal	63,840	63,840	250,000	75,000
2022	SMD Crystal	48,000	48,000	185,000	51,800
2023	SMD Crystal	48,000	48,000	178,000	50,000
2024	SMD Crystal	48,000	48,000	173,000	48,500

V. The main reasons for the profit or loss resulted from joint venture policies in the most recent year, the improvement plan thereof and the investment plan for the coming year:

Explanations / Projects	Amount	Policies	Main reasons for the profit or loss	Improvement plan	Other future investment plan
TAIWAN CRYSTAL TECHNOLOGY INTERNATIONAL LIMITED	NT 365,631,000	Investment Ning-Bo Plant, OBU	The main reason for profit this year is the increase in production capacity, yield rate and product quality.	Continue to introduce excellent talents and require to improve yield rate and quality standards.	Other related expansion investment plans are under continuous evaluation.
TAIWAN CRYSTAL TECHNOLOGY (HK) LIMITED	NT -3,584,000	Trading	The main reason for the loss this year is that the Company's operating activities have not been fully provided, and all refer to general transaction expenses.	To accelerate the Company's business operation and sales promotion	None

VI. Risks analysis and assessment

(I) Policies and organizational structure of risk management

The Company's risk management policy is to establish a risk management mechanism for risk identification, measurement, supervision and control, and to configure an integrated risk management system. To conduct risk management, analysis and evaluation on the following issues: 1. Business / Law / Regulations / Standards; 2. Changes in political environment; 3.; Changes in economic / financial environment; 4. Natural disasters (climate change); 5. Technology and information; 6. Competitive environment; 7. Facilities / equipment; 8. Business / market operations; 9. Related Supply chains; 10. Financial operations; 11. Community / Environmental Security and Hygiene; and 12. Personnel etc., total 12 items and 88 indicators, in order to develop mitigation strategies and operational continuity plans to eliminate, reduce, transfer, accept risks, and promote appropriate risk management-oriented business model, achieving operational goals to enhance shareholder value, and major risks such as marketing market, production operation, human resource planning, new product development progress, and financial accounting control faced by various business operations, except in addition to the original system norms and treatments, actively develop advanced and highly sensitive procedures and guidelines for supervision, evaluation, and risk management to balance safety and efficiency, and establish economically effective business operation models, such as strengthening the establishment of information systems, strengthen early warning and monitoring capabilities and promote the ISO22301 and ISO31000 risk management systems related to risk identification and management; and have completed the establishment and certification of ISO27001 Information Security Management Systems and ISO28000 Security Management System for the Supply Chain.

The Company has formulated the measures for key operational risk management for each identifiable risk and approved by the board of directors. The framework and guidelines for the Company's key operational risks are provided to all departments for related risk identification and evaluation, and the response is formulated according to the results od the measures and supervision plan, so that the identified potential key operational risks can be minimized by daily supervision, management and control. The Company has established a risk response organization, with the general manager acting as the convener to coordinate the promotion and operation of the risk management plan. Several central authority and responsibility units are organized for the purpose to promote a variety of risk management.

Management Center:	The roles and responsibilities of the management center: Arrangement and response of human resources, evaluation of financial risks, execution of various insurance operations, maintenance of operating system configuration, establishment and maintenance of environmental safety and health, review and establishment of laws and regulations, and media public relations and external coordination matters etc.
R & D Center:	The roles and responsibilities of the R & D Center: Put in place the emergency response measures for R & D operating environment, risk assessment of new product development, and R & D progress control
Marketing Center:	The roles and responsibilities of the Marketing Center: Collection and establishment of market information, coordination between the production and marketing departments, establishment and handling of customer relationships, and tracking and collection of account receivable.
Manufacturing Center:	The roles and responsibilities of the Manufacturing Center: Put in place the emergency response measures for production operations, production contingency plan and specifications, manpower support and allocation plans, and on-site environmental safety contingency plans..

MEMS Center: The roles and responsibilities of the MEMS Center (Microelectromechanical Systems Center): Put in place the emergency response measures for production operations, production contingency plan and specifications, manpower support and allocation plans, and on-site environmental safety contingency plans

Supply Chain Center: The roles and responsibilities of the Supply Chain Center: Development of a supplier contingency plan, put in place the emergency response measures for procurement, development of alternative plans for import and export transportation, customs declaration, customs clearance, insurance-related operations and equipment purchase.

Quality Assurance Center: The roles and responsibilities of the Supply Chain Center: Development of document data storage plans, control of Disaster-damaged products and quality control, and put in place the emergency response measures for product testing operations

Audit Office: The roles and responsibilities of the Audit Office: Regularly check whether the implementation of risk control of each central unit is actually performed according to the Company's internal control and audit plan, and preparing for an audit report based on the actual audit results.

Occupational Safety and Health Management Office: The roles and responsibilities of the Audit Office: Supervision of environmental safety and health management such as environmental safety and health review / risk assessment to ensure safety and health normal operation of the health system.

(II) Impact of recent year interest rates changes, exchange rate fluctuation and inflation on the profit or loss of the Company and the future countermeasures therefor.

(1) Impact of recent year interest rates on the profit or loss of the Company and the future countermeasures therefor:

i Impact of interest rates on the profit or loss of the Company and the subsidiary

In 2019, the net interest of the Company and its subsidiary was NT$23,200,000 and the Company’s interest expense will be increased by approximately NT$4,094,000 for every 0.25% increment in the market interest rate.

ii Future countermeasures

Since the Company and its subsidiary have sound financial structure together with the gradual expansion of the Company’s business scale, it has close long-term cooperation with the banks. Through the bank’s assistance, it has been able to obtain better interest rates and terms to improve its financial structure, enrich medium and long-term working capital and reduce the risks of interest rate changes. Its financing costs have been 1.2% lower than the average market interest rate.

(2) Impact of recent year exchange rate fluctuation on the profit or loss of the Company and the future countermeasures therefor:

i Impact of exchange rate fluctuation on the profit or loss of the Company and subsidiary

Due to nature of the industry, the Company's foreign procurement of raw materials account for about 80% and export income accounted for more than 90%, therefore, exchange rate control is relatively important. In 2019, the sharp fluctuations in exchange rates has made hedging operations relatively difficult. However, the Company and subsidiary have established appropriate risk management mechanisms to avoid risks. In the future, the Company's gross margin will be affected by approximately 0.5%, for every 1% market exchange rate appreciation.

ii Future countermeasures

As for the response to exchange rate changes, the Company and subsidiary have established a risk assessment team to adopt dynamic natural hedging. The remaining mainly undertakes hedging instruments such as spot exchange transactions and/or foreign exchange forward contract to reduce risks by maintaining a high hedging ratio.

(3) Impact of the recent year inflation on the profit or loss of the Company and the future countermeasures therefor:

i Impact of inflation on the profit or loss of the Company and subsidiary

The Company's expenses will be increased by approximately NT$13,749,000 for every 1% increment in inflation.

ii Future countermeasures

In recent years, there has been little impact on the costs and prices due to stable inflation data. In the future, the Company will remain on the lookout for the inflation trend for the purpose of costs control and price quotation and make appropriate adjustments.

(III) The main reasons for engaging in high risk and highly leveraged investments, capital lending to others, endorsement, the policies and profit (or loss) of derivative commodity transactions and the future countermeasures therefor:

(1) The Company and subsidiary did not engage in any high risk and highly leveraged investments in 2019.

(2) The Company and subsidiary engaged in capital lending to others and endorsement according to the regulatory statue and performed regular auditing and filing pursuant to the relevant regulations of the competent authority and the Company. The details are as follows:

i Capital lending to others: none.

ii Endorsement: As of the end of the annual report, the company's subsidiary endorsement is guaranteed to be a 100% owned subsidiary.

iii The policies and profit (or loss) of derivative commodity transactions and the future countermeasures therefor:

(a) The Company and subsidiary engaged in derivative financial commodity transactions to avoid risks in foreign currency claims, debts and commitments arising from changes in exchange rate and/or interest rate. The hedging strategy is for the purpose of avoiding most of the market price risks.

(b) In 2019, the Company and its subsidiary recognized foreign exchange losses of NT$17,229,000 due to large fluctuations in exchange rates.

(c) The Company and subsidiary use derivative financial commodity that are highly correlated with changes in the fair value of the hedged items as hedging instruments to avoid the risks arising from the Company's business operations and perform periodic assessments to control the risks thereof.

(IV) Future R & D plan and estimated investment in R & D

(1) The Company has systematically introduced the R & D plan into the PLM (Product Lifecycle Management) system and grasped products' R & D progress through the PLM system. In 2018, the Company has established different R & D projects based on product categories and set goals, progress and timelines in line with market demand. In 2020, R & D expenses are expected to be approximately NT$210 million.

No.	name of the program	current progress	reinvestment in R & D	estimated time of mass production	Primary factor of success
1	1612 TSX	40%	NT$ 50M	to be completed by Oct. 2020	Master key technology
2	1008 XTAL	70%	NT$ 30M	to be completed by Jun. 2020	Master key technology
3	2016 XTAL >96MHz	60%	NT$ 50M	to be completed by Aug. 2020	Master key technology
4	AW HFF XO	50%	NT$ 50M	to be completed by Oct. 2020	Master key technology
5	Pressure Sensor	70%	NT$ 30M	to be completed by Jun. 2020	Master key technology

(2) The new R & D projects in 2020 that has been launched are expected to be introduced into mass production phase in one to two years. The R & D expenditure for the entire year is estimated to be NT$190million.

No.	name of the program	current progress	reinvestment in R & D	estimated time of mass production	Primary factor of success
1	u-bolometer Innovation optimization plan	60%	NT$ 50M	to be completed by Mar. 2021	Master key technology
2	Photo BM Technology development	30%	NT$ 30M	to be completed by Nov. 2020	Master key technology
3	Under Display Proximity Sensor	20%	NT$ 50M	to be completed by Mar. 2021	Master key technology
4	2520 Differential XO/VCXO	40%	NT$ 30M	to be completed by Sep. 2020	Master key technology
5	1409 OCXO	50%	NT$ 30M	to be completed by Mar. 2020	Master key technology

(3) Factors to R & D's success: The Company's competitive edge lies in continuous innovation, and the innovation is reflected on futuristic products. Therefore, in addition to considering the strength of market demand, the control and effective monitoring over the progress of R & D projects to shorten the R & D timeline and continued strengthening of R&D team by developing efficient training and upgrading the overall professional quality are the key factors that directly affects the success of R & D. In addition, whether the production process capability can increase the production yield to reduce the product cost while the product is advanced is another important factor that determines whether the new product can be

successfully introduced into the market.

(V) Impact on the Company’s financial operations from the changes in important domestic and foreign policies and laws during the most recent years and the countermeasures therefor:

(1) Since 2017-2019, the basic salary has increased by three degrees, and the annual adjustment has been about 5%. The personnel cost has increased. The company has improved its process and improved its work efficiency to reduce production costs.

(2) The Third Reading of the Legislative Yuan passed the "anti-tax avoidance clause" of the income tax amendment. Taiwan officially joined the anti-tax avoidance camp. In response to the increasing international standards for information transparency, the government officially announced the CRS operation method in November 2006 and began to implement information exchange in 2019. In addition, in response to the OECD's anti-rental tax erosion and profit transfer BEPS action plan, each tax haven has legislated to revise the local tax system and incorporate the requirements of economic substantive entry into the law. Relevant regulations have also come into effect in 2019. The relevant units of the company have evaluated and responded to the transfer pricing, country reports, related party transactions, transfer investment structure and tax planning.

(VI) Impact on the Company’s financial operations from the changes in technologies and the industry during the most recent years and the countermeasures therefor:

(1) With the development of information technology, applications such as automotive frequency components, wireless communication, digital home, mobile video, digital mobile devices, medical and health technology, and Internet of Things (IoT) will have an integral and additive benefit on quartz components, and the global IT industrial application is expected to increase continuously. Overall, the market demand for the quartz component will basically be stable in the coming years. In order to maintain stable profitability and industrial competitiveness, the Company will continue to improve the production processes and technology to maintain its cost advantages.

(2) When the fluctuations in the oil and electricity prices and industrial water restrictions become the norm, the industries and businesses will take the first blow and the operating costs will increase substantially. The Company will continue to promote energy-saving and carbon-saving schemes to reduce energy consumption.

(VII) Impact on the corporate crisis management from the changes in corporate image during the most recent years and the countermeasures therefor:

(1) The company is committed to the humanitarian beliefs of caring for the disadvantaged groups by preparing and listing annually budgets, hoping to give back to the society in multiple ways and fulfill its corporate social responsibility. It has, in addition to annual donations to elementary education and disadvantaged groups, strengthened its investment in education, public welfare and other sponsorships.

(2) In order to improve corporate governance and strengthen communication channels with shareholders, in addition to the company's website regularly update the company's latest

financial and business information, and organize a corporate briefing every year, investing considerable efforts to improve the transparency of financial information, and will continue to promote corporate governance related matters in the future.

(3) In order to improve customer satisfaction, the company has strengthened its existing “customer relationship management system”, which has been recognized by many manufacturers and affirmed by customers, and continues to strengthen the technology level of the company to meet the application needs of customers.

(4) In order to implement the Company's supply chain security management and information confidentiality management to enhance trade competitiveness; therefore, the related system security control is a top priority for the Company. It was certified “Authorized Economic Operator” (AEO) by the General Administration of Customs, Ministry of Finance, “ISO28000 Supply Chain Safety Management System”, “ISO27001 Information Security Management System”, etc.

(5) In response to crisis events and external potential risks, if there is any impact on the company's operations and corporate reputation, the crisis management mechanism will be launched immediately, and the emergency response team will conduct risk assessment and take necessary actions.

(VIII) Expected benefits, possible risks and countermeasures for merger: None.

(IX) Expected benefits, possible risks and countermeasures for plant and production line expansions

Production line expansion benefits:

The Company continues to expand production capacity of its Ping-Zhen Plant (Taiwan), Ning-Bo Plant and Chong-Qing Plant to expand its economic scale, reduce production costs and upgrade product specification. The production capacity is, according to the production capacity plan, expected to increase to meet market demand and increase market share

Possible risks: Declined demand, low production capacity, increased production costs.

(X) Risks involved in intensive purchase or sales and the countermeasures therefor:

Each major raw material shall have purchase source of more than two suppliers to avoid risks from intensive purchase. The sales targets are mainly the prestigious domestic and foreign manufactures in communications, information and consumer products industries; except for a customer who accounts for more than 10% of the Company’s total sales ratio due to its scale of operations, continued expansion and growth requirements, there are no risks from intensive sales.

(XI) The impact and risk on the Company from massive transfer or replacement of equity by directors, supervisor or shareholder(s) holding more than 10% of the shares and the countermeasures therefor: No such situation.

(XII) The impact and risk on the Company from changes in the right to operate and the countermeasures therefor: No such situation.

(XIII) Litigation or non-litigation incidents: Major lawsuits, non-litigations or administrative disputes (determined or in-process) involving the Company and the Company’s directors, supervisor, CEO, substantive directors, large shareholder(s) and subsidiary

holding more than 10% of the Company's shares shall, if outcome of the lawsuit may have a material effect on shareholders' equity or the price of securities, be specified and disclosed of the facts of the dispute, the amount of the subject matter, the commencement date of the lawsuit, the main parties involved in the case, and status of the cases as of the publication date of the annual report: none.

(XIV) Information security risks:

In order to comply with international information security management trends and respond to customer information security requirements, since the introduction of the ISO27001 information security management system in 2011, it has followed the implementation of information security policies, protected customer data and Company smart output, strengthened information security incident response capabilities and reached information security policy measurement indicators.

The Company's information security structure and operation are as follows:

(1) Information Security Committee:
The Company has established an information security management committee and appointed an information security chief (and as convener), who shall be acted by the most senior ranking officer of the management center; a deputy convener, who shall be acted by the most senior ranking officer of the Netcom Information Department; The meeting conveners shall be represented by directors of each department and/or centers, and at least one review meeting shall be held every year, depending on business needs or major changes, and when there is a risk of affecting information security, meetings may be held regularly. In addition, in order to implement information security management, an information security executive team and an information security audit team are established under the information security committee, which are responsible for the promotion, review and maintenance of information security, and to make regularly report to the board of directors.

(2) Information security policy:
"In order to ensure the safe use of internal information, TXC Corporation avoids improper disclosure of information and enables the continuous operation of various business information operations, maintain the effectiveness of internal management systems, and strengthen the confidence and satisfaction of customers and suppliers etc. related parties."

(3) Information security and network risk control:
Cyber attack methods are changing rapidly, and malicious programs are imported into the Company's internal network for destruction or data theft through email, internet fishing, and violent cracking methods. Destructive attacks may lead to the interruption of the Company's production operations, and data theft attacks may cause important operational data or leakage of personal data such as employees and customers. The Company adopts active information security enhancement operations. In addition to establishing firewalls, malicious mail filtering, employee Internet protection, operating system updates, antivirus software deployment, and information security monitoring services, the Company uses quarterly internal risk management systems to assess information system related risk, and regularly report risk control and improvement status

in the risk management and control team to control and reduce related network risks.

(4) Information security goals, objectives and training:
In order to ensure the achievement of information security goals and objectives, the effectiveness of the evaluation will be monitored at ordinary times. The situation should be notified and corrective measures should be taken when any suspected non-compliance event occurs, and the information security goal promotion situation should be reported to the information security management committee. Through information security education and training and promotion activities, and to convey information security-related publicity in the supervisor meeting, in order to promote employees' information security intentions and strengthen their awareness of related responsibilities.

(5) The information supervision, audit and execution results from the fourth quarter of 2018 to the third quarter of 2019 were reported to the board of directors on December 25, 2019.

(6) The Company did not have any major cyber attacks that impacted the Company's operations in 2019.

(XV) Other important risks and corresponding countermeasures

The Company has established the "Operation Plan and Risk Management Measures" in accordance with the relevant provisions of IATF 16949, which stipulates that at least two annual risk assessments to be done each year, in order to carry out risk inspections for operational risk categories and projects, and have carried out the second operational risk inspection in 2019 to evaluate the risks on economical and financial environment changes, and started the evaluation on the Sino-US trade war impact against the Company's operations, and has formulated a complete action plan to reduce or transfer risks. In February 2020, in response to the impact of the Covid-19 pandemic, an operational risk analysis was conducted, a BCP (Business Contingency Plan) was fully launched, and each operational risk level was analyzed against process risks to determine high, medium, and low risks, and each plant has established an Epidemic Command Center and has formulated a disease control and prevention plan, and will pay attention to and trace management at any time.

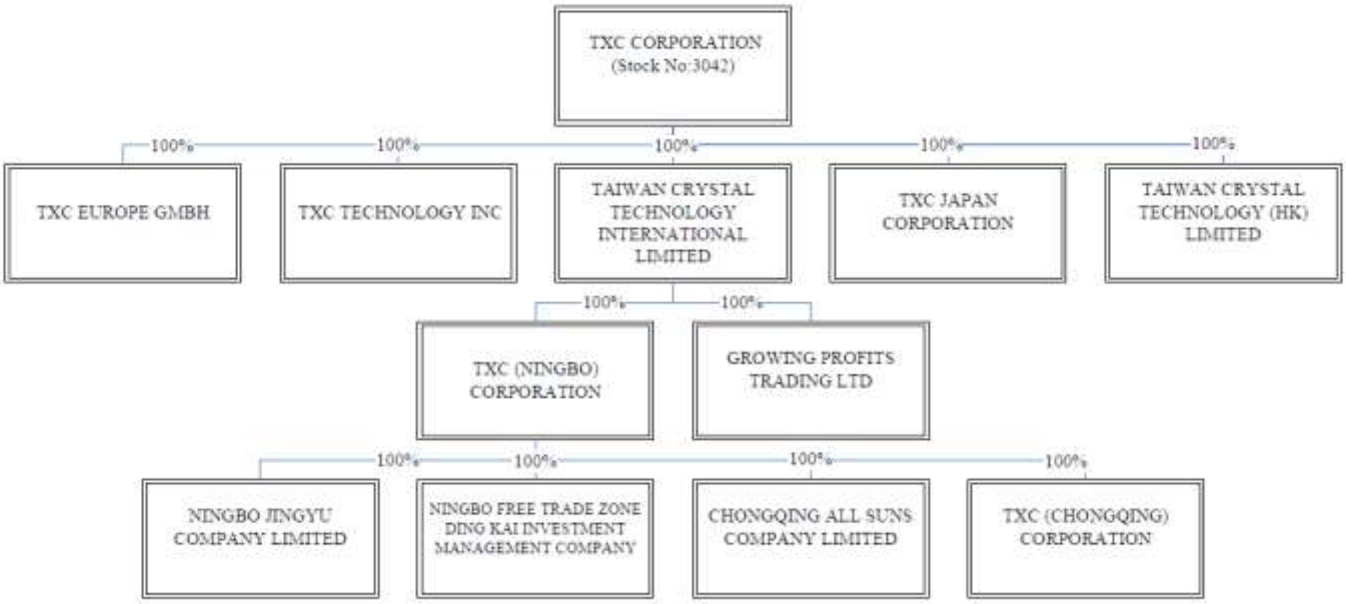
VII. **Other important matters**: None.

Chapter 8 Special Disclosure

I. Subsidiaries

(I) TXC Subsidiaries Chart

December 31, 2019



(II) Basic information of TXC Subsidiaries

December 31, 2019

Name	Date of Incorporated	Address	Capital	Business Activities
Taiwan Crystal Technology International Limited	1998.12.23	WESTERN SAMOA	USD 42,835,294	Investment holding
TXC Technology Inc	2000.12.01	431 Lambert Road,Suite 306 Brea,California 92812, U.S.A.	USD 300,000	Marketing activities
TXC Japan Corporation	2005.09.13	Davinici-shin-yokohama Bldg.,1-3-1, Shin-yokohama, Kohoku-ku,Yokohama,222-0033 Japan	JPY 21,000,000	Marketing activities
TAIWAN CRYSTAL TECHNOLOGY (HK) LIMITED	2010.07.06	Rm.804, Sino Centre, 582-592 Nathan Rd.,Kln.H.K	USD 80,000	Trading
TXC Europe GmbH	2018.08.17	Sebastian-Kneipp-Straße 41, 60439 Frankfurt am Main	EUR 50,000	Marketing activities
Growing Profits Trading Ltd	1999.03.09	BRITISH VIRGIN ISLANDS	USD 50,000	Trading
TXC (NINGBO) CORPORATION	1999.03.12	No.189, Huangshan Xi Rd., Economic & Technical Development Zone,Ningbo Zhejiang, China	USD 45,835,294	Manufacture and sales of electronics products
TXC (CHONGQING) CORPORATION	2010.10.11	JinFeng Industrial Region, Jiulongpo District, Chongqing City, China	RMB 247,876,609	Manufacture and sales of electronics products
Chongqing All Suns Company Limited	2011.02.14	Jiulongpo District, Chongqing, China Jinfeng Road 108,	RMB 140,000,000	Real estate related
Ningbo Jingyu Company Limited	2011.09.07	No.189, Huangshan Xi Rd., Economic & Technical Development Zone,Ningbo Zhejiang, China	RMB 2,500,000	Trading
Ningbo Free Trade Zon Ding Kai Investment Management Company	2017.05.12	Room 4211, Office Building, 11 Meishan Avenue Business Center, Beilun District, Ningbo City	RMB 35,050,000	Investment

(III) Resters of Directors, Supervisors, and General Manager of TXC's Subsidiaries

December 31, 2019

Number of shares; share (%)

Name	Title	Name or representive	Shares	Share (%)
Taiwan Crystal Technology International Limited	Chairman	TXC Corporation Representive: Lin, Wan-Shing	42,835,294	100%
TXC Technology Inc	Chairman	TXC Corporation Representive: Chen, Li-Wwi	300,000	100%
TXC Japan Corporation	Chairman	TXC Corporation Representive: Shih Tien,Tun-Hsiung	2,100	100%
	Director	TXC Corporation Representive: Lin, Wan-Shing	2,100	100%
	Supervisor	TXC Corporation Representive: Tsai,Jung-Hsien	2,100	100%
TAIWAN CRYSTAL TECHNOLOGY (HK) LIMITED	Chairman	TXC Corporation Representive: Lin, Wan-Shing	80,000	100%
TXC Europe GmbH	Chairman	TXC Corporation Representive: Kuo,Ya-Han	50,000	100%
Growing Profits Trading Ltd	Chairman	Taiwan Crystal Technology International Limited Representive: Lin, Wan-Shing	50,000	100%
TXC (NINGBO) CORPORATION	Chairman	Taiwan Crystal Technology International Limited Representive: Chen Chueh, Shang-Hsin	45,835,294	100%
	Director/ President	Taiwan Crystal Technology International Limited Representive: Chao, Min-Chiang	45,835,294	100%
	Director	Taiwan Crystal Technology International Limited Representive: Lin, Wan-Shing	45,835,294	100%
	Supervisor	Taiwan Crystal Technology International Limited Representive: Chang, Chien-Tsung	45,835,294	100%
TXC (CHONGQING) CORPORATION	Chairman	TXC (NINGBO) CORPORATION Representive: Chen Chueh, Shang-Hsin	247,876,609	100%
	Director	TXC (NINGBO) CORPORATION Representive: Chang, Chien-Tsung	247,876,609	100%
	Director	TXC (NINGBO) CORPORATION Representive: Lin, Wan-Shing	247,876,609	100%
	Supervisor	TXC (NINGBO) CORPORATION Representive: Lin,Chia-Ching	247,876,609	100%
Chongqing All Suns Company Limited	Chairman	TXC (NINGBO) CORPORATION Representive: Chou,Chien-Fu	140,000,000	100%

Name	Title	Name or representive	Shares	Share (%)
	Director	TXC (NINGBO) CORPORATION Representive: Lin, Wan-Shing	140,000,000	100%
	Director	TXC (NINGBO) CORPORATION Representive: Chen Chueh, Shang-Hsin	140,000,000	100%
	Supervisor	TXC (NINGBO) CORPORATION Representive: Lin,Chia-Ching	140,000,000	100%
Ningbo Jingyu Company Limited	Chairman	TXC (NINGBO) CORPORATION Representive: Lin,Chia-Ching	2,500,000	100%
	Supervisor	TXC (NINGBO) CORPORATION Representive: Chen Chueh, Shang-Hsin	2,500,000	100%
Ningbo Free Trade Zon Ding Kai Investment Management Company	Chairman	TXC (NINGBO) CORPORATION Representive: Lin,Chia-Ching	35,050,000	100%
	Supervisor	TXC (NINGBO) CORPORATION Representive: Lin, Hai	35,050,000	100%
	President	TXC (NINGBO) CORPORATION Representive: Chao,Min-Chiang	35,050,000	100%

(IV) Operational Highlights of TXC Subsidiaries

December 31, 2019

Unit: NT$ thousands, expect EPS (NT$)

Name	Capital	Total Assets	Total Liabilities	Shareholder Equity	Sales Revenues	Operating Profits (Loss)	Net Income (After tax)	EPS (After tax)
Taiwan Crystal Technology International Limited	1,390,461	5,347,061	-	5,347,061	-	(41)	365,631	8.54
TXC Technology Inc	9,879	17,889	1,031	16,858	71,802	3,932	2,176	7.25
TXC Japan Corporation	6,172	46,679	16,036	30,643	119,875	5,616	3,418	1,627.54
TAIWAN CRYSTAL TECHNOLOGY (HK) LIMITED	2,371	97,490	9,838	87,652	14,411	(7,839)	(3,584)	(44.79)
TXC Europe GmbH	1,746	3,367	626	2,741	12,610	796	758	15.16
Growing Profits Trading Ltd	1,691	152,415	-	152,415	201,175	(17,228)	(19,106)	(382.12)
TXC (NINGBO) CORPORATION	1,487,211	6,505,144	1,310,517	5,194,627	3,581,378	261,237	384,778	8.39
TXC (CHONGQING) CORPORATION	1,162,074	1,771,947	553,721	1,218,226	1,238,632	98,918	101,076	0.41
Chongqing All Suns Company Limited	647,141	945,327	376,144	569,183	-	(21,722)	(20,516)	(0.15)
Ningbo Jingyu Company Limited	7,090	5,570	625	4,945	12,696	784	1,062	0.42
Ningbo Free Trade Zon Ding Kai Investment Management Company	160,043	211,302	-	211,302	-	-	-	-

Note: All related companies were exposed by the number of financial statements audited by CPA in 2019.

II. Private Placement Securities in 2019 and as of the Date of this Annaul Report: None

III. Status of TXC's Common Shares Acquired, Disposed of, and Held by Subsidiares: None

IV. Other Necessary Supplement: None

V. Any Events in 2019 and as of the Date of this Annual Report that Had Significant Impacts on Shareholders' Right or Security Prices as Stated in Item 3: None

TXC Corporation and Subsidiaries

Consolidated Financial Statements for the Years Ended December 31, 2019 and 2018 and Independent Auditors' Report

DECLARATION OF CONSOLIDATION OF FINANCIAL STATEMENTS OF AFFILIATES

The companies required to be included in the consolidated financial statements of affiliates in accordance with the "Criteria Governing Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises" for the year ended December 31, 2019 are all the same as the companies required to be included in the consolidated financial statements of parent and subsidiary companies as provided in International Financial Reporting Standards 10 "Consolidated and Separate Financial Statements". Relevant information that should be disclosed in the consolidated financial statements of affiliates has all been disclosed in the consolidated financial statements of parent and subsidiary companies. Hence, we do not prepare a separate set of consolidated financial statements of affiliates.

Very truly yours,

TXC CORPORATION

By

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PETER LIN
Chairman

March 23, 2020

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders
TXC Corporation

Opinion

We have audited the accompanying consolidated financial statements of TXC Corporation and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated balance sheets as of December 31, 2019 and 2018, and the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies (collectively referred to as the "consolidated financial statements").

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China.

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. 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 judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2019. 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.

The key audit matters identified in the Group's consolidated financial statements for the year ended December 31, 2019 are stated as follows:

Sales from Hub Warehouses

Sales from Hub Warehouses to meet the needs of major customers, TXC Corporation and its subsidiaries stock finished goods in the hub warehouses. Sales from hub warehouses are recognized when finished goods are already picked up by customers, and customers have the right to use the finished goods and bear the risk of finished goods. Since recognition of sales from hub warehouses requires more control mechanisms, we considered sales from hub warehouses as a key audit matter.

The key audit procedures that we performed in respect of sales from hub warehouses included the following:

1. We evaluated the appropriateness of the design of relevant procedures for the sales revenue recognition of TXC Corporation and its subsidiaries.

2. We selected samples to test the effectiveness of its key control operations and verified the consistency of the implementation of the control during the year.

3. For revenue details from warehouse sales generated from major customers in the current year, we selected samples and checked the orders and pick-up related documents which correspond to the sales revenue to confirm the occurrence of the sales revenue.

Other Matter

We have audited the accompanying financial statements of TXC Corporation as of December 31, 2019 and 2018 on which we have issued an unmodified opinion.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines 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, management is 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 management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including the audit committee, are responsible for overseeing the Group's financial reporting process.

Auditors' 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 auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China 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 the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. 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.

2. 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.

3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

4. Conclude on the appropriateness of management's 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 auditors' 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 auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.

5. 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.

6. Obtain sufficient and appropriate audit evidence regarding the financial information of 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.

We communicate with those charged with governance 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 those charged with governance 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 those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' 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 partners on the audit resulting in this independent auditors' report are Ming-Chung Hsieh and Yu-shiou Su.

Deloitte & Touche
Taipei, Taiwan
Republic of China

March 23, 2020

Notice to Readers

The accompanying consolidated financial statements are intended only to present the consolidated financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such consolidated financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying consolidated financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and consolidated financial statements shall prevail.

TXC CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019		2018	
ASSETS	**Amount**	**%**	**Amount**	**%**
CURRENT ASSETS				
Cash and cash equivalents (Note 6)	$ 1,986,235	15	$ 1,305,402	10
Financial assets at fair value through profit or loss - current (Note 7)	758,940	6	902,869	7
Financial assets at amortized cost - current (Note 9)	73,083	-	189,588	2
Notes receivable (Note 10)	107,142	1	85,661	1
Trade receivables (Note 10)	2,778,155	21	2,631,163	21
Trade receivables from related parties (Notes 10 and 28)	4,038	-	8,995	-
Other receivables	40,587	-	112,451	1
Other receivables from related parties (Note 28)	79	-	796	-
Current tax assets (Note 24)	8,176	-	5,245	-
Inventories (Note 11)	2,039,498	15	1,816,896	15
Prepayment for lease (Note 17)	-	-	2,323	-
Other current assets	149,103	1	55,900	-
Total current assets	7,945,036	59	7,117,289	57
NON-CURRENT ASSETS				
Financial assets at fair value through profit or loss - non-current (Note 7)	9,255	-	30,975	-
Financial assets at fair value through other comprehensive income - non-current (Note 8)	422,422	3	494,242	4
Financial assets measured at cost - non-current (Note 9)	86,983	1	-	-
Investments accounted for using equity method (Note 13)	477,290	4	396,390	3
Property, plant and equipment (Note 14)	4,054,149	30	4,110,722	33
Right-of-use assets (Note 15)	96,162	1	-	-
Investment properties (Note 16)	54,565	1	160,088	1
Other intangible assets	27,816	-	21,831	-
Deferred tax assets (Note 24)	39,349	-	36,574	-
Prepayment for equipment	169,470	1	87,174	1
Long-term prepayment for lease (Note 17)	-	-	93,868	1
Other non-current assets	16,273	-	12,573	-
Total non-current assets	5,453,734	41	5,444,437	43
TOTAL	$ 13,398,770	100	$ 12,561,726	100
LIABILITIES AND EQUITY				
CURRENT LIABILITIES				
Short-term loans (Note 18)	$ 63,485	1	$ 30,715	-
Financial liabilities at fair value through profit or loss - current (Note 7)	3,963	-	-	-
Trade payables	1,659,086	12	1,326,822	11
Trade payables to related parties (Note 28)	78	-	97	-
Other payables (Note 19)	724,671	5	563,676	4
Other payables to related parties (Note 28)	2,850	-	3,117	-
Current tax liabilities (Note 24)	48,135	-	3,647	-
Lease liabilities - current (Note 15)	3,087	-	-	-
Current portion of long-term borrowings and bonds payable (Note 18)	209,860	2	139,020	1
Other current liabilities	81,304	1	21,766	-
Total current liabilities	2,796,519	21	2,088,860	16
NON-CURRENT LIABILITIES				
Long-term borrowings (Note 18)	1,637,635	12	1,482,346	12
Deferred income tax liabilities (Note 24)	123,400	1	145,490	1
Lease liabilities - non-current (Note 15)	2,949	-	-	-
Net defined benefit liabilities - non-current (Note 20)	74,031	1	68,033	1
Guarantee deposits received	36,465	-	26,157	-
Total non-current liabilities	1,874,480	14	1,722,026	14
Total liabilities	4,670,999	35	3,810,886	30
EQUITY ATTRIBUTABLE TO OWNERS OF THE PARENT (Note 21)				
Share capital				
Ordinary shares	3,097,570	23	3,097,570	25
Capital surplus	1,666,690	13	1,665,116	13
Retained earnings				
Legal reserve	1,413,518	10	1,349,083	11
Special reserve	254,907	2	222,793	2
Unappropriated earnings	2,789,438	21	2,671,184	21
Total retained earnings	4,457,863	33	4,243,060	34
Other equity				
Exchange differences on translating the financial statements of foreign operations	(584,617)	(4)	(359,923)	(3)
Unrealized gain on financial assets at fair value through other comprehensive income	60,245	-	105,017	1
Total other equity	(524,372)	(4)	(254,906)	(2)
Total equity attributable to owners of the Company	8,697,751	65	8,750,840	70
Total equity	8,697,751	65	8,750,840	70
TOTAL	$ 13,368,750	100	$ 12,561,726	100

The accompanying notes are an integral part of the consolidated financial statements.

TXC CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018	
	Amount	**%**	**Amount**	**%**
REVENUE (Note 22)	$ 8,430,970	100	$ 8,156,268	100
COST OF GOODS SOLD (Note 23)	(6,423,879)	(76)	(6,328,642)	(77)
GROSS PROFIT	2,007,091	24	1,827,626	23
OPERATING EXPENSES (Note 23)				
Selling and marketing expenses	433,296	5	442,479	6
General and administrative expenses	358,881	5	332,453	4
Research and development expenses	582,776	7	519,906	6
Expected credit loss reversed on trade receivables	-	-	(513)	-
Total operating expenses	1,374,953	17	1,294,325	16
PROFIT FROM OPERATIONS	632,138	7	533,301	7
NON-OPERATING INCOME AND EXPENSES				
Other income (Note 23)	162,824	2	145,629	2
Other gains and losses (Note 23)	(21,143)	-	64,841	1
Finance costs (Note 23)	(23,250)	-	(20,400)	(1)
Share of profits of associates and joint ventures (Note 13)	14,008	-	10,126	-
Total non-operating income and expenses	132,439	2	200,196	2
PROFIT BEFORE INCOME TAX	764,577	9	733,497	9
INCOME TAX EXPENSE (Note 24)	(92,795)	(1)	(89,248)	(1)
NET PROFIT FOR THE YEAR	671,782	8	644,249	8
OTHER COMPREHENSIVE INCOME (LOSS)				
Item that will not be reclassified subsequently to profit or loss:				
Remeasurement of defined benefit plans	(12,331)	-	(10,620)	-
Unrealized (gain) loss on investments in equity instruments at fair value through other comprehensive income	129,437	2	(140,093)	(2)
Share of the other comprehensive income of associates accounted for using the equity method	657	-	(257)	-
	117,763	2	(150,970)	(2)

(Continued)

TXC CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019 Amount	2019 %	2018 Amount	2018 %
Item that maybe reclassified subsequently to profit or loss:				
Exchange differences on translating the financial statements of foreign operations	$ (216,643)	(3)	$ (94,043)	(1)
Share of the other comprehensive loss of associates accounted for using the equity method	(8,051)	-	(1,743)	-
	(224,694)	(3)	(95,786)	(1)
Other comprehensive loss for the year, net of income tax	(106,931)	(1)	(246,756)	(3)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	$ 564,851	7	$ 397,493	5
NET PROFIT ATTRIBUTABLE TO:				
Owners of the Company	$ 671,782	8	$ 644,350	8
Non-controlling interests	-	-	(101)	-
	$ 671,782	8	$ 644,249	8
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:				
Owners of the Company	$ 564,851	7	$ 397,594	5
Non-controlling interests	-	-	(101)	-
	$ 564,851	7	$ 397,493	5
EARNINGS PER SHARE (Note 25)				
From continuing and discounted operations				
Basic	$2.17		$2.08	
Diluted	$2.16		$2.06	

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

TXC CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	Equity Attributable to Owners of the Parent											
				Retained Earnings			Others					
	Shares (In Thousands)	Share Capital	Capital Surplus	Legal Reserve	Special Reserve	Unappropriated Earnings	Exchange Differences on Translating Foreign Operations	Unrealized Gain (Loss) on Financial Assets at Fair Value Through Other Comprehensive Income	Unrealized Gain (Loss) on Available-for-sale Financial Assets	Total	Non-controlling Interests	Total Equity
BALANCE AT JANUARY 1, 2018	309,757	$ 3,097,570	$ 1,665,224	$ 1,252,818	$ 222,793	$ 2,767,383	$ (264,137)	$ -	$ 381,048	$ 9,122,699	$ 41,892	$ 9,164,591
Effect of retrospective application and retrospective restatement	-	-	-	-	-	102,957	-	283,139	(381,048)	5,048	-	5,048
BALANCE AT JANUARY 1, 2018 AS RESTATED	309,757	3,097,570	1,665,224	1,252,818	222,793	2,870,340	(264,137)	283,139	-	9,127,747	41,892	9,169,639
Appropriation of 2017 earnings (Note 21)												
Legal reserve	-	-	-	96,265	-	(96,265)	-	-	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(774,393)	-	-	-	(774,393)	-	(774,393)
Net profit (loss) for the for the year ended December 31, 2018	-	-	-	-	-	644,350	-	-	-	644,350	(101)	644,249
Other comprehensive loss for the for the year ended December 31, 2018, net of income tax	-	-	-	-	-	(10,792)	(95,786)	(140,178)	-	(246,756)	-	(246,756)
Total comprehensive income (loss) for the for the year ended December 31, 2018	-	-	-	-	-	633,558	(95,786)	(140,178)	-	397,594	(101)	397,493
Changes in percentage of ownership interests in subsidiaries	-	-	-	-	-	-	-	-	-	-	(41,791)	(41,791)
Disposal of equity instruments at fair value through other comprehensive income (Note 8)	-	-	-	-	-	37,944	-	(37,944)	-	-	-	-
Changes in capital surplus from investment in associates and joint ventures accounted for using the equity method	-	-	(108)	-	-	-	-	-	-	(108)	-	(108)
BALANCE AT DECEMBER 31, 2018	309,757	3,097,570	1,665,116	1,349,083	222,793	2,671,184	(359,923)	105,017	-	8,750,840	-	8,750,840
Appropriation of 2018 earnings (Note 21)												
Legal reserve	-	-	-	64,435	-	(64,435)	-	-	-	-	-	-
Special reserve	-	-	-	-	32,114	(32,114)	-	-	-	-	-	-
Cash dividends distributed by the company	-	-	-	-	-	(619,514)	-	-	-	(619,514)	-	(619,514)
Net profit for the year ended December 31, 2019	-	-	-	-	-	671,782	-	-	-	671,782	-	671,782
Other comprehensive income (loss) for the year ended December 31, 2019, net of income tax	-	-	-	-	-	(12,270)	(224,694)	130,033	-	(106,931)	-	(106,931)
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	-	-	-	659,512	(224,694)	130,033	-	564,851	-	564,851
Surplus donated	-	-	1,617	-	-	-	-	-	-	1,617	-	1,617
Changes in capital surplus from investment in associates and joint ventures accounted for using the equity method	-	-	(43)	-	-	-	-	-	-	(43)	-	(43)
Disposal of equity instruments at fair value through other comprehensive income (Note 8)	-	-	-	-	-	174,805	-	(174,805)	-	-	-	-
BALANCE AT DECEMBER 31, 2019	309,757	$ 3,097,570	$ 1,666,690	$ 1,413,518	$ 254,907	$ 2,789,438	$ (584,617)	$ 60,245	$ -	$ 8,697,751	$ -	$ 8,697,751

The accompanying notes are an integral part of the consolidated financial statements.

TXC CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Income before income tax	$ 764,577	$ 733,497
Adjustments for:		
Depreciation expenses	760,317	814,031
Amortization expenses	7,241	2,121
Amortization of prepayments for lease	-	2,354
Expected credit loss reversed on trade receivables	-	(513)
Net gain on fair value change of financial assets and liabilities at fair value through profit or loss	(14,680)	(29,802)
Finance costs	23,250	20,400
Interest income	(27,876)	(21,088)
Dividend income	(2,385)	(1,527)
Share of profit of associates and joint ventures	(14,008)	(10,126)
Loss on disposal of property, plant and equipment	(230)	(2,016)
Gain on disposal of investment property	-	(26,629)
Gain on disposal of non-current assets held for sales	-	(3,152)
Impairment loss on property, plant and equipment	(2,369)	(2,961)
Changes in operating assets and liabilities		
Financial assets mandatorily classified as at fair value through profit or loss	158,731	123,407
Notes receivable	(21,481)	(20,006)
Trade receivables	(146,853)	(51,997)
Trade receivables from related parties	4,957	(2,288)
Other receivables	70,863	(5,282)
Other receivables from related parties	717	(24)
Inventories	(222,230)	(312,687)
Other current assets	(44,066)	52,241
Financial liabilities mandatorily classified as at fair value through profit or loss	(6,941)	(1,265)
Notes payable	-	(276)
Trade payables	332,264	99,831
Trade payables to related parties	(19)	73
Other payables	160,985	(136,822)
Other payables to related parties	(267)	1,296
Other current liabilities	59,538	(6,962)
Net defined benefit liabilities	(6,333)	(4,611)
Cash generated from operations	1,833,702	1,209,217
Interest paid	(23,210)	(20,645)
Income tax paid	(146,866)	(120,099)
Net cash generated from operating activities	1,663,626	1,068,473

(Continued)

TXC CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of financial assets at fair value through profit or loss	$ (27,108)	$ -
Proceeds from sale of financial assets at fair value through other comprehensive income	241,715	53,886
Purchase of financial assets at amortized cost	(163,614)	(191,646)
Proceeds from financial assets at amortized cost	188,411	89,480
Purchase of investments accounted for using equity method	(67,083)	(294,842)
Payments for property, plant and equipment	(684,499)	(774,529)
Proceeds from investment property	-	38,897
Proceeds from disposal of property, plant and equipment	5,689	58,136
Payments for intangible assets	(14,070)	(15,994)
(Increase) decrease in other non-current assets	(3,700)	3,374
Increase in prepayment for equipment	(82,296)	(15,126)
Proceeds from disposal of non-current assets held for sale	-	97,837
Interest received	28,877	21,701
Other dividends received	22,832	4,732
Net cash used in investing activities	(554,846)	(924,094)
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from short-term borrowings	35,257	30,166
Proceeds from long-term borrowings	2,235,661	409,611
Repayments of long-term borrowings	(1,996,875)	(776,604)
Proceeds from guarantee deposits received	10,328	6,043
Refund of guarantee deposits received	(2,857)	-
Dividends paid to owners of the Company	(619,514)	(774,393)
Return of shareholders' cash dividends	1,617	-
Decrease in non-controlling interests	-	(41,791)
Net cash used in financing activities	(336,383)	(1,146,968)
EFFECTS OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	(91,564)	(23,375)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	680,833	(1,025,964)
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR	1,305,402	2,331,366
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	$ 1,986,235	$ 1,305,402

The accompanying notes are an integral part of the consolidated financial statements. (Concluded)

1. GENERAL INFORMATION

TXC Corporation (the "Company") was incorporated in the Republic of China (ROC) on December 28, 1983.

TXC specializes in producing high quality quartz unite crystal, automotive crystal, crystal oscillator (CXO), and timing module (TM) as well as develops a variety of sensors by core technology to satisfy the market demand. Sensors are applied to various applications including mobile communication, wearable device, internet of things and vehicle electronics, etc.

TXC's shares have been listed on the Taiwan Stock Exchange since August 26, 2002.

The consolidated financial statements are presented in the Company's functional currency, the New Taiwan dollar.

In order to ensure investors' rights and interests, the Company filed an application to Taiwan Corporate Governance Association for corporate governance assessment certification. The Company acquired CG6005 general version of corporate governance assessment and authentication and CG6008 advanced version of corporate governance assessment and authentication on March 23, 2011 and June 27, 2013, respectively. On the first "Corporate Governance Assessment and Authentication" which is jointly held by the "Taiwan Stock Exchange" and "Taipei Exchange", the Company was listed as the top 20 percent of the listed companies in 2014 and awarded the top 5 percent of the listed companies from 2015 to 2017. The Company will continue to strengthen corporate governance functions in order to work with international standards and to protect public interests.

2. APPROVAL OF FINANCIAL STATEMENTS

The consolidated financial statements were approved by the Company's board of directors on March 23, 2020.

3. APPLICATION OF NEW, AMENDED AND REVISED STANDARDS AND INTERPRETATIONS

a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) (collectively, the "IFRSs") endorsed and issued into effect by the Financial Supervisory Commission (FSC)

   Except for the following, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed and issued into effect by the FSC did not have any material impact on the Group's accounting policies:

   1) IFRS 16 "Leases"

      IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessee and lessor. It supersedes IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", and a number of related interpretations. Refer to Note 4 for information relating to the relevant accounting policies.

Definition of a lease

The Group elects to apply the guidance of IFRS 16 in determining whether contracts are, or contain, a lease only to contracts entered into (or changed) on or after January 1, 2019. Contracts identified as containing a lease under IAS 17 and IFRIC 4 are not reassessed and are accounted for in accordance with the transitional provisions under IFRS 16.

The Group as lessee

The Group recognizes right-of-use assets and lease liabilities for all leases on the consolidated balance sheets except for those whose payments under low-value asset and short-term leases are recognized as expenses on a straight-line basis. On the consolidated statements of comprehensive income, the Group presents the depreciation expense charged on right-of-use assets separately from the interest expense accrued on lease liabilities; interest is computed using the effective interest method. On the consolidated statements of cash flows, cash payments for the principal portion of lease liabilities are classified within financing activities; cash payments for the interest portion are classified within financing activities. Prior to the application of IFRS 16, payments under operating lease contracts, including property interest qualified as investment properties, were recognized as expenses on a straight-line basis. Prepaid lease payments for land use rights in China were recognized as prepayments for leases. Cash flows for operating leases were classified within operating activities on the consolidated statements of cash flows. Leased assets and finance lease payables were recognized on the consolidated balance sheets for contracts classified as finance leases.

The Group elects to apply IFRS 16 retrospectively with the cumulative effect of the initial application of this standard recognized on January 1, 2019. Comparative information is not restated.

Lease liabilities were recognized on January 1, 2019 for leases previously classified as operating leases under IAS 17. Lease liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. Right-of-use assets are measured at an amount equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments. The Group applies IAS 36 to all right-of-use assets.

The lessee's weighted average lessee's incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 is 1.15%. The difference between the (i) lease liabilities recognized and (ii) operating lease commitments disclosed under IAS 17 on December 31, 2018 is explained as follows:

The future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018	$ 1,333
Undiscounted amounts on January 1, 2019	$ 1,333
Discounted amounts using the incremental borrowing rate on January 1, 2019	$ 1,330
Lease liabilities recognized on January 1, 2019	$ 1,330

The Group as lessor

The Group does not make any adjustments for leases in which it is a lessor, and it accounts for those leases with the application of IFRS 16 starting from January 1, 2019.

The impact on assets, liabilities and equity as of January 1, 2019 from the initial application of IFRS 16 is set out as follows:

	As Originally Stated on January 1, 2019	Adjustments Arising from Initial Application	Restated on January 1, 2019
Right-of-use assets - building	$ -	$ 1,330	$ 1,330
Right-of-use assets - land	-	96,191	96,191
Prepayments for leases - current	2,323	(2,323)	-
Prepayments for leases - non-current	93,868	(93,868)	-
Total effect on assets	$ 96,191	$ 1,330	$ 97,521
Lease liabilities - current	$ -	$ 1,330	$ 1,330
Total effect on liabilities	$ -	$ 1,330	$ 1,330

2) IFRIC 23 "Uncertainty over Income Tax Treatments"

IFRIC 23 clarifies that when there is uncertainty over income tax treatments, the Group should assume that the taxation authority has full knowledge of all related information when making related examinations. If the Group concludes that it is probable that the taxation authority will accept an uncertain tax treatment, the Group should determine the taxable profit, tax bases, unused tax losses, unused tax credits or tax rates consistently with the tax treatments used or planned to be used in its income tax filings. If it is not probable that the taxation authority will accept an uncertain tax treatment, the Group should make estimates using either the most likely amount or the expected value of the tax treatment, depending on which method the Group expects to better predict the resolution of the uncertainty.

3) Amendments to IAS 19 "Plan Amendment, Curtailment or Settlement"

The amendments stipulate that, if a plan amendment, curtailment or settlement occurs, the current service cost and the net interest for the remainder of the annual reporting period are determined using the actuarial assumptions used for the remeasurement of the net defined benefit liabilities (assets). In addition, the amendments clarify the effect of a plan amendment, curtailment or settlement on the requirements regarding the asset ceiling. The Group applied the above amendments prospectively.

b. The IFRSs endorsed by the Financial Supervisory Commission (FSC) for application starting from 2020

New, Amended or Revised Standards and Interpretations (the "New IFRSs")	Effective Date Announced by IASB (Note 1)
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020 (Note 1)
Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"	January 1, 2020 (Note 2)
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020 (Note 3)

Note 1: The Group shall apply these amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period.

Note 2: The Group shall apply these amendments retrospectively for annual reporting periods beginning on or after January 1, 2020.

Note 3: The Group shall apply these amendments prospectively for annual reporting periods beginning on or after January 1, 2020.

- Amendments to IAS 1 and IAS 8 “Definition of material”

  The amendments are intended to make the definition of material in IAS 1 easier to understand and are not intended to alter the underlying concept of materiality in IFRSs. The concept of “obscuring” material information with immaterial information has been included as part of the new definition. The threshold for materiality influencing users has been changed from “could influence” to “could reasonably be expected to influence”.

Except for the above impact, as of the date the consolidated financial statements were authorized for issue, the Group is continuously assessing the possible impact that the application of other standards and interpretations will have on the Group’s financial position and financial performance and will disclose the relevant impact when the assessment is completed.

c. New IFRSs in issue but not yet endorsed and issued into effect by the FSC

New IFRSs	Effective Date Announced by IASB (Note)
Amendments to IFRS 10 and IAS 28 “Sale or Contribution of Assets between an Investor and its Associate or Joint Venture”	To be determined by IASB
IFRS 17 “Insurance Contracts”	January 1, 2021
Amendments to IAS 1 “Classification of Liabilities as Current or Non-current”	January 1, 2022

Note: Unless stated otherwise, the above New IFRSs are effective for annual reporting periods beginning on or after their respective effective dates.

As of the date the consolidated financial statements were authorized for issue, the Group is continuously assessing the possible impact that the application of other standards and interpretations will have on the Group’s financial position and financial performance and will disclose the relevant impact when the assessment is completed.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Statement of compliance

The consolidated financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, or other regulations and IFRSs as endorsed and issued into effect by the FSC.

b. Basis of preparation

The consolidated financial statements have been prepared on the historical cost basis except for financial instruments which are measured at fair value.

The fair value measurements, which are grouped into Levels 1 to 3 based on the degree to which the fair value measurement inputs are observable and based on the significance of the inputs to the fair value measurement in its entirety, are described as follows:

1) Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;

2) Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and

3) Level 3 inputs are unobservable inputs for the asset or liability.

c. Classification of current and non-current assets and liabilities

Current assets include:

1) Assets held primarily for the purpose of trading;

2) Assets expected to be realized within 12 months after the reporting period; and

3) Cash and cash equivalents unless the asset is restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period.

Current liabilities include:

1) Liabilities held primarily for the purpose of trading;

2) Liabilities due to be settled within 12 months after the reporting period, even if an agreement to refinance, or to reschedule payments, on a long-term basis is completed after the reporting period and before the consolidated financial statements are authorized for issue; and

3) Liabilities for which the Group does not have an unconditional right to defer settlement for at least 12 months after the reporting period. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

Assets and liabilities that are not classified as current are classified as non-current.

d. Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and the entities controlled by the Company (i.e., its subsidiaries).

Income and expenses of subsidiaries acquired or disposed of during the period are included in the consolidated statement of profit or loss and other comprehensive income from the effective date of acquisition up to the effective date of disposal, as appropriate.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by the Company.

All intra-group transactions, balances, income and expenses are eliminated in full upon consolidation. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to the owners of the Company.

See Note 12 and Table 6 for detailed information on subsidiaries (including percentages of ownership and main businesses).

e. Foreign currencies

In preparing the financial statements of each individual group entity, transactions in currencies other than the entity's functional currency (i.e., foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions.

At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences on monetary items arising from settlement or translation are recognized in profit or loss.

Non-monetary items measured at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Exchange differences arising from the retranslation of non-monetary items are included in profit or loss for the period except for exchange differences arising from the retranslation of non-monetary items in respect of which gains and losses are recognized directly in other comprehensive income, in which cases, the exchange differences are also recognized directly in other comprehensive income.

Non-monetary items that are measured at historical cost in a foreign currency are not retranslated.

For the purpose of presenting consolidated financial statements, the functional currencies of the Company and its foreign operations (including subsidiaries, associates, joint ventures and branches in other countries that use currencies which are different from the currency of the Company) are translated into the presentation currency, the New Taiwan dollar, as follows: Assets and liabilities are translated at the exchange rates prevailing at the end of the reporting period; and income and expense items are translated at the average exchange rates for the period. The resulting currency translation differences are recognized in other comprehensive income (attributed to the owners of the Company and non-controlling interests as appropriate).

On the disposal of a foreign operation (i.e., a disposal of the Company's entire interest in a foreign operation, or a disposal involving the loss of control over a subsidiary that includes a foreign operation, or a partial disposal of an interest in a joint arrangement or an associate that includes a foreign operation of which the retained interest becomes a financial asset), all of the exchange differences accumulated in equity in respect of that operation are reclassified to profit or loss.

In relation to a partial disposal of a subsidiary that does not result in the Company losing control over the subsidiary, the proportionate share of accumulated exchange differences is re-attributed to the non-controlling interests of the subsidiary but is not recognized in profit or loss. For all other partial disposals, the proportionate share of the accumulated exchange differences recognized in other comprehensive income is reclassified to profit or loss.

f. Inventories

- Inventories

  Inventories consist of raw materials, supplies, finished goods and work-in-process and are stated at the lower of cost or net realizable value. Inventory write-downs are made by item, except where it may be appropriate to group similar or related items. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale. Inventories are recorded at the specific identification of cost on the balance sheet date.

- Construction in progress

  Construction in progress is initially recorded at cost. Prior to the completion, the borrowing costs directly attributable to construction in progress are capitalized as part of the cost of the asset. When the property sales have been deemed as cost carried forward, cost is allocated by applying sales and building coverage ratios. Once selected, the same construction project cannot be changed in the preceding and following years.

  The construction is measured at the lower of cost and net realizable value. The net realizable value is the estimated selling prices of inventories less all estimated costs of completion and estimated costs necessary to make the sale.

g. Investments in associates

An associate is an entity over which the Group has significant influence and which is neither a subsidiary nor an interest in a joint venture.

The Group uses the equity method to account for its investments in associates and joint ventures.

Under the equity method, investments in an associate and a joint venture are initially recognized at cost and adjusted thereafter to recognize the Group's share of the profit or loss and other comprehensive income of the associate and joint venture. The Group also recognizes the changes in the Group's share of the equity of associates and joint ventures attributable to the Group.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets and liabilities of an associate or a joint venture at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment and is not amortized. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

When the Company subscribes for additional new shares of an associate and joint venture at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Group's proportionate interest in the associate and joint venture. The Group records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus - changes in capital surplus from investments in associates and joint ventures accounted for using the equity method. If the Group's ownership interest is reduced due to its additional subscription of the new shares of the associate and joint venture, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate and joint venture is reclassified to profit or loss on the same basis as would be required if the investee had directly disposed of the related assets or liabilities. When the adjustment should be debited to capital surplus, but the capital surplus recognized from investments accounted for using the equity method is insufficient, the shortage is debited to retained earnings.

When the Group's share of losses of an associate and a joint venture equals or exceeds its interest in that associate and joint venture (which includes any carrying amount of the investment accounted for using the equity method and long-term interests that, in substance, form part of the Group's net investment in the associate and joint venture), the Group discontinues recognizing its share of further losses. Additional losses and liabilities are recognized only to the extent that the Group has incurred legal obligations, or constructive obligations, or made payments on behalf of that associate and joint venture.

The entire carrying amount of an investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

The Group discontinues the use of the equity method from the date on which its investment ceases to be an associate and a joint venture. Any retained investment is measured at fair value at that date, and the fair value is regarded as the investment's fair value on initial recognition as a financial asset. The difference between the previous carrying amount of the associate and the joint venture attributable to the retained interest and its fair value is included in the determination of the gain or loss on disposal of the associate and the joint venture. The Group accounts for all amounts previously recognized in other comprehensive income in relation to that associate and joint venture on the same basis as would be required if that associate had directly disposed of the related assets or liabilities. If an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate, the Group continues to apply the equity method and does not remeasure the retained interest.

When a group entity transacts with its associate and joint venture, profits and losses resulting from the transactions with the associate and joint venture are recognized in the Group's consolidated financial statements only to the extent that interests in the associate and the joint venture are not related to the Group.

h. Property, plant and equipment

Property, plant and equipment are stated at cost, less accumulated depreciation and subsequent accumulated impairment loss.

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognized impairment loss. Cost includes professional fees and borrowing costs eligible for capitalization. Such properties are depreciated and classified to the appropriate categories of property, plant and equipment when completed and ready for intended use.

Freehold land is not depreciated.

Depreciation on property, plant and equipment (including assets held under finance leases) is recognized using the straight-line method. Each significant part is depreciated separately. If the lease term is shorter than the useful lives, assets are depreciated over the lease term. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

On derecognition of an item of property, plant and equipment, the difference between the sales proceeds and the carrying amount of the asset is recognized in profit or loss.

i. Investment properties

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties also include land held for a currently undetermined future use.

Investment properties are initially measured at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and accumulated impairment loss. Depreciation is recognized using the straight-line method.

For a transfer of classification from investment properties to property, plant and equipment, the deemed cost of the property for subsequent accounting is its carrying amount at the commencement of owner-occupation.

For a transfer of classification from property, plant and equipment to investment properties, the deemed cost of the property for subsequent accounting is its carrying amount at the end of owner-occupation.

On derecognition of an investment property, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss.

j. Intangible assets

1) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis. The estimated useful life, residual value, and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimates accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are measured at cost less accumulated impairment loss.

2) Derecognition of intangible assets

On derecognition of an intangible asset, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss.

k. Impairment of tangible and intangible assets and assets related to contract costs

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets, excluding goodwill, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Corporate assets are allocated to the individual cash-generating units on a reasonable and consistent basis of allocation.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the asset may be impaired.

The recoverable amount is the higher of fair value less costs to sell and value in use. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount, with the resulting impairment loss recognized in profit or loss.

When an impairment loss is subsequently reversed, the carrying amount of the asset or cash-generating unit is increased to the revised estimate of its recoverable amount, but only to the extent of the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

l. Financial instruments

Financial assets and financial liabilities are recognized when a group entity becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

1) Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a settlement date basis.

a) Measurement categories

Financial assets are classified into the following categories: Financial assets at FVTPL, financial assets at amortized cost and investments in debt instruments and equity instruments at FVTOCI.

i. Financial assets at FVTPL

Financial assets are classified as at FVTPL when such a financial asset is mandatorily classified as at FVTPL. Financial assets mandatorily classified as at FVTPL include investments in equity instruments which are not designated as at FVTOCI and debt instruments that do not meet the amortized cost criteria or the FVTOCI criteria.

Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any dividends or interest earned on such a financial asset. Fair value is determined in the manner described in Note 27.

ii. Financial assets at amortized cost

Financial assets that meet the following conditions are subsequently measured at amortized cost:

i) The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and

ii) The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent to initial recognition, financial assets at amortized cost, including cash and cash equivalents, trade receivables at amortized cost and debt investments with no active market, are measured at amortized cost, which equals the gross carrying amount determined by the effective interest method less any impairment loss. Exchange differences are recognized in profit or loss.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of such a financial asset, except for:

i) Purchased or originated credit-impaired financial assets, for which interest income is calculated by applying the credit adjusted effective interest rate to the amortized cost of such financial assets; and

ii) Financial assets that are not credit impaired on purchase or origination but have subsequently become credit impaired, for which interest income is calculated by applying the effective interest rate to the amortized cost of such financial assets in subsequent reporting periods.

Cash equivalents include time deposits and repurchase agreement with original maturities within 3 months from the date of acquisition, which are highly liquid, readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. These cash equivalents are held for the purpose of meeting short-term cash commitments.

iii. Investments in equity instruments at FVTOCI

On initial recognition, the Group may make an irrevocable election to designate investments in equity instruments as at FVTOCI. Designation as at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments; instead, it will be transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss when the Group's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

b) Impairment of financial assets

The Group recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including trade receivables), investments in debt instruments that are measured at FVTOCI, lease receivables, as well as contract assets.

The Group always recognizes lifetime expected credit losses (ECLs) for trade receivables, lease receivables. For all other financial instruments, the Group recognizes lifetime ECLs when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on a financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month ECLs.

Expected credit losses reflect the weighted average of credit losses with the respective risks of default occurring as the weights. Lifetime ECLs represent the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECLs represent the portion of lifetime ECLs that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

The impairment loss of all financial assets is recognized in profit or loss by a reduction in their carrying amounts through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and the carrying amounts of such financial assets are not reduced.

c) Derecognition of financial assets

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party.

On derecognition of a financial asset at amortized cost in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. On derecognition of an investment in a debt instrument at FVTOCI, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss which had been recognized in other comprehensive income is recognized in profit or loss. However, on derecognition of an investment in an equity instrument at FVTOCI, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss, and the cumulative gain or loss which had been recognized in other comprehensive income is transferred directly to retained earnings, without recycling through profit or loss.

On derecognition of a financial asset other than in its entirety, the Group allocates the previous carrying amount of the financial asset between the part it continues to recognize and the part it no longer recognizes on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognized and the sum of the consideration received for the part that is no longer recognized is treated in the same way as when the financial asset is derecognized in entirety. A cumulative gain or loss that had been recognized in other comprehensive income is allocated between the part that continues to be recognized and the part that is no longer recognized on the basis of the relative fair values of those parts.

2) Financial liabilities

a) Subsequent measurement

Except the following situations, all financial liabilities are measured at amortized cost using the effective interest method.

- Financial liabilities at FVTPL

  Financial liabilities are classified as at FVTPL when such financial liability is held for trading.

  Financial liabilities held for trading are stated at fair value, and any gains or losses on such financial liabilities are recognized in other gains or losses. Fair value is determined in the manner described in Note 27.

b) Derecognition of financial liabilities

The difference between the carrying amount of a financial liability derecognized and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

3) Derivative financial instruments

The Group enters into a variety of derivative financial instruments to manage its exposure to interest rate and foreign exchange rate risks, including foreign exchange forward contracts, interest rate swaps.

Derivatives are initially recognized at fair value at the date on which the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately unless the derivative is designated and effective as a hedging instrument; in which event, the timing of the recognition in profit or loss depends on the nature of the hedging relationship. When the fair value of a derivative financial instrument is positive, the derivative is recognized as a financial asset; when the fair value of a derivative financial instrument is negative, the derivative is recognized as a financial liability.

Derivatives embedded in hybrid contracts that contain financial asset hosts that is within the scope of IFRS 9 are not separated; instead, the classification is determined in accordance with the entire hybrid contract. Derivatives embedded in non-derivative host contracts that are not financial assets that is within the scope of IFRS 9 (e.g., financial liabilities) are treated as separate derivatives when they meet the definition of a derivative; their risks and characteristics are not closely related to those of the host contracts; and the host contracts are not measured at FVTPL.

m. Revenue recognition

The Group identifies contracts with customers, allocates the transaction price to the performance obligations and recognizes revenue when performance obligations are satisfied.

Revenue from the sale of goods

Revenue from the sale of goods comes from sales of crystals frequency control devices and sensors. Sales of crystals frequency control devices and sensors are recognized as revenue when the goods are delivered to the customer's specific location, the goods are shipped and the goods are picked up by customers because it is the time when the customer has full discretion over the manner of distribution and price to sell the goods, has the primary responsibility for sales to future customers and bears the risks of obsolescence. Trade receivables are recognized concurrently.

n. Leasing

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At the inception of a contract, the Group assesses whether the contract is, or contains, a lease.

1) The Group as lessor

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Lease payments (less any lease incentives payable) from operating leases are recognized as income on a straight-line basis over the terms of the relevant leases. Initial direct costs incurred in obtaining operating leases are added to the carrying amounts of the underlying assets and recognized as expenses on a straight-line basis over the lease terms.

2) The Group as lessee

The Group recognizes right-of-use assets and lease liabilities for all leases at the commencement date of a lease, except for short-term leases and low-value asset leases accounted for applying a recognition exemption where lease payments are recognized as expenses on a straight-line basis over the lease terms.

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities adjusted for lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs needed to restore the underlying assets, and less any lease incentives received. Right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented on a separate line in the consolidated balance sheets.

Right-of-use assets are depreciated using the straight-line method from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms.

Lease liabilities are initially measured at the present value of the lease payments, which comprise fixed payments. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If that rate cannot be readily determined, the Group uses the lessee's incremental borrowing rate.

Subsequently, lease liabilities are measured at amortized cost using the effective interest method, with interest expense recognized over the lease terms. When there is a change in a lease term, the Group remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented on a separate line in the consolidated balance sheets.

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Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

1) The Group as lessor

   Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

2) The Group as lessee

   Assets held under finance leases are initially recognized as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated balance sheets as a finance lease obligation.

   Finance expenses implicit in lease payments for each period are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets; in which case, they are capitalized.

   Operating lease payments are recognized as expenses on a straight-line basis over the lease term.

3) Leasehold land for own use

   When a lease includes both land and building elements, the Group assesses the classification of each element separately as a finance or an operating lease based on the assessment as to whether substantially all the risks and rewards incidental to ownership of each element have been transferred to the lessee. The minimum lease payments are allocated between the land and the building elements in proportion to the relative fair values of the leasehold interests in the land element and building element of the lease at the inception of the lease.

   If the allocation of the lease payments can be made reliably, each element is accounted for separately in accordance with its lease classification. When the lease payments cannot be allocated reliably between the land and building elements, the entire lease is generally classified as a finance lease unless it is clear that both elements are operating leases; in which case, the entire lease is classified as an operating lease.

o. Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

Other than stated above, all other borrowing costs are recognized in profit or loss in the period in which they are incurred.

p. Government grants

Government grants are not recognized until there is reasonable assurance that the Group will comply with the conditions attached to them and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Group recognizes as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognized as a deduction from the carrying amount of the relevant asset and recognized in profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognized in profit or loss in the period in which they are received.

q. Employee benefits

1) Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related services.

2) Retirement benefits

Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered services entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost (including current service cost and net interest on the net defined benefit liability (asset)) are recognized as employee benefit expenses in the period they occur, when the plan amendment or curtailment occurs. Remeasurement, comprising actuarial gains and losses and the return on plan assets (excluding interest), is recognized in other comprehensive income in the period in which it occurs. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liability (asset) represents the actual deficit (surplus) in the Group’s defined benefit plan. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

r. Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

1) Current tax

According to the Income Tax Law, an additional tax at 10% of unappropriated earnings is provided for in the year the shareholders approve to retain the earnings.

Adjustments of prior years’ tax liabilities are added to or deducted from the current year’s tax provision.

2) Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates and interests in joint arrangements, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

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 profits will be available to allow all or part of the assets to be recovered. A previously unrecognized deferred tax asset is also reviewed at the end of each reporting period and recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax liabilities and assets are measured at the tax rates that are expected to apply in the period in which the liabilities are settled or the assets are realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

3) Current and deferred tax for the year

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognized in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group’s accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised if the revisions affect only that period or in the period of the revisions and future periods if the revisions affect both current and future periods.

6. CASH AND CASH EQUIVALENTS

	December 31	
	2019	2018
Cash on hand	$ 1,199	$ 1,260
Checking accounts and demand deposits	1,661,861	1,304,142
Cash equivalents (investments with original maturities less than three months)		
Time deposits	323,175	-
	$ 1,986,235	$ 1,305,402

The market rate intervals of cash in bank at the end of the reporting period were as follows:

	December 31	
	2019	2018
Demand deposits	0.001%-1.92%	0.001%-0.43%
Time deposits	2.12%-3.85%	2.00%-4.30%

7. FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31	
	2019	2018
Financial assets at FVTPL - current		
Financial assets mandatorily classified as at FVTPL		
Derivative financial instruments (not under hedge accounting)		
Foreign exchange forward contracts (b)	$ 3,762	$ 1,757
Exchange contracts (b)	-	76
	3,762	1,833
Non-derivative financial assets		
Mutual funds	387,337	559,068
Hybrid financial assets		
Structured deposits (a)	367,841	341,968
	755,178	901,036
	$ 758,940	$ 902,869
Financial assets at FVTPL - non-current		
Financial assets mandatorily classified as at FVTPL		
Non-derivative financial assets		
Unlisted shares	$ 9,255	$ 30,975
Financial liabilities at FVTPL - current		
Financial liabilities mandatorily classified as at FVTPL		
Derivative financial liabilities (not under hedge accounting)		
Foreign exchange forward contracts (b)	$ 173	$ -
Exchange contracts (b)	3,790	-
	$ 3,963	$ -

a. The structured time deposit contract includes an embedded derivative instrument which is not closely related to the host contract. The entire contract is assessed and classified mandatorily as at FVTPL since it contained a host that is an asset within the scope of IFRS 9.

b. At the end of the reporting period, outstanding foreign exchange contracts and exchange contracts not under hedge accounting were as follows:

	Currency	**Maturity Date**	**Contract Amount (In Thousands)**
December 31, 2019			
Sell	USD/RMB	2019.10.09-2020.03.27	USD12,000/RMB83,414
Knock-out forward	USD/JPY	2020.01.09	USD1,500/JPY163,525
Knock-out forward	USD/RMB	2020.01.09	RMB10,000/USD1,430
Exchange contracts	USD/NTD	2020.01.13-2020.02.19	USD11,000/NTD335,658
Foreign exchange forward contracts	USD/NTD	2020.01.09-2020.01.17	USD4,000/NTD122,500
December 31, 2018			
Sell	USD/RMB	2019.01.04-2019.02.11	USD5,500/RMB38,107
Knock-out forward	USD/JPY	2019.01.15	USD1,000/JPY114,000
Knock-out forward	USD/NTD	2019.01.10-2019.02.20	USD9,000/NTD279,020
Foreign exchange forward contracts	USD/NTD	2019.01.10-2019.01.24	USD6,000/NTD186,950
Exchange contracts	USD/NTD	2019.01.07-2019.02.20	USD10,000/NTD308,227

The Group entered into foreign exchange forward contracts during the years ended December 31, 2019 and 2018 to manage exposures due to exchange rate fluctuations of foreign currency denominated assets and liabilities. However, those contracts did not meet the criteria of hedge effectiveness and therefore were not accounted for by using hedge accounting.

8. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	December 31	
	2019	**2018**
Non-current		
Investments in equity instruments at FVTOCI	$ 422,422	$ 494,242

Investments in Equity Instruments at FVTOCI

	December 31	
	2019	2018
Non-current		
Domestic investments		
Unlisted shares		
Win Precision Technology Company Limited	$ 18,388	$ 14,256
Marson Technology Company Limited	4,773	4,773
UPI Semiconductor Corp.	45,202	61,198
	68,363	80,227
Foreign investments		
Listed shares		
Guandong Failong Crystal Technology Company Limited	117,114	250,698
Unlisted shares		
Zhejiang Bright Semiconductor Technology Company Limited	211,160	163,317
Ningbo SJ Electronics Co., Ltd.	25,785	-
	354,059	414,015
	$ 422,422	$ 494,242

These investments in equity instruments are not held for trading. Instead, they are held for medium to long-term strategic purposes. Accordingly, the management elected to designate these investments in equity instruments as at FVTOCI as they believe that recognizing short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Group's strategy of holding these investments for long-term purposes.

In 2019 and 2018, the Group sold shares in Guandong Failong Crystal Technology Company Limited in order to manage concentration risk. The sold shares had a fair value of $241,715 thousand and $53,886 thousand and the Group transferred a gain of $174,805 thousand and $37,944 thousand from other equity to retained earnings.

9. FINANCIAL ASSETS AT AMORTIZED COST

	December 31	
	2019	2018
Current		
Domestic investments		
Pledge deposits (a)	$ 51,094	$ 149,233
Time deposits with original maturities of more than 3 months (b)	21,989	-
Foreign investments		
Debt investments - Westpac Banking Corp. (c)	-	40,355
	$ 73,083	$ 189,588
Non-current		
Domestic investment		
Time deposits with original maturities of more than 1 year (b)	$ 86,983	$ -

a. Refer to Note 29 for information relating to investments in financial assets at amortized cost pledged as security.

b. The ranges of interest rates for time deposits with original maturities of more than 3 months were approximately 2.12%-4.38% and 2.00%-4.29% per annum as of December 31, 2019 and 2018, respectively.

c. In May 23, 2018, the Group bought one-year corporate bonds issued by Westpac Banking Corporation at value of RMB9,116 thousand with a coupon rate of 4.35%, at an effective interest rate of 3.60% and the redemption price is 41,184 thousand with maturity date on March 29, 2019.

10. NOTES RECEIVABLE, TRADE RECEIVABLES AND OTHER RECEIVABLES

	December 31	
	2019	**2018**
Notes receivable		
Notes receivable - operating	$ 107,148	$ 85,667
Less: Allowance for impairment loss	(6)	(6)
Notes receivable - operating	$ 107,142	$ 85,661
Trade receivables		
At amortized cost		
Gross carrying amount	$ 2,795,602	$ 2,653,706
Less: Allowance for impairment loss	(13,409)	(13,548)
	$ 2,782,193	$ 2,640,158

In order to minimize credit risk, the management of the Company has delegated a team responsible for determining credit limits, credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover overdue debts. In addition, the Group reviews the recoverable amount of each individual trade debt at the end of the reporting period to ensure that adequate allowance is made for possible irrecoverable amounts. In this regard, the management believes the Group’s credit risk was significantly reduced.

The Group applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for all trade receivables. The expected credit losses on trade receivables are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor’s current financial position, adjusted for general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast direction of economic conditions at the reporting date. As the Group’s historical credit loss experience does not show significantly different loss patterns for different customer segments, the provision for loss allowance based on past due status is not further distinguished according to the Group’s different customer base.

The Group writes off a trade receivable when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery. For trade receivables that have been written off, the Group continues to engage in enforcement activity to attempt to recover the receivables due. Where recoveries are made, these are recognized in profit or loss.

The following table details the loss allowance of trade receivables based on the Group's provision matrix.

December 31, 2019

	Not Past Due	31 to 90 Days	91 to 150 Days	151 to 180 Days	Over 180 Days	Total
Gross carrying amount	$ 2,735,024	$ 163,988	$ 3,738	$ -	$ -	$ 2,902,750
Loss allowance (Lifetime ECL)	(11,753)	(1,476)	(186)	-	-	(13,415)
Amortized cost	$ 2,723,271	$ 162,512	$ 3,552	$ -	$ -	$ 2,889,335

December 31, 2018

	Not Past Due	31 to 90 Days	91 to 150 Days	151 to 180 Days	Over 180 Days	Total
Gross carrying amount	$ 2,729,830	$ 9,543	$ -	$ -	$ -	$ 2,739,373
Loss allowance (Lifetime ECL)	(13,468)	(86)	-	-	-	(13,554)
Amortized cost	$ 2,716,362	$ 9,457	$ -	$ -	$ -	$ 2,725,819

The expected credit loss rate for each above range of the Group is not more than 1% within and within 90 days of the overdue period; 5% or less within the overdue period from 91 to 180 days; and 5%-100% when the overdue period exceeds 180 days.

The movements of the loss allowance of trade receivables were as follows:

	2019	2018
Balance at January 1	$ 13,554	$ 14,141
Less: Impairment losses reversed	-	(513)
Foreign exchange gains and losses	(139)	(74)
Balance at December 31	$ 13,415	$ 13,554

11. INVENTORIES

	December 31	
	2019	2018
Finished goods	$ 279,332	$ 417,239
Work in process	311,538	297,709
Raw materials	387,027	351,707
Supplies and spare parts	84,580	88,308
Merchandise	219,763	342,011
Land for development construction in progress	757,258	319,922
	$ 2,039,498	$ 1,816,896

The construction in progress is the payment made by Chongqing All Sum to acquire the land use right in Chongqing Gao-Shing District to develop and sell real estate in 2012. Chongqing All Sum has acquired real estate certificate issued by Chongqing Association of land and real estate resources during 2013.

The cost of inventories recognized as cost of goods for the years ended December 31, 2019 and 2018 was $6,423,879 thousand and $6,328,642 thousand, respectively.

The details of the land for development site are as follows:

Area	December 31, 2019 Prepaid Land Rights	Project Cost	Total
Jinfeng Group C Division	$ 194,159	$ 563,099	$ 757,258

Area	December 31, 2018 Prepaid Land Rights	Project Cost	Total
Jinfeng Group C Division	$ 199,285	$ 120,637	$ 319,922

12. SUBSIDIARIES

Subsidiary Included in Consolidated Financial Statements

The detail information of the subsidiaries at the end of reporting period was as follows:

Investor	Investee	Business Nature	Percentage of Ownership at December 31 2019	2018	Note
TXC Corporation	Taiwan Crystal Technology International Limited (TCTI)	Investment holding	100.00	100.00	a
	TXC Technology, Inc.	Marketing activities	100.00	100.00	b
	TXC Japan Corporation	Marketing activities	100.00	100.00	c
	Taiwan Crystal Technology (HK) Limited (TCT-HK)	Investment holding	100.00	100.00	f
	TXC Europe GmbH	Marketing activities	100.00	-	k
Taiwan Crystal Technology International Limited	Growing Profits Trading Ltd. (GPT)	International trading	100.00	100.00	d
	TXC (Ningbo) Corporation (NGB)	Manufacture and sales of electronic products	100.00	100.00	e
TXC (Ningbo) Corporation	TXC (Chongqing) Corporation (Chongqing)	Manufacture and sales of electronic products	100.00	100.00	g
	Chongqing All Sun Company Limited (Chongqing All sun)	Marketing activities	100.00	100.00	h
	Ningbo Jingyu Company Limited (Ningbo Jingyu)	Purchasing and selling electronic components	100.00	100.00	i
	Ningbo Meishan Bonded Port Area Dingkai Investment Management (Ding Kai Investment)	Investment management	100.00	100.00	j

a. Taiwan Crystal Technology International Limited was incorporated on December 23, 1998 in Samoa.

b. TXC Technology, Inc. was incorporated on December 1, 2000 in California, U.S.A.

c. TXC Japan Corporation was incorporated on September 13, 2005 in Yokohama, Japan.

d. Growing Profits Limited was incorporated on March 9, 1999 in the British Virgin Islands.

e. TXC (Ningbo) Corporation was incorporated on March 12, 1999 in Ningbo, China.

f. Taiwan Crystal Technology (HK) Limited was incorporated on July 6, 2010 in Hong Kong Special Administrative Region, China. The return on the capital reduction of $306,500 was been approved by the Company's board of directors in July 2018.

g. TXC (Chongqing) Corporation was incorporated on October 11, 2010 in Chongqing, China. In the first quarter of 2018, Taiwan Crystal Technology (HK) Limited transferred its entire equity holding of TXC (Chongqing) Corporation to TXC (Ningbo) Corporation with a consideration of RMB86,600 thousand.

h. Chongqing All Sun Corporation was incorporated on February 14, 2011 in Chongqing, China.

i. Ningbo Jingyu Company Limited was incorporated on September 7, 2011 in Ningbo, China.

j. Ningbo Meishan Bonded Port Area Dingkai Investment Management Co., Ltd. was incorporated on May 12, 2017 in Beilun District, Ningbo, China.

k. TXC Europe GmbH was founded in Germany on August 17, 2018.

13. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

	December 31	
	2019	2018
Investments in associates	$ 447,290	$ 396,390

a. Investment in associates

	December 31	
	2019	2018
Associates that are not individually material	$ 391,844	$ 337,385

	For the Year Ended December 31	
	2019	2018
The Group's share of:		
Profit from continuing operations	$ 15,261	$ 12,207
Other comprehensive income	(7,394)	(2,000)
Total comprehensive income for the year	$ 7,867	$ 10,207

Refer to the Table 6 "name, locations, and related information of investees on which the Company exercises significant influence" for the nature of activities, principal place of business and country of incorporation of the associates.

The TXC has power to govern the financial and operating policies of Tai-Shing because some directors of TXC are the same as Tai-Shing. As a result, Tai-Shing is accounted for using the equity method.

In 2019, the Company subscribed 1,266 thousand shares of the ordinary shares of Tai-Shing for cash which amounted to $67,083 thousand. After the subscription, the Company's percentage of ownership in Tai-Shing was 30.98%. The Group recognized goodwill of $33,970 thousand as cost of investments in associates.

b. Investment joint ventures

	December 31	
	2019	2018
Joint ventures that are not individually material	$ 55,446	$ 59,005

	For the Year Ended December 31	
	2019	2018
The Group's share of:		
Profit from continuing operations	$ (1,254)	$ (2,081)
Total comprehensive income for the year	$ (1,254)	$ (2,081)

Refer to Table 6"name, locations, and related information of investees on which the Company exercises significant influence" and Table 7 "information on investment in mainland China" for the nature of activities, principal place of business and country of incorporation of the joint ventures.

14. PROPERTY, PLANT AND EQUIPMENT

	Freehold Land	Land Improvements	Buildings	Machinery and Equipment	Transportation Equipment	Office Equipment	Property in Construction	Total
Cost								
Balance at January 1, 2018	$ 598,145	$ 920	$ 2,507,482	$ 6,926,128	$ 17,698	$ 262,168	$ 37,481	$ 10,350,022
Additions	-	395	16,907	715,005	2,794	39,428	-	774,529
Disposals	-	-	(14,981)	(376,733)	(3,063)	(13,587)	-	(408,364)
Effect of foreign currency exchange differences	-	-	(20,039)	(86,007)	(330)	(2,842)	(275)	(109,493)
Transfer to investment property	-	-	(277,957)	-	-	-		(277,957)
Reclassifications	-	-	-	55,450	-	(18,244)	(37,206)	-
Balance at December 31, 2018	$ 598,145	$ 1,315	$ 2,211,412	$ 7,233,843	$ 17,099	$ 266,923	$ -	$ 10,328,737
Accumulated depreciation and impairment								
Balance at January 1, 2018	$ -	$ 285	$ 1,005,055	$ 4,771,498	$ 13,869	$ 189,505	$ -	$ 5,980,212
Disposals	-	-	(6,426)	(329,522)	(3,063)	(13,233)	-	(352,244)
Depreciation expense	-	178	110,838	650,375	2,471	24,427	-	788,289
Transfer to investment property	-	-	(128,873)	-	-	-	-	(128,873)
Impairment losses reversed	-	-	-	(2,961)	-	-	-	(2,961)
Effect of foreign currency exchange differences	-	-	(7,218)	(57,361)	(264)	(1,565)	-	(66,408)
Balance at December 31, 2018	$ -	$ 463	$ 973,376	$ 5,032,029	$ 13,013	$ 199,134	$ -	$ 6,218,015
Carrying amounts at December 31, 2018	$ 598,145	$ 852	$ 1,238,036	$ 2,201,814	$ 4,086	$ 67,789	$ -	$ 4,110,722
Cost								
Balance at January 1, 2019	$ 598,145	$ 1,315	$ 2,211,412	$ 7,233,843	$ 17,099	$ 266,923	$ -	$ 10,328,737
Additions	-	284	112,886	426,101	1,618	110,409	33,201	684,499
Disposals	(1,038)	-	(4,040)	(20,011)	(2,868)	(11,180)	-	(39,137)
Transfer to investment property	(5,135)	-	(4,951)	-	-	-	-	(10,086)
Transfer from investment property	-	-	244,584	-	-	-	-	244,584
Reclassifications	-	-	-	(15,327)	-	15,327	-	-
Effect of foreign currency exchange differences	-	-	(39,823)	(178,026)	(581)	(9,979)	(1,005)	(229,414)
Balance at December 31, 2019	$ 591,972	$ 1,599	$ 2,520,068	$ 7,446,580	$ 15,268	$ 371,500	$ 32,196	$ 10,979,183
Accumulated depreciation and impairment								
Balance at January 1, 2019	$ -	$ 463	$ 973,376	$ 5,032,029	$ 13,013	$ 199,134	$ -	$ 6,218,015
Disposals	-	-	(4,040)	(15,810)	(2,762)	(11,066)	-	(33,678)
Depreciation expense	-	193	119,794	590,427	2,102	27,755	-	740,271
Impairment losses reversed	-	-	-	(2,369)	-	-	-	(2,369)
Transfer from investment property	-	-	3,945	-	-	-	-	3,945
Transfer to investment property	-	-	141,236	-	-	-	-	141,236
Reclassifications	-	-	-	(997)	-	997	-	-
Effect of foreign currency exchange differences	-	-	(16,074)	(121,005)	(466)	(4,841)	-	(142,386)
Balance at December 31, 2019	$ -	$ 656	$ 1,218,237	$ 5,482,275	$ 11,887	$ 211,979	$ -	$ 6,925,034
Carrying amounts at December 31, 2019	$ 591,972	$ 943	$ 1,301,831	$ 1,964,305	$ 3,381	$ 159,521	$ 32,196	$ 4,054,149

The above items of property, plant and equipment are depreciated on a straight-line basis over the estimated useful lives as follows:

Land improvements	6 years
Buildings	
Industrial building	35-61 years
Electrical power systems	4-10 years
Engineering systems	1-17 years
Equipment	
Major production equipment	1-5 years
Temperature control systems	4-7 years
Transportation equipment	4-7 years
Transportation equipment	3-8 years
Office equipment	2-6 years

Property, plant and equipment pledged as collateral for bank borrowings were set out on Note 29.

15. LEASE ARRANGEMENTS

a. Right-of-use assets - 2019

	December 31, 2019
Carrying amounts	
Land	$ 90,138
Buildings	3,967
Transportation equipment	2,057
	$ 96,162

	For the Year Ended December 31, 2019
Additions to right-of-use assets	$ 7,533
Depreciation charge for right-of-use assets	
Land	$ 2,301
Buildings	2,652
Transportation equipment	187
	$ 5,140

b. Lease liabilities - 2019

	December 31, 2019
Carrying amounts	
Current	$ 3,087
Non-current	2,949
	$ 6,036

Range of discount rate for lease liabilities was as follows:

	December 31, 2019
Buildings	0.86%
Transportation equipment	0.86%

c. Material lease-in activities and terms

The Group leases certain warehouses in economic zone with lease terms of 2 years and leases certain transportation equipment with lease term of 5 years from September 2019. These arrangements do not contain renewal or purchase options.

The Group also leases land and buildings for the use of plants, offices and retail stores with lease term of 50 years. The lease contract for land located in mainland China specifies that lease payments will be paid at the time of contract and can be renewed upon the expiration of the lease period. The Group does not have bargain purchase options to acquire the leasehold land and buildings at the end of the lease terms.

d. Other lease information

2019

	For the Year Ended December 31, 2019
Expenses relating to short-term leases	$ 44
Total cash outflow for leases	$ (2,901)

The Group leases certain which qualify as short-term leases. The Group has elected to apply the recognition exemption and thus, did not recognize right-of-use assets and lease liabilities for these leases.

2018

The future minimum lease payments of non-cancellable operating lease commitments are as follows:

	December 31, 2018
Not later than 1 year	$ 1,333

16. INVESTMENT PROPERTIES

	December 31	
	2019	2018
Completed investment property	$ 54,565	$ 160,088

	Completed Investment Property
Cost	
Balance at January 1, 2018	$ 91,610
Disposals	(26,894)
Transferred from property, plant and equipment	277,957
Effect of foreign currency exchange differences	(1,720)
Balance at December 31, 2018	$ 340,953
Accumulated depreciation and impairment	
Balance at January 1, 2018	$ (41,653)
Disposals	14,626
Transferred from property, plant and equipment	(128,873)
Depreciation expense	(25,742)
Effect of foreign currency exchange differences	777
Balance at December 31, 2018	$ (180,865)
Carrying amounts at December 31, 2018	$ 160,088
Cost	
Balance at January 1, 2019	$ 340,953
Disposals	(11,416)
Transferred from property, plant and equipment	10,086
Transfer to property, plant and equipment	(244,584)
Effect of foreign currency exchange differences	(2,584)
Balance at December 31, 2019	$ 92,455
Accumulated depreciation and impairment	
Balance at January 1, 2019	$ (180,865)
Disposals	11,416
Transferred from property, plant and equipment	3,945
Transfer to property, plant and equipment	141,236
Depreciation expense	(14,906)
Effect of foreign currency exchange differences	1,284
Balance at December 31, 2019	$ (37,890)
Carrying amounts at December 31, 2019	$ 54,565

The investment properties held by the Group are depreciated using the straight-line method over their useful lives of 5-61 years.

The fair value of the Group’s investment properties as of December 31, 2019 and 2018 was $197,284 thousand and $530,915 thousand, respectively. The fair value valuation had not been performed by independent qualified professional valuers; however, management of the Group used the valuation model that market participants would use in determining the fair value. he valuation was arrived at by reference to market evidence of transaction prices for similar properties.

All investment properties of the Group was held under freehold interests. The investment properties pledged as collateral for bank borrowing were set out in Note 29.

17. PREPAYMENTS FOR LEASE

	December 31, 2018
Current asset (included in prepayments for leases)	$ 2,323
Non-current asset	93,868
	$ 96,191

As of December 31, 2018, prepaid lease payments include land use right, which are located in mainland China.

The carrying amount of land use right pledged as collateral for bank borrowing are set out in Note 29.

Land use right is recognized as prepayment for lease and long-term prepayment for lease. Refer to Notes 3 and 15 relating to their reclassification information on January 1, 2019 and information on December 31, 2019.

18. BORROWINGS

a. Short-term borrowings

	December 31	
	2019	2018
Unsecured borrowings		
Bank loans*	$ 59,960	$ 30,715
Letters of credit	3,525	-
	$ 63,485	$ 30,715

* The letters of credit interest rates on bank loans were 1.1% and 0.6% per annum as of December 31, 2019 and 2018.

b. Long-term borrowings

	December 31	
	2019	2018
Secured borrowings (Note 29)		
Bank loans*	$ 237,635	$ 56,361
Unsecured borrowings		
Bank loans	1,609,860	1,565,005
Less: Current portions	(209,860)	(139,020)
Long-term borrowings	$ 1,637,635	$ 1,482,346

The borrowings of the Group were as follows:

	Maturity Date	December 31 2019	December 31 2018
Floating rate borrowings			
Secured bank borrowing denominated in NT$	2019.09.01	$ -	$ 46,875
Secured bank borrowing denominated in RMB	2021.09.04	237,635	9,486
Unsecured bank borrowing denominated in NT$	2020.09.06	-	200,000
Unsecured bank borrowing denominated in NT$	2020.01.25	-	250,000
Unsecured bank borrowing denominated in NT$	2020.09.06	-	200,000
Unsecured bank borrowing denominated in NT$	2020.09.06	-	100,000
Unsecured bank borrowing denominated in NT$	2020.09.04	-	200,000
Unsecured bank borrowing denominated in NT$	2020.08.27	-	200,000
Unsecured bank borrowing denominated in NT$	2019.09.05	-	200,000
Unsecured bank borrowing denominated in NT$	2021.08.12	200,000	-
Unsecured bank borrowing denominated in US$	2024.09.15	300,000	-
Unsecured bank borrowing denominated in US$	2024.09.15	100,000	-
Unsecured bank borrowing denominated in US$	2022.09.05	200,000	-
Unsecured bank borrowing denominated in NT$	2022.08.19	200,000	-
Unsecured bank borrowing denominated in NT$	2022.09.02	200,000	-
Unsecured bank borrowing denominated in NT$	2021.11.04	200,000	-
Unsecured bank borrowing denominated in US$	2020.02.26	59,960	61,430
Unsecured bank borrowing denominated in US$	2020.05.28	59,960	61,430
Unsecured bank borrowing denominated in US$	2019.09.01	89,940	92,145
Less: Current portions		(209,860)	(139,020)
		$ 1,637,635	$ 1,482,346

The range of interest rate on bank loans was 0.40%-6.18% and 0.86%-6.18% per annum as of December 31, 2019 and 2018, respectively.

19. OTHER LIABILITIES

	December 31	
	2019	2018
Current		
Other payables		
Payables for bonus to employees and directors	$ 83,477	$ 85,014
Payables for commission	20,736	24,640
Payables for salaries	99,427	98,292
Payables for bonus	256,358	190,419
Payables for annual leave	28,590	28,199
Payables for purchase of equipment	116,639	32,022
Others	119,444	105,090
	$ 724,671	$ 563,676

20. RETIREMENT BENEFIT PLANS

a. Defined contribution plans

The Company and TXC Optec Corporation of the Group adopted a pension plan under the Labor Pension Act (LPA), which is a state-managed defined contribution plan. Under the LPA, an entity makes monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages.

The employees of the Group's subsidiaries in mainland China are members of a state-managed retirement benefit plan operated by the government of China. The subsidiaries are required to contribute a specified percentage of payroll costs to the retirement benefit scheme to fund the benefits. The only obligation of the Group with respect to the retirement benefit plan is to make the specified contributions.

b. Defined benefit plans

The defined benefit plan adopted by the Company of the Group in accordance with the Labor Standards Law is operated by the government. Pension benefits are calculated on the basis of the length of service and average monthly salaries of the 6 months before retirement. The Company contribute amounts equal to 9% of total monthly salaries and wages to a pension fund administered by the pension fund monitoring committee. Pension contributions are deposited in the Bank of Taiwan in the committee's name. Before the end of each year, the Group assesses the balance in the pension fund. If the amount of the balance in the pension fund is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Group is required to fund the difference in one appropriation that should be made before the end of March of the next year. The pension fund is managed by the Bureau of Labor Funds, Ministry of Labor (the "Bureau"); the Group has no right to influence the investment policy and strategy.

The amounts included in the consolidated balance sheets in respect of the Group's defined benefit plans were as follows:

	December 31	
	2019	2018
Present value of defined benefit obligation	$ 173,416	$ 165,146
Fair value of plan assets	(99,385)	(97,113)
Net defined benefit liability	$ 74,031	$ 68,033

Movements in net defined benefit liability (asset) were as follows:

	Present Value of the Defined Benefit Obligation	Fair Value of the Plan Assets	Net Defined Benefit Liability (Asset)
Balance at January 1, 2018	$ 153,518	$ (91,494)	$ 62,024
Service cost			
Current service cost	1,956	-	1,956
Past service cost and loss on settlements	617	-	617
Net interest expense (income)	1,475	(794)	681
Recognized in profit or loss	4,048	(794)	3,254
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(2,783)	(2,783)
Actuarial (gain) loss - changes in demographic assumptions	11,053	-	11,053
Actuarial (gain) loss - changes in financial assumptions	2,042	-	2,042
Actuarial (gain) loss - experience adjustments	6,479	-	6,479
Recognized in other comprehensive income	19,574	(2,783)	16,791
Contributions from the employer	-	(14,036)	(14,036)
Benefits paid	(11,994)	11,994	-
Balance at December 31, 2018	165,146	(97,113)	68,033
Service cost			
Current service cost	1,897	-	1,897
Past service cost and loss on settlements	1,032	-	1,032
Net interest expense (income)	1,858	(1,168)	690
Recognized in profit or loss	4,787	(1,168)	3,619
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(3,214)	(3,214)
Actuarial (gain) loss - changes in demographic assumptions	5,229	-	5,229
Actuarial (gain) loss - changes in financial assumptions	6,952	-	6,952
Actuarial (gain) loss - experience adjustments	6,448	-	6,448
Recognized in other comprehensive income	18,629	(3,214)	15,415
Contributions from the employer	-	(13,036)	(13,036)
Benefits paid	(15,146)	15,146	-
Balance at December 31, 2019	$ 173,416	$ (99,385)	$ 74,031

An analysis by function of the amounts recognized in profit or loss in respect of the defined benefit plans is as follows:

	For the Year Ended December 31	
	2019	**2018**
Cost of goods sold	$ 1,756	$ 1,608
Selling and marketing expenses	327	341
General and administrative expenses	584	553
Research and development expenses	952	752
	$ 3,619	$ 3,254

Through the defined benefit plans under the Labor Standards Law, the Group is exposed to the following risks:

1) Investment risk: The plan assets are invested in domestic/and foreign/equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the Bureau or under the mandated management. However, in accordance with relevant regulations, the return generated by plan assets should not be below the interest rate for a 2-year time deposit with local banks.

2) Interest risk: A decrease in the (government/corporate) bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the plan's debt investments.

3) Salary risk: The present value of the defined benefit obligation is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the present value of the defined benefit obligation.

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The significant assumptions used for the purposes of the actuarial valuations were as follows:

	December 31	
	2019	**2018**
Discount rate(s)	0.75%	1.125%
Expected rate(s) of salary increase	2.00%	2.00%

If possible reasonable changes in each of the significant actuarial assumptions will occur and all other assumptions will remain constant, the present value of the defined benefit obligation will decrease/increase) as follows:

	December 31	
	2019	**2018**
Discount rate(s)		
0.25% increase	$ (4,812)	$ (4,625)
0.25% decrease	$ 5,010	$ 4,814
Expected rate(s) of salary increase		
0.25% increase	$ 4,859	$ 4,683
0.25% decrease	$ (4,693)	$ (4,523)

The sensitivity analysis presented above may not be representative of the actual change in the present value of the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

	December 31	
	2019	2018
The expected contributions to the plan for the next year	$ 13,036	$ 14,036
The average duration of the defined benefit obligation	11.4 years	11.6 years

21. EQUITY

a. Share capital

Ordinary shares

	December 31	
	2019	2018
Numbers of shares authorized (in thousands)	500,000	500,000
Shares authorized	$ 5,000,000	$ 5,000,000
Number of shares issued and fully paid (in thousands)	309,757	309,757
Shares issued	$ 3,097,570	$ 3,097,570

Fully paid ordinary shares, which have a par value of $10, carry one vote per share and carry a right to dividends.

The Company's 30,000 thousand shares authorized were reserved for the issuance of convertible bonds and employee share options.

b. Capital surplus

	December 31	
	2019	2018
May be used to offset a deficit, distributed as cash dividends, or transferred to share capital*		
Issuance of ordinary shares	$ 611,776	$ 611,776
Conversion of bonds	977,028	977,028
Overdue options	73,377	73,377
The difference between consideration received or paid and the carrying amount of the subsidiaries' net assets during actual disposal or acquisition	331	331
Return of shareholders' cash dividends	1,617	-
May only be used to offset a deficit		
Share of changes in capital surplus of associates or joint venture	2,561	2,604
	$ 1,666,690	$ 1,665,116

* Such capital surplus may be used to offset a deficit; in addition, when the Company has no deficit, such capital surplus may be distributed as cash dividends or transferred to share capital (limited to a certain percentage of the Company's capital surplus and once a year).

c. Retained earnings and dividend policy

Under the dividends policy as set forth in the amended Articles, where the Company made profit in a fiscal year, the profit shall be first utilized for paying taxes, offsetting losses of previous years, setting aside as legal reserve 10% of the remaining profit, setting aside or reversing a special reserve in accordance with the laws and regulations, and then any remaining profit together with any undistributed retained earnings shall be used by the Company's board of directors as the basis for proposing a distribution plan, which should be resolved in the shareholders' meeting for distribution of dividends and bonuses to shareholders. For the policies on distribution of employees' compensation and remuneration of directors and supervisors before and after amendment, refer to employee benefits expense in Note 23(g).

Dividends are recommended by the board of directors in accordance with the Corporation's dividend policy. Under this policy, industry trends and growth should be evaluated, investment opportunities should be fully understood, and proper capital adequacy ratios should be considered in determining the dividends to be distributed. In addition, cash dividends should not be less than 20% of the total dividends to be appropriated.

Appropriation of earnings to the legal reserve shall be made until the legal reserve equals the Company's paid-in capital. The legal reserve may be used to offset deficits. If the Company has no deficit and the legal reserve has exceeded 25% of the Company's paid-in capital, the excess may be transferred to capital or distributed in cash.

Items referred to under Rule No. 1010012865, Rule No. 1010047490 and Rule No. 1030006415 issued by the FSC and in the directive titled "Questions and Answers for Special Reserves Appropriated Following Adoption of IFRSs" should be appropriated to or reversed from a special reserve by the Company.

The appropriations of earnings for 2018 and 2017 were approved in the shareholders' meetings on June 12, 2019 and June 5, 2018, respectively. The appropriations and dividends per share were as follows:

	Appropriation of Earnings		**Dividends Per Share (NT$)**	
	For Fiscal Year 2018	**For Fiscal Year 2017**	**For Fiscal Year 2018**	**For Fiscal Year 2017**
Legal reserve	$ 64,435	$ 96,265	$ -	$ -
Special reserve	32,114	-	-	-
Cash dividends	619,514	774,393	2.0	2.5

The appropriations of earnings for 2019 annual surplus distribution on March 23, 2020 were as follows:

	Appropriation of Earnings	**Dividends Per Share (NT$)**
Legal reserve	$ 67,178	$ -
Special reserve	269,465	-
Cash dividends	774,393	2.5

The appropriation of earnings for 2019 is subject to the resolution of the shareholders' meeting to be held on June 9, 2020.

d. Others equity items

1) Exchange differences on translating the financial statements of foreign operations

	For the Year Ended December 31	
	2019	2018
Balance at January 1	$ (359,923)	$ (264,137)
Exchange differences on translating the financial statements of foreign operations	(216,643)	(94,043)
Share of exchange differences of associates accounted for using the equity method	(8,051)	(1,743)
Balance at December 31	$ (584,617)	$ (359,923)

2) Unrealized gain/(loss) on available-for-sale financial assets

Balance at January 1, 2018 per IAS 39	$ 381,048
Adjustment on initial application of IFRS 9	(381,048)
Balance at January 1, 2018 per IFRS 9	$ -

3) Unrealized gain (loss) on financial assets at FVTOCI

	For the Year Ended December 31	
	2019	2018
Balance at January 1	$ 105,017	$ 283,139
Effect of change in tax rate	-	(13,626)
Recognized during the period		
Unrealized loss - equity instruments	129,437	(126,467)
Share from associates accounted for using the equity method	596	(85)
Other comprehensive income recognized in the period	130,033	(140,178)
Cumulative unrealized gain/(loss) of equity instruments transferred to retained earnings due to disposal	(174,805)	(37,944)
Balance at December 31	$ 60,245	$ 105,017

22. REVENUE

	For the Year Ended December 31	
	2019	2018
Revenue from contracts with customers		
Revenue from sale of goods	$ 8,430,970	$ 8,156,268

	For the Year Ended December 31	
	2019	2018
Trade receivables (Note 14)	$ 2,782,193	$ 2,640,158
Contract liabilities		
Sale of goods	$ 74,497	$ 10,853
Contract liabilities - current	$ 74,497	$ 10,853

The contract liabilities were unearned sales revenue and accounted for other current liabilities.

23. NET PROFIT AND OTHER COMPREHENSIVE INCOME (LOSS) FROM CONTINUING OPERATIONS

Net profit from continuing operations was attributable to:

a. Other income

	For the Year Ended December 31	
	2019	2018
Interest income	$ 27,876	$ 21,088
Income from government grants	97,519	61,005
Dividends income	2,385	1,527
Revenue from planning of equipment	-	22,098
Others	35,044	39,911
	$ 162,824	$ 145,629

b. Other gains and losses

	For the Year Ended December 31	
	2019	2018
Gain on disposal of property, plant and equipment	$ 230	$ 2,016
Gain on disposal of investment property	-	26,629
Fair value changes of financial assets and financial liabilities		
Financial assets mandatorily at FVTPL	14,680	29,802
Net foreign exchange gains (loss)	(17,229)	18,693
Gain on disposal of non-current assets classified as held for sale	-	3,152
Impairment loss on property, plant and equipment	2,369	2,961
Depreciation of investment properties	(14,906)	(25,742)
Others	(6,287)	7,330
	$ (21,143)	$ 64,841

c. Finance costs

	For the Year Ended December 31	
	2019	2018
Interest on bank loans	$ (23,220)	$ (20,400)
Interest on lease liabilities	(30)	-
	$ (23,250)	$ (20,400)

d. Depreciation and amortization

	For the Year Ended December 31	
	2019	2018
Property, plant and equipment	$ 740,271	$ 788,289
Right-of-use assets	14,906	25,742
Intangible assets	5,140	-
Others	7,241	2,121
	$ 767,558	$ 816,152
An analysis of deprecation by function		
Operating costs	$ 607,351	$ 674,649
Operating expenses	138,060	113,640
Other gains and losses	14,906	25,742
	$ 760,317	$ 814,031
An analysis of amortization by function		
Operating expenses	$ 7,241	$ 2,121

e. Employee benefits expense

	For the Year Ended December 31	
	2019	2018
Post-employment benefits (see Note 20)		
Defined contribution plans	$ 68,096	$ 71,158
Defined benefit plans	3,619	3,254
	71,715	74,412
Other employee benefits		
Payroll expense	1,514,826	1,476,012
Labor and health insurance	91,670	92,640
Others	40,098	35,747
	1,646,594	1,604,399
	$ 1,718,309	$ 1,678,811
An analysis of employee benefits expense by function		
Operating costs	$ 1,016,838	$ 1,014,388
Operating expenses	701,471	664,423
	$ 1,718,309	$ 1,678,811

f. Employees' compensation and remuneration of directors for 2019 and 2018

The Company accrued employees' compensation and remuneration of directors at the rates no less than 3% and no higher than 2%, respectively, of net profit before income tax, employees' compensation, and remuneration of directors. The employees' compensation and remuneration of directors for the years ended December 31, 2019 and 2018 which were been approved by the Company's board of directors on March 23, 2020 and March 22, 2019, respectively, were as follows:

Accrual rate

	For the Year Ended December 31	
	2019	2018
Employees' compensation	9.0%	9.0%
Remuneration of directors	1.5%	1.5%

Amount

	For the Year Ended December 31			
	2019		2018	
	Cash	Share	Cash	Share
Employees' compensation	$ 71,552	$ -	$ 69,072	$ -
Remuneration of directors	11,925	-	11,512	-

If there is a change in the amounts after the annual consolidated financial statements were authorized for issue, the differences are recorded as a change in the accounting estimate.

There was no difference between the actual amounts of employees' compensation and remuneration of directors paid and the amounts recognized in the consolidated financial statements for the years ended December 31, 2018 and 2017.

Information on the employees' compensation and remuneration of directors resolved by the Company's board of directors is available at the Market Observation Post System website of the Taiwan Stock Exchange.

24. INCOME TAXES RELATING TO CONTINUING

a. The major components of tax expense (income) were as follows:

	For the Year Ended December 31	
	2019	2018
Current tax		
In respect of the current period	$ 95,905	$ 61,191
Income tax of unappropriated earnings	-	7,656
Adjustments for prior year	(3,126)	6,418
	92,779	75,265
Deferred tax		
In respect of the current period	16	69
Change in tax rate	-	13,914
	16	13,983
Income tax expense recognized in profit or loss	$ 92,795	$ 89,248

A reconciliation of accounting profit and current income tax expenses is as follows:

	For the Year Ended December 31	
	2019	2018
Profit before tax from continuing operations	$ 764,577	$ 733,497
Income tax expense calculated at the statutory rate	$ 152,915	$ 146,699
Tax effect of adjusting items:		
Nondeductible expenses in determining taxable income	802	1,289
Tax-exempt income	(1,064)	(4,285)
Tax-exempt income for five years	-	(8,118)
Additional income tax on unappropriated earnings	-	7,656
Unrecognized temporary differences	2,107	(21,655)
Unrecognized loss carryforwards	5,129	2,662
Investment tax credit	(41,696)	(36,421)
Deferred tax effect of earnings of subsidiaries	-	2,019
Effect of different tax rate of group entities operating in other jurisdictions	(19,481)	(20,822)
Change in tax rate	-	13,914
Adjustment for prior years' tax	(3,126)	6,418
Other	(2,791)	(108)
Income tax expense recognized in profit or loss	$ 92,795	$ 89,248

The Income Tax Act in the ROC was amended in 2018, and the corporate income tax rate was adjusted from 17% to 20%. In addition, the rate of the corporate surtax applicable to the 2018 unappropriated earnings was reduced from 10% to 5%.

As the status of 2019 appropriations of earnings is uncertain, the potential income tax consequences of 2018 unappropriated earnings are not reliably determinable.

b. Income tax expense recognized in other comprehensive income

	For the Year Ended December 31	
	2019	2018
Deferred tax		
In respect of the current year		
Fair value changes of financial assets at FVTOCI	$ 21,627	$ (37,377)
Remeasurement of defined benefit plans	(3,083)	(3,358)
Reclassification adjustment		
Disposal of equity instruments at fair value through other comprehensive income	(43,700)	(9,486)
Effect of change in tax rate		
Remeasurement of defined benefit plans	-	(2,813)
Fair value changes of financial assets at FVTOCI	-	13,626
	$ (25,156)	$ (39,408)

c. Current tax assets and liabilities

	December 31	
	2019	2018
Current tax assets		
Income tax receivable	$ 8,176	$ 5,245
Current tax liabilities		
Income tax payable	$ 48,135	$ 3,647

d. Deferred tax assets and liabilities

The movements of deferred tax assets and deferred tax liabilities were as follows:

For the year ended December 31, 2019

	Opening Balance	Recognize in Profit or Loss	Recognize in Other Comprehen-sive Income	Exchange Differences	Closing Balance
Deferred tax assets					
Unrealized loss on inventories	$ 9,306	$ (2,020)	$ -	$ (38)	$ 7,248
Unrealized exchange loss	-	4,738	-	-	4,738
Payable for annual leave	4,933	47	-	(51)	4,929
Determine benefit obligation	15,971	(1,883)	3,083	-	17,171
Property, plant and equipment	1,757	(355)	-	(35)	1,367
Financial assets at fair value through profit or loss	-	171	-	(21)	171
Others	4,607	(731)	-	(151)	3,725
	$ 36,574	$ (33)	$ 3,083	$ (275)	$ 39,349
Deferred tax liabilities					
FVTPL financial assets	$ 17	$ (17)	$ -	$ -	$ -
Associates	101,496	-	-	-	101,496
FVTOCI financial assets	43,977	-	(22,073)	-	21,904
	$ 145,490	$ (17)	$ (22,073)	$ -	$ 123,400

For the year ended December 31, 2018

	Opening Balance	Recognize in Profit or Loss	Recognize in Other Comprehen-sive Income	Exchange Differences	Closing Balance
Deferred tax assets					
Unrealized loss on inventories	$ 6,481	$ 2,846	$ -	$ (21)	$ 9,306
Unrealized exchange loss	1,716	(1,716)	-	-	-
FVTPL financial liabilities	215	(215)	-	-	-
Payable for annual leave	4,409	550	-	(26)	4,933
Determine benefit obligation	12,553	(2,753)	6,171	-	15,971
Property, plant and equipment	1,607	177	-	(27)	1,757
Investment subsidiary	18,621	(18,621)	-	-	-
Others	2,597	2,083	-	(73)	4,607
	$ 48,199	$ (17,649)	$ 6,171	$ (147)	$ 36,574

(Continued)

	Opening Balance	Recognize in Profit or Loss	Recognize in Other Comprehen-sive Income	Exchange Differences	Closing Balance
Deferred tax liabilities					
Unrealized exchange gain	$ -	$ 17	$ -	$ -	$ 17
Associates	105,179	(3,683)	-	-	101,496
FVTOCI financial assets	77,214	-	(33,237)	-	43,977
	$ 182,393	$ (3,666)	$ (33,237)	$ -	$ 145,490

(Concluded)

e. Income tax assessments

The tax returns had been assessed by the tax authorities before in 2017.

25. EARNINGS PER SHARE

The earnings and weighted average number of ordinary shares outstanding used in the computation of earnings per share from continuing operations were as follows:

Net Profit for the Year

	For the Year Ended December 31	
	2019	2018
Profit for the period attributable to owners of the Company	$ 671,782	$ 644,350
Earnings used in the computation of diluted earnings per share	$ 671,782	$ 644,350

Weighted average number of ordinary shares outstanding (in thousand shares):

	For the Year Ended December 31	
	2019	2018
Weighted average number of ordinary shares in computation of basic earnings per share	309,757	309,757
Effect of dilutive potential ordinary shares:		
Employees’ compensation	1,959	2,658
Weighted average number of ordinary shares used in the computation of diluted earnings per share	311,716	312,415

If the Group was able to settle the compensation paid to employees by cash or shares, the Group presumed that the entire amount of the compensation would be settled in shares and the resulting potential shares were included in the weighted average number of shares outstanding used in the computation of diluted earnings per share, if the shares had a dilutive effect. Such dilutive effect of the potential shares was included in the computation of diluted earnings per share until the shareholders resolve the number of shares to be distributed to employees at their meeting in the following year.

26. CAPITAL MANAGEMENT

The Group manages its capital to ensure that entities in the Group will be able to continue as going concerns while maximizing the return to stakeholders through the optimization of the debt and equity balance.

The capital structure of the Group consists of net debt (borrowings offset by cash and cash equivalents) and equity attributable to owners of the Company (comprising issued capital, reserves, retained earnings and other equity).

The Group is not subject to any externally imposed capital requirements.

27. FINANCIAL INSTRUMENTS

a. Fair value of financial instruments

1) Fair value of financial instruments that are not measured at fair value

The management believes the carrying amounts of financial assets and financial liabilities recognized in the consolidated financial statements approximate their fair values.

2) Fair value of financial instruments that are measured at fair value on a recurring basis

a) Fair value hierarchy

December 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Foreign unlisted shares	$ -	$ -	$ 9,255	$ 9,255
Foreign exchange forward contracts	-	3,762	-	3,762
Mutual funds	387,337	-	-	387,337
Structured deposits	-	367,841	-	367,841
	$ 387,337	$ 371,603	$ 9,255	$ 768,195
Financial liabilities at FVTPL				
Foreign exchange forward contracts	$ -	$ 173	$ -	$ 173
Exchange contracts	-	3,790	-	3,790
	$ -	$ 3,963	$ -	$ 3,963
Financial assets at FVTOCI				
Domestic unlisted shares	$ -	$ -	$ 68,363	$ 68,363
Foreign listed shares	117,114	-	-	117,114
Foreign unlisted shares	-	-	236,945	236,945
	$ 117,114	$ -	$ 305,308	$ 422,422

December 31, 2018

	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Domestic listed shares	$ 30,975	$ -	$ -	$ 30,975
Foreign exchange forward contracts	-	1,757	-	1,757
Exchange contracts	-	76	-	76
Mutual funds	559,068	-	-	559,068
Structured deposits	-	341,968	-	341,968
	$ 590,043	$ 343,801	$ -	$ 933,844
Financial assets at FVTOCI				
Domestic unlisted shares	$ -	$ -	$ 80,227	$ 80,227
Foreign listed shares	250,698	-	-	250,698
Foreign unlisted shares	-	-	163,317	163,317
	$ 250,698	$ -	$ 243,544	$ 494,242

There were no transfers between Levels 1 and 2 in the current and prior periods.

b) Reconciliation of Level 3 fair value measurements of financial assets

For the year ended December 31, 2019

Financial assets	Financial Assets at FVTPL Equity Instruments	Financial Assets at FVTOCI Equity Instruments
Balance at January 1, 2019	$ -	$ 243,544
Purchase	9,255	71,049
Exchange differences on translating the financial statements of foreign operations	-	(9,285)
Balance at December 31, 2019	$ 9,255	$ 305,308

For the year ended December 31, 2018

Financial assets	Financial Assets at FVTOCI Equity Instruments
Balance at January 1, 2018 (IAS 39)	$ 21,498
Effect of retrospective application and retrospective restatement	202,250
Balance at January 1, 2018 (IFRS 9)	223,748
Recognized in other comprehensive income	23,041
Exchange differences on translating the financial statements of foreign operations	(3,245)
Balance at December 31, 2018	$ 243,544

c) Valuation techniques and inputs applied for the purpose of measuring Level 2 fair value measurement

Financial Instruments	Valuation Techniques and Inputs
Derivatives - foreign exchange forward contracts	Discounted cash flow. Future cash flows are estimated based on observable forward exchange rates at the end of the reporting period and contract forward rates, discounted at a rate that reflects the credit risk of various counterparties.
Structured deposits	Discounted cash flow. The products had short matured period, therefore the fair value is reasonable to be estimated based on the book value.

d) Valuation techniques and inputs applied for the purpose of measuring Level 3 fair value measurement

The Group uses price-book ratio approach, comparing the net value per share with other public companies among similar industries or evaluating share price based on average price-book ratio of other competitors, to capture the present value of the expected future economic benefits to be derived from the ownership of these investees.

The fair values of unlisted equity securities - ROC were determined using income approach. In this approach, the discounted cash flow method was used to capture the present value of the expected future economic benefits to be derived from the ownership of these investees. The significant unobservable inputs used are listed on the table below. An increase in long-term revenue growth rates or long-term pre-tax operating margin or a decrease in WACC or discount for lack of marketability used in isolation would result in increase in fair value.

b. Categories of financial instruments

	December 31	
	2019	**2018**
<u>Financial assets</u>		
FVTPL		
Mandatorily at FVTPL (1)	$ 768,195	$ 933,844
Financial assets at amortized cost (2)	5,081,647	4,334,056
Financial assets at FVTOCI		
Equity instruments	422,422	494,242
<u>Financial liabilities</u>		
FVTPL		
Mandatorily as at FVTPL (3)	3,963	-
Amortized cost (4)	4,334,150	3,571,950

1) The balances included the carrying amount of mutual fund, foreign exchange forward contracts, structured deposits and investment with preference shares.

2) The balances include financial assets measured at amortized cost, which comprise cash and cash equivalents, notes receivable, trade receivables, other receivables and refundable deposits.

3) The balances included the carrying amount of foreign exchange forward contracts and exchange contracts.

4) The balances included financial liabilities measured at amortized cost, which comprise short-term and long-term loans, notes payable, trade, payable, other payables and guarantee deposits received.

c. Financial risk management objectives and policies

The Group's major financial instruments included equity and debt investments, bonds payable, borrowings. The Group's corporate treasury function provides services to the business, coordinates access to domestic and international financial markets, monitors and manages the financial risks relating to the operations of the Group through internal risk reports which analyze exposures by degree and magnitude of risks. These risks include market risk (including currency risk, interest rate risk and other price risk), credit risk and liquidity risk.

The Group sought to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives was governed by the Group's policies approved by the board of directors, which provided written principles on foreign exchange risk, interest rate risk, credit risk, the use of financial derivatives and non-derivative financial instruments, and the investment of excess liquidity. Compliance with policies and exposure limits was reviewed by the internal auditors on a continuous basis. The Group did not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

The corporate treasury function reported quarterly to the Group's risk management committee, an independent body that monitors risks and policies implemented to mitigate risk exposures.

1) Market risk

The Group's activities exposed it primarily to the financial risks of changes in foreign currency exchange rates (see (a) below) and interest rates (see (b) below). The Group entered into a variety of derivative financial instruments to manage its exposure to foreign currency risk and interest rate risk, including: Foreign exchange forward contracts to hedge the exchange rate risk arising on the Group's foreign currency monetary.

a) Foreign currency risk

Several subsidiaries of the Company had foreign currency sales and purchases, which exposed the Group to foreign currency risk.

The carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities (including those eliminated on consolidation) at the end of the reporting period (see Note 32).

<u>Sensitivity analysis</u>

The Group was mainly exposed to the USD and JPY.

The following table details the Group's sensitivity to a 1% increase and decrease in the New Taiwan dollar (the functional currency) against the relevant foreign currencies. The sensitivity rate used when reporting foreign currency risk internally to key management personnel and representing management's assessment of the reasonably possible change in foreign exchange rates is 1%. The sensitivity analysis included only outstanding foreign currency denominated monetary items and foreign exchange forward contracts designated as cash flow hedges, and adjusts their translation at the end of the reporting period for a 1% change in foreign currency rates. The sensitivity analysis included external loans/borrowings as well as loans/borrowings to foreign operations within the Group where the denomination of the loan is in a currency other than the functional currency of the lender or the borrower. A positive number below indicates an increase in post-tax profit and other equity associated with the New Taiwan dollar strengthening 1% against the relevant currency. For a 1% weakening of the New Taiwan dollar against the relevant currency, there would be an equal and opposite impact on post-tax profit and other equity and the balances below would be negative.

	USD Impact		**JPY Impact**	
	For the Year Ended December 31		**For the Year Ended December 31**	
	2019	**2018**	**2019**	**2018**
Profit or loss	$ 20,723	$ 23,015	$ (3,429)	$ (3,169)

i. This was mainly attributable to the exposure outstanding on USD receivables and payables, which were not hedged at the end of the reporting period.

ii. This was mainly attributable to the exposure to outstanding JPY payables, which were not hedged, at the end of the reporting period.

b) Interest rate risk

The Group was exposed to interest rate risk because the Group's bank deposits and the Group borrowed funds at floating interest rates.

The carrying amount of the Group's financial assets and financial liabilities with exposure to interest rates at the end of the reporting period were as follows.

	December 31	
	2019	**2018**
Fair value interest rate risk		
Financial assets	$ 478,725	$ 40,355
Financial liabilities	-	-
Cash flow interest rate risk		
Financial assets	1,661,861	1,451,172
Financial liabilities	1,910,980	1,652,081

Sensitivity analysis

The sensitivity analyses below were determined based on the Group's exposure to interest rates for both derivatives and non-derivative instruments at the end of the reporting period. For floating rate liabilities, the analysis was prepared assuming the amount of the liability outstanding at the end of the reporting period was outstanding for the whole year. A 0.25% basis point increase or decrease was used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 0.25% basis points higher/lower and all other variables were held constant, the Group's pre-tax profit for the years ended December 31, 2019 and 2018 would decrease by $(623) thousand and $(502) thousand, which was mainly attributable to the Group's exposure to interest rates on its floating rate bank deposits and bank borrowings.

c) Other price risk

The Group was exposed to equity price risk through its investments in listed equity securities. Equity investments are held for strategic rather than trading purposes. The Group does not actively trade these investments. The Group's equity price risk was mainly concentrated on equity instruments operating in Shenzhen stock exchange, growth enterprise.

Sensitivity analysis

The sensitivity analyses below were determined based on the exposure to equity price risks at the end of the reporting period.

If equity prices had been 1% higher/lower, other comprehensive income for the years ended December 31, 2019 and 2018 would increase/decrease by $1,171 thousand and $2,507 thousand, respectively.

2) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in a financial loss to the Group. As at the end of the reporting period, the Group's maximum exposure to credit risk, which would cause a financial loss to the Group due to the failure of the counterparty to discharge its obligation and due to the financial guarantees provided by the Group, could be equal to the total of the following:

a) The carrying amount of the respective recognized financial assets as stated in the balance sheets; and

b) The maximum amount the entity would have to pay if the financial guarantee is called upon, irrespective of the likelihood of the guarantee being exercised.

3) Liquidity risk

The Group manages liquidity risk by monitoring and maintaining a level of cash and cash equivalents deemed adequate to finance the Group's operations and mitigate the effects of fluctuations in cash flows. In addition, management monitors the utilization of bank borrowings and ensures compliance with loan covenants.

The Group relies on bank borrowings as a significant source of liability. As of December 31, 2019 and 2018, the Group had available unutilized overdraft and short-term bank loan facilities of approximately $4,754,880 thousand and $5,544,897 thousand, respectively.

- Liquidity and interest risk rate tables

The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities with agreed repayment periods. The table has been drawn up based on the undiscounted cash flows of financial liabilities from the earliest date on which the Group can be required to pay. The table included both interest and principal cash flows. Specifically, bank loans with a repayment on demand clause were included in the earliest time band regardless of the probability of the banks choosing to exercise their rights. The maturity dates for other non-derivative financial liabilities were based on the agreed repayment dates.

To extend that interest flows are floating rate, the undiscounted amount was derived from the interest rate curve at the end of the reporting period.

December 31, 2019

	Weighted Interest Average Effective Rate (%)	Less Than 1 Year	2-3 Years	4-5 Years	5+ Years	Total
Non-derivative financial liabilities						
Trade payables	-	$ 1,659,164	$ -	$ -	$ -	$ 1,659,164
Other payables	-	727,521	-	-	-	727,521
Other current liabilities	-	81,304	-	-	-	81,304
Lease liabilities	0.86	3,087	2,228	721	-	6,036
Variable interest rate (liabilities)	0.40-6.18	273,345	1,637,635	-	-	1,910,980

December 31, 2018

	Weighted Interest Average Effective Rate (%)	Less Than 1 Year	2-3 Years	4-5 Years	5+ Years	Total
Non-derivative financial liabilities						
Trade payables	-	$ 1,326,919	$ -	$ -	$ -	$ 1,326,919
Other payables	-	566,793	-	-	-	566,793
Other current liabilities	-	21,766	-	-	-	21,766
Variable interest rate (liabilities)	0.60-6.18	169,735	1,482,346	-	-	1,652,081

The amounts included above for variable interest rate instruments for both non-derivative financial assets and liabilities was subject to change if changes in variable interest rates differ from those estimates of interest rates determined at the end of the reporting period.

- Liquidity and interest rate risk tables for non-derivative financial liabilities

The following table detailed the Group's liquidity analysis for its derivative financial instruments. The table was based on the undiscounted contractual net cash inflows and outflows on derivative instruments that settle on a net basis, and the undiscounted gross inflows and outflows on those derivatives that require gross settlement.

December 31, 2019

	On Demand or Less Than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	5+ Years
Net settled					
Foreign exchange forward contracts	$ 221	$ (464)	$ 42	$ -	$ -

December 31, 2018

	On Demand or Less Than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	5+ Years
Net settled					
Foreign exchange forward contracts	$ 1,559	$ 274	$ -	$ -	$ -

28. RELATED-PARTY TRANSACTIONS

Balances and transactions between the Company and its subsidiaries, which are related parties of the Company, have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Group and other related parties are disclosed below.

Related Party Name	Relationship with the Company
Tai-Shing Electronics Components Corporation	Associate
Liang Shing Eclife Corp. (“Eclife”)	Other associate
Ningbo Xingmao Electron Technology Co., Ltd.	Associate
Godsmith Sensor Inc.	Associate

a. Sales of goods

	For the Year Ended December 31	
	2019	2018
Associates	$ 8,331	$ 32,965
Other associate	9,597	33
	$ 17,928	$ 32,998

Selling prices and payment terms offered to related parties were similar with those offered to third parties.

b. Purchase of goods

	For the Year Ended December 31	
	2019	2018
Associates	$ 261	$ -
Other associates	217	188
	$ 478	$ 188

Purchase prices and payment terms offered by related parties were similar with those offered by third parties.

c. Operating expenses

	For the Year Ended December 31	
	2019	2018
Other associates	$ 1,559	$ 722

d. Commission revenue

	For the Year Ended December 31	
	2019	2018
Associates	$ 2,538	$ 2,567

e. Rental revenue

			For the Year Ended December 31			
			2019		2018	
Related Party	Location	Rent Collection	Amount	% to Total Account Balance	Amount	% to Total Account Balance
Associate	1F., No. 189, Huangshan W. Rd., Beilun Dist., Ningbo City	Based on contract, and paid on a monthly basis	$ 3,228	-	$ 3,265	-
Associate	6F., No. 4, Gongye 6th Rd., Pingzhen Dist., Taoyuan City 324, Taiwan (R.O.C.)	Based on contract, and paid on a monthly basis	3,586	-	-	-
Associate	3F., No. 6, Gongye 6th Rd., Pingzhen Dist., Taoyuan City 324, Taiwan (R.O.C.)	Based on contract, and paid on a monthly basis	586	-	-	-
			$ 7,400		$ 3,265	

Selling prices to related parties were similar to those for third parties.

f. Trade receivables from related parties

	December 31	
	2019	2018
Associates	$ 2,187	$ 9,028
Other associates	1,918	34
Less: Allowance for impairment loss	(67)	(67)
	$ 4,038	$ 8,995

The outstanding trade receivables from related parties are unsecured.

g. Trade payables to related parties

	December 31	
	2019	2018
Other associates	$ 78	$ 97

h. Other receivables from related parties

	December 31	
	2019	2018
Associates	$ 79	$ 796

i. Other payables to related parties

	December 31	
	2019	2018
Associates	$ -	$ 1,760
Other associates	2,850	1,357
	$ 2,850	$ 3,117

j. Acquisition of property, plant and equipment

	Acquisition Amounts	
	For the Year Ended December 31	
	2019	2018
Other associates	$ 745	$ 1,299

k. Compensation of key management personnel

	For the Year Ended December 31	
	2019	2018
Short-term benefits	$ 78,076	$ 61,628
Post-employment benefits	3,087	3,054
	$ 81,163	$ 64,682

The remuneration of directors and key executives, as determined by the remuneration committee, was based on the performance of individuals and market trends.

29. ASSETS PLEDGED AS COLLATERAL OR FOR SECURITY

The following assets were provided as collateral for bank borrowings:

	December 31	
	2019	2018
Land and land improvement	$ 450,148	$ 573,080
Building equipment, net	944,795	848,918
Investment property	37,293	135,344
Land for development	757,258	319,922
Pledge deposits	46,578	149,233
Right-of-use assets	11,891	-
Prepayments for leases	-	12,383
	$ 2,247,963	$ 2,038,880

30. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

In addition to those disclosed in other notes, significant commitments and contingencies of the Group as of December 31, 2019 and 2018 were as follows:

a. As of December 31, 2019 and 2018, unused letters of credit amounted to approximately JPY27,600 thousand and JPY2,450 thousand.

b. As of December 31, 2018, the Company unrecognized commitments are as follows:

	Contract Amount	Paid Amount	Unpaid Amount
Acquisition of equipment	$ 20,315	$ 7,668	$ 12,647
Acquisition of equipment	RMB 8,021	RMB 2,653	RMB 5,368
Acquisition of equipment	JPY 394,692	JPY 28,520	JPY 366,172
Acquisition of equipment	US$ 13,031	US$ -	US$ 13,031

31. SIGNIFICANT EVENTS AFTER REPORTING PERIOD: NONE

32. EXCHANGE RATE OF FINANCIAL ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

The group entities’ significant financial assets and liabilities denominated in foreign currencies aggregated by the foreign currencies other than functional currencies and the related exchange rates between foreign currencies and respective functional currencies were as follows:

Unit: In Thousands of Foreign Currencies and New Taiwan Dollars)

December 31, 2019

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 76,087	30.1060 (USD:NTD)	$ 2,290,675
USD	33,010	6.8632 (USD:RMB)	993,799
JPY	562,326	0.2771 (JPY:NTD)	155,821
JPY	611,494	0.0622 (JPY:RMB)	169,445
Financial liabilities			
Monetary items			
USD	28,870	30.1060 (USD:NTD)	869,160
USD	11,394	6.8632 (USD:RMB)	343,028
JPY	1,004,826	0.2771 (JPY:NTD)	278,437
JPY	1,406,372	0.0622 (JPY:RMB)	389,706

December 31, 2018

Financial assets	Foreign Currencies	Exchange Rate	Carrying Amount
Monetary items			
USD	$ 84,664	30.715 (USD:NTD)	$ 2,600,455
USD	29,325	6.8632 (USD:RMB)	900,717
JPY	432,583	0.2782 (JPY:NTD)	120,345
JPY	159,616	0.0622 (JPY:RMB)	44,405
Financial liabilities			
Monetary items			
USD	28,484	30.715 (USD:NTD)	874,886
USD	10,573	6.8632 (USD:RMB)	324,750
JPY	1,168,067	0.2782 (JPY:NTD)	324,956
JPY	563,363	0.0622 (JPY:RMB)	156,728

For the years ended December 31, 2019 and 2018, unrealized net foreign exchange gains were $(17,229) thousand and $18,693 thousand, respectively. It is impractical to disclose net foreign exchange gains (losses) by each significant foreign currency due to the variety of the foreign currency transactions and functional currencies of the group entities.

33. SEPARATELY DISCLOSED ITEMS

a. Information on significant transactions and information on investees:

1) Lending funds to others. (None)

2) Providing endorsements or guarantees for others. (Table 1)

3) Holding of securities at the end of the period. (Table 2)

4) Aggregate purchases or sales of the same securities reaching NT$300 million or 20 percent of paid-in capital or more. (Table 3)

5) Acquisition of real estate reaching NT$300 million or 20 percent of paid-in capital or more. (None)

6) Disposal of real estate reaching NT$300 million or 20 percent of paid-in capital or more. (None)

7) Purchases or sales of goods from or to related parties reaching NT$100 million or 20 percent of paid-in capital or more. (Table 4)

8) Trade receivables from related parties reaching NT$100 million or 20 percent of paid-in capital or more. (Table 5)

9) Trading in derivative instruments. (Note 7)

10) Others: The business relationship between the parent and the subsidiaries and between each subsidiary, and the circumstances and amounts of any significant transactions between them. (Table 9)

11) Information on investees. (Table 6)

b. Information on investments in mainland China

1) Information on any investee company in mainland China, showing the name, principal business activities, paid-in capital, method of investment, inward and outward remittance of funds, shareholding ratio, investment gain or loss, carrying amount of the investment at the end of the period, repatriated investment gains, and limit on the amount of investment in the mainland China area. (Table 7)

2) Any of the following significant transactions with investee companies in mainland China, either directly or indirectly through a third area, and their prices, payment terms, and unrealized gains or losses. (Table 8)

   a) The amount and percentage of purchases and the balance and percentage of the related payables at the end of the period.

   b) The amount and percentage of sales and the balance and percentage of the related receivables at the end of the period.

   c) The amount of property transactions and the amount of the resultant gains or losses.

   d) The balance of negotiable instrument endorsements or guarantees or pledges of collateral at the end of the period and the purposes.

   e) The highest balance, the end of period balance, the interest rate range, and total current period interest with respect to financing of funds.

   f) Other transactions that have a material effect on the profit or loss for the period or on the financial position, such as the rendering or receipt of services.

34. SEGMENT INFORMATION

Information reported to the chief operating decision maker for the purpose of resource allocation and assessment of segment performance focuses on the types of goods or services delivered or provided. Specifically, the Group's reportable segments under IFRS 8 "Operating Segments" were as follows:

- Crystal

a. Segment revenues and results

	Segment Revenue For the Year Ended December 31		Segment Profit For the Year Ended December 31	
	2019	**2018**	**2019**	**2018**
Crystal	$ 8,430,970	$ 8,156,268	$ 632,138	$ 533,301
	$ 8,430,970	$ 8,156,268	632,138	533,301
Other income			162,824	145,629
Other gains and losses			(21,143)	64,841
Financial costs			(23,250)	(20,400)
Share of profit or loss of subsidiaries, associates and joint ventures			14,008	10,126
Profit before tax (continuing operations)			$ 764,577	$ 733,497

Segment revenue reported above represents revenue generated from external customers. There were no inter-segment sales for the years ended December 31, 2019 and 2018.

Segment profit represented the profit before tax earned by each segment without allocation of central administration costs and directors' salaries, share of profits of associates, gain recognized on the disposal of interest in former associates, rental revenue, interest income, gain or loss on disposal of property, plant and equipment, gain or loss on disposal of financial instruments, exchange gain or loss, valuation gain or loss on financial instruments, finance costs and income tax expense. This was the measure reported to the chief operating decision maker for the purpose of resource allocation and assessment of segment performance.

b. Revenue from major products and services

	2019	2018
Crystals	$ 6,170,067	$ 5,790,950
Oscillators	1,319,466	1,305,003
Others	941,437	1,060,315
	$ 8,430,970	$ 8,156,268

c. Geographical information

The Group's operates in two principal geographical areas - Taiwan and China.

The Group's revenue from continuing operations from external customers and information about its non-current assets by geographical location are detailed below:

	Revenue from External Customers For the Year Ended December 31		Non-current Assets December 31	
	2019	2018	2019	2018
Taiwan	$ 276,446	$ 572,254	$ 2,089,966	$ 2,061,966
Asia	7,824,156	7,226,799	2,319,093	2,423,601
America	206,637	218,158	-	-
Europe	123,731	139,057	-	-
Others	-	-	9,376	689
	$ 8,430,970	$ 8,156,268	$ 4,418,435	$ 4,486,256

Non-current assets included property, plant and equipment, intangible assets and other assets but excluded deferred tax assets and financial instruments.

d. Major customer information

Single customers contributing 10% or more to the Group's revenue were as follows:

	For the Year Ended December 31	
	2019	2018
F Group	$ 1,201,028	$ 1,172,264

TXC CORPORATION AND SUBSIDIARIES

ENDORSEMENTS/GUARANTEES PROVIDED
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

No. (Note 1)	Endorser/Guarantor	Endorsee/Guarantee		Limit on Endorsement/ Guarantee Given on Behalf of Each Party (Note 3)	Maximum Amount Endorsed/ Guaranteed During the Period	Outstanding Endorsement/ Guarantee at the End of the Period	Actual Borrowing Amount	Amount Endorsed/ Guaranteed by Collateral	Ratio of Accumulated Endorsement/ Guarantee to Net Equity in Latest Financial Statements (%)	Aggregate Endorsement/ Guarantee Limit	Note
		Name	Relationship (Note 2)								
1	TXC (Ningbo) Corporation	Chongqing All Sun Company Limited	Subsidiary with equity method	$ 2,597,313	$ 345,240	$ 345,240	$ 238,632	$ -	6.65	$ 5,194,627	

Note: The total amount of TXC (Ningbo) Corporation endorsements and guarantees provided shall not exceed 100% of the amount of the net value of TXC (Ningbo) Corporation; the amount of individual entity endorsements shall not exceed 5% of the amount of the net value of the individual entity. However, the amount of individual entity endorsements is permitted with 50% of net value of subsidiary.

TABLE 2

TXC CORPORATION AND SUBSIDIARIES

MARKETABLE SECURITIES HELD
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Holding Company Name	Type and Name of Marketable Securities	Relationship with the Holding Company	Financial Statement Account	December 31, 2019				Note
				Shares	Carrying Amount	Percentage of Ownership	Shares	
TXC Corporation	Shares listed overseas							
	Guandong Failong Crystal Technology Co., Ltd.	None	Financial assets at fair value through other comprehensive income - non-current	1,652	$ 117,114	1	$ 117,114	
	Shares - unlisted company							
	Marson Technology Co., Ltd.	None	Financial assets at fair value through other comprehensive income - non-current	523	$ 4,773	4	$ 4,773	
	Win Precision Technology Co., Ltd.	None	〃	1,365	18,388	3	18,388	
	UPI Semiconductor Corp.	Chairman is a direct of the Company	〃	1,516	45,202	2	45,202	
					$ 68,363		$ 68,363	
	Shares overseas - unlisted company							
	RFIC Telechnology preference shares	None	Financial assets at fair value through profit or loss - non-current	10,000	$ 9,255	-	$ 9,255	
TXC (Ningbo) Corporation	Mutual fund							
	ABC Monetary Fund	None	Financial assets at fair value through profit or loss - current	RMB 12,000	$ 51,570		$ 51,570	
	TXC No. 1 Monetary Fund	〃	〃	RMB 41,953	180,292		180,292	
					$ 231,862		$ 231,862	
	Shares overseas - unlisted company							
	Ningbo SJ Electronics Co., Ltd.	None	Financial assets at fair value through other comprehensive income - non-current	RMB 6,000	$ 25,785	7	$ 25,785	
	Structured deposits							
	Fubon Bank (China)	None	Financial assets at fair value through profit or loss - current	RMB 10,190	$ 43,790		$ 43,790	
	China Guangfa Bank	〃		RMB 30,158	129,604		129,604	
	HengFeng Bank	〃	〃	RMB 10,190	43,790		43,790	
					$ 217,184		$ 217,184	

(Continued)

Holding Company Name	Type and Name of Marketable Securities	Relationship with the Holding Company	Financial Statement Account	December 31, 2019				Note
				Shares	Carrying Amount	Percentage of Ownership	Shares	
TXC (Chongqing) Limited	Mutual fund							
	Southern Currency Fund B	None	Financial assets at fair value through profit or loss - current	RMB 24,408	$ 104,892		$ 104,892	
	Southern Currency Fund E	〃	〃	RMB 3,740	16,075		16,075	
	E Fund Monetary Fund B	〃	〃	RMB 5,007	21,518		21,518	
					$ 142,485		$ 142,485	
	Structured deposits							
	China Merchants Bank	None	Financial assets at fair value through profit or loss - non-current	RMB 13,025	$ 55,973		$ 55,973	
	China Everbright Bank	〃	〃	RMB 22,033	94,687		94,687	
					$ 150,657		$ 150,657	
Ningbo Jingyu Company Limited	Mutual fund							
	Southern Cash Fund	None	Financial assets at fair value through profit or loss - current	RMB 61	$ 264		$ 264	
Chongqing All Sun Company Limited	Mutual fund							
	E Fund Stable Income Bond Fund B	None	Financial assets at fair value through profit or loss - current	RMB 2,961	$ 12,726		$ 12,726	
Ding Kai Investment Management Company Limited	Shares unlisted overseas							
	Zhejiang Boland Semiconductor Technology Co., Ltd.	None	Financial assets at fair value through other comprehensive income - non-current	RMB 7,000	$ 211,160	6	$ 211,160	

(Concluded)

TXC CORPORATION AND SUBSIDIARIES

MARKETABLE SECURITIES ACQUIRED AND DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT$300 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counterparty	Relationship	Beginning Balance		Acquisition		Disposal				Equity in Net Gain (Loss)	Ending Balance	
					Shares	Amount	Shares	Amount	Shares	Amount	Carrying Amount	Gain (Loss) on Disposal		Shares	Amount
TXC (Chongqing) Limited	Mutual fund	Financial instruments at FVTPL - current	E Fund Monetary Fund B	None	-	$ 44,854	-	$ 445,557	-	$ (468,876)	$ (468,876)	$ -	$ (17)	-	$ 21,518

TABLE 4

TXC CORPORATION AND SUBSIDIARIES

TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES OF AT LEAST NT$100 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Buyer	Related Party	Relationship	Transaction Details				Abnormal Transaction		Notes/Accounts Payable or Receivable		Note
			Purchase/ Sale	Amount	% to Total	Payment Terms	Unit Price	Payment Terms	Ending Balance	% to Total	
TXC Corporation	TXC (Ningbo) Corporation	Subsidiary	Purchase	$ (1,869,765)	(39)	Note	Its trading price depends on its function within the Group	Note	$ (591,234)	(45)	
	〃	〃	Sale	192,162	3	〃	〃	〃	44,752	2	
	TXC (Chongqing) Limited	Subsidiary	Purchase	(822,274)	(17)	〃	〃	〃	(204,868)	(16)	
TXC (Ningbo) Corporation	TXC (Chongqing) Limited	Subsidiary	Purchase	(266,442)	(13)	〃	〃	〃	(96,307)	(11)	

TABLE 5

TXC CORPORATION AND SUBSIDIARIES

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT$100 MILLION OR 20% OF THE PAID-IN CAPITAL
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Company Name	Related Party	Relationship	Ending Balance	Turnover Rate	Overdue		Amount Received in Subsequent Period	Allowance for Impairment Loss
					Amount	Actions Taken		
TXC (Ningbo) Corporation	TXC Corporation	Parent entity	$ 591,234	7.08	$ -	-	$ 326,092	$ -
TXC (Chongqing) Corporation	TXC Corporation	Parent entity	204,868	6.47	-	-	110,491	-

TABLE 6

TXC CORPORATION AND SUBSIDIARIES

NAMES, LOCATIONS, AND RELATED INFORMATION OF INVESTEES ON WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars or U.S. Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019			Net Income (Losses) of the Investee	Equity in the Earnings (Losses)	Note
				December 31, 2019	December 31, 2018	Shares (In Thousands)	Percentage of Ownership	Carrying Value			
TXC Corporation	Taiwan Crystal Technology International Ltd.	Western Samoa	Investment	$ 1,390,461	$ 1,390,461	42,835	100.00	$ 5,332,390	$ 365,631	$ 362,831	
	TXC Technology Inc.	U.S.A.	Marketing activities	9,879	9,879	300	100.00	16,858	2,176	2,176	
	TXC Japan Corporation	Japan	Marketing activities	6,172	6,172	2	100.00	30,643	3,418	3,418	
	Taiwan Crystal Technology International (HK) Limited	Hong Kong	Investment	1,958	1,958	80	100.00	87,652	(3,584)	(3,584)	
	TXC Europe GmbH	Germany	Marketing activities	1,746	1,746	50	100.00	2,741	758	758	
	Tai-Shing Electronics Components Corporation	Taiwan	Manufacture and sales of electronics products	349,389	282,306	8,179	30.98	359,765	58,356	18,081	
	Godsmith Sensor Inc.	Taiwan	Manufacture of equipment	38,100	38,100	2,350	35.10	32,079	(9,602)	(2,819)	
Taiwan Crystal Technology International Ltd.	Growing Profit Trading Ltd.	B.V.I.	International trading	1,691	1,691	50	100.00	152,415	(19,106)	(19,106)	

TXC CORPORATION AND SUBSIDIARIES

INFORMATION ON INVESTMENTS IN MAINLAND CHINA
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars or U.S. Dollars)

1. Name of the investees in mainland China, main businesses and products, paid-in capital, method of investment, information on inflow or outflow of capital, percentage of ownership, investment income or loss, ending balance of investment, dividends remitted by the investee, and the limit of investment in mainland China:

Investee Company	Main Businesses and Products	Total Amount of Paid-in Capital	Method of Investment	Accumulated Outflow of Investment from Taiwan as of January 1, 2019 (In Thousand)	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2019 (In Thousand)	Investee Company Current Net Income	Percentage of Ownership	Investment Income (Loss) Recognized	Carrying Amount as of December 31, 2019	Accumulated Inward Remittance of Earnings as of December 31, 2019
					Outflow	Inflow						
TXC (Ningbo) Corporation	Manufacturing and sales of crystal and crystal oscillator	$ 1,487,211	Indirect investment of the Corporation in mainland China through the Corporation's subsidiary in a third region	$ 1,427,630	$ -	$ -	$ 1,427,630	$ 384,778	100.00	$ 384,778	$ 5,194,627	$ 256,146
Guandong Failong Crystal Technology Co., Ltd.	Manufacturing and sales of new electronic components	580,947	Direct investment of the Corporation in mainland China	46,478	-	-	46,478	571,257	1.00	-	117,114	385,367
TXC (Chongqing) Corporation	Manufacturing and sales of electronic devices and hardware components	1,162,074	Indirect investment of the Corporation in mainland China through the Corporation's subsidiary in a third region	-	-	-	-	101,076	100.00	101,076	1,204,208	306,500
Chongqing All Suns Company Limited	Real estate intermediary service, real estate management and electronic product wholesale	647,141	Other investment of the Corporation in mainland China	-	-	-	-	(20,516)	100.00	(20,516)	569,183	-
Ningbo Jingyu Company Limited	Purchasing and selling electronic component	7,090	Other investment of the Corporation in mainland China	-	-	-	-	1,062	100.00	1,062	4,945	-
Ningbo Longying Semiconductor Co., Ltd.	Research and development in integrated circuit	183,180	Other investment of the Corporation in mainland China	-	-	-	-	(3,133)	40.00	(1,254)	55,446	-
Ningbo Free Trade Zon Ding Kai Investment Management Company	Investment Management	160,043	Other investment of the Corporation in mainland China	-	-	-	-	-	100.00	-	211,302	-

2. The limited amounts of the investment in mainland China

Accumulated Investment in Mainland China as of December 31, 2019	Investment Amounts Authorized by the Investment Commission, MOEA	Upper Limit on the Amount of Investment Stipulated by Investment Commission, MOEA
$1,474,108	$1,832,878	$ -

Note: The investment in mainland China has no maximum limitation since TXC Corporation had acquire the approval from the Industrial Development Bureau for the establishment of the Company's operating headquarter in Taiwan.

TABLE 8

TXC CORPORATION AND SUBSIDIARIES

SIGNIFICANT TRANSACTIONS WITH INVESTEE COMPANIES IN MAINLAND CHINA, EITHER DIRECTLY OR INDIRECTLY THROUGH A THIRD PARTY, AND THEIR PRICES, PAYMENT TERMS, AND UNREALIZED GAINS OR LOSSES
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

1. Significant direct or indirect transactions with the investees, prices and terms of payment, unrealized gain or loss:

Company Name	Related Party	Transaction Type	Transaction Details					Accounts/Notes Receivable/Payable		Unrealized Gain or Loss
			Amount	Percentage (%)	Price	Payment Term	Compared with Terms of Third Parties	Balance	%	
TXC Corporation	NGB	Purchase	$ 1,869,765	39	Its trading price depends on its function within the Group	Similar with third parties	Its trading price depends on its function within the Group	$ (591,234)	(45)	$ 7,668
	NGB	Sale	192,162	3	〃	〃	〃	44,752	2	1,344
	CKG	Purchase	822,274	17	〃	〃	〃	(204,808)	(16)	5,335
GPT	NGB	Sale	99,625	49	〃	〃	〃	-	-	-

2. The transactions of properties and the profit or loss: None.

3. Endorsements guarantees or collateral directly or indirectly provided to the investees: None

4. Financing directly or indirectly provided to the investees: None

5. Other transactions that significantly impacted the current year’s profit or loss or financial position: None

TXC CORPORATION AND SUBSIDIARIES

INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT INTERCOMPANY TRANSACTIONS
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

For the year ended December 31, 2018

No.	Company Name	Counterparty	Nature of Relationship (Note 1)	Intercompany Transactions			
				Accounts	Amount	Terms (Note 2)	Percentage of Consolidated Total Gross Sales or Total Assets (%)
0	TXC Corporation	TXC Technology, Inc.	a	Other expense - consulting expense	$ 66,598	1	1
		TXC Japan Corporation	a	Other expense - consulting expense	34,005	1	-
		TXC (Ningbo) Corporation	a	Sales	192,162	1	2
				Purchase	1,869,765	1	22
				Trade receivables	44,752	1	-
				Other receivables	42,751	1	-
				Trade payables	591,234	1	7
		TXC (Chongqing) Corporation	a	Purchase	822,274	1	10
				Trade payables	204,868	1	2
		Growing Profits Trading Ltd.		Purchase	84,788	1	1
1	TXC (Ningbo) Corporation	Growing profits Trading Ltd.	c	Purchase	99,625	3	1
		TXC (Chongqing) Corporation	c	Sales	40,423	3	-
				Purchase	266,442	3	3
				Trade receivables	18,310	3	-
				Trade payables	96,307	3	-

Note 1: a. Represent the transactions from parent company to subsidiary.
c. Represent the transactions between subsidiaries.

Note 2: In 2019, the selling price and purchasing price were not significantly different from those of third parties, except for TXC (Ningbo) Corporation, TXC (Chongqing) Limited and Growing Profits Trading Ltd., which is depending on its function within the Group.

TXC Corporation

Financial Statements for the Years Ended December 31, 2019 and 2018 and Independent Auditors' Report

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders
TXC Corporation

Opinion

We have audited the accompanying financial statements of TXC Corporation (the "Company"), which comprise the balance sheets as of December 31, 2019 and 2018, and the statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the financial statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and its financial performance and its cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. 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 judgment, were of most significance in our audit of the financial statements for the year ended December 31, 2019. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters identified in the Company's financial statements for the year ended December 31, 2019 are stated as follows:

Sales from Hub Warehouses

To meet the needs of major customers, TXC Corporation stock finished goods in the hub warehouses. Sales from hub warehouses are recognized when finished goods are already picked up by customers, and customers have the right to use the finished goods and bear the risk of finished goods. Since recognition of sales from hub warehouses requires more control mechanisms, we considered sales from hub warehouses as a key audit matter.

The key audit procedures that we performed in respect of sales from hub warehouses included the following:

1. We evaluated the appropriateness of the design of relevant procedures for the sales revenue recognition of TXC Corporation.

2. We selected samples to test the effectiveness of its key control operations and verified the consistency of the implementation of the control during the year.

3. For revenue details from warehouse sales generated from major customers in the current year, we selected samples and checked the orders and pick-up related documents which correspond to the sales revenue to confirm the occurrence of the sales revenue.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company’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 management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including the audit committee, are responsible for overseeing the Company’s financial reporting process.

Auditors’ Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors’ report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China 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 financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the 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.

2. 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 Company's internal control.

3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

4. Conclude on the appropriateness of management's 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 Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the 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 auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

5. Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance 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 those charged with governance 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 those charged with governance, we determine those matters that were of most significance in the audit of the financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' 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 partners on the audit resulting in this independent auditors' report are Ming-Chung Hsieh and Yu-Shiou Su.

Deloitte & Touche
Taipei, Taiwan
Republic of China

March 23, 2020

Notice to Readers

The accompanying consolidated financial statements are intended only to present the consolidated financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such consolidated financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying consolidated financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and financial statements shall prevail.

TXC CORPORATION

BALANCE SHEETS
DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019		2018	
ASSETS	**Amount**	**%**	**Amount**	**%**
CURRENT ASSETS				
Cash and cash equivalents (Notes 4 and 6)	$ 672,110	6	$ 557,442	5
Financial assets at fair value through profit or loss - current (Notes 4 and 7)	-	-	86	-
Financial assets at amortized cost - current (Note 9)	43,052	-	68,946	1
Notes receivable (Notes 4, 5 and 10)	813	-	1,293	-
Trade receivables (Notes 4, 5 and 10)	2,199,290	18	2,121,827	18
Trade receivables from related parties (Notes 4, 10 and 26)	51,691	1	110,001	1
Other receivables (Notes 4 and 10)	14,371	-	17,784	-
Other receivables from related parties (Notes 4 and 26)	42,888	-	6,458	-
Current tax assets (Note 22)	8,176	-	5,245	-
Inventories (Notes 4 and 11)	870,180	7	997,780	8
Other current assets	22,074	-	9,352	-
Total current assets	3,924,645	32	3,896,214	33
NON-CURRENT ASSETS				
Financial assets at fair value through profit or loss - non-current (Notes 4 and 7)	9,255	-	30,975	-
Financial assets at fair value through other comprehensive income - non-current (Notes 4 and 8)	185,477	2	330,925	3
Right-of-use assets (Notes 4 and 14)	6,024	-	-	-
Investments accounted for using equity method (Notes 4 and 12)	5,862,128	49	5,604,216	47
Property, plant and equipment (Notes 4 and 13)	1,961,704	16	1,894,487	16
Investment properties (Notes 4 and 15)	26,881	-	115,474	1
Other intangible assets (Note 4)	3,692	-	170	-
Deferred tax assets (Notes 4, 5 and 22)	33,066	-	28,654	-
Prepayment for equipment	89,157	1	50,827	-
Refundable deposits	2,508	-	1,008	-
Total non-current assets	8,179,892	68	8,056,736	67
TOTAL	$ 12,104,537	100	$ 11,952,950	100
LIABILITIES AND EQUITY				
CURRENT LIABILITIES				
Short-term loans (Note 16)	$ 3,525	-	$ -	-
Financial liabilities at fair value through profit or loss - current (Notes 4 and 7)	3,963	-	-	-
Trade payables	503,621	4	577,266	5
Trade payables to related parties (Note 26)	797,801	7	635,993	5
Other payables (Note 17)	431,397	4	354,404	3
Other payables to related parties (Note 26)	4,449	-	3,221	-
Current tax liabilities (Notes 4 and 22)	38,273	-	-	-
Lease liabilities - current (Notes 4 and 14)	3,087	-	-	-
Current portion of long-term borrowings and bonds payable (Note 16)	-	-	46,875	1
Other current liabilities	7,948	-	8,486	-
Total current liabilities	1,794,064	15	1,626,245	14
NON-CURRENT LIABILITIES				
Long-term borrowings (Note 16)	1,400,000	11	1,350,000	11
Lease liabilities - non-current (Notes 4 and 14)	2,949	-	-	-
Deferred tax liabilities (Notes 4 and 22)	123,400	1	145,490	1
Net defined benefit liabilities - non-current (Notes 4 and 18)	74,031	1	68,033	1
Guarantee deposits received	12,342	-	12,342	-
Total non-current liabilities	1,612,722	13	1,575,865	13
Total liabilities	3,406,786	28	3,202,110	27
EQUITY (Note 19)				
Share capital				
Ordinary shares	3,097,570	25	3,097,570	26
Capital surplus	1,666,690	14	1,665,116	14
Retained earnings				
Legal reserve	1,413,518	12	1,349,083	11
Special reserve	254,907	2	222,793	2
Unappropriated earnings	2,789,438	23	2,671,184	22
Total retained earnings	4,457,863	37	4,243,060	35
Other equity				
Exchange differences on translating the financial statements of foreign operations	(584,617)	(5)	(359,923)	(3)
Unrealized gain on financial assets at fair value through other comprehensive income	60,245	1	105,017	1
Total other equity	(524,372)	(4)	(254,906)	(2)
Total equity	8,697,751	72	8,750,840	73
TOTAL	$ 12,104,537	100	$ 11,952,950	100

The accompanying notes are an integral part of the financial statements.

TXC CORPORATION

STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018	
	Amount	**%**	**Amount**	**%**
OPERATING REVENUE (Note 20)				
Sales	$ 6,778,865	102	$ 6,657,254	101
Less: Sales returns	32,011	1	17,427	-
Less: Sales allowances	74,783	1	82,921	1
Net operating revenue	6,672,071	100	6,556,906	100
COST OF GOODS SOLD (Notes 11 and 21)	5,596,803	84	5,542,656	84
GROSS PROFIT	1,075,268	16	1,014,250	16
UNREALIZED GAIN ON INTERCOMPANY TRANSACTIONS	(1,364)	-	(1,064)	-
REALIZED GAIN ON TRANSACTIONS WITH INTER AFFILIATES	1,064	-	2,634	-
REALIZED GROSS PROFIT	1,074,968	16	1,015,820	16
OPERATING EXPENSES (Notes 4 and 21)				
Selling and marketing expenses	252,422	3	245,375	4
General and administrative expenses	123,024	2	119,397	2
Research and development expenses	396,050	6	327,119	5
Expected credit loss reversed on trade receivables	-	-	(513)	-
Total operating expenses	771,496	11	691,378	11
PROFIT FROM OPERATIONS	303,472	5	324,442	5
NON-OPERATING INCOME AND EXPENSES				
Other income (Notes 4 and 21)	63,668	1	54,715	1
Other gains and losses (Note 21)	(23,982)	(1)	6,580	-
Finance costs (Notes 4 and 21)	(12,472)	-	(12,443)	-
Share of profit of associates and joint ventures	380,860	6	313,593	5
Total non-operating income and expenses	408,074	6	362,445	6
PROFIT BEFORE INCOME TAX	711,546	11	686,887	11
INCOME TAX EXPENSE (Note 22)	39,764	1	42,537	1
NET PROFIT FOR THE YEAR	671,782	10	644,350	10

(Continued)

TXC CORPORATION

STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018	
	Amount	**%**	**Amount**	**%**
OTHER COMPREHENSIVE INCOME (LOSS)				
Items that will not be reclassified subsequently to profit or loss:				
Remeasurement of defined benefit plans	$ (12,331)	-	$ (10,620)	-
Unrealized (gain) loss on investments in equity instruments at fair value through other comprehensive income	74,642	1	(146,774)	(2)
Share of the other comprehensive income of associates accounted for using the equity method	55,452	1	6,424	-
	117,763	2	(150,970)	(2)
Items that may be reclassified subsequently to profit or loss:				
Exchange differences on translating the financial statements of foreign operations	(216,643)	(4)	(94,043)	(2)
Share of the other comprehensive loss of associates accounted for using the equity method	(8,051)	-	(1,743)	-
	(224,694)	(4)	(95,786)	(2)
Other comprehensive loss for the year, net of income tax	(106,931)	(2)	(246,756)	(4)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	$ 564,851	8	$ 397,594	6
EARNINGS PER SHARE (Note 23)				
From continuing and discontinued operations				
Basic	$ 2.17		$ 2.08	
Diluted	$ 2.16		$ 2.06	

The accompanying notes are an integral part of the financial statements. (Concluded)

TXC CORPORATION

STATEMENTS OF CHANGES IN EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

				Retained Earnings			Others			
	Shares (In Thousands)	Share Capital	Capital Surplus	Legal Reserve	Special Reserve	Unappropriated Earnings	Exchange Differences on Translating Foreign Operations	Unrealized Gain (Loss) on Financial Assets at Fair Value Through Other Comprehensive Income	Unrealized Gain (Loss) on Available-for-sale Financial Assets	Total Equity
BALANCE AT JANUARY 1, 2018	309,757	$ 3,097,570	$ 1,665,224	$ 1,252,818	$ 222,793	$ 2,767,383	$ (264,137)	$ -	$ 381,048	$ 9,122,699
Effect of retrospective application and retrospective restatements	-	-	-	-	-	102,957	-	283,139	(381,048)	5,048
BALANCE AT JANUARY 1, 2019 AS RESTATED	309,757	3,097,570	1,665,224	1,252,818	222,793	2,870,340	(264,137)	283,139	-	9,127,747
Appropriation of 2017 earnings (Note 19)										
Legal reserve	-	-	-	96,265	-	(96,265)	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(774,393)	-	-	-	(774,393)
Net profit for the for the year ended December 31, 2018	-	-	-	-	-	644,350	-	-	-	644,350
Other comprehensive loss for the for the year ended December 31, 2018, net of income tax	-	-	-	-	-	(10,792)	(95,786)	(140,178)	-	(246,756)
Total comprehensive income (loss) for the year ended December 31, 2018	-	-	-	-	-	633,558	(95,786)	(140,178)	-	397,594
Disposal of equity instruments at fair value through other comprehensive income (Note 8)	-	-	-	-	-	37,944	-	(37,944)	-	-
Changes in capital surplus from investment in associates and joint ventures accounted for using the equity method	-	-	(108)	-	-	-	-	-	-	(108)
BALANCE AT DECEMBER 31, 2018	309,757	3,097,570	1,665,116	1,349,083	222,793	2,671,184	(359,923)	105,017	-	8,750,840
Appropriation of 2018 earnings (Note 19)										
Legal reserve	-	-	-	64,435	-	(64,435)	-	-	-	-
Special reserve	-	-	-	-	32,114	(32,114)	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(619,514)	-	-	-	(619,514)
Net profit for the year ended December 31, 2019	-	-	-	-	-	671,782	-	-	-	671,782
Other comprehensive income (loss) for the year ended December 31, 2019, net of income tax	-	-	-	-	-	(12,270)	(224,694)	130,033	-	(106,931)
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	-	-	-	659,512	(224,694)	130,033	-	564,851
Disposal of equity instruments at fair value through other comprehensive income (Note 8)	-	-	-	-	-	174,805	-	(174,805)	-	-
Surplus donated	-	-	1,617	-	-	-	-	-	-	1,617
Changes in capital surplus from investment in associates and join ventures accounted for using the equity method	-	-	(43)	-	-	-	-	-	-	(43)
BALANCE AT DECEMBER 31, 2019	309,757	$ 3,097,570	$ 1,666,690	$ 1,413,518	$ 254,907	$ 2,789,438	$ (584,617)	$ 60,245	$ -	$ 8,697,751

The accompanying notes are an integral part of the financial statements.

TXC CORPORATION

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Income before income tax	$ 711,546	$ 686,887
Adjustments for:		
Depreciation expenses	323,026	316,062
Amortization expenses	4,809	558
Expected credit loss reversed on trade receivables	-	(513)
Net loss (gain) on fair value change of financial assets and liabilities designated as at fair value through profit or loss	4,055	(1,414)
Finance costs	12,472	12,443
Interest income	(6,506)	(8,103)
Dividend income	(2,385)	(1,527)
Share of profit of associates and joint ventures	(380,860)	(313,593)
Gain on disposal of property, plant and equipment	(885)	(1,232)
Unrealized gain on the transactions with subsidiaries, associates and joint ventures	1,364	1,064
Realized gain on the transactions with subsidiaries, associates and joint ventures	(1,064)	(2,634)
Changes in operating assets and liabilities:		
Financial assets mandatorily classified as at fair value through profit or loss	21,714	10,010
Notes receivable	480	(211)
Trade receivables	(77,463)	(48,753)
Trade receivables from related parties	58,310	(40,090)
Other receivables	(519)	(9,217)
Other receivables from related parties	(36,430)	13,324
Inventories	127,600	(41,627)
Other current assets	(12,722)	2,369
Decrease in financial liabilities mandatorily classified as at fair value through profit or loss	-	(1,265)
Notes payable	-	(276)
Trade payables	(73,645)	148,853
Trade payables to related parties	161,808	(66,538)
Other payables	77,119	(42,186)
Other payables to related parties	1,228	247
Other current liabilities	(538)	(2,498)
Defined benefit liabilities - non-current	(6,333)	(4,611)
Cash generated from operations	906,181	605,529
Interest paid	(12,721)	(12,931)
Income taxes paid	(49,466)	(64,010)
Net cash generated from operating activities	843,994	528,588

(Continued)

TXC CORPORATION

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from sale of financial assets at fair value through other comprehensive income	$ 241,715	$ 53,886
Purchase of financial assets at amortized cost	(43,052)	(71,004)
Proceeds from sale of financial assets at amortized cost	68,946	89,480
Acquisition of associates	(67,083)	(234,302)
Net cash outflow on acquisition of associates (Note 16)	-	(1,746)
Net cash inflow on disposal of associates (Note 16)	-	641,205
Payments for property, plant and equipment	(299,849)	(104,393)
Proceeds from disposal of property, plant and equipment	1,923	25,846
(Decrease) increase in refundable deposits	(1,500)	1,720
Payments for intangible assets	(8,331)	(185)
Increase in prepayment for equipment	(38,330)	(43,887)
Interest received	7,507	8,716
Dividend received from associates	20,447	3,205
Other dividends received	2,385	1,527
Net cash (used in) generated from investing activities	(115,222)	370,068
CASH FLOWS FROM FINANCING ACTIVITIES		
Increase in short-term borrowings	3,525	-
Decrease in short-term borrowings	-	(549)
Proceeds from long-term borrowings	1,400,000	400,000
Repayments of long-term borrowings	(1,396,875)	(762,500)
Proceeds from guarantee deposits received	-	8
Payments for right-of-use assets	(2,857)	-
Dividends paid to owners of the Company	(619,514)	(774,393)
Return of shareholders' cash dividends	1,617	-
Net cash used in financing activities	(614,104)	(1,137,434)
EFFECTS OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	-	(2,541)
NET (INCREASE) DECREASE IN CASH AND CASH EQUIVALENTS	114,668	(241,319)
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR	557,442	798,761
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	$ 672,110	$ 557,442

The accompanying notes are an integral part of the financial statements. (Concluded)

1. ORGANIZATION AND OPERATIONS

TXC Corporation (the "Company") was incorporated in the Republic of China (ROC) on December 28, 1983.

TXC specializes in producing high quality quartz unite crystal, automotive crystal, crystal oscillator (CXO), and timing module (TM) as well as develops a variety of sensors by core technology to satisfy the market demand. Sensors are applied to various applications including mobile communication, wearable device, internet of things and vehicle electronics, etc.

TXC's shares have been listed on the Taiwan Stock Exchange since August 26, 2002.

The financial statements are presented in the Company's functional currency, the New Taiwan dollar.

In order to ensure investors' rights and interests, the Company filed an application to Taiwan Corporate Governance Association for corporate governance assessment certification. The Company acquired CG6005 general version of corporate governance assessment and authentication and CG6008 advanced version of corporate governance assessment and authentication on March 23, 2011 and June 27, 2013, respectively. On the first "Corporate Governance Assessment and Authentication" which is jointly held by the "Taiwan Stock Exchange" and "Taipei Exchange", the Company was listed as the top 20 percent of the listed companies in 2014 and awarded the top 5 percent of the listed companies from 2015 to 2017. The Company will continue to strengthen corporate governance functions in order to work with international standards and to protect public interests.

2. APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved by the Company's board of directors on March 23, 2020.

3. APPLICATION OF NEW, AMENDED AND REVISED STANDARDS AND INTERPRETATIONS

a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) (collectively, the "IFRSs") endorsed and issued into effect by the Financial Supervisory Commission (FSC)

   Except for the following, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed and issued into effect by the FSC did not have any material impact on the Company's accounting policies:

   1) IFRS 16 "Leases"

      IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessee and lessor. It supersedes IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", and a number of related interpretations. Refer to Note 4 for information relating to the relevant accounting policies.

The Company as lessee

The Company recognizes right-of-use assets if the right-of-use assets meet the definition of investment properties, and lease liabilities for all leases on the balance sheets except for those whose payments under low-value asset and short-term leases are recognized as expenses on a straight-line basis. On the statements of comprehensive income, the Company presents the depreciation expense charged on right-of-use assets separately from the interest expense accrued on lease liabilities; interest is computed using the effective interest method. On the statements of cash flows, cash payments for the principal portion of lease liabilities are classified within financing activities; cash payments for the interest portion are classified within financing activities. Prior to the application of IFRS 16, payments under operating lease contracts, including property interest qualified as investment properties, were recognized as expenses on a straight-line basis. Cash flows for operating leases were classified within operating activities on the consolidated statements of cash flows. Leased assets and finance lease payables were recognized on the consolidated balance sheets for contracts classified as finance leases.

The Company elects to apply IFRS 16 retrospectively with the cumulative effect of the initial application of this standard recognized on January 1, 2019. Comparative information is not restated.

Lease liabilities were recognized on January 1, 2019 for leases previously classified as operating leases under IAS 17. Lease liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. Right-of-use assets are measured at an amount equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments. The Group applies IAS 36 to all right-of-use assets.

The lessee's weighted average incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 is 1.15%. The difference between the (i) lease liabilities recognized and (ii) operating lease commitments disclosed under IAS 17 on December 31, 2018 is explained as follows:

The future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018	$ 1,333
Undiscounted amounts on January 1, 2019	$ 1,333
Discounted amounts using the incremental borrowing rate on January 1, 2019	$ 1,330
Lease liabilities recognized on January 1, 2019	$ 1,330

The Company as lessor

The Group does not make any adjustments for leases in which it is a lessor, and it accounts for those leases with the application of IFRS 16 starting from January 1, 2019.

The impact on assets, liabilities and equity as of January 1, 2019 from the initial application of IFRS 16 is set out as follows:

	As Originally Stated on January 1, 2019	Adjustments Arising from Initial Application	Restated on January 1, 2019
Right-of-use assets - buildings	$ -	$ 1,330	$ 1,330
Total effect on assets	$ -	$ 1,330	$ 1,330
Lease liabilities - current	$ -	$ 1,330	$ 1,330
Total effect on liabilities	$ -	$ 1,330	$ 1,330

2) IFRIC 23 "Uncertainty over Income Tax Treatments"

IFRIC 23 clarifies that when there is uncertainty over income tax treatments, the Company should assume that the taxation authority has full knowledge of all related information when making related examinations. If the Company concludes that it is probable that the taxation authority will accept an uncertain tax treatment, the Company should determine the taxable profit, tax bases, unused tax losses, unused tax credits or tax rates consistently with the tax treatments used or planned to be used in its income tax filings. If it is not probable that the taxation authority will accept an uncertain tax treatment, the Company should make estimates using either the most likely amount or the expected value of the tax treatment, depending on which method the Company expects to better predict the resolution of the uncertainty. The Company has to reassess its judgment and estimates if facts and circumstances change.

3) Amendments to IAS 19 "Plan Amendment, Curtailment or Settlement"

The amendments stipulate that, if a plan amendment, curtailment or settlement occurs, the current service cost and the net interest for the remainder of the annual reporting period are determined using the actuarial assumptions used for the remeasurement of the net defined benefit liabilities (assets). In addition, the amendments clarify the effect of a plan amendment, curtailment or settlement on the requirements regarding the asset ceiling. The Company applied the above amendments prospectively.

b. The IFRSs endorsed by the Financial Supervisory Commission (FSC) for application starting from 2020

New IFRSs	Effective Date Announced by IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020 (Note 1)
Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"	January 1, 2020 (Note 2)
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020 (Note 3)

Note 1: The Company shall apply these amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period.

Note 2: The Company shall apply these amendments retrospectively for annual reporting periods beginning on or after January 1, 2020.

Note 3: The Company shall apply these amendments prospectively for annual reporting periods beginning on or after January 1, 2020.

Amendments to IAS 1 and IAS 8 "Definition of material"

The amendments are intended to make the definition of material in IAS 1 easier to understand and are not intended to alter the underlying concept of materiality in IFRSs. The concept of "obscuring" material information with immaterial information has been included as part of the new definition. The threshold for materiality influencing users has been changed from "could influence" to "could reasonably be expected to influence".

Except for the above impacts, as of the date the financial statements were authorized for issue, the Company continues to assess other possible impact that application of the aforementioned amendments and the related amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers will have on the Company's financial position and financial performance and will disclose other impact when the assessment is completed.

c. New IFRSs in issue but not yet endorsed and issued into effect by the FSC

New IFRSs	Effective Date Announced by IASB (Note)
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture"	To be determined by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1 "Classification of Liabilities as Current or Non-current"	January 1, 2022

Note: Unless stated otherwise, the above New IFRSs are effective for annual reporting periods beginning on or after their respective effective dates.

As of the date the financial statements were authorized for issue, the Company is continuously assessing the possible impact that the application of other standards and interpretations will have on the Company's financial position and financial performance and will disclose the relevant impact when the assessment is completed.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Statement of compliance

The financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

b. Basis of preparation

The financial statements have been prepared on the historical cost basis except for financial instruments that are measured at fair values. Historical cost is generally based on the fair value of the consideration given in exchange for assets.

The fair value measurements, which are grouped into Levels 1 to 3 based on the degree to which the fair value measurement inputs are observable and the significance of the inputs to the fair value measurement in its entirety, are described as follows:

1) Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;

2) Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and

3) Level 3 inputs are unobservable inputs for the asset or liability.

When preparing its parent company only financial statements, the Company used equity method to account for its investment in subsidiaries, associates and jointly controlled entities. In order for the amounts of the net profit for the year, other comprehensive income for the year and total equity in the parent company only financial statements to be the same with the amounts attributable to the owner of the Company in its financial statements, adjustments arising from the differences in accounting treatment between parent company only basis and basis were made to investments accounted for by equity method, share of profit or loss of subsidiaries, associates and joint ventures, share of other comprehensive income of subsidiaries, associates and joint ventures and related equity items, as appropriate, in the parent company only financial statements.

c. Classification of current and non-current assets and liabilities

Current assets include:

1) Assets held primarily for the purpose of trading;

2) Assets expected to be realized within 12 months after the reporting period; and

3) Cash and cash equivalents unless the asset is restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period.

Current liabilities include:

1) Liabilities held primarily for the purpose of trading;

2) Liabilities due to be settled within 12 months after the reporting period, even if an agreement to refinance, or to reschedule payments, on a long-term basis is completed after the reporting period and before the consolidated financial statements are authorized for issue; and

3) Liabilities for which the Group does not have an unconditional right to defer settlement for at least 12 months after the reporting period. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

Assets and liabilities that are not classified as current are classified as non-current.

d. Foreign currencies

In preparing the Company’s financial statements, transactions in currencies other than the Company’s functional currency (i.e., foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions.

At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences on monetary items arising from settlement or translation are recognized in profit or loss in the period.

Non-monetary items measured at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Exchange differences arising from the retranslation of non-monetary items are included in profit or loss for the period except for exchange differences arising from the retranslation of non-monetary items in respect of which gains and losses are recognized directly in other comprehensive income, in which cases, the exchange differences are also recognized directly in other comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

For the purpose of presenting consolidated financial statements, the functional currencies of the Company and its foreign operations (including subsidiaries, associates, joint ventures and branches in other countries that use currencies which are different from the currency of the Company) are translated into the presentation currency, the New Taiwan dollar, as follows: Assets and liabilities are translated at the exchange rates prevailing at the end of the reporting period; and income and expense items are translated at the average exchange rates for the period. The resulting currency translation differences are recognized in other comprehensive income (attributed to the owners of the Company and non-controlling interests as appropriate).

On the disposal of a foreign operation (i.e., a disposal of the Company's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, a disposal involving loss of joint control over a jointly controlled entity that includes a foreign operation, or a disposal involving loss of significant influence over an associate that includes a foreign operation), all of the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

In relation to a partial disposal of a subsidiary that does not result in the Company losing control over the subsidiary, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests of the subsidiary and are not recognized in profit or loss. For all other partial disposals (i.e., partial disposals of associates or jointly controlled entities that do not result in the Company losing significant influence or joint control), the proportionate share of the accumulated exchange differences recognized in other comprehensive income is reclassified to profit or loss.

e. Inventories

Inventories consist of raw materials, supplies, finished goods and work-in-process and are stated at the lower of cost or net realizable value. Inventory write-downs are made by item, except where it may be appropriate to group similar or related items. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale. Inventories are recorded at specific identification of cost on the balance sheet date.

f. Investments in subsidiaries

The Company uses the equity method to account for its investments in subsidiaries.

Subsidiary is an entity that is controlled by the Company.

Under the equity method, investment in a subsidiary is initially recognized at cost and adjusted thereafter to recognize the Company's share of the profit or loss and other comprehensive income of the subsidiary. The Company also recognizes the changes in the Company's share of equity of subsidiaries.

Changes in the Company's ownership interest in a subsidiary that do not result in the Company losing control of the subsidiary are equity transactions. The Company recognizes directly in equity any difference between the carrying amount of the investment and the fair value of the consideration paid or received.

When the Company's share of losses of a subsidiary exceeds its interest in that subsidiary (which includes any carrying amount of the investment accounted for by the equity method and long-term interests that, in substance, form part of the Company's net investment in the subsidiary), the Company continues to recognize its share of further losses.

Any excess of the cost of acquisition over the Company's share of the net fair value of the identifiable assets and liabilities of a subsidiary at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment and is not amortized. Any excess of the Company's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition is recognized immediately in the profit or loss.

The Company assesses its investment for any impairment by comparing the carrying amount with the estimated recoverable amount as assessed based on the entire financial statements of the invested company. Impairment loss is recognized when the carrying amount exceeds the recoverable amount. If the recoverable amount of the investment subsequently increases, the Company recognizes reversal of the impairment loss; the adjusted post-reversal carrying amount shall not exceed the carrying amount that would have been recognized (net of amortization or depreciation) had no impairment loss been recognized in prior years. An impairment loss recognized on goodwill cannot be reversed in the subsequent period.

When the Company loses control of a subsidiary, it recognizes the investment retained in the former subsidiary at its fair value at the date when control is lost. The difference between the fair value of the retained investment plus any consideration received and the carrying amount of previous investment at the date when control is lost is recognized as a gain or loss in the profit or loss. Besides, the Company accounts for all amounts previously recognized in other comprehensive income in relation to that subsidiary on the same basis as would be required if the Company had directly disposed of the related assets or liabilities.

Profit or loss resulting from downstream transactions is eliminated in full in the parent company only financial statements. Profit and loss resulting from upstream transactions and transactions between subsidiaries are recognized in the parent company only financial statements only to the extent of interests in the subsidiaries that are not related to the Company.

g. Investments in associates

An associate is an entity over which the Company has significant influence and that is neither a subsidiary nor an interest in a joint venture.

The Company uses the equity method to account for its investments in associates.

Under the equity method, investments in an associate are initially recognized at cost and adjusted thereafter to recognize the Company's share of the profit or loss and other comprehensive income of the associate. The Company also recognizes the changes in the Company's share of equity of associates.

Any excess of the cost of acquisition over the Company's share of the net fair value of the identifiable assets and liabilities of an associate at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment and is not amortized. Any excess of the Company's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

When the Company subscribes for additional new shares of the associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Company's proportionate interest in the associate. The Company records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus - changes in the Company's share of equity of associates. If the Company's ownership interest is reduced due to the additional subscription of the new shares of associate, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate is reclassified to profit or loss on the same basis as would be required if the investee had directly disposed of the related assets or liabilities. When the adjustment should be debited to capital surplus, but the capital surplus recognized from investments accounted for by the equity method is insufficient, the shortage is debited to retained earnings.

When the Company's share of losses of an associate equals or exceeds its interest in that associate (which includes any carrying amount of the investment accounted for by the equity method and long-term interests that, in substance, form part of the Company's net investment in the associate), the Company discontinues recognizing its share of further losses. Additional losses and liabilities are recognized only to the extent that the Company has incurred legal obligations, or constructive obligations, or made payments on behalf of that associate.

The entire carrying amount of the investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

The Company discontinues the use of the equity method from the date on which its investment ceases to be an associate. Any retained investment is measured at fair value at that date and the fair value is regarded as its fair value on initial recognition as a financial asset. The difference between the previous carrying amount of the associate attributable to the retained interest and its fair value is included in the determination of the gain or loss on disposal of the associate. The Company accounts for all amounts previously recognized in other comprehensive income in relation to that associate on the same basis as would be required if that associate had directly disposed of the related assets or liabilities. If an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate, the Company continues to apply the equity method and does not remeasure the retained interest.

When the Company transacts with its associate, profits and losses resulting from the transactions with the associate are recognized in the Company's financial statements only to the extent of interests in the associate that are not related to the Company.

h. Property, plant and equipment

Property, plant and equipment are stated at cost, less accumulated depreciation and accumulated impairment loss.

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognized impairment loss. Cost includes professional fees and borrowing costs eligible for capitalization. Such properties are depreciated and classified to the appropriate categories of property, plant and equipment when completed and ready for intended use.

Depreciation is recognized using the straight-line method. Each significant part is depreciated separately. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

On derecognition of an item of property, plant and equipment, the difference between the sales proceeds and the carrying amount of the asset and is recognized in profit or loss.

i. Investment properties

Investment properties are properties held to earn rentals and/or for capital appreciation.

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and accumulated impairment loss. Depreciation is recognized using the straight-line method.

For a transfer of classification from investment properties to property, plant and equipment, the deemed cost of the property for subsequent accounting is its carrying amount at the commencement of owner-occupation.

For a transfer of classification from property, plant and equipment to investment properties, the deemed cost of an item of property for subsequent accounting is its carrying amount at the end of owner-occupation.

On derecognition of an investment property, the difference between the net disposal proceeds and the carrying amount of the asset and is included in profit or loss in the period.

j. Intangible assets

1) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis over their estimated useful lives. The estimated useful life, residual value, and amortization method are reviewed at the end of each reporting period, with the effect of any changes in the estimates accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are measured at cost less accumulated impairment loss.

2) Derecognition of intangible assets

On derecognition of an intangible asset, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss.

k. Impairment of tangible and intangible assets and assets related to contract costs

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets, excluding goodwill, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Corporate assets are allocated to the individual cash-generating units on a reasonable and consistent basis of allocation.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount, with the resulting impairment loss recognized in profit or loss.

When an impairment loss is subsequently reversed, the carrying amount of the asset or cash-generating unit is increased to the revised estimate of its recoverable amount, but only to the extent of the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

l. Financial instruments

Financial assets and financial liabilities are recognized when a group entity becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

1) Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a settlement date basis.

a) Measurement categories

Financial assets are classified into the following categories: Financial assets at FVTPL, financial assets at amortized cost, and investments in equity instruments at FVTOCI.

i Financial assets at FVTPL

Financial assets are classified as at FVTPL when such a financial asset is mandatorily classified as at FVTPL. Financial assets mandatorily classified as at FVTPL include investments in equity instruments which are not designated as at FVTOCI and debt instruments that do not meet the amortized cost criteria or the FVTOCI criteria.

Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any dividends or interest earned on such a financial asset. Fair value is determined in the manner described in Note 29.

ii Financial assets at amortized cost

Financial assets that meet the following conditions are subsequently measured at amortized cost:

i) The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and

ii) The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent to initial recognition, financial assets at amortized cost, including cash and cash equivalents, trade receivables at amortized cost and debt investments with no active market, are measured at amortized cost, which equals the gross carrying amount determined by the effective interest method less any impairment loss. Exchange differences are recognized in profit or loss.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of such a financial asset, except for:

i) Purchased or originated credit-impaired financial assets, for which interest income is calculated by applying the credit adjusted effective interest rate to the amortized cost of such financial assets; and

ii) Financial assets that are not credit impaired on purchase or origination but have subsequently become credit impaired, for which interest income is calculated by applying the effective interest rate to the amortized cost of such financial assets in subsequent reporting periods.

Cash equivalents include time deposits and repurchase agreement with original maturities within 3 months from the date of acquisition, which are highly liquid, readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. These cash equivalents are held for the purpose of meeting short-term cash commitments.

iii Investments in equity instruments at FVTOCI

On initial recognition, the Company may make an irrevocable election to designate investments in equity instruments as at FVTOCI. Designation as at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments; instead, it will be transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss when the Company’s right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

b) Impairment of financial assets

The Company recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including trade receivables), investments in debt instruments that are measured at FVTOCI, lease receivables, as well as contract assets.

The Company always recognizes lifetime expected credit losses (ECLs) for trade receivables, lease receivables. For all other financial instruments, the Company recognizes lifetime ECLs when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on a financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month ECLs.

Expected credit losses reflect the weighted average of credit losses with the respective risks of default occurring as the weights. Lifetime ECLs represent the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECLs represent the portion of lifetime ECLs that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

The impairment loss of all financial assets is recognized in profit or loss by a reduction in their carrying amounts through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and the carrying amounts of such financial assets are not reduced.

c) Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party.

On derecognition of a financial asset at amortized cost in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. On derecognition of an investment in a debt instrument at FVTOCI, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss which had been recognized in other comprehensive income is recognized in profit or loss. However, on derecognition of an investment in an equity instrument at FVTOCI, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss, and the cumulative gain or loss which had been recognized in other comprehensive income is transferred directly to retained earnings, without recycling through profit or loss.

On derecognition of a financial asset other than in its entirety, the Company allocates the previous carrying amount of the financial asset between the part it continues to recognize and the part it no longer recognizes on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognized and the sum of the consideration received for the part that is no longer recognized is treated in the same way as when the financial asset is derecognized in entirety. A cumulative gain or loss that had been recognized in other comprehensive income is allocated between the part that continues to be recognized and the part that is no longer recognized on the basis of the relative fair values of those parts.

2) Financial liabilities

a) Subsequent measurement

Except the following situations, all financial liabilities are measured at amortized cost using the effective interest method.

<u>Financial liabilities at FVTPL</u>

Financial liabilities are classified as at FVTPL when such financial liability is held for trading.

Financial liabilities held for trading are stated at fair value, and any gains or losses on such financial liabilities are recognized in other gains or losses. Fair value is determined in the manner described in Note 27.

b) Derecognition of financial liabilities

The difference between the carrying amount of a financial liability derecognized and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

3) Derivative financial instruments

The Company enters into a variety of derivative financial instruments to manage its exposure to interest rate and foreign exchange rate risks, including foreign exchange forward contracts, interest rate swaps.

Derivatives are initially recognized at fair value at the date on which the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately unless the derivative is designated and effective as a hedging instrument; in which event, the timing of the recognition in profit or loss depends on the nature of the hedging relationship. When the fair value of a derivative financial instrument is positive, the derivative is recognized as a financial asset; when the fair value of a derivative financial instrument is negative, the derivative is recognized as a financial liability.

Derivatives embedded in hybrid contracts that contain financial asset hosts that is within the scope of IFRS 9 are not separated; instead, the classification is determined in accordance with the entire hybrid contract. Derivatives embedded in non-derivative host contracts that are not financial assets that is within the scope of IFRS 9 (e.g., financial liabilities) are treated as separate derivatives when they meet the definition of a derivative; their risks and characteristics are not closely related to those of the host contracts; and the host contracts are not measured at FVTPL.

m. Revenue recognition

The Company identifies contracts with customers, allocates the transaction price to the performance obligations and recognizes revenue when performance obligations are satisfied.

<u>Revenue from the sale of goods</u>

Revenue from the sale of goods comes from sales of crystals frequency control devices and sensors. Sales of crystals frequency control devices and sensors are recognized as revenue when the goods are delivered to the customer’s specific location, the goods are shipped and the goods are picked up by customers because it is the time when the customer has full discretion over the manner of distribution and price to sell the goods, has the primary responsibility for sales to future customers and bears the risks of obsolescence. Trade receivables are recognized concurrently.

n. Leasing

<u>2019</u>

At the inception of a contract, the Group assesses whether the contract is, or contains, a lease.

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

1) The Group as lessor

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Lease payments less any lease incentives payable from operating leases are recognized as income on a straight-line basis over the terms of the relevant leases. Initial direct costs incurred in obtaining operating leases are added to the carrying amounts of the underlying assets and recognized as expenses on a straight-line basis over the lease terms.

2) The Group as lessee

The Company recognizes right-of-use assets and lease liabilities for all leases at the commencement date of a lease, except for short-term leases and low-value asset leases accounted for applying a recognition exemption where lease payments are recognized as expenses on a straight-line basis over the lease terms.

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities adjusted for lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs needed to restore the underlying assets, and less any lease incentives received. Right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented on a separate line in the consolidated balance sheets.

Right-of-use assets are depreciated using the straight-line method from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms.

Lease liabilities are initially measured at the present value of the lease payments, which comprise fixed payments. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If that rate cannot be readily determined, the Company uses the lessee's incremental borrowing rate.

Subsequently, lease liabilities are measured at amortized cost using the effective interest method, with interest expense recognized over the lease terms. When there is a change in a lease term, the Company remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented on a separate line in the consolidated balance sheets.

2018

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

1) The Company as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

2) The Company as lessee

Assets held under finance leases are initially recognized as assets of the Company at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated balance sheets as a finance lease obligation.

Finance expenses implicit in lease payments for each period are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets; in which case, they are capitalized.

Operating lease payments are recognized as expenses on a straight-line basis over the lease term.

3) Leasehold land for own use

When a lease includes both land and building elements, the Company assesses the classification of each element separately as a finance or an operating lease based on the assessment as to whether substantially all the risks and rewards incidental to ownership of each element have been transferred to the lessee. The minimum lease payments are allocated between the land and the building elements in proportion to the relative fair values of the leasehold interests in the land element and building element of the lease at the inception of the lease.

If the allocation of the lease payments can be made reliably, each element is accounted for separately in accordance with its lease classification. When the lease payments cannot be allocated reliably between the land and building elements, the entire lease is generally classified as a finance lease unless it is clear that both elements are operating leases; in which case, the entire lease is classified as an operating lease.

o. Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

Other than stated above, all other borrowing costs are recognized in profit or loss in the period in which they are incurred.

p. Government grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attached to them and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets are recognized as a deduction from the carrying amount of the relevant asset and recognized in profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Company with no future related costs are recognized in profit or loss in the period in which they are received.

q. Employee benefits

1) Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

2) Retirement benefits

Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered services entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under the defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost (including current service cost), past service cost and net interest on the net defined benefit liability (asset) are recognized as employee benefits expense in the period they occur. Remeasurement, comprising actuarial gains and losses and the return on plan assets (excluding interest), is recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liability (asset) represents the actual deficit (surplus) in the Group's defined benefit plan. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

r. Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

1) Current tax

According to the Income Tax Law, an additional tax at 10% of unappropriated earnings is provided for as income tax in the year the shareholders approve to retain the earnings.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

2) Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences, to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

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 profits will be available to allow all or part of the asset to be recovered. A previously unrecognized deferred tax asset is also reviewed at the end of each reporting period and recognized to the to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax liabilities and assets are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

3) Current and deferred tax for the year

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognized in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from the initial accounting for a business combination and the acquisition of a subsidiary, the tax effect is included in the accounting for the business combination and investment in subsidiary.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION AND UNCERTAINTY

In the application of the Company's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

6. CASH AND CASH EQUIVALENTS

	December 31	
	2019	**2018**
Cash on hand	$ 988	$ 1,116
Checking accounts and demand deposits	627,967	556,326
Cash equivalents (investments with original maturities less than 3 months)		
Time deposits	43,155	-
	$ 672,110	$ 557,442

The market rate intervals of cash in bank at the end of the reporting period were as follows:

	December 31	
	2019	**2018**
Demand deposits	0.001%-1.92%	0.001%-0.43%
Time deposits	2.12%-3.20%	-

7. FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31	
	2019	**2018**
Financial assets at FVTPL - current		
Financial assets mandatorily classified as at FVTPL		
Derivative financial instruments (not under hedge accounting)		
Foreign exchange forward contracts (a)	$ -	$ 10
Exchange contracts (a)	-	76
	$ -	$ 86
Financial assets at FVTPL - non-current		
Financial assets mandatorily classified as at FVTPL		
Non-derivative financial assets		
Domestic listed shares	$ 9,255	$ 30,975
Financial liabilities at FVTPL - current		
Financial liabilities held for trading		
Derivative financial assets (not under hedge accounting)		
Foreign exchange forward contracts (a)	$ 173	$ -
Exchange contracts (a)	3,790	-
	$ 3,963	$ -

At the end of the reporting period, outstanding forward exchange contracts not under hedge accounting were as follows:

	Currency	**Maturity Date**	**Contract Amount (In Thousands)**
December 31, 2019			
Knock-out forward	USD/JPY	2020.01.09	USD1,500/JPY163,525
Knock-out forward	USD/RMB	2020.01.09	RMB10,000/USD1,430
Exchange contracts	USD/NTD	2020.01.13-2020.02.19	USD11,000/NTD335,658
Foreign exchange forward contracts	USD/NTD	2020.01.09-2020.01.17	USD4,000/NTD122,500
December 31, 2018			
Knock-out forward	USD/JPY	2019.01.15	USD1,000/JPY114,000
Knock-out forward	USD/NTD	2019.01.10-2019.02.20	USD9,000/NTD279,020
Foreign exchange forward contracts	USD/NTD	2019.01.10-2019.01.24	USD6,000/NTD186,950
Exchange contracts	USD/NTD	2019.01.07-2019.02.20	USD10,000/NTD308,227

The Company entered into foreign exchange forward contracts during the years ended December 31, 2019 and 2018 to manage exposures to exchange rate fluctuations of foreign currency denominated assets and liabilities. Those contracts did not meet the criteria of hedge effectiveness and therefore were not accounted for by using hedge accounting.

8. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	December 31	
	2019	2018
Non-current		
Investments in equity instruments at FVTOCI	$ 185,477	$ 330,925

Investments in Equity Instruments at FVTOCI

	December 31	
	2019	2018
Non-current		
Domestic investments		
Unlisted shares		
Win Win Precision Technology Company Limited	$ 18,388	$ 14,256
Marson Technology Company Limited.	4,773	4,773
UPI Semiconductor Corp.	45,202	61,198
	68,363	80,227
Foreign investments		
Listed shares		
Guandong Failong Crystal Technology Company Limited	117,114	250,698
	$ 185,477	$ 330,925

These investments in equity instruments are not held for trading. Instead, they are held for medium to long-term strategic purposes. Accordingly, the management elected to designate these investments in equity instruments as at FVTOCI as they believe that recognizing short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Company's strategy of holding these investments for long-term purposes.

In 2019 and 2018, the Company sold its shares in Guandong Failong Crystal Technology Company Limited in order to manage concentration risk. The sold shares had a fair value of $241,715 thousand and $53,886 thousand, respectively. The Company transferred a gain of $174,805 thousand and $37,944 thousand, respectively from other equity to retained earnings.

9. FINANCIAL ASSETS AT AMORTIZED COST

	December 31	
	2019	2018
Current		
Domestic investments		
Pledge deposits (a)	$ 43,052	$ 28,591
Foreign investments		
Debt investments - Westpac Banking Corp.(b)	-	40,355
	$ 43,052	$ 68,946

a. Refer to Note 27 for information relating to investments in financial assets at amortized cost pledged as security.

b. In May 23, 2018, the Company bought one-year corporate bond issued by Westpac Banking Corporation at a value of RMB9,116 thousand with a coupon rate of 4.35%, an effective interest rate of 3.60% and was redeemed at $41,184 thousand on March 29, 2019.

10. NOTES, ACCOUNTS RECEIVABLE AND OTHER RECEIVABLES

	December 31	
	2019	**2018**
Notes receivable		
At amortized cost		
Gross carrying amount	$ 819	$ 1,299
Less: Allowance for impairment loss	(6)	(6)
	$ 813	$ 1,293
Trade receivables		
At amortized cost		
Gross carrying amount	$ 2,261,034	$ 2,241,881
Less: Allowance for impairment loss	(10,053)	(10,053)
	$ 2,250,981	$ 2,231,828
Other receivables		
Income tax refund receivable	$ 13,989	$ 16,306
Others	382	1,478
	$ 14,371	$ 17,784

The average credit period of sales of goods was 60 to 120 days. No interest was charged on trade receivables. In order to minimize credit risk, the management of the Company has delegated a team responsible for determining credit limits, credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover overdue debts. In addition, the Company reviews the recoverable amount of each individual trade debt at the end of the reporting period to ensure that adequate allowance is made for possible irrecoverable amounts. In this regard, the management believes the Company's credit risk was significantly reduced.

The Company applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for all trade receivables. The expected credit losses on trade receivables are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast direction of economic conditions at the reporting date. As the Company's historical credit loss experience does not show significantly different loss patterns for different customer segments, the provision for loss allowance based on past due status is not further distinguished according to the Company's different customer base.

The Company writes off a trade receivable when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery. For trade receivables that have been written off, the Company continues to engage in enforcement activity to attempt to recover the receivables due. Where recoveries are made, these are recognized in profit or loss.

The following table details the loss allowance of trade receivables based on the Company's provision matrix.

December 31, 2019

	Not Past Due	31 to 90 Days	91 to 150 Days	151 to 180 Days	Over 180 Days	Total
Gross carrying amount	$ 2,149,529	$ 111,098	$ 1,226	$ -	$ -	$ 2,261,853
Loss allowance (Lifetime ECL)	(8,998)	(1,000)	(61)	-	-	(10,059)
Amortized cost	$ 2,140,531	$ 110,098	$ 1,165	$ -	$ -	$ 2,251,794

December 31, 2018

	Not Past Due	31 to 90 Days	91 to 150 Days	151 to 180 Days	Over 180 Days	Total
Gross carrying amount	$ 2,242,237	$ 943	$ -	$ -	$ -	$ 2,243,180
Loss allowance (Lifetime ECL)	(10,050)	(9)	-	-	-	(10,059)
Amortized cost	$ 2,232,187	$ 934	$ -	$ -	$ -	$ 2,233,121

The expected credit loss rate for each above range of the Company is not more than 1% within and within 90 days of the overdue period; 5% or less within the overdue period from 91 to 180 days; and 5%-100% when the overdue period exceeds 180 days.

The movements of the loss allowance of trade receivables were as follows:

	December 31	
	2019	2018
Balance at January 1	$ 10,059	$ 10,572
Add: Net remeasurement of loss allowance		
Less: Impairment losses reversed	-	(513)
Balance at December 31	$ 10,059	$ 10,059

11. INVENTORIES

	December 31	
	2019	2018
Finished goods	$ 184,618	$ 249,927
Work in process	183,371	173,982
Raw materials	228,402	197,888
Supplies and spare parts	65,247	66,402
Merchandise	204,141	307,972
Inventory in transit	4,401	1,609
	$ 870,180	$ 997,780

The cost of inventories recognized as cost of goods sold for the years ended December 31, 2019 and 2018 was $5,596,803 thousand and $5,542,656 thousand, respectively.

12. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

	December 31	
	2019	2018
Investments in subsidiaries	$ 5,470,284	$ 5,266,831
Investments in associates	391,844	337,385
	$ 5,862,128	$ 5,604,216

Investments in Subsidiaries

	December 31	
	2019	2018
Unlisted companies		
Taiwan Crystal Technology International Ltd.	$ 5,332,390	$ 5,128,270
TXC Technology Inc.	16,858	15,572
TXC Japan Corporation	30,643	27,806
Taiwan Crystal Technology (HK) Limited	87,652	93,053
TXC Europe GmbH	2,741	2,130
	$ 5,470,284	$ 5,266,831

On July 2018 Taiwan Crystal Technology (HK) Limited was determined to have capital reduction and share return $306,500 thousand in the shareholders meeting.

The proportion of the Company's ownership was as follows:

	December 31	
	2019	2018
Taiwan Crystal Technology International Ltd.	100.0%	100.0%
TXC Technology Inc.	100.0%	100.0%
TXC Japan Corporation	100.0%	100.0%
Taiwan Crystal Technology (HK) Limited	100.0%	100.0%
TXC Europe GmbH	100.0%	100.0%

Investments in Associates

	December 31	
	2019	2018
Associate that is not individually material	$ 391,844	$ 337,385

	For the Year Ended December 31	
	2019	2018
The Company's share of:		
Profit from continuing operations	$ 15,261	$ 12,207
Other comprehensive loss	(7,394)	(2,000)
Total comprehensive income for the year	$ 7,867	$ 10,207

Refer to Table 6 “name, locations, and related information of investees on which the Company exercises significant influence” for the nature of activities, principal place of business and country of incorporation of the associates.

Because some directors of TXC are the same as Tai-Shing, TXC has the power to govern the financial and operating policies of Tai-Shing. As a result, Tai-Shing is accounted for using the equity method.

In 2019, the Company subscribed 1,266 thousand shares of the ordinary shares of Tai-Shing for cash $67,083 thousand. After the subscription, the Company’s percentage of ownership in Tai-Shing was 30.98%. The Group recognized goodwill of $33,970 thousand as cost of investments in associates.

13. PROPERTY, PLANT AND EQUIPMENT

	Freehold Land	Land Improvements	Buildings	Machinery and Equipment	Transpor-tation Equipment	Office Equipment	Total
Cost							
Balance at January 1, 2018	$ 598,145	$ 920	$ 1,245,098	$ 3,034,575	$ 790	$ 95,599	$ 4,975,127
Additions	-	395	10,302	84,676	744	8,276	104,393
Disposals	-	-	(820)	(230,466)	-	(7,352)	(238,638)
Balance at December 31, 2018	$ 598,145	$ 1,315	$ 1,254,580	$ 2,888,785	$ 1,534	$ 96,523	$ 4,840,882
Accumulated depreciation and impairment							
Balance at January 1, 2018	$ -	$ 285	$ 550,471	$ 2,233,879	$ 316	$ 81,064	$ 2,866,015
Disposals	-	-	(821)	(205,874)	-	(7,329)	(214,024)
Depreciation expense	-	178	63,046	224,166	232	6,782	294,404
Balance at December 31, 2018	$ -	$ 463	$ 612,696	$ 2,252,171	$ 548	$ 80,517	$ 2,946,395
Carrying amount at December 31, 2018	$ 598,145	$ 852	$ 641,884	$ 636,614	$ 986	$ 16,006	$ 1,894,487
Cost							
Balance at January 1, 2019	$ 598,145	$ 1,315	$ 1,254,580	$ 2,888,785	$ 1,534	$ 96,523	$ 4,840,882
Additions	-	284	74,792	219,874	-	4,899	299,849
Reclassifications	-	-	-	(1,417)	-	1,417	-
Transfer to investment property	(5,135)	-	(26,409)	-	-	-	(31,544)
Transfer from investment property	-	-	244,584	-	-	-	244,584
Disposals	(1,038)	-	(4,040)	(5,069)	-	(8,003)	(18,150)
Balance at December 31, 2019	$ 591,972	$ 1,599	$ 1,543,507	$ 3,102,173	$ 1,534	$ 94,836	$ 5,335,621
Accumulated depreciation and impairment							
Balance at January 1, 2019	$ -	$ 463	$ 612,696	$ 2,252,171	$ 548	$ 80,517	$ 2,946,395
Disposals	-	-	(4,039)	(5,069)	-	(8,004)	(17,112)
Reclassifications	-	-	-	(997)	-	997	-
Transfer from investment property	-	-	141,236	-	-	-	141,236
Transfer to investment property	-	-	(5,526)	-	-	-	(5,526)
Depreciation expense	-	193	71,717	228,954	307	7,753	308,924
Balance at December 31, 2019	$ -	$ 656	$ 816,084	$ 2,475,059	$ 855	$ 81,263	$ 3,373,917
Carrying amount at December 31, 2019	$ 591,972	$ 943	$ 727,423	$ 627,114	$ 679	$ 13,573	$ 1,961,704

No impairment assessment was performed for the year ended December 31, 2019 as there was no indication of impairment.

The above items of property, plant and equipment are depreciated on a straight-line basis at follows:

Land improvements	7 years
Buildings	
Industrial building	35-51 years
Electrical power systems	3-11 years
Engineering systems	3-51 years
Equipment	
Major production equipments	1-5 years
Temperature control systems	4-7 years
Transportation equipments	4-7 years
Transportation equipments	5 years
Office equipment	2-6 years

Property, plant and equipment pledged as collateral for bank borrowings were set out on Note 27.

14. LEASE ARRANGEMENTS

a. Right-of-use assets - 2019

	December 31, 2019
Carrying amounts	
Buildings	$ 3,967
Transportation equipment	2,057
	$ 6,024

	For the Year Ended December 31, 2019
Additions to right-of-use assets	$ 7,533
Depreciation charge for right-of-use assets	
Buildings	$ 2,652
Transportation equipment	187
	$ 2,839

b. Lease liabilities - 2019

	December 31, 2019
Carrying amounts	
Current	$ 3,087
Non-current	2,949
	$ 6,036

Range of discount rate for lease liabilities was as follows:

	December 31, 2019
Buildings	0.86%
Transportation equipment	0.86%

c. Material lease-in activities and terms

The Company leases certain warehouses in economic zone with lease term of 2 years, and leases car for business use with lease term of 5 years for the nine months ended September 30, 2019. The Company does not have a bargain purchase option to acquire the leased warehouse at the expiry of the lease period.

d. Other lease information

2019

	For the Year Ended December 31, 2019
Expenses relating to short-term leases	$ 44
Total cash outflow for leases	$ (2,901)

The Company leases certain building which qualify as short-term leases which qualify as short-term leases. The Company has elected to apply the recognition exemption and thus, did not recognize right-of-use assets and lease liabilities for these leases.

2018

The future minimum lease payments of non-cancellable lease commitments are as follows:

	December 31, 2018
Not later than 1 year	$ 1,400

15. INVESTMENT PROPERTIES

	Completed Investment Property
Cost	
Balance at January 1, 2018	$ 259,612
Disposals	-
Balance at December 31, 2018	$ 259,612

(Continued)

	Completed Investment Property
Accumulated depreciation and impairment	
Balance at January 1, 2018	$ (122,480)
Depreciation expense	(21,658)
Balance at December 31, 2018	$ (144,138)
Carrying amount at December 31, 2018	$ 115,474
Cost	
Balance at January 1, 2019	$ 259,612
Transferred from property, plant and equipment	31,544
Transferred to property, plant and equipment	(244,584)
Disposals	(11,417)
Balance at December 31, 2019	$ 35,155
Accumulated depreciation and impairment	
Balance at January 1, 2019	$ (144,138)
Transferred from property, plant and equipment	(5,526)
Transferred to property, plant and equipment	141,236
Disposals	11,417
Depreciation expense	(11,263)
Balance at December 31, 2019	$ (8,274)
Carrying amount at December 31, 2019	$ 26,881

(Concluded)

The investment properties are depreciated using the straight-line method over their estimated useful lives of 5-61 years.

The fair value of the Company’s investment properties as of December 31, 2019 and 2018 was $165,824 thousand and $498,154 thousand, respectively. The fair value valuation had not been performed by independent qualified professional appraisers. The management of the Company had used the valuation model that market participants would use in determining the fair value. The valuation was arrived at by reference to market evidence of transaction prices for similar properties.

All of the Company’s investment property was held under freehold interests. The investment properties pledged as collateral for bank borrowing were set out in Note 27.

16. BORROWINGS

a. Short-term borrowings

	December 31	
	2019	2018
Unsecured borrowings		
Letters of credit	$ 3,525	$ -

b. Long-term borrowings

	December 31	
	2019	2018
Secured borrowings		
Bank loans (1)	$ -	$ 46,875
Unsecured borrowings		
Line of credit borrowings (2)	1,400,000	1,350,000
Less: Current portions	-	(46,875)
Long-term borrowings	$ 1,400,000	$ 1,350,000

The borrowings of the Group were as follows:

		December 31	
	Maturity Date	2019	2018
Floating rate borrowings			
Secured bank borrowing denominated in NT$	2019.09.01	$ -	$ 46,875
Unsecured bank borrowing denominated in NT$	2020.09.06	-	200,000
Unsecured bank borrowing denominated in NT$	2020.01.25	-	250,000
Unsecured bank borrowing denominated in NT$	2020.09.06	-	200,000
Unsecured bank borrowing denominated in NT$	2020.09.06	-	100,000
Unsecured bank borrowing denominated in NT$	2020.09.04	-	200,000
Unsecured bank borrowing denominated in NT$	2020.08.27	-	200,000
Unsecured bank borrowing denominated in NT$	2019.09.05	-	200,000
Unsecured bank borrowing denominated in NT$	2021.08.12	200,000	-

(Continued)

	Maturity Date	December 31 2019	December 31 2018
Unsecured bank borrowing denominated in NT$	2034.09.15	$ 300,000	$ -
Unsecured bank borrowing denominated in NT$	2034.09.15	100,000	-
Unsecured bank borrowing denominated in NT$	2022.09.05	200,000	-
Unsecured bank borrowing denominated in NT$	2022.08.19	200,000	-
Unsecured bank borrowing denominated in NT$	2022.09.02	200,000	-
Unsecured bank borrowing denominated in NT$	2021.11.04	200,000	-
Less: Current portions		-	(46,875)
		$ 1,400,000	$ 1,350,000

(Concluded)

1) As of December 31, 2018, the weighted average effective interest rate on the bank loan was 1.15% per annum. See Note 27 for collaterals on long-term loans.

2) The interest rate on the line of credit was 0.40%-0.86% and 0.86%-0.89% annum as of December 31, 2019 and 2018, respectively.

17. OTHER LIABILITIES

	December 31 2019	December 31 2018
Current		
Other payables		
Payables for bonus to employees and directors	$ 83,477	$ 85,014
Payables for commission	20,736	24,479
Payables for salaries	37,649	36,112
Payables for bonus	112,352	94,833
Payables for annual leave	18,486	18,336
Payable for purchase of equipment	88,065	27,123
Others	70,632	68,507
	$ 431,397	$ 354,404

18. RETIREMENT BENEFIT PLANS

a. Defined contribution plans

The Company adopted a pension plan under the Labor Pension Act (LPA), which is a state-managed defined contribution plan. Under the LPA, the Company makes monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages.

The Company has set up appointed manager's pension fund and contributes monthly an amount of not less than 8% of the appointed manager's monthly salaries and wages to the Bank of Taiwan.

b. Defined benefit plans

The defined benefit plan adopted by the Company in accordance with the Labor Standards Law is operated by the government. Pension benefits are calculated on the basis of the length of service and average monthly salaries of the 6 months before retirement. The Company contributes amounts equal to 9% of total monthly salaries and wages to a pension fund administered by the pension fund monitoring committee. Pension contributions are deposited in the Bank of Taiwan in the committee's name. Before the end of each year, the Company assesses the balance in the pension fund. If the amount of the balance in the pension fund is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Company is required to fund the difference in one appropriation that should be made before the end of March of the next year. The pension fund is managed by the Bureau of Labor Funds, Ministry of Labor (the "Bureau"); the Company has no right to influence the investment policy and strategy.

The amounts included in the balance sheets in respect of the Company's defined benefit plans were as follows:

	December 31	
	2019	**2018**
Present value of defined benefit obligation	$ 173,416	$ 165,146
Fair value of plan assets	(99,385)	(97,113)
Net defined benefit liability	$ 74,031	$ 68,033

Movements in net defined benefit liability (asset) were as follows:

	Present Value of the Defined Benefit Obligation	**Fair Value of the Plan Assets**	**Net Defined Benefit Liability (Asset)**
Balance at January 1, 2018	$ 153,518	$ (91,494)	$ 62,024
Service cost			
Current service cost	1,956	-	1,956
Past service cost and loss on settlements	617	-	617
Net interest expense (income)	1,475	(794)	681
Recognized in profit or loss	4,048	(794)	3,254
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(2,783)	(2,783)
Actuarial (gain) loss - changes in demographic assumptions	11,053	-	11,053
Actuarial (gain) loss - changes in financial assumptions	2,042	-	2,042
Actuarial (gain) loss - experience adjustments	6,479	-	6,479
Recognized in other comprehensive income	19,574	(2,783)	16,791

(Continued)

	Present Value of the Defined Benefit Obligation	Fair Value of the Plan Assets	Net Defined Benefit Liability (Asset)
Contributions from the employer	$ -	$ (14,036)	$ (14,036)
Benefits paid	(11,994)	11,994	-
Balance at December 31, 2018	165,146	(97,113)	68,033
Service cost			
Current service cost	1,897	-	1,897
Past service cost and loss on settlements	1,032	-	1,032
Net interest expense (income)	1,858	(1,168)	690
Recognized in profit or loss	4,787	(1,168)	3,619
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(3,214)	(3,214)
Actuarial (gain) loss - changes in demographic assumptions	5,229	-	5,229
Actuarial (gain) loss - changes in financial assumptions	6,952	-	6,952
Actuarial (gain) loss - experience adjustments	6,448	-	6,448
Recognized in other comprehensive income	18,629	(3,214)	15,415
Contributions from the employer	-	(13,036)	(13,036)
Benefits paid	(15,146)	15,146	-
Balance at December 31, 2019	$ 173,416	$ (99,385)	$ 74,031

(Concluded)

An analysis by function of the amounts recognized in profit or loss in respect of the defined benefit plans is as follows:

	For the Year Ended December 31	
	2019	2018
Cost of goods sold	$ 1,756	$ 1,608
Selling and marketing expenses	327	341
General and administrative expenses	584	553
Research and development expenses	952	752
	$ 3,619	$ 3,254

Through the defined benefit plans under the Labor Standards Law, the Company is exposed to the following risks:

1) Investment risk: The plan assets are invested in domestic/and foreign/equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the Bureau or under the mandated management. However, in accordance with relevant regulations, the return generated by plan assets should not be below the interest rate for a 2-year time deposit with local banks.

2) Interest risk: A decrease in the government and corporate bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the plan's debt investments.

3) Salary risk: The present value of the defined benefit obligation is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the present value of the defined benefit obligation.

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The significant assumptions used for the purposes of the actuarial valuations were as follows:

	December 31	
	2019	2018
Discount rate(s)	0.75%	1.125%
Expected rate(s) of salary increase	2.00%	2.00%

If possible reasonable change in each of the significant actuarial assumptions will occur and all other assumptions will remain constant, the present value of the defined benefit obligation would decrease/increase as follows:

	December 31	
	2019	2018
Discount rate(s)		
0.25% increase	$ (4,812)	$ (4,625)
0.25% decrease	$ 5,010	$ 4,814
Expected rate(s) of salary increase		
0.25% increase	$ 4,859	$ 4,683
0.25% decrease	$ (4,693)	$ (4,523)

The sensitivity analysis presented above may not be representative of the actual change in the present value of the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

	December 31	
	2019	2018
The expected contributions to the plan for the next year	$ 13,036	$ 14,036
The average duration of the defined benefit obligation	11.4 years	11.6 years

19. EQUITY

a. Share capital

Ordinary shares

	December 31	
	2019	2018
Numbers of shares authorized (in thousands)	500,000	500,000
Shares authorized	$ 5,000,000	$ 5,000,000
Number of shares issued and fully paid (in thousands)	309,757	309,757
Shares issued	$ 3,097,570	$ 3,097,570

Fully paid ordinary shares, which have a par value of $10, carry one vote per share and carry a right to dividends.

30,000 thousand shares of the Company's shares authorized were reserved for the issuance of convertible bonds and employee share options.

b. Capital surplus

	December 31 2019	December 31 2018
May be used to offset a deficit, distributed as cash dividends, or transferred to share capital*		
Issuance of ordinary shares	$ 611,776	$ 611,776
Conversion of bonds	977,028	977,028
Overdue options	73,377	73,377
The difference between consideration received or paid and the carrying amount of the subsidiaries' net assets during actual disposal or acquisition	331	331
Donated assets received	1,617	-
May only be used to offset a deficit		
Share of changes in capital surplus of associates or joint venture	2,561	2,604
	$ 1,666,690	$ 1,665,116

* Such capital surplus may be used to offset a deficit; in addition, when the Company has no deficit, such capital surplus may be distributed as cash dividends or transferred to share capital (limited to a certain percentage of the Company's capital surplus and once a year).

c. Retained earnings and dividend policy

Under the dividend policy as set forth in the amended Articles, where the Company made profit in a fiscal year, the profit shall be first utilized for paying taxes, offsetting losses of previous years, setting aside as legal reserve 10% of the remaining profit, setting aside or reversing a special reserve in accordance with the laws and regulations, and then any remaining profit together with any undistributed retained earnings shall be used by the Company's board of directors as the basis for proposing a distribution plan, which should be resolved in the shareholders' meeting for distribution of dividends and bonus to shareholders. For the policies on distribution of employees' compensation and remuneration of directors and supervisors before and after amendment, refer to employee benefits expense in Note 21(f).

Dividends are recommended by the board of directors in accordance with the Corporation's dividend policy. Under this policy, industry trend and growth should be evaluated, investment opportunities should be fully understood, and proper capital adequacy ratios should be considered in determining the dividend to be distributed. In addition, cash dividends should not be less than 20% of the total dividends to be appropriated.

Appropriation of earnings to legal reserve shall be made until the legal reserve equals the Company's paid-in capital. Legal reserve may be used to offset deficit. If the Company has no deficit and the legal reserve has exceeded 25% of the Company's paid-in capital, the excess may be transferred to capital or distributed in cash.

Items referred to under Rule No. 1010012865, Rule No. 1010047490 and Rule No. 1030006415 issued by the FSC and the directive titled "Questions and Answers for Special Reserves Appropriated Following Adoption of IFRSs" should be appropriated to or reversed from a special reserve by the Company.

The appropriations of earnings for 2018 and 2017 were approved in the shareholders' meetings on June 12, 2019 and June 5, 2018, respectively. The appropriations and dividends per share were as follows:

	Appropriation of Earnings		**Dividends Per Share (NT$)**	
	For Fiscal Year 2018	**For Fiscal Year 2017**	**For Fiscal Year 2018**	**For Fiscal Year 2017**
Legal reserve	$ 64,435	$ 96,265	$ -	$ -
Special reserve	32,114	-	-	-
Cash dividends	619,514	774,393	2.0	2.5

The appropriations of earnings for 2019 annual surplus distribution on March 23, 2020 was as follows:

	Appropriation of Earnings	**Dividends Per Share (NT$)**
Legal reserve	$ 67,178	$ -
Special reserve	269,465	-
Cash dividends	774,393	2.5

The appropriation of earnings for 2019 is subject to the resolution of the shareholders' meeting to be held on March 23, 2020.

d. Others equity items

1) Exchange differences on translating the financial statements of foreign operations

	For the Year Ended December 31	
	2019	**2018**
Balance at January 1	$ (359,923)	$ (264,137)
Exchange differences on translating the financial statements of foreign operations	(216,643)	(94,043)
Share of exchange differences of associates accounted for using the equity method	(8,051)	(1,743)
Balance at December 31	$ (584,617)	$ (359,923)

2) Unrealized gain (loss) on financial assets at FVTOCI

	For the Year Ended December 31	
	2019	2018
Balance at January 1	$ 105,017	$ 283,139
Effect of change in tax rate	-	(13,626)
Recognized during the period		
Unrealized loss - equity instruments	74,642	(133,148)
Share from associates accounted for using the equity method	55,391	6,596
Other comprehensive income recognized in the period	130,033	(140,178)
Cumulative unrealized gain/(loss) of equity instruments transferred to retained earnings due to disposal	(174,805)	(37,944)
Balance at December 31	$ 60,245	$ 105,017

20. REVENUE

	For the Year Ended December 31	
	2019	2018
Revenue from contracts with customers		
Revenue from sale of goods	$ 6,672,071	$ 6,556,906

	December 31	
	2019	2018
Trade receivables (Note 10)	$ 2,250,981	$ 2,231,828

21. NET PROFIT FROM CONTINUING OPERATIONS

Net profit from continuing operations had been arrived at after charging:

a. Other income

	For the Year Ended December 31	
	2019	2018
Interest income	$ 6,506	$ 8,103
Rental income	6,664	2,616
Dividends income	2,385	1,527
Income from government grants	40,551	6,224
Income from equipment	-	22,098
Others	7,562	14,147
	$ 63,668	$ 54,715

b. Other gains and losses

	For the Year Ended December 31 2019	2018
Gain on disposal of property, plant and equipment	$ 885	$ 1,232
Fair value changes of financial assets and financial liabilities		
Financial assets mandatorily at FVTPL	(4,055)	1,414
Impairment loss on financial assets	(8,223)	26,289
Depreciation expenses of investment properties	(11,263)	(21,658)
Others	(1,326)	(697)
	$ (23,982)	$ 6,580

c. Finance costs

	For the Year Ended December 31 2019	2018
Interest on bank loans	$ (12,442)	$ (12,443)
Interest on lease liabilities	(30)	-
	$ (12,472)	$ (12,443)

d. Depreciation and amortization

	For the Year Ended December 31 2019	2018
Property, plant and equipment	$ 308,924	$ 294,404
Investment property	11,263	21,658
Right-of-use assets	2,839	-
Intangible assets	4,809	558
	$ 327,835	$ 316,620
An analysis of deprecation by function		
Cost of goods sold	$ 229,385	$ 238,278
Operating expenses	82,378	56,126
Other expenses	11,263	21,658
	$ 323,026	$ 316,062
An analysis of amortization by function		
Operating expenses	$ 4,809	$ 558

e. Employee benefits expense

	For the Year Ended December 31	
	2019	2018
Post-employment benefits (see Note 18)		
Defined contribution plans	$ 25,248	$ 25,575
Defined benefit plans	3,619	3,254
	28,867	28,829
Other employee benefits	730,338	719,367
	$ 759,205	$ 748,196
An analysis of employee benefits expense by function		
Operating costs	$ 422,700	$ 429,653
Operating expenses	336,505	318,543
	$ 759,205	$748,196

f. Employees' compensation and remuneration of directors for 2019 and 2018

The Company accrued employees' compensation and remuneration of directors at the rates no less than 3% and no higher than 2%, respectively, of net profit before income tax, employees' compensation, and remuneration of directors. The employees' compensation and remuneration of directors for the years ended December 31, 2019 and 2018 which were approved by the Company's board of directors on March 23, 2020 and March 22, 2019, respectively, were as follows:

Accrual rate

	For the Year Ended December 31	
	2019	2018
Employees' compensation	9.0%	9.0%
Remuneration of directors	1.5%	1.5%

Amount

	For the Year Ended December 31, 2019		For the Year Ended December 31, 2019	
	Cash Bonus	Share Bonus	Cash Bonus	Share Bonus
Employees' compensation	$ 71,552	$ -	$ 69,072	$ -
Remuneration of directors	11,925	-	11,512	-

If there is a change in the amounts after the actual financial statements were authorized for issue, the differences are recorded as a change in the accounting estimate.

There was no difference between the actual amounts of employees' compensation and remuneration of directors paid and the amounts recognized in the financial statements for the years ended December 31, 2018 and 2017.

Information on the employees' compensation and remuneration of directors resolved by the Company's board of directors in 2020 and 2019 is available at the Market Observation Post System website of the Taiwan Stock Exchange.

22. INCOME TAXES RELATING TO CONTINUING OPERATIONS

a. Major components of tax expense recognized in profit or loss

	For the Year Ended December 31	
	2019	2018
Current tax		
In respect of the current year	$ 43,711	$ 25,309
Income tax of unappropriated earnings	-	7,656
Adjustments for prior year	(2,601)	(6,550)
	41,110	26,415
Deferred tax		
Change in tax rate	-	13,914
In respect of the current period	(1,346)	2,208
	(1,346)	16,122
Income tax expense recognized in profit or loss	$ 39,764	$ 42,537

A reconciliation of accounting profit and income tax expense is as follows:

	For the Year Ended December 31	
	2019	2018
Profit before tax from continuing operations	$ 711,546	$ 686,887
Income tax expense calculated at the statutory rate	$ 142,309	$ 137,377
Tax-exempt income	(76,787)	(63,169)
Tax-exempt income for five years	-	(8,118)
Income tax on unappropriated earnings	-	7,656
Unrecognized deductible temporary differences	-	(22,245)
Subsidiaries to repatriate earnings withholding tax	-	2,019
Investment tax credits	(23,157)	(18,239)
Change in tax rate	-	13,914
Adjustment for prior years' tax	(2,601)	(6,550)
Others	-	(108)
Income tax expense recognized in profit or loss	$ 39,764	$ 42,537

The Income Tax Act in the ROC was amended in 2018 and the corporate income tax rate was adjusted from 17% to 20% effective in 2018. The effect of the change in tax rate on deferred tax income/expense to be recognized in profit or loss. In addition, the tax rate applicable to the undistributed earnings for the year 2018 will be reduced from 10% to 5%.

As the status of 2019 appropriations of earnings is uncertain, the potential income tax consequences of 2018 unappropriated earnings are not reliably determinable.

b. Income tax expense recognized in other comprehensive income

	For the Year Ended December 31	
	2019	2018
Deferred tax		
In respect of the current year		
Fair value changes of financial assets at FVTOCI	$ 21,627	$ (37,377)
Remeasurement of defined benefit plans	(3,083)	(3,358)
Reclassification adjustment		
Disposal of equity instruments at fair value through other comprehensive income	(43,700)	(9,486)
Effect of change in tax rate		
Remeasurement of defined benefit plans	-	(2,813)
Fair value changes of financial assets at FVTOCI	-	13,626
	$ (25,156)	$ (39,408)

c. Current income tax assets and liabilities

	December 31	
	2019	2018
Current tax assets		
Income tax receivable	$ 8,176	$ 5,245
Current tax liabilities		
Income tax payable	$ 38,273	$ -

d. Deferred tax assets and liabilities

The movements of deferred tax assets and deferred tax liabilities were as follows:

For the year ended December 31, 2019

	Opening Balance	Recognize in Profit or Loss	Recognize in Other Comprehen-sive Income	Closing Balance
Deferred tax assets				
Unrealized loss on inventories	$ 8,182	$ (1,790)	$ -	$ 6,392
Unrealized exchange loss	621	4,738	-	5,359
Financial assets at fair value through profit or loss	3,667	30	-	3,697
Determine benefit obligation	15,971	(1,883)	3,083	17,171
Payable for annual leave	-	171	-	171
Others	213	63	-	276
	$ 28,654	$ 1,329	$ 3,083	$ 33,066

(Continued)

	Opening Balance	Recognize in Profit or Loss	Recognize in Other Comprehen-sive Income	Closing Balance
Deferred tax liabilities				
Financial assets at fair value through profit or loss	$ 17	$ (17)	$ -	$ -
Associates	101,496	-	-	101,496
Financial assets at fair value through other comprehensive income	43,977	-	(22,073)	21,904
	$ 145,490	$ (17)	$ (22,073)	$ 123,400

(Concluded)

For the year ended December 31, 2018

	Opening Balance	Recognize in Profit or Loss	Recognize in Other Comprehen-sive Income	Closing Balance
Deferred tax assets				
Unrealized loss on inventories	$ 5,601	$ 2,581	$ -	$ 8,182
Unrealized exchange loss	1,716	(1,095)	-	621
Financial assets at fair value through profit or loss	215	(215)	-	-
Payable for annual leave	3,117	550	-	3,667
Determine benefit obligation	12,553	(2,753)	6,171	15,971
Investment subsidiary	18,621	(18,621)	-	-
Others	448	(235)	-	213
	$ 42,271	$ (19,788)	$ 6,171	$ 28,654
Deferred tax liabilities				
Financial assets at fair value through profit or loss	$ -	$ 17	$ -	$ 17
Associates	105,179	(3,683)	-	101,496
Financial assets at fair value through other comprehensive income	77,214	-	(33,237)	43,977
	$ 182,393	$ (3,666)	$ (33,237)	$ 145,490

e. Unused investment tax credits, operating loss carryforward and tax-exemption information

As of December 31, 2018, profits attributable to the following expansion projects were exempted from income tax for a five-year period:

Expansion of Construction Project	Tax-exemption Period
2009	2014 to 2018

f. Income tax assessments

The tax returns through 2017, have been assessed by the tax authorities.

23. EARNINGS PER SHARE

The earnings and weighted average number of ordinary shares outstanding used in the computation of earnings per share from continuing operations were as follows:

Net Profit for the Year

	For the Year Ended December 31	
	2019	**2018**
Earnings used in the computation of basic earnings per share	$ 671,782	$ 644,350
Earnings used in the computation of diluted earnings per share	$ 671,782	$ 644,350

Weighted average number of ordinary shares outstanding (in thousand shares):

	For the Year Ended December 31	
	2019	**2018**
Weighted average number of ordinary shares in computation of basic earnings per share	309,757	309,757
Effect of potentially dilutive ordinary shares:		
Employees' compensation	1,959	2,658
Weighted average number of ordinary shares used in the computation of diluted earnings per share	311,716	312,415

If the Company offered to settle compensation or bonuses paid to employees in cash or shares, the Company assumed the entire amount of the compensation or bonus will be settled in shares and the resulting potential shares were included in the weighted average number of shares outstanding used in the computation of diluted earnings per share, as the effect is dilutive. Such dilutive effect of the potential shares is included in the computation of diluted earnings per share until the number of shares to be distributed to employees is resolved in the following year.

24. CAPITAL MANAGEMENT

The Company manages its capital to ensure that entities in the Company will be able to continue as going concerns while maximizing the return to stakeholders through the optimization of the debt and equity balance.)

The capital structure of the Company consists of net debt (borrowings offset by cash and cash equivalents) and equity attributable to owners of the Company (comprising issued capital, reserves, retained earnings and other equity).

The Company is not subject to any externally imposed capital requirements.

25. FINANCIAL INSTRUMENTS

a. Fair value of financial instruments that are not measured at fair value

The management believes the carrying amounts of financial assets and financial liabilities recognized in the financial statements approximate their fair values.

b. Fair value of financial instruments that are measured at fair value on a recurring basis

1) Fair value hierarchy

December 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Foreign unlisted shares	$ -	$ -	$ 9,255	$ 9,255
Financial liabilities				
Foreign exchange forward contracts	$ -	$ 173	$ -	$ 173
Exchange contracts	-	3,790	-	3,790
	$ -	$ 3,963	$ -	$ 3,963
Financial assets at FVTOCI				
Domestic unlisted shares	$ -	$ -	$ 68,363	$ 68,363
Foreign listed shares	117,114	-	-	117,114
	$ 117,114	$ -	$ 68,363	$ 185,477

December 31, 2018

	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Domestic listed shares	$ 30,975	$ -	$ -	$ 30,975
Foreign exchange forward contracts	-	10	-	10
Exchange contracts	-	76	-	76
	$ 30,975	$ 86	$ -	$ 31,061
Financial assets at FVTOCI				
Domestic unlisted shares	$ -	$ -	$ 80,227	$ 80,227
Foreign listed shares	250,698	-	-	250,698
	$ 250,698	$ -	$ 80,227	$ 330,925

There were no transfers between Levels 1 and 2 in the current and prior periods.

2) Reconciliation of Level 3 fair value measurements of financial instruments

For the year ended December 31, 2019

	Financial Assets at FVTPL	Financial Assets at FVTOCI
	Equity Instruments	Equity Instruments
Balance at January 1, 2019	$ -	$ 80,227
Income recognized for the year	9,255	-
Other comprehensive income recognized for the year	-	(11,864)
Balance at December 31, 2019	$ 9,255	$ 68,363

For the year ended December 31, 2018

	Financial Assets at FVTOCI
	Equity Instruments
Balance at January 1, 2018 (IAS 39)	$ 21,498
Effect of retrospective application and retrospective restatement	42,370
Balance at January 1, 2018 (IFRS 9)	63,868
Other comprehensive income recognized for the year	16,359
Balance at December 31, 2018	$ 80,227

3) Valuation techniques and inputs applied for the purpose of measuring Level 2 fair value measurement

Financial Instruments	Valuation Techniques and Inputs
Derivatives - foreign exchange forward contracts	Discounted cash flow. Future cash flows are estimated based on observable forward exchange rates at the end of the reporting period and contract forward rates, discounted at a rate that reflects the credit risk of various counterparties.

4) Valuation techniques and inputs applied for the purpose of measuring Level 3 fair value measurement

The fair values of unlisted equity securities - ROC were determined using income approach. In this approach, the discounted cash flow method was used to capture the present value of the expected future economic benefits to be derived from the ownership of these investees. The significant unobservable inputs used are listed on the table below. An increase in long-term revenue growth rates or long-term pre-tax operating margin or a decrease in WACC or discount for lack of marketability used in isolation would result in increase in fair value.

c. Categories of financial instruments

	December 31	
	2019	**2018**
<u>Financial assets</u>		
FVTPL		
Mandatorily at FVTPL (1)	$ 9,255	$ 31,061
Financial assets at amortized cost (2)	3,026,723	2,884,759
Financial assets at FVTOCI		
Equity instruments	185,477	330,925
<u>Financial liabilities</u>		
FVTPL		
Mandatorily (3)	3,963	-
Amortized cost (4)	3,153,135	2,980,101

1) The balances included the carrying amount of domestic listed shares, foreign exchange forward contracts and exchange contracts.

2) The balances include financial assets measured at amortized cost, which comprise cash and cash equivalents, notes receivable, trade receivables, other receivables and refundable deposits.

3) The balances included the carrying amount of foreign exchange forward contracts and exchange contracts.

4) The balances included financial liabilities measured at amortized cost, which comprise short-term and long-term loans, notes payable, trade, payable, other payables and guarantee deposits received.

d. Financial risk management objectives and policies

The Company's major financial instruments included equity and debt investments, notes receivable, trade receivables, other receivables, notes payable, trade payables, other payables, borrowings. The Company's Corporate Treasury function provides services to the business, coordinates access to domestic and international financial markets, monitors and manages the financial risks relating to the operations of the Company through internal risk reports which analyze exposures by degree and magnitude of risks. These risks include market risk (including currency risk, interest rate risk and other price risk), credit risk and liquidity risk.

The Company sought to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives was governed by the Company's policies approved by the board of directors, which provided written principles on foreign exchange risk, interest rate risk, credit risk, the use of financial derivatives and non-derivative financial instruments, and the investment of excess liquidity. Compliance with policies and exposure limits was reviewed by the internal auditors on a continuous basis. The Company did not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

The financial department reported quarterly to the board of directors, which monitors risks and policies implemented to mitigate risk exposures.

1) Market risk

The Company's activities exposed it primarily to the financial risks of changes in foreign currency exchange rates (see (a) below) and interest rates (see (b) below). The Company entered into a variety of derivative financial instruments to manage its exposure to foreign currency risk and interest rate risk, including forward foreign exchange contracts to hedge the exchange rate risk arising on the Company's foreign currency monetary.

a) Foreign currency risk

Several subsidiaries of the Company had foreign currency sales and purchases, which exposed the Company to foreign currency risk.

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities (including those eliminated on consolidation) at the end of the reporting period (see Note 30).

Sensitivity analysis

The Company was mainly exposed to the USD and RMB.

The following table details the Company's sensitivity to a 1% increase and decrease in the New Taiwan dollar (the functional currency) against the relevant foreign currencies. The sensitivity rate used when reporting foreign currency risk internally to key management personnel and representing management's assessment of the reasonably possible change in foreign exchange rates is 1%. The sensitivity analysis included only outstanding foreign currency denominated monetary items and foreign exchange forward contracts designated as cash flow hedges, and adjusts their translation at the end of the reporting period for a 1% change in foreign currency rates. The sensitivity analysis included external loans/borrowings as well as loans/borrowings to foreign operations within the Group where the denomination of the loan is in a currency other than the functional currency of the lender or the borrower. A positive number below indicates an increase in post-tax profit and other equity associated with the New Taiwan dollar strengthening 1% against the relevant currency. For a 1% weakening of the New Taiwan dollar against the relevant currency, there would be an equal and opposite impact on post-tax profit and other equity and the balances below would be negative.

	USD Impact		**RMB Impact**	
	For the Year Ended December 31		**For the Year Ended December 31**	
	2019	**2018**	**2019**	**2018**
Profit or loss	$ 14,215	$ 17,256	$ 2,305	$ (2,046)

i. This was mainly attributable to the exposure outstanding on USD receivables and payables, which were not hedged at the end of the reporting period.

ii. This was mainly attributable to the exposure to outstanding RMB payables, which were not hedged, at the end of the reporting period.

b) Interest rate risk

The Company was exposed to interest rate risk because the Company's bank deposits and the Company borrowed funds at floating interest rates.

The carrying amount of the Company's financial assets and financial liabilities with exposure to interest rates at the end of the reporting period were as follows:

	December 31	
	2019	**2018**
Fair value interest rate risk		
Financial assets	$ 43,155	$ 40,355
Financial liabilities	-	-
Cash flow interest rate risk		
Financial assets	626,326	584,917
Financial liabilities	1,403,525	1,396,875

Sensitivity analysis

The sensitivity analyses below were determined based on the Company's exposure to interest rates for both derivatives and non-derivative instruments at the end of the reporting period. For floating rate liabilities, the analysis was prepared assuming the amount of the liability outstanding at the end of the reporting period was outstanding for the whole year. A 0.25% basis point increase or decrease was used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 0.25% basis points higher/lower and all other variables were held constant, the Company's pre-tax profit for the years ended December 31, 2019 and 2018 would decrease by $1,943 thousand and $2,029 thousand, respectively, which was mainly attributable to the Company's exposure to interest rates on its floating rate bank deposits and bank borrowings.

c) Other price risk

The Company was exposed to equity price risk through its investments in listed equity securities. Equity investments are held for strategic rather than trading purposes. The Company does not actively trade these investments. The Company's equity price risk was mainly concentrated on equity instruments operating in Shenzhen stock exchange, growth enterprise.

Sensitivity analysis

The sensitivity analyses below were determined based on the exposure to equity price risks at the end of the reporting period.

If equity prices had been 1% higher/lower, other comprehensive income for the years ended December 31, 2019 and 2018 would increase/decrease by $1,171 thousand and $2,507 thousand, respectively.

2) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Company. As at the end of the reporting period, the Company's maximum exposure to credit risk which will cause a financial loss to the Company due to failure of discharge an obligation by the counterparties and financial guarantees provided by the Company arises from:

a) The carrying amount of the respective recognized financial assets as stated in the balance sheets;

b) The amount of contingent liabilities in relation to financial guarantee issued by the Company.

3) Liquidity risk

The Company manages liquidity risk by monitoring and maintaining a level of cash and cash equivalents deemed adequate to finance the Company's operations and mitigate the effects of fluctuations in cash flows. In addition, management monitors the utilization of bank borrowings and ensures compliance with loan covenants.

The Company relies on bank borrowings as a significant source of liability. As of December 31, 2019 and 2018, the Company had available unutilized overdraft and short-term bank loan facilities of approximately $3,164,982 thousand and $3,528,150 thousand, respectively.

a) Liquidity and interest risk rate tables

The following table details the Company's remaining contractual maturity for its non-derivative financial liabilities with agreed repayment periods. The tables had been drawn up based on the undiscounted cash flows of financial liabilities from the earliest date on which the Company can be required to pay. The tables included both interest and principal cash flows. Specifically, bank loans with a repayment on demand clause were included in the earliest time band regardless of the probability of the banks choosing to exercise their rights. The maturity dates for other non-derivative financial liabilities were based on the agreed repayment dates.

To extend that interest flows are floating rate, the undiscounted amount was derived from the interest rate curve at the end of the reporting period.

December 31, 2019

	Weighted Interest Average Effective Rate (%)	Less Than 1 Year	2-3 Years	4-5 Years	5+ Years	Total
Non-derivative financial liabilities						
Trade payable	-	$ 1,301,422	$ -	$ -	$ -	$ 1,301,422
Other payables	-	435,846	-	-	-	435,846
Other current liabilities	-	7,948	-	-	-	7,948
Lease liabilities	0.86	3,087	2,228	721	-	6,036
Variable interest rate liabilities	0.40-0.86	3,525	1,400,000	-	-	1,403,525

December 31, 2018

	Weighted Interest Average Effective Rate (%)	Less Than 1 Year	2-3 Years	4-5 Years	5+ Years	Total
Non-derivative financial liabilities						
Trade payable	-	$ 1,213,259	$ -	$ -	$ -	$ 1,213,259
Other payables	-	357,625	-	-	-	357,625
Other current liabilities	-	8,486	-	-	-	8,486
Variable interest rate liabilities	0.86-1.15	46,875	1,350,000	-	-	1,396,875

The amounts included above for variable interest rate instruments for both non-derivative financial assets and liabilities was subject to change if changes in variable interest rates differ from those estimates of interest rates determined at the end of the reporting period.

b) Liquidity and interest risk rate tables for derivative financial liabilities

The following table detailed the Company's liquidity analysis for its derivative financial instruments. The table was based on the undiscounted contractual net cash inflows and outflows on derivative instruments that settle on a net basis, and the undiscounted gross inflows and outflows on those derivatives that require gross settlement.

December 31, 2019

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	5+ Years
Net settled					
Foreign exchange forward contracts and exchange contracts	$ (1,636)	$ (2,327)	$ -	$ -	$ -

December 31, 2018

	On Demand or Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	5+ Years
Net settled					
Foreign exchange forward contracts and exchange contracts	$ 480	$ (394)	$ -	$ -	$ -

26. TRANSACTIONS WITH RELATED PARTY

Details of transactions between the Company and related parties are disclosed below.

a. Related party name and relationship

Related Party Name	Relationship with the Company
Tai-Shing Electronics Components Corporation	Associate
Liang Shing Eclife Corp. ("Eclife")	Other associate
Godsmith Sensor INC.	Associate
TXC (Ningbo) Corporation	Subsidiaries
TXC (Chongqing) Limited	Subsidiaries
Ningbo Jingyu Company Limited	Subsidiaries
Taiwan Crystal Technology (HK) Limited	Subsidiaries
Growing profits Trading Ltd.	Subsidiaries
TXC Technology, Inc.	Subsidiaries
TXC Japan Corporation	Subsidiaries
TXC Europe GmbH	Subsidiaries

b. Sales of goods

	For the Year Ended December 31	
	2019	**2018**
Subsidiaries	$ 212,427	$ 315,806
Other associate	9,597	33
Associates	8,331	32,965
	$ 230,355	$ 348,804

Selling prices and payment terms offered to related parties were similar with those offered to third parties.

c. Purchase of goods

	For the Year Ended December 31	
	2019	**2018**
Subsidiaries		
TXC (Ningbo) Corporation	$ 1,869,765	$ 1,663,711
TXC (Chongqing) Limited	822,274	731,936
Others	86,628	139,286
	2,778,667	2,534,933
Associates	261	-
Other associates	217	188
	$ 2,779,145	$ 2,535,121

Purchase prices and payment terms offered by related parties were similar with those offered by third parties.

d. Operating expenses

	For the Year Ended December 31	
	2019	**2018**
Subsidiaries		
TXC Technology, Inc.	$ 66,598	$ 69,758
TXC Japan Corporation	34,005	32,787
TXC Europe GmbH	9,674	4,978
	110,277	107,523
Other associates	1,559	722
	$ 111,836	$ 108,245

The consulting fee above is due to the Company's part of business activities committed to the related parties.

e. Rental income

	For the Year Ended December 31	
	2019	**2018**
Associates	$ 4,172	$ -

In 2019 and 2018, the selling price and purchasing price were not significantly different from those with third parties, except those for NGB, GPT, CKG, Ningbo Jingyu, TXC Technology, TCTH and TXC JP whose trading price depends on its function within the Group.

f. Trade receivables from related parties

	December 31	
	2019	2018
Subsidiaries	$ 47,653	$ 101,006
Associates	2,187	9,028
Other associates	1,918	34
Less: Allowance for impairment loss	(67)	(67)
	$ 51,691	$ 110,001

The outstanding accounts receivables from related parties are unsecured.

g. Trade payables to related parties

	December 31	
	2019	2018
Subsidiaries		
TXC (Ningbo) Corporation	$ 591,234	$ 423,140
TXC (Chongqing) Limited	204,868	178,878
Others	1,621	33,878
	797,723	635,896
Other associates	78	97
	$ 797,801	$ 635,993

The outstanding trade payables to related parties are unsecured.

h. Other receivables from related parties

	December 31	
	2019	2018
Subsidiaries		
TXC (Ningbo) Corporation	$ 42,751	$ 6,143
Others	69	188
	42,820	6,331
Associates	58	127
Other associates	10	-
	$ 42,888	$ 6,458

Other receivables resulted from purchasing machinery and equipment on behalf of subsidiaries.

i. Other payables to related parties

	December 31	
	2019	2018
Subsidiaries	$ 1,599	$ 104
Associates	-	1,760
Other associates	2,850	1,357
	$ 4,449	$ 3,221

The credit period of the transaction above is similar to those for the third parties.

j. Payments for property, plant and equipment

	For the Year Ended December 31	
	2019	2018
Other associates	$ 745	$ 1,299

k. Compensation of key management personnel

	For the Year Ended December 31	
	2019	2018
Short-term employee benefits	$ 78,076	$ 61,628
Post-employment benefits	3,087	3,054
	$ 81,163	$ 64,682

The remuneration of directors and key executives was determined by the remuneration committee based on the performance of individuals and market trends.

27. ASSETS PLEDGED AS COLLATERAL OR FOR SECURITY

The following assets were provided as collateral for bank borrowings and foreign exchange forward contracts:

	December 31	
	2019	2018
Land and land improvement	$ 450,148	$ 573,080
Building equipment, net	725,120	632,184
Pledge deposits	43,052	28,591
Investment properties, net	18,273	113,772
	$ 1,236,593	$ 1,347,627

28. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

In addition to those disclosed in other notes, significant commitments and contingencies of the Company as of December 31, 2019 and 2018 were as follows:

a. As of December 31, 2019 and 2018, unused letters of credit amounted to approximately JPY27,600 thousand and JPY2,450 thousand.

b. As of December 31, 2018, the Company unrecognized commitments are as follows:

	Contract Amount	Paid Amount	Unpaid Amount
Acquisition of equipment	$ 20,315	$ 7,668	$ 12,647
Acquisition of equipment	RMB 5,306	RMB 2,653	RMB 2,653
Acquisition of equipment	JPY 45,400	JPY 28,520	JPY 16,880

29. SIGNIFICANT EVENTS AFTER REPORTING PERIOD: NONE

30. SIGNIFICANT ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

The Company's significant financial assets and liabilities denominated in foreign currencies aggregated by the foreign currencies other than functional currencies and the related exchange rates between foreign currencies and respective functional currencies were as follows:

Unit: In Thousands of Foreign Currencies and New Taiwan Dollars

December 31, 2019

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 76,087	30.1060 (USD:NTD)	$ 2,290,675
JPY	562,326	0.2771 (JPY:NTD)	155,820
RMB	95,284	4.3155 (RMB:NTD)	411,198
Non-monetary items			
Investments accounted for using equity method			
USD	3,471	30.1060 (USD:NTD)	104,510
JPY	110,584	0.2771 (JPY:NTD)	30,643
RMB	1,235,637	4.3155 (RMB:NTD)	5,332,390
EUR	81	33.7488 (EUR:NTD)	2,741
Financial liabilities			
Monetary items			
USD	28,870	30.106 (USD:NTD)	869,160
JPY	1,004,826	0.2771 (JPY:NTD)	278,437
RMB	41,879	4.3155 (RMB:NTD)	180,729

December 31, 2018

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
Monetary items			
USD	$ 84,664	30.715 (USD:NTD)	$ 2,600,455
JPY	432,583	0.2782 (JPY:NTD)	120,345
RMB	21,009	4.4753 (RMB:NTD)	94,022
Non-monetary items			
Investments accounted for using equity method			
USD	507	30.715 (USD:NTD)	15,572
JPY	99,948	0.2782 (JPY:NTD)	27,806
RMB	1,166,698	4.4753 (RMB:NTD)	5,221,323
EUR	61	35.2 (EUR:NTD)	2,130
Financial liabilities			
Monetary items			
USD	28,484	30.715 (USD:NTD)	874,886
JPY	1,168,067	0.2782 (JPY:NTD)	324,956

For the years ended December 31, 2019 and 2018, unrealized net foreign exchange gains were $(8,223) thousand and $26,289 thousand, respectively. It is impractical to disclose net foreign exchange gains (losses) by each significant foreign currency due to the variety of the foreign currency transactions and functional currencies of the group entities.

31. SEPARATELY DISCLOSED ITEMS

a. Information on significant transactions and information on investees:

1) Lending funds to others. (None)

2) Providing endorsements or guarantees for others. (Table 1)

3) Holding of securities at the end of the period. (Table 2)

4) Aggregate purchases or sales of the same securities reaching NT$300 million or 20 percent of paid-in capital or more. (Table 3)

5) Acquisition of real estate reaching NT$300 million or 20 percent of paid-in capital or more. (None)

6) Disposal of real estate reaching NT$300 million or 20 percent of paid-in capital or more. (None)

7) Purchases or sales of goods from or to related parties reaching NT$100 million or 20 percent of paid-in capital or more. (Table 4)

8) Trade receivables from related parties reaching NT$100 million or 20 percent of paid-in capital or more. (Table 5)

9) Trading in derivative instruments. (Note 7)

10) Others: The business relationship between the parent and the subsidiaries and between each subsidiary, and the circumstances and amounts of any significant transactions between them. (Table 6)

b. Information on investments in mainland China

1) Information on any investee company in mainland China, showing the name, principal business activities, paid-in capital, method of investment, inward and outward remittance of funds, shareholding ratio, investment gain or loss, carrying amount of the investment at the end of the period, repatriated investment gains, and limit on the amount of investment in the mainland China area. (Table 7)

2) Any of the following significant transactions with investee companies in mainland China, either directly or indirectly through a third area, and their prices, payment terms, and unrealized gains or losses: (Table 8)

a) The amount and percentage of purchases and the balance and percentage of the related payables at the end of the period.

b) The amount and percentage of sales and the balance and percentage of the related receivables at the end of the period.

c) The amount of property transactions and the amount of the resultant gains or losses.

d) The balance of negotiable instrument endorsements or guarantees or pledges of collateral at the end of the period and the purposes.

e) The highest balance, the end of period balance, the interest rate range, and total current period interest with respect to financing of funds.

f) Other transactions that have a material effect on the profit or loss for the period or on the financial position, such as the rendering or receiving of services.

TABLE 1

TXC CORPORATION

ENDORSEMENTS/GUARANTEES PROVIDED
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

No. (Note 1)	Endorser/Guarantor	Endorsee/Guarantee		Limit on Endorsement/ Guarantee Given on Behalf of Each Party (Note 3)	Maximum Amount Endorsed/ Guaranteed During the Period	Outstanding Endorsement/ Guarantee at the End of the Period	Actual Borrowing Amount	Amount Endorsed/ Guaranteed by Collateral	Ratio of Accumulated Endorsement/ Guarantee to Net Equity in Latest Financial Statements (%)	Aggregate Endorsement/ Guarantee Limit	Note
		Name	Relationship (Note 2)								
1	TXC (Ningbo) Corporation	Chongqing All Sun Company Limited	Subsidiary with equity method	$ 2,597,313	$ 345,240	$ 345,240	$ 238,632	$ -	6.65	$ 5,194,627	

Note: The total amount of TXC (Ningbo) Corporation endorsements and guarantees provided shall not exceed 100% of the amount of the net value of TXC (Ningbo) Corporation; the amount of individual entity endorsements shall not exceed 5% of the amount of the net value of the individual entity. However, the amount of individual entity endorsements is permitted with 50% of net value of subsidiary.

TABLE 2

TXC CORPORATION

MARKETABLE SECURITIES HELD
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Holding Company Name	Type and Name of Marketable Securities	Relationship with the Holding Company	Financial Statement Account	December 31, 2019				Note
				Shares	Carrying Amount	Percentage of Ownership	Shares	
TXC Corporation	Shares listed overseas							
	Guandong Failong Crystal Technology Co., Ltd.	None	Financial assets at fair value through other comprehensive income - non-current	1,652	$ 117,114	1	$ 117,114	
	Shares - unlisted company							
	Marson Technology Co., Ltd.	None	Financial assets at fair value through other comprehensive income - non-current	523	$ 4,773	4	$ 4,773	
	Win Precision Technology Co., Ltd.	None	〃	1,365	18,388	3	18,388	
	UPI Semiconductor Corp.	Chairman is a direct of the Company	〃	1,516	45,202	2	45,202	
					$ 68,363		$ 68,363	
	Shares overseas - unlisted company							
	RFIC Telechnology preference shares	None	Financial assets at fair value through profit or loss - non-current	10,000	$ 9,255	-	$ 9,255	
TXC (Ningbo) Corporation	Structured deposits							
	Fubon Bank (China)	None	Financial assets at fair value through profit or loss - current	RMB 10,190	$ 43,790		$ 43,790	
	China Guangfa Bank	〃		RMB 30,158	129,604		129,604	
	HengFeng Bank	〃	〃	RMB 10,190	43,790		43,790	
					$ 217,184		$ 217,184	
	Mutual fund							
	ABC Monetary Fund	None	Financial assets at fair value through profit or loss - current	RMB 12,000	$ 51,570		$ 51,570	
	Taijing No. 1 Monetary Fund	〃	〃	RMB 41,953	180,292		180,292	
					$ 231,862		$ 231,862	
	Shares overseas - unlisted company							
	Ningbo SJ Electronics Co., Ltd.	None	Financial assets at fair value through other comprehensive income - non-current	RMB 6,000	$ 25,785	7	$ 25,785	

(Continued)

Holding Company Name	Type and Name of Marketable Securities	Relationship with the Holding Company	Financial Statement Account	December 31, 2019				Note
				Shares	Carrying Amount	Percentage of Ownership	Shares	
TXC (Chongqing) Limited	Mutual fund							
	Southern Currency Fund B	None	Financial assets at fair value through profit or loss - current	RMB 24,408	$ 104,892		$ 104,892	
	Southern Currency Fund E	〃	〃	RMB 3,740	16,075		16,075	
	E Fund Monetary Fund B	〃	〃	RMB 5,007	21,518		21,518	
					$ 142,485		$ 142,485	
	Structured deposits							
	China Merchants Bank	None	Financial assets at fair value through profit or loss - non-current	RMB 13,025	$ 55,973		$ 55,973	
	China Everbright Bank	〃	〃	RMB 22,033	94,687		94,687	
					$ 150,657		$ 150,657	
Ningbo Jingyu Company Limited	Mutual fund							
	Southern Cash Fund	None	Financial assets at fair value through profit or loss - current	RMB 61	$ 264		$ 264	
Chongqing All Sun Company Limited	Mutual fund							
	E Fund Stable Income Bond Fund B	None	Financial assets at fair value through profit or loss - current	RMB 2,961	$ 12,726		$ 12,726	
Ding Kai Investment Management Company Limited	Shares unlisted overseas							
	Zhejiang Boland Semiconductor Technology Co., Ltd.	None	Financial assets at fair value through other comprehensive income - non-current	RMB 7,000	$ 211,160	6	$ 211,160	

(Concluded)

TABLE 3

TXC CORPORATION

MARKETABLE SECURITIES ACQUIRED AND DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT$300 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counterparty	Relationship	Beginning Balance		Acquisition		Disposal				Equity in Net Gain (Loss)	Ending Balance	
					Shares	Amount	Shares	Amount	Shares	Amount	Carrying Amount	Gain (Loss) on Disposal		Shares	Amount
TXC (Chongqing) Limited	Mutual fund	Financial instruments at FVTPL - current	E Fund Monetary Fund B	None	-	$ 44,854	-	$ 445,557	-	$ (468,876)	$ (468,876)	$ -	$ (17)	-	$ 21,518

TABLE 4

TXC CORPORATION

TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES OF AT LEAST NT$100 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Buyer	Related Party	Relationship	Transaction Details				Abnormal Transaction		Notes/Accounts Payable or Receivable		Note
			Purchase/ Sale	Amount	% to Total	Payment Terms	Unit Price	Payment Terms	Ending Balance	% to Total	
TXC Corporation	TXC (Ningbo) Corporation	Subsidiary	Purchase	$ (1,869,765)	(39)	Note	Its trading price depends on its function within the Group	Note	$ (591,234)	(45)	
	〃	〃	Sale	192,162	3	〃	〃	〃	44,752	2	
	TXC (Chongqing) Limited	Subsidiary	Purchase	(822,274)	(17)	〃	〃	〃	(204,868)	(16)	
TXC (Ningbo) Corporation	TXC (Chongqing) Limited	Subsidiary	Purchase	(266,442)	(13)	〃	〃	〃	(96,307)	(11)	

TABLE 5

TXC CORPORATION

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT$100 MILLION OR 20% OF THE PAID-IN CAPITAL
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Company Name	Related Party	Relationship	Ending Balance	Turnover Rate	Overdue		Amount Received in Subsequent Period	Allowance for Impairment Loss
					Amount	Actions Taken		
TXC (Ningbo) Corporation	TXC Corporation	Parent entity	$ 591,234	7.08	$ -	-	$ 326,092	$ -
TXC (Chongqing) Corporation	TXC Corporation	Parent entity	204,868	6.47	-	-	110,491	-

TXC CORPORATION

NAMES, LOCATIONS, AND RELATED INFORMATION OF INVESTEES ON WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars or U.S. Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019			Net Income (Losses) of the Investee	Equity in the Earnings (Losses)	Note
				December 31, 2019	December 31, 2018	Shares (In Thousands)	Percentage of Ownership	Carrying Value			
TXC Corporation	Taiwan Crystal Technology International Ltd.	Western Samoa	Investment	$ 1,390,461	$ 1,390,461	42,835	100.00	$ 5,332,390	$ 365,631	$ 362,831	
	TXC Technology Inc.	U.S.A.	Marketing activities	9,879	9,879	300	100.00	16,858	2,176	2,176	
	TXC Japan Corporation	Japan	Marketing activities	6,172	6,172	2	100.00	30,643	3,418	3,418	
	Taiwan Crystal Technology International (HK) Limited	Hong Kong	Investment	1,958	1,958	80	100.00	87,652	(3,584)	(3,584)	
	TXC Europe GmbH	Germany	Marketing activities	1,746	1,746	50	100.00	2,741	758	758	
	Tai-Shing Electronics Components Corporation	Taiwan	Manufacture and sales of electronics products	349,389	282,306	8,179	30.98	359,765	58,356	18,081	
	Godsmith Sensor Inc.	Taiwan	Manufacture of equipment	38,100	38,100	2,350	35.10	32,079	(9,602)	(2,819)	
Taiwan Crystal Technology International Ltd.	Growing Profit Trading Ltd.	B.V.I.	International trading	1,691	1,691	50	100.00	152,415	(19,106)	(19,106)	

TXC CORPORATION

INFORMATION ON INVESTMENT IN MAINLAND CHINA
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars or U.S. Dollars)

1. Name of the investees in mainland China, main businesses and products, paid-in capital, method of investment, information on inflow or outflow of capital, percentage of ownership, investment income or loss, ending balance of investment, dividends remitted by the investee, and the limit of investment in mainland China:

Investee Company	Main Businesses and Products	Total Amount of Paid-in Capital	Method of Investment	Accumulated Outflow of Investment from Taiwan as of January 1, 2019 (In Thousand)	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2019 (In Thousand)	Investee Company Current Net Income	Percentage of Ownership	Investment Income (Loss) Recognized	Carrying Amount as of December 31, 2019	Accumulated Inward Remittance of Earnings as of December 31, 2019
					Outflow	Inflow						
TXC (Ningbo) Corporation	Manufacturing and sales of crystal and crystal oscillator	$ 1,487,211	Indirect investment of the Corporation in mainland China through the Corporation's subsidiary in a third region	$ 1,427,630	$ -	$ -	$ 1,427,630	$ 384,778	100.00	$ 384,778	$ 5,194,627	$ 256,146
Guandong Failong Crystal Technology Co., Ltd.	Manufacturing and sales of new electronic components	580,947	Direct investment of the Corporation in mainland China	46,478	-	-	46,478	571,257	1.00	-	117,114	385,367
TXC (Chongqing) Corporation	Manufacturing and sales of electronic devices and hardware components	1,162,074	Indirect investment of the Corporation in mainland China through the Corporation's subsidiary in a third region	-	-	-	-	101,076	100.00	101,076	1,204,208	306,500
Chongqing All Suns Company Limited	Real estate intermediary service, real estate management and electronic product wholesale	647,141	Other investment of the Corporation in mainland China	-	-	-	-	(20,516)	100.00	(20,516)	569,183	-
Ningbo Jingyu Company Limited	Purchasing and selling electronic component	7,090	Other investment of the Corporation in mainland China	-	-	-	-	1,062	100.00	1,062	4,945	-
Ningbo Longying Semiconductor Co., LTD.	Research and development in integrated circuit	183,180	Other investment of the Corporation in mainland China	-	-	-	-	(3,133)	40.00	(1,254)	55,446	-
Ningbo Free Trade Zon Ding Kai Investment Management Company	Investment Management	160,043	Other investment of the Corporation in mainland China	-	-	-	-	-	100.00	-	211,302	-

2. The limited amounts of the investment in Mainland China

Accumulated Investment in Mainland China as of December 31, 2019	Investment Amounts Authorized by the investment Commission, MOEA	Upper Limit on the Amount of Investment Stipulated by Investment Commission, MOEA
$1,474,108	$1,832,878	$ -

Note: The investment in mainland China has no maximum limitation since TXC Corporation had acquire the approval from the Industrial Development Bureau for the Company's establishment of the Company's operating headquarter in Taiwan.

TXC CORPORATION

SIGNIFICANT TRANSACTIONS WITH INVESTEE COMPANIES IN MAINLAND CHINA, EITHER DIRECTLY OR INDIRECTLY THROUGH A THIRD AREA, AND THEIR PRICES, PAYMENT TERMS, AND UNREALIZED GAINS OR LOSSES
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

1. Significant direct or indirect transactions with the investees, prices and terms of payment, unrealized gain or loss:

Company Name	Related Party	Transaction Type	Transaction Details					Accounts/Notes Receivable/Payable		Unrealized Gain or Loss
			Amount	Percentage (%)	Price	Payment Term	Compared with Terms of Third Parties	Balance	%	
TXC Corporation	NGB	Purchase	$ 1,869,765	39	Its trading price depends on its function within the Group	Similar with third parties	Its trading price depends on its function within the Group	$ (591,234)	(45)	$ 7,668
	NGB	Sale	192,162	3	〃	〃	〃	44,752	2	1,344
	CKG	Purchase	822,274	17	〃	〃	〃	(204,808)	(17)	5,335
GPT	NGB	Sale	99,625	49	〃	〃	〃	-	-	-

2. The transactions of properties and the profit or loss: None.

3. Endorsements guarantees or collateral directly or indirectly provided to the investees: None

4. Financings directly or indirectly provided to the investees: None

5. Other transactions that significantly impacted the current year’s profit or loss or financial position: None

TXC CORPORATION

THE CONTENTS OF STATEMENTS OF MAJOR ACCOUNTING ITEMS

STATEMENT 1

TXC CORPORATION

CASH AND CASH EQUIVALENTS
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars, and Foreign Currency)

Item		Amount
Cash		
Cash on hand	Including US$15 thousand @30.106; JPY318 thousand @0.2771; HK$4 thousand @3.8661; and RMB28 thousand @4.3155; SGD3 thousand @22.3662; EUR6 thousand @33.7488	$ 988
Cash in banks		
Checking accounts and demand deposits		97,215
Foreign-currency deposits	Including US$6,025 thousand @30.106; JPY508,978 thousand @0.2771; EUR20 thousand @33.748; RMB48,090 thousand @4.3155; and HK$9 thousand @3.8661	530,752
Time deposits	Including RMB10,000 thousand @4.3155	43,155
		$ 672,110

STATEMENT 2

TXC CORPORATION

TRADE RECEIVABLES
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Explanation	Amount
Related parties		
TXC (Ningbo) Corporation	For goods	$ 44,752
TXC (Chongqing) Corporation	〃	1,273
Tai-Shing Electronics Components Corporation	〃	2,176
TXC Technology Inc.	〃	192
TXC Japan Corporation	〃	681
Taiwan Crystal Technology (HK) Limited	〃	678
TXC Europe GmbH	〃	88
Liang Shing Eclife Corp.		1,918
		51,758
Less: Allowance for impairment loss		(67)
		51,691
Third parties		
A Company	For goods	143,543
B Company	〃	140,822
C Company	〃	127,203
D Company	〃	112,634
Others (Note)	〃	1,685,074
		2,209,276
Less: Allowance for doubtful accounts		(9,986)
		$ 2,199,290

Note: Each of the accounts was less than 5% of the total account balance.

STATEMENT 3

TXC CORPORATION

INVENTORIES
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Cost	Market Value (Note)
Raw materials	$ 233,099	$ 228,236
Supplies and spare parts	65,694	65,247
Work in process	190,655	183,182
Finished goods	200,051	184,973
Merchandise	206,707	204,141
Goods in transit	4,401	4,401
	900,607	$ 870,180
Less: Allowance for loss	(30,427)	
	$ 870,180	

Note: The market value is based on net realizable value.

STATEMENT 4

TXC CORPORATION

OTHER CURRENT ASSETS
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Amount
Prepaid insurance	$ 1,450
Prepayment for purchases	54
Other prepaid expenses	14,923
Payment on behalf of others	4,480
Advances to employees	1,167
	$ 22,074

TXC CORPORATION

CHANGES IN FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME - NON- CURRENT
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars and Shares)

	Beginning Balance			Increase		Decrease		Ending Balance			
	Shares	Amount	Remeasure	Shares	Amount	Shares	Amount	Shares	% of Ownership	Amount	Pledge or Security
Listed shares											
Guandong Failong Crystal Technology Co., Ltd.	6,693	$ 250,698	$ -	-	$ 108,131	5,041	$ 241,715	1,652	1	$ 117,114	None
Unlisted shares											
Marson Technology Ltd.	523	4,773	-	-	-	-	-	523	4	4,773	〃
Win Win Precision Technology Co., Ltd.	1,365	14,256	-	-	4,132	-	-	1,365	3	18,388	〃
UPI Semiconductor Corp	1,516	61,198	-	-	-	-	15,996	1,516	2	45,202	〃
		80,227	-		4,132		15,996			68,363	
		$ 330,925	$ -		$ 112,263		$ 257,711			$ 185,477	

TXC CORPORATION

CHANGES IN INVESTMENTS ACCOUNTED FOR BY THE EQUITY METHOD
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars and Shares)

	Beginning Balance		Increase		Decrease		Equity in Investees	Ending Balance			Market Price or Net Asset Value		Valuation	Pledge or
	Shares	Amount	Shares	Amount	Shares	Amount	Gain (Loss)	Shares	% of Ownership	Amount	Unit Price	Amount	Method	Security
Unlisted company														
Taiwan Crystal Technology International Ltd.	42,835	$ 5,128,270	-	$ -	-	$ -	$ 204,120	42,835	100.00	$ 5,332,390	-	$ 5,347,060 (Note)	Equity method	None
TXC Technology Inc.	300	15,572	-	-	-	-	1,286	300	100.00	16,858	-	16,858 (Note)	Equity method	None
TXC Japan Corporation	2	27,806	-	-	-	-	2,837	2	100.00	30,643	-	30,643 (Note)	Equity method	None
Taiwan Crystal Technology International (HK) Limited	80	93,053	-	-	-	-	(5,401)	80	100.00	87,652	-	87,652 (Note)	Equity method	None
Tai-Shing Electronics Components Corporation	6,913	302,443	1,266	67,083	-	-	(9,761)	8,179	30.98	359,765	41.45	339,020	Equity method	None
TXC Europe GmbH	50	2,130	-	-	-	-	611	50	100.00	2,741		2,741 (Note)	Equity method	None
Godsmith Sensor Inc.	2,350	34,942	-	-	-	-	(2,863)	2,350	35.10	32,079		33,079 (Note)	Equity method	None
		$ 5,604,216		$ 67,083		$ -	$ 190,829			$ 5,862,128		$ 5,857,053		

Note: All the above are unlisted company which do not have market price to evaluated.

TXC CORPORATION

CHANGES IN RIGHT-OF-USE ASSETS
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Beginning Balance	Increase	Decrease	Ending Balance
Cost				
Buildings	$ 1,330	$ 5,289	$ (1,330)	$ 5,289
Equipment	-	2,244	-	2,244
	$ 1,330	$ 7,533	$ (1,330)	$ 7,533
Accumulated depreciation				
Buildings	$ -	$ 2,652	$ (1,330)	$ 1,322
Equipment	-	187	-	187
	$ -	$ 2,839	$ (1,330)	$ 1,509

STATEMENT 8

TXC CORPORATION

ACCOUNTS PAYABLE
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Explanation	Amount
Related parties		
TXC (Ningbo) Corporation	Payment for goods	$ 591,234
TXC (Chongqing) Corporation	〃	204,868
Growing profits Trading Ltd.	〃	1,458
Taiwan Crystal Technology (HK) Limited	〃	11
TXC Japan Corporation	〃	78
Liang Shing Eclife	〃	152
Ningbo Jingyu Company Limited	〃	797,801
Third parties		
A Corporation	Payment for goods	75,600
B Corporation	〃	64,279
C Corporation	〃	54,522
D Corporation	〃	52,885
E Corporation	〃	51,191
F Corporation	〃	40,949
G Corporation	〃	30,752
Others (Note)	〃	133,443
		503,621
		$ 1,301,422

Note: Each of the accounts was less than 5% of the total account balance.

STATEMENT 9

TXC CORPORATION

LEASE LIABILITIES
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Lease Period	Discount Rate	Ending Balance
Buildings	2019.01-2021.06	0.86%	$ 3,975
Equipment	2019.07-2024.07	0.86%	2,061
			$ 6,036

STATEMENT 10

TXC CORPORATION

OPERATING REVENUE
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Amount
Quartz crystal products	$ 6,778,865
Less: Sales returns	(32,011)
Less: Sales allowances	(74,783)
	$ 6,672,071

STATEMENT 11

TXC CORPORATION

COST OF GOODS SOLD
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Amount
Direct materials	
Beginning materials	$ 264,290
Add: Material purchase	941,460
Add: Unfavorable cost variance	59,565
Less: Expense	(121,874)
Less: Adjustment items	(5,718)
Ending materials	(293,649)
	844,074
Direct labor	268,804
Overhead	596,425
Manufacturing cost	1,709,303
Beginning work in process	173,982
Add: Purchases	19,498
Add: Others	15,282
Less: Expense	(28,673)
Less: Favorable cost variance	(9,020)
Ending work in process	(183,371)
Finished goods cost	1,697,001
Beginning finished goods	249,927
Add: Favorable cost variance	35,532
Less: Expense	(10,497)
Less: Others	(464)
Ending finished goods	(184,618)
Production cost	1,786,881
Beginning merchandise inventory	307,972
Add: Purchase	3,707,086
Less: Others	(2,726)
Less: Favorable cost variance	(3,479)
Less: Expense	(702)
Ending merchandise inventory	(204,141)
Purchase cost	3,804,010
Loss on physical inventory	5,912
	$ 5,596,803

TXC CORPORATION

OVERHEAD EXPENSES
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Explanation	Amount
Indirect labor	Including salary and wages, pension, food stipend, employee benefits and insurance etc.	$ 171,917
Indirect materials		84,894
Depreciation		229,385
Utilities		78,007
Others		32,222
		$ 596,425

Note: Each of the accounts was less than 5% of the total account balance.

TXC CORPORATION

OPERATING EXPENSES
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Item	Explanation	Selling and Marketing	General and Administration	Research and Development
Salary		$ 46,477	$ 62,396	$ 189,814
Insurance		4,266	9,277	13,879
Depreciation		893	4,203	77,282
Research expense		-	-	61,756
Commission		19,129	-	-
Import and export expense		39,642	-	174
Others		142,015	47,148	53,145
		$ 252,422	$ 123,024	$ 396,050

Note: Each of the accounts was less than 5% of the total account balance.

TXC CORPORATION

EMPLOYEE WELFARE, DEPRECIATION AND AMORTIZATION EXPENSES
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

	2019			2018		
Item	Operating Cost	Operating Expense	Total	Operating Cost	Operating Expense	Total
Salaries	$ 374,205	$ 284,914	$ 659,119	$ 380,834	$ 267,666	$ 648,500
Insurance	33,570	22,839	56,409	33,801	23,110	56,911
Pension	14,696	14,171	28,867	14,873	13,956	28,829
Other employee benefit	-	13,773	13,773	-	13,364	13,364
Remuneration of directors	229	808	1,037	145	447	592
	$ 422,700	$ 336,505	$ 759,205	$ 429,653	$ 318,543	$ 748,196
Depreciation expense	$ 229,385	$ 82,378	$ 311,763	$ 238,278	$ 56,126	$ 294,404
	$ 652,085	$ 418,883	$ 1,070,968	$ 667,931	$ 374,669	$ 1,042,600

Note 1: As of December 31, 2019 and 2018, the number of employees was 991 and 1,021 people with 7 and 8 directors not included in the employees, respectively.

Note 2: Information should be disclosed:

a. The average of employee benefit is $757,424 in the current year.
The average of employee benefit is $725,402 in the previous year.

b. The average of salaries is $669,722 in the current year.
The average of salaries is $640,177 in the previous year.

c. Change in the average of salaries adjustment rates is 5 %.