Stock Code: 5483

Sino-American Silicon Products Inc.

2018 Annual Report

Issue Date: May 15, 2019

Information website: http://mops.twse.com.tw

I. Spokesperson of the Company

Name: C.W. Lee
Title: Vice President of Corporate Development
Tel: 886-3-577-2233
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Acting Spokesperson

Name: Pei-yi Chen
Title: Sales Assistant VP
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E-mail: JenniferChen@saswafer.com

II. Address and Telephone Number of The Company Headquarter, Subsidiaries, and Plants

Headquarters and Plant
Address: 4F, No.8, Industrial East Road 2, Science Based Industrial Park, Hsinchu, Taiwan, R.O.C.
Tel: 886-3-577-2233
Fax: 886-3-578-1706

Chunan Branch and Plant
Address: No. 6, Kechong Road, Chunan Town, Miaoli County, Hsinchu Science Industrial Park
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Fax: 886-37-580-206

Yilan Branch and Plant
Address: No. 1, Section 2, Ligong First Road, Wujie Township, Yilan County
Tel: 886-3-990-5511
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Subsidiaries and Plants
Name: GlobalWafers Co., Ltd.
Address: No. 8, Industrial East Road 2, Science Based Industrial Park, Hsinchu, Taiwan, R.O.C.
Tel: 886-3-577-2255
Fax: 866-3-578-1706

III. Stock Transfer Agency

Name: Stock Agency Department of Yuanta Securities Co., Ltd.
Address: B1, No. 210, Section 3, Chengde Road, Taipei City
Tel: 886-2-2586-5859
Website: http://www.yuanta.com.tw

IV. External Auditor

Name of Accounting FiSrm: KPMG Taiwan
Name of CPAs: Cheng-Chien Chen, An-Chih Cheng
Address: 68F, No. 7, Sec. 5, Hsinyi Rd., Taipei, Taiwan
Tel: 886-2-8101-6666
Website: http://www.kpmg.com

V. Global Depositary Receipt (GDR) Agency

Luxembourg Stock Exchange

Method of inquiring about overseas securities information

http://www.bourse.lu

VI. Company Website

http://www.saswafer.com

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I. Letter to Shareholders

Dear Shareholders,

Thank you for attending the 2019 Shareholders' Meeting of Sino-American Silicon Products Inc. and for your support and love for the Company.

In 2018, affected by the new solar power subsidy program in the Chinese mainland and the China-US trade war, the previously weak solar power industry was even more depressed. In the face of the market demand decline, the drop in both prices and volume and other influences, the domestic solar power dealers were confronted with severe challenges. They tried to enhance their operation by reducing production or even cutting staff. In response to market conditions, adjusting production capacity, reducing inventory and adjusting product mix, the Company carried out appropriate human resources allocation policies to reduce operating risks. In 2018, with the efforts of all colleagues and supplemented by the performance of the subsidiary GlobalWafers Group, the operation of Sino-American Silicon Products Inc. was better than that of other peers, and the revenue and profits reached a record high. The Group's consolidated revenue for 2018 reached NT$ 69,238,950,000, increasing by 16.6% compared to NT$ 59,371,200,000 of the previous year; the net profit after tax attributable to the parent company was NT$ 1,950,500,000; and the after-tax earnings per share was of NT$ 3.36.

The operating results in 2018 and the business plan in 2019 are reported as follows:

I. Operation Performance in 2018

(I) Operation Performance

NT$ in thousands

Item \ Year	2018 (IFRSs)	2017 (IFRSs)	Percent Change (%)
Revenue	69,238,945	59,371,198	17
Operating Costs	50,597,092	47,967,962	5
Gross Profit	18,641,853	11,403,236	63
Operating Expenses	5,464,348	5,078,234	8
Operating Income (loss)	13,177,505	6,325,002	108
Profit Before Tax (loss)	13,318,233	5,125,741	160
Net Income (loss)	8,635,480	3,518,628	145
Net Income (loss) attributable to the parent company	1,950,503	1,035,505	88

The year of 2018 was a turbulent year for the overall solar power industry. Due to

China's new policy on June 1st and the cancellation of European MIP in September, grid parity tended to be realized faster on the application side. As the subsidy was reduced and the overall demand for products turned to monocrystal, polycrystal plants reduced production, small and medium-sized manufacturers with no cost competitiveness withdrew one by one, and the global installed capacity was only about 98GW, 4% lower than 102GW in 2017. The solar power business of Sino-American Silicon Products Inc. continuously focused on the conversion efficiency improvement of efficient solar power products in 2018, strengthened cost control, eliminated noncompetitive products, improved financial quality, and actively and prudently selected customers and strategic alliances to improve operational efficiency and the Company's competitiveness. In the re-investment business, the Company also made outstanding achievements. The consolidated revenue of the semiconductor subsidiary GlobalWafers was NT$ 59,063,510,000, the net profit after tax attributable to the parent company was NT$ 13,630,670,000, and the earnings after tax per share was NT$ 31.18.

(II) Budget Implementation: No financial forecast for 2018.

(III) Financial Income and Expenditure and Profitability Analysis

Item			2018	2017
Financial structure	Debt to asset ratio (%)		53.92	51.00
	Long-term capital to property, plant and equipment (%)		197.21	162.82
Profitability analysis	Return on assets (%)		9.11	4.57
	Return on equity (%)		18.84	9.91
	Percentage in paid-up capital (%)	Operating profit	224.75	106.83
		Pre-tax net profit	227.15	86.57
	Net Profit Margin (%)		12.47	5.93
	EPS (NT$)		3.36	1.80

(IV) Financial Structure

2018 revenue is NT$ 69,238,945,000; operating cost is NT$ 50,597,092,000. Operating expense is NT$ 5,464,348,000. Non-business expenditure is NT$ 140,728,000. Net profit before tax is NT$ 13,318,233,000. Net profit after tax is NT$ 8,635,480,000. The financial structure is healthy.

(V) Research & Development

1. 2018 Research & Development Expenditure

NT$ in thousands

Item/Year	2018	2017
Research and Development Expenses	1,849,867	1,671,895
Sales Revenue	69,238,945	59,371,198
R&D expenses as a percentage of net revenue (%)	2.67	2.82

2. 2018 Achievement

Technology/Product

(1) DW solar multi-chip

(2) Ultra High Efficiency Mono-Si Solar Cell

3. Future Plan:

(1) Ultra High Efficiency P-Type Mono-Si Solar Cell

(2) Development of High Efficiency N-Type Mono-Si Solar Cell Technology

II. 2019 Business Plan

(I) Business Guideline

(1) Actively seek the blue ocean market, and use excellent materials and process technology to develop a niche application market.

(2) The Company is the leader in manufacturing and supplying of monocrystal PERC P-type cells, which will simplify product types and develop low-cost and high-efficiency cells to maintain market competitiveness.

(3) Strive to accelerate the development of a next generation of new products that are efficient and cost-effective.

(4) Utilize the Group's resources for vertical integration to expand the market and make profitable investment plans for power plants.

(II) Sales Forecast

As the price of solar modules decreases, the global demand for solar power grid parity will continue to grow. Pv info Link analysts estimate that global solar power demand will return to 114GW in 2019, and monocrystal high-efficiency products will become the mainstream trend. In view of this, the Company will continue to

maintain the leading edge of PERC monocrystal battery efficiency, closely grasp market trends and industrial fluctuations, adjust business strategies immediately, and develop the new generation of super-efficient products to enhance the Company's operation competitiveness.

(III) Production & Marketing Strategy

(1) Develop new customers and strengthen cooperation with non-Chinese market regions to improve their ability to respond to market changes.

(2) Strengthen R&D links with downstream customers, develop efficient niche products with core technological capabilities, increase the added value, and actively reduce manufacturing costs to increase profit margins.

(3) Explore the downstream system business, strengthen vertical integration and global layout, further expand the product market, and increase operating profit margin.

(IV) Future Strategy

(1) Make the technological breakthroughs in solar power silicon ingot and cells, and push launch the next generation of silicon ingot and cell products with high conversion.

(2) Build a solid competitive position through resource integration, cost reduction, and technology and product differentiation strategies.

(3) Actively give play to the strategic layout of solar power plants, develop new solar energy system investment partners, and create the Group's terminal market to obtain long-term stable returns.

(4) Establish a fully integrated supply chain in the upper, middle and lower reaches, spread operational risks through vertical integration and diversified business strategies, and become the world's provider of green energy solutions with leading technologies.

(V) Influences from External Competition, Regulations and Economy

(1) In response to a number of competitors and oversupply, the Company has accelerated the development of new customers and continued to develop new products with high cost effectiveness. At the same time, it accelerates the integration of downstream system power stations to strengthen the downstream market of the Group's products.

(2) In order to cope with the impact of oversupply in the market, which causes price drop of products, the Company will strengthen its R&D links with downstream customers and develop efficient niche products through core technology capabilities to increase the added value.

(3) Enhance confidentiality control and establish global core patent distribution strategy to improve international competitiveness and respond to market changes.

For the solar industry, 2019 is still a year full of uncertainties and challenges. Although the market survey institution PV-info Link estimates that the installed capacity in 2019 will be 114GW, the market is still unpredictable in the long run. In 2018, the solar industry was in a downturn, and it also entered the stage of industrial consolidation. It is expected that long-term development may be stable and sound. Sino-American Silicon Products Inc. will continue to develop in the direction of innovation, R&D, cost reduction and strength accumulation. It will continue to adjust its strategy in line with the market, and make vertical integration through the layout of solar power plants, so as to strengthen the overall efficiency of operation, expand its operation scale steadily, become a green enterprise with sustainable development and stable growth of revenue and profits, and continue to create more values for shareholders.

Finally, I would like to thank all shareholders for their long-term support and encouragement. I hope that all shareholders will continue to give the Company their love and support. On behalf of all our colleagues and the Board of Directors, I would like to express my sincere thanks.

I wish you good health and all the best.

Chairman Ming-Kuang Lu

President Hsiu-Lan Hsu

Chief Account Hsiu-Ling Hsu

II. Company Profile

I. Date of Incorporation:

January 21, 1981

II. Business:

CC01080 Electronic Parts and Components Manufacturing

IG03010 Energy Technical Services

F401010 International Trade

1. Develop, design, manufacturing and selling of the following products:
   - Semiconductor silicon materials and components
   - Varistor
   - Photoelectric and communication wafer material
2. The technical and management consulting services of the previous products.
3. Photoelectric power generation system integration and installation technology services.
4. Concurrently engaged in import and export related to our business.

III. Company History:

- January 1981: The Company was officially established.
- August 1982: Trial production of silicon monocrystal rod and silicon wafer was successful.
- March 1984: Dr. Dau Yen served as Chairman of the Board of Directors.
- April 1990: Cash capital increase to NT$ 300 million was formally approved.
- June 1991: The mass production of automobile rectifiers was successful and officially hit the market.
- September 1991: The Company became the first company in Taiwan who independently developed and completed the mass production of zinc oxide surge absorber, namely zinc oxide rheostat.
- December 1991: The monthly production of automotive rectifiers exceeded 2 million, second only to Motorola.
- July 1995: Cash increased to NT$ 400 million.
- October 1995: ISO-9002 certification granted
- February 1997: Phase IV plant renovation and new works were completed.
- November 1997: Ms. Sun Ling-ling served as Chairman of the Board.
- December 1997: Cash increased to NT$600 million.
- March 1998: The Company invested in Songlong Electronics Co., Ltd. to manufacture

surge absorbers.

- August 1998: The capital reserve converted into capital increase was NT$630 million.
- November 1998: The Company invested in Actron Technology Corporation.
- June 1999: QS-9000 certification granted
- October 1999: The Company invested in Chinese Mainland and set up Kunshan Sino Silicon Technology Co., Ltd.
- December 1999: Cash increased to NT$ 780 million.
- March 2000: The mass production of polished wafers was successful.
- September 2000: Chongchen completed the construction of the plant and began mass production.
- March 2001: Official listing and launching.
- October 2001: "Ultra-thin Wafer Processing Technology" won the Award of Research and Development Program of Innovative Technologies in Science Industrial Park.
- June 2002: "The High-efficiency Monocrystal Lifting Technology Development" Plan obtained the subsidy of Special Science and Technology Case of the Ministry of Economy.
- November 2002: The Company invested in Topsil Semiconductor Materials A/S in Denmark.
- December 2003: The eight-inch long crystal technology was successfully developed.
- June 2004: "The Development Plan of 2.5mohm-cm Monocrystal Substrate Material with Ultra-low Resistance and Heavy Arsenic Doped Silicon" won the Award of Research and Development Program of Innovative Technologies in Science Industrial Parks.
- July 2004: "The Large-size and High-efficiency Solar PV Silicon Monocrystal Substrate Material Development Plan" obtained the R&D Subsidy of Leading New Products of the Ministry of Economy.
- July 2004: "The Sino-American Silicon Products Inc. Innovation Technology Research and Development Center" was established.
- September 2004: "The High-power Power and Electronics Wafer Technology Development Plan" was awarded the Science and Technology Project of the Ministry of Economy.
- September 2004: ISO 14001 certification was passed.
- October 2004: The Company won the 12th Industrial Science and Technology Development Award.
- November 2004: "Blue Diode Sapphire Substrate Material Development Plan" won the Award of Research and Development Program of Innovative Technologies in Science Industrial Parks.

- April 2005: The research and development of thick film bonded wafer (SOI wafer) was successful.
- June 2005: Chunan Branch was established.
- July 2005: TS16949:2002 certification was passed.
- September 2005:"Deep Diffusion Polishing Wafer Development Plan" won the Award of Research and Development Program of Innovative Technologies in Science Industrial Parks.
- November 2005: Chunan Branch held the Beam Raising Ceremony.
- November 2005: Phase II expansion of Chongchen Plant was completed.
- May 2006: Trial production of Chunan Branch was successful.
- July 2006: The mass production of Chunan Branch officially started.
- October 2006: Opening ceremony of Chunan Branch.
- April 2007: Mr.Ming-Kuang Lu served as the Chairman of the Board.
- April 2008: Acquisition of 100% of stock equity of GlobiTech Incorporated from the US was completed.
- October 2008: The Company won the Outstanding Innovative Enterprise Award of the 16th "Industrial Science and Technology Development Award" of the Ministry of Economy.
- October 2009: The device of 100 MW Acquaviva 3 solar power plant was installed in Bari, Italy, via SilFab Spa, a reinvestment company.
- June 2010: The construction of Chunan No. 2 Plant was completed.
- September 2010:The Company won the Excellent Industry Contribution Award for the Implementation of Industry Science and Technology Program issued by the Ministry of Economy.
- November 2010: Solartech Energy Corp and SingTung Investment Ltd. Sinosolar Corp. joint venture in establishing Zhongyang PV Corporation
- February 2011: The certification of Taiwan Intelligent Property Management System (TIPS) was approved.
- October 2011: The company division plan of three major business divisions was completed; Sino-American Silicon Products Inc. retained solar energy business and newly established GlobalWafers for Semiconductor business and Sino Sapphire for Sapphire business.
- April 2012: GlobalWafers Co., Ltd., a subsidiary of Sino-American Silicon Products Inc., completed the acquisition of the semiconductor silicon wafer business division of Japanese company Covalent Materials Corporation.
- September 2012:Aegis® Wafer won the Solar Energy Industry Award/Silicon Material Innovation Award.

- January 2013: Sino Sapphire, a subsidiary of Sino-American Silicon Products Inc., was formally merged into Crystalwise Technology.
- February 2013: The further certification of Taiwan Intelligent Property Management System (TIPS) was passed.
- May 2013: Sino-American Silicon Products Inc. merged with Sinosolar Corporation, and integrated solar energy business resources.
- September 2013: Sino-American Silicon Products Inc. was awarded the title of Top 50 Taiwan's Listed Enterprises In Terms of Patent Value of the United States.
- August 2014: The mergers and acquisition of Sunrise Global Solar Energy Co., Ltd. was completed.
- April 2015: The certification of Occupational Safety and Health Management System OHSAS 18001 was passed.
- April 2015: The Company won the title of "Top 5% of TPEx Listed Companies" of the First Corporate Governance Appraisal.
- July 2015: Sino-American Silicon Products Inc. was engaged in solar system, and the construction of Palo Power Plant in Philippines started.
- March 2016: The ISO 9001:2015 certification of Chunan Plant was passed.
- March 2016: The ISO 14001:2015 certification of Chunan and Yilan plants was passed.
- April 2016: The Company won the title of "Top 5% of TPEx Listed Companies" of the Second Corporate Governance Appraisal.
- May 2016: The 50MW solar power plant built on Wright Island in the Philippines was officially commercialized.
- August 2016: The Company won Laudise Prize of the International Organization of Crystal Growth (IOCG).
- December 2016: President Hsiu-Lan Hsu won the Award of National Outstanding Executive Award of Business Managers Association.
- December 2016: The Company won the Golden Energy Award awarded by the Energy Bureau of the Ministry of Economy.
- February 2017: The subsidiary Sunrise PV World Co. won the Integration Output Award of Smart City Exhibition System in 2017.
- April 2017: The Company won the title of "Top 5% of TPEx Listed Companies" of the Third Corporate Governance Appraisal.
- April 2017: The Company won the National Invention and Creation Award in 2016.
- November 2017: The Company participated in the establishment of the Product Carbon Footprint Emission Coefficient Database of Environmental Protection Administration, Executive Yuan in 2017 and contributed a lot.
- November 2017: The Company won the Gold Award of Electronic and Information

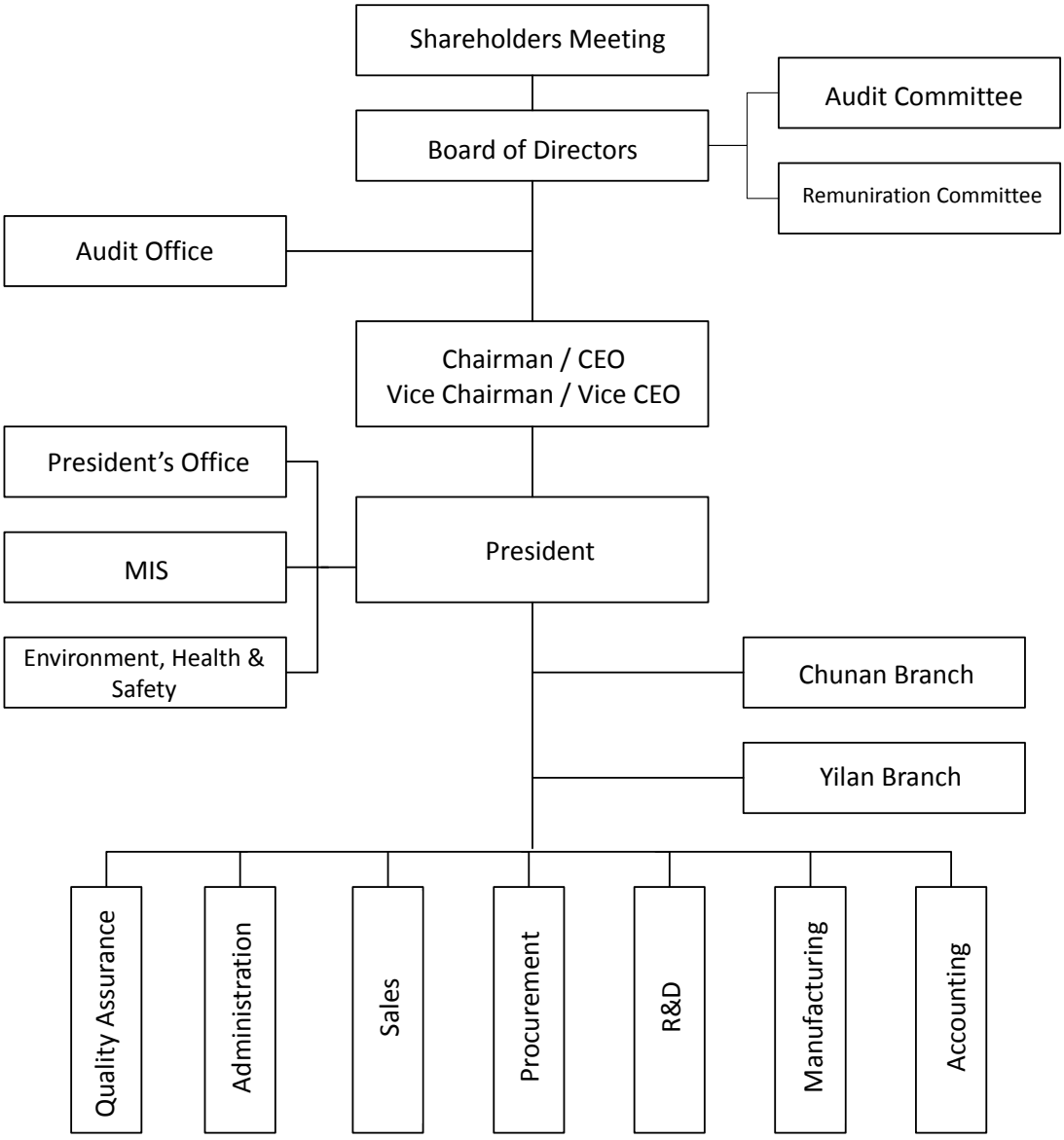
Manufacturing Industry Group of "Taiwan Company Sustainability Award (TCSA) in 2017".

- December 2017: The Company was selected as benchmark enterprise in Economic Daily's "Corporate Social Responsibility Yearbook in 2017".
- April 2018: The Company won the title of "Top 5% of TPEx Listed Companies" of the Fourth Corporate Governance Appraisal.
- April 2019: The Company won the title of "Top 5% of TPEx Listed Companies" of the Fifth Corporate Governance Appraisal.

III. Corporate Governance Report

I. Organization Structure

(I) Organization Chart



(II) Responsibilities of Major Departments

Department	Responsibilities
Chairman	- Set up business plans, strategies, and targets. - Execute resolutions from Board of Directors Meeting and Shareholder Meeting
Audit Office	- Inspect and assess the soundness, adequacy and effectiveness over the Company's internal control system. - Responsible for the execution, audit and reports over the internal controls.
President and President's Office	- Perform resolutions from meetings of Board of Directors. - Execution of management and projects - Define business plans and strategies - Ensure planned business targets achieved. - Evaluate and analyze business and management performance.
MIS	1. Maintain IT hardware & software 2. Plan and execute E-working
Environment, Health & Safety	Responsible for the formulation and management of the Company's occupational safety and health management norms and systems, identify and prevent accidents and disaster risks, promote the management, and improve the promotion of staff health and safety and other related business activities.
Quality Assurance	- Establish and maintain products standards and its relevant inspection standards. - Inspect on purchased materials, tools, production process, and finished products. - Perform product quality improvement activities.
Administration	1. Plan, recruit and train human resources, plan and perform annual training courses. 2. Legal related business, including compliance of laws and regulations, contracts and lawsuits
Accounting Dept.	Capital, taxation, asset management, finance and management accounting
Sales	1. Market strategy, explore potential market, customer communication and after service 2. Collect market information, customer service and product application, assist the R&D and promotion activities of new products.
Procurement	- Procure and purchase - Evaluate new suppliers. - Manage raw materials and suppliers.
R&D	- Research, develop, test new products. - Improve production technology, yield and capacity. - Collaborate with academic institutions. - Design and improve machineries.
Manufacturing	1. Manage production and quality, abnormity, utilization of raw materials, scrap, maintain work environment and security, human resource arrangement and training, expansion preparation and execution. 2. Construct and maintain plant facilities of the Company, and execute environmental safety, sanitary and industrial safety issues 3. -Evaluate and purchase new machineries and in charge of maintenance and improvement.

II. Information on the Company's Directors, Supervisors, President, Vice President, Assistant Vice President, and The Supervisors of All The Company's Divisions and Branch Units

(I) Directors and Supervisors

1. Directors' and Supervisors' Information

April 28, 2019 Unit: share; %

Title	Nationality or Place of Registration	Name	Gender	Date Elected	Duration	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding in Other Persons' Names		Principal Work Experiences and Academic Qualifications	Positions Held Concurrently in The Company and/or in Any Other Company	Other executives, Directors and supervisors who are spouses or within second-degree relative of consanguinity		
							Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio			Title	Name	Relation
Chairman	Republic of China	Ming-Kuang Lu	Male	June 27th, 2017	Three years	September 7th, 1998	11,600,000	2.00%	10,053,000	1.71%	2,001,685	0.34%	0	0	Honorary Doctor of Engineering of National Chiao Tung University/Academician of Industrial Technology Research Institute/President of Dunnan Science and Technology Corporation/President of Xuxing Science and Technology Corporation/Vice President of Xuli Corporation	Note 1	None	None	None
Vice Chairman	Republic of China	Tang-liang Yao	Male	June 27th, 2017	Three years	November 6th, 1998	1,800,395	0.31%	3,330,395	0.57%	14,413	0	0	0	Master of Management and Research Institute of Tamjiang University/Assistant Manager of Manufacturing Department of Xuxing Technology Corporation/President of the Company	Note 2	None	None	None
Director	Republic of China	Hsiu-Lan Hsu	Female	June 27th, 2017	Three years	September 7th, 1998	1,706,085	0.29%	2,971,085	0.51%	0	0	0	0	Master of Computer Science, University of	Note 3	None	None	None

Title	Nationality or Place of Registration	Name	Gender	Date Elected	Duration	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding in Other Persons' Names		Principal Work Experiences and Academic Qualifications	Positions Held Concurrently in The Company and/or in Any Other Company	Other executives, Directors and supervisors who are spouses or within second-degree relative of consanguinity		
							Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio			Title	Name	Relation
															Illinois/Executive Vice President of the Company				
Director	Republic of China	Wen-huei Tsai	Male	June 26th, 2014	Three years	June 8th, 2006	2,976,191	0.51%	3,006,191	0.51%	30,490	0.01%	0	0	Department of Accounting, National Chengchi University/Director of Hongdian Medical Science and Technology Corporation/Director of Xunjie Science and Technology Corporation	Note 4	None	None	None
Director	Republic of China	United Renewable Energy Co., Ltd. Representative: Chuan-hsien Hong	Male	June 27th, 2017 November 30th, 2018	Three years	June 27th, 2017 November 30th, 2018	21,860,379 0	3.77% 0	21,860,379 0	3.73% 0	0 0	0 0	0 0	0 0	Doctor of Electrical Engineering, Tsinghua University/Head of Solar Cell Research Group, Institute of Industry and Research/Vice President, Guanghua Amorphous Silicon Corporation	Note 5	None None	None None	None None
Director	Republic of China	Mao-Yang Co.,Ltd. Representative: Rong-kang Sun	Male	June 27th, 2017 June 27th, 2017	Three years Three years	June 13th, 2003 June 27th, 2017	3,333,639 0	0.57% 0	3,333,639 0	0.57% 0	0 0	0 0	0 0	0 0	Law Department, Chinese Culture University/President of Atomcinema Co., Ltd.	Note 6	None None	None None	None None
Director	Republic of China	Representatives of Kai-chiang Corporation: Hau Fang	Male	June 27th, 2017 June 27th, 2017	Three years Three years	June 26th, 2014 June 27th, 2017	2,000,000 0	0.34% 0	2,000,000 0	0.34% 0	0 0	0 0	0 0	0 0	Master of International Business Administration, National Political University/Bachelor of Business Administration, University of Arizona, USA/Vice President, Asia Carbons & Technology Inc.	Note 7	None None	None None	None None
Director	Republic of China	Representative of Kun-chang Investment Company: Yu-da Chang	Male	June 27th, 2017 June 27th, 2017	Three years Three years	June 17th, 2011 August 3rd, 2016	2,202,100 0	0.38% 0	2,202,100 0	0.38% 0	0 0	0 0	0 0	0 0	Finance Institute of Taiwan University/Vice President of Investment Department of Weilian Investment Co., Ltd.	Note 8	None None	None None	None None

Title	Nationality or Place of Registration	Name	Gender	Date Elected	Duration	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding in Other Persons' Names		Principal Work Experiences and Academic Qualifications	Positions Held Concurrently in The Company and/or in Any Other Company	Other executives, Directors and supervisors who are spouses or within second-degree relative of consanguinity		
							Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio			Title	Name	Relation
Director	Republic of China	Kun-chang of Hung-mau Investment Company Representative: Chu-wang Chen	Male	June 27th, 2017 November 1st, 2018	Three years	June 27th, 2017 November 1st, 2018	10,425,000 0	1.80% 0	10,425,000 0	1.78% 0	0 0	0 0	0 0	0 0	Bachelor of Engineering from the University of California, Berkeley/President in Greater China of Wilson Electronics Group/Special Assistant of Chairman of Wilson Group	Note 9	None None	None None	None None
Independent Director	Republic of China	Ting-ko Chen	Male	June 27th, 2017	Three years	June 17th, 2011	0	0	0	0	0	0	0	0	Doctor of Business Administration, University of Michigan, USA/General Consultant of Ruentex Group/President of Bubee New York Company/Vice President of Formosa Plastics J-M/Chairman of SinoPac Securities/Professor, Director and President of Business Research Institute of Department of Business Studies, Taiwan University (the current School of Management)/Dean and Professor of School of Management, Tamkang University/Dean and Chair Professor of School of Management, Asian University	Note 10	None	None	None
Independent Director	Republic of China	Shing-hsien Lin	Male	June 27th, 2017	Three years	June 26th, 2014	0	0	0	0	0	0	0	0	Master of Business from Tulane University/Bachelor of Electronic Physics from National Chiao Tung	Note 11	None	None	None

Title	Nationality or Place of Registration	Name	Gender	Date Elected	Duration	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Shareholding		Shareholding in Other Persons' Names		Principal Work Experiences and Academic Qualifications	Positions Held Concurrently in The Company and/or in Any Other Company	Other executives, Directors and supervisors who are spouses or within second-degree relative of consanguinity		
							Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio			Title	Name	Relation
															University/President of Gounbot Technology Co., Ltd. and Vice Chairman of Gounbot Group/CEO of Gounbot Technology Co., Ltd. /President of Xuli Corporation/President of Taiwan Branch of Texas Instruments				
Independent Director	Republic of China	Mong-hua Huang	Female	June 27th, 2017	Three years	June 17th, 2011	0	0	0	0	0	0	0	0	Master of Business, Tulane University/President of Leotek Electronics Corporation/Manager of Taiwan Branch of Texas Instruments/Director of Accounting Department of Taiwan Branch of Texas Instruments/Director of President Room of Silitek Corporation (Vice President)/General Auditor of LITEON Group (Vice President)/Senior Vice President of LITEON Science and Technology/Member of Taiwan Olympic Education Committee	Note 12	None	None	None

Note 1: At present, he is also the Chairman and CEO of Actron Technology Corporation, Legal Person, Director and Representative of GlobalWafers Co., Ltd., Chairman of Formerica OptoElectronics Inc., Legal Person, Chairman and Representative of Sino Silicon Technology Inc., Legal Person, Director and Representative of SAS Sunrise Inc., Legal Person, Director and Representative of SAS Sunrise Pte. Ltd. Legal Person, Chairman and Representative of Sunrise PV World Co. Corporation, Director of GlobiTech Incorporated, Director of GlobalWafers Japan Co., Ltd., and Director of GWafers Singapore Pte.Ltd.

Note 2: At present, he is concurrently Legal Person, Director and Representative of GlobalWafers Co., Ltd., Legal Person, Director and Representative of Actron Technology Corporation, Chairman and CEO of Crystalwise Corporation, Director of Songlong Electronics Corporation, Director of Yuanhong (Shandong) Photoelectric Material Co., Ltd., Director of Shanghai Zhaoye Shenkai Electronic Material Co., Ltd., Director of SY Company LLC, Legal Person, Director and Representative of SAS Sunrise Pte., Corporation Legal Person, Supervisor and Representative of Sunrise PV World Co. (Stock), Legal Person, Director and Representative of Sunrise PV Three Co., Ltd., Legal Person, Director and Representative of Sunrise PV Four Co., Ltd., Legal Person, Director and Representative of Sunrise PV Electric Power Two, Legal Person, Director and Representative of Taiwan Speciality Chemicals Corporation, Director of GlobiTech Incorporated, Director of GlobalWafers Japan Co., Ltd, Chairman of Kunshan Sino Silicon Technology Co., Ltd., and Director of GWafers Singapore Pte. Ltd.

Note 3: At present, she is also Chairman and CEO of GlobalWafers Co., Ltd., Director of Crystalwise Corporation, Legal Person, Director and Representative of SAS Sunrise Inc., Legal Person, Director and Representative of SAS Sunrise Pte. Ltd., Supervisor of Sunrise PV One Co., Ltd., Supervisor Representative of Cathy Sunrise One Co., Ltd., Legal Person and Supervisor Representative of Cathy Sunrise Two Co., Ltd., Legal Person and Supervisor of Cathy Sunrise Electric Power One, Cathy Sunrise Electric Power Two legal person supervisor representative, Legal Person, Director and Representative of Sunrise PV World Co., Legal Person, Director and Representative of Sunrise PV Three Co., Ltd., Legal Person, Director and Representative of Sunrise PV Four Co., Ltd., Legal Person, Director and Representative of Sunrise PV Electric Power Two, Legal Person, Chairman and Representative of Taiwan Speciality Chemicals Corporation, Director of GlobalWafers Inc., Director of GlobalSemiconductor Inc., Chairman and CEO of Director of GlobiTech Incorporated, Director of GlobiTech Incorporated, Chairman of GlobalWafers Japan Co., Ltd., Vice Chairman of Kunshan Sino Silicon Technology Co., Ltd., Director of Shanghai GROWFAST Semiconductor Technology Co. Ltd., Chairman of Topsil GlobalWafers A/S, Director of GWafers Singapore Pte., Director of GlobalWafers Singapore Pte., Director of GlobalWafers B.V., Chairman of MEMC Japan Limited, Legal Person, Chairman and Representative of Sino-German Electronic Materials Corporation and Director of MEMC Korea Company

Note 4: At present, he is concurrently Director of Xunjie Technology Corporation and Director of Hongjie Technology Corporation.

Note 5: At present, he is concurrently Chairman of United Renewable Energy Co., Ltd., Chairman of Yongwang Energy Corporation, Chairman of Gaoxu Energy Corporation, Chairman of New Sunlight System Development Corporation, Chairman of Zhongyang Photoelectricity Corporation and Chairman of Xier Corporation.

Note 6: At present, he is concurrently Chairman of Yuanjie Investment Corporation, Chairman of Zhulu Applied Materials Corporation and President of Yucheng Technology Corporation.

Note 7: At present, he is concurrently Deputy Director of Actron Technology Corporation and Vice President of TUM Inc.

Note 8: At present, he is concurrently Vice President of Investment Department of Weilian Technology Corporation, Legal, Director and Representative of Jianda International Corporation, Independent Director of Ledlink Optics, Inc., Legal Person, Director and Representative of Neweb Technology Corporation, Legal Person, Director and Representative of Renren Broadcasting Corporation, Chairman (Legal Representative) of corporate director of COMHERE Inc., and Legal Person, Director and Representative of Intumit Corporation.

Note 9: At present, he is concurrently Special Assistant to Chairman of VIA Technologies Corporation, Legal Person, Director and Representative of Weishengxin Technology Corporation, Legal Person, Director and Representative of VIA Labs, Inc, Chairman of the CatchPlay International Corporation, President of Taiwan Branch of British Cayman Islands CatchPlay International Entertainment Corporation, Director of Taiwan Weiya Digital Technology Corporation, President of Taiwan Branch of British Virgin Islands Weiya Digital Entertainment Corporation and Director of Edisons Corporation.

Note 10: At present, he is concurrently Chairman of Public Welfare of Academic Education Foundation of the Chinese Enterprise Research Institute, Convening Member of Salary Committee/Independent Director of Nanqiao Chemical Industry Corporation, Convening Member of Salary Committee/Independent Director of Shengyi Chemical Industry Corporation, and Member of Salary Committee of Longbang International Enterprise Corporation.

Note 11: At present, he is concurrently Independent Director of Rafael Micro Corporation and Chairman of Lin Zhongyu Cultural and Educational Foundation.

Note 12: At present, he is concurrently Vice CEO of Enci Social Welfare Foundation, Independent Director of Young Tek Electronics Corp., Supervisor of Fanrong Social Enterprise Corporation and Supervisor of Formerica OptoElectronics Inc.

Note 13: On November 1st, 2018, Hung-mau Investment Company reassigned Mr. Chu-wang Chen as Director Representative.

Note 14: On November 30th, 2018, United Renewable Energy Co., Ltd. reassigned Mr. Chuan-hsien Hong as Director Representative.

Note 15: On December 28th, 2018, CDIB Venture Capital Corp. resigned.

2. Major shareholders of the institutional shareholders:

(1) Major shareholders of the institutional shareholders

April 28, 2019

Name of Institutional Shareholders	Major shareholders of the institutional shareholders
United Renewable Energy Co., Ltd.	National Development Fund, Executive Yuan (6.64%), Administration Committee of Yaohua Glass Co., Ltd. (6.64%), Delta Electronics Industry Co., Ltd. (5.85%), Special Account for Investment of JP Morgan Securities Co., Ltd. managed by Taipei Branch of JPMorgan Chase Bank (1.47%), Advanced Comprehensive International Stock Index of Advanced Starlight managed by JP Morgan (1.32%), VANGUARD EMERGING MARKETS STOCK INDEX FUND A SERIES OF VANGUARD INTERNATIONAL EQUITY INDEX FUNDS (1.09%), Special Account for Investment of Norway Central Bank managed by Taipei Branch of JPMorgan Chase Bank (1.09%), Fubon Life Insurance Co., Ltd. (0.91%) and Special Account for Investment of Core Securities of DFA Emerging Market managed by Citigroup (0.89%).
Mao-Yang Co.,Ltd.	Zhang Fengming (76.66%), ThongLo Corporation (16.24%), Xu Xuhua (4.96%), Merle Co. (1.42%), Zhang Xining (0.36%) and Zhang Anshi (0.36%).
Kai-chiang Company	Sun Lingling (83%), Fang Kai-chiang (5%), Fang Hao (7%) and Fang Hua (5%)
Kun-chang Investment Company	Christian Chinese Trust, Hope and Love Foundation (19.90%), Cross-Strait Peace Taiwan Trust, Hope and Love Culture and Education Foundation (19.90%), Social Welfare Charitable Trust Social Welfare Foundation (19.90%) and Weisheng Trust, Hope and Love Charity Foundation (19.90%).
Hung-mau Investment Company	Christian Chinese Trust, Hope and Love Foundation (19.90%), Cross-Strait Peace Taiwan Trust, Hope and Love Culture and Education Foundation (19.90%), Social Welfare Charitable Trust Social Welfare Foundation (19.90%) and Weisheng Trust, Hope and Love Charity Foundation (19.90%).

(2) Major Shareholder(s) to the Company Listed in The Right Hand Column of The Above Table

April 28, 2019

Name of Institutional Shareholder	Major Shareholders of Institutional Shareholders
Delta Electronics Industry Co., Ltd.	Hong Kong Xiangda International Limited (10.30%), British Jersey Yingda Holdings Limited (8.40%), Special Account for Investment of Singapore Government managed by Citigroup (3.30%), Zheng Chonghua (3.15%), Special Account for Investment of Scotland Royal FS Pacific Leadership Fund managed by Deutsche Bank (2.61%), New Labor Retirement Fund (2.30%), Zheng Ping (2.12%), Zheng An (1.93%), Nanshan Life Insurance Corporation (1.76%), and Worker Insurance Fund (1.64%)
ThongLo Corporation	Zhang Fengming (88.50%), Xu Xuhua (7.12%), Mao-Yang Co.,Ltd. (4.00%), Zhang Xining (0.19%) and Zhang Anshi (0.19%)

3. Information of directors and supervisors

Conditions (Note 1) / Name	Meet one of the following professional qualification requirements, together with at least five years work experience			Compliance with independence criteria (Note 1)										Selected current positions/number of other public companies concurrently serving as an independent director
	An instructor or 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 or private junior college, College or University	A judge, public prosecutor, attorney, certified public accountant 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	Work experience in the area of commerce, law, finance, or accounting, or otherwise necessary for the business of the company	1	2	3	4	5	6	7	8	9	10	
Director														
Ming-Kuang Lu			✓					✓		✓	✓	✓	✓	None
Tang-liang Yao			✓			✓	✓	✓	✓	✓	✓	✓	✓	None
Hsiu-Lan Hsu			✓			✓	✓	✓	✓	✓	✓	✓	✓	None
Wen-huei Tsai			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	None
United Renewable Energy Co., Ltd. Representative: Chuan-hsien Hong			✓	✓	✓	✓	✓			✓	✓	✓		None
Mao-Yang Co.,Ltd. Representative: Rong-kang Sun			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		None
Kai-chiang Company Representative: Fang Hao			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		None
Kun-chang Investment Company Representative: Yu-da Chang			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		None
Hung-mau Investment Company Representative: Chu-wang Chen			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		None
Independent Director														
Ting-ko Chen	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	2
Shing-hsien Lin			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1
Mong-hua Huang			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1

Note 1: A "√" is marked in the space beneath a condition number when a director or supervisor has met that condition during the two years prior to election and during his or her period of service; the conditions are as follows.

(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. The same does not apply, however, in cases where the person is an independent director of the Company, its parent Company, or any subsidiary in which the Company holds, directly or

(3) The director, or his or her spouse or minor child, does not hold, in his or her own name or in another name, more than 1% of the company's total issued shares, nor is one of the company's top ten natural-person shareholders.

(4) Not a spouse, relative within the second degree of kinship, or lineal relative within the

fifth degree of kinship, of any of the persons in the preceding three subparagraphs.

(5) Not a director, supervisor, or employee of a institutional shareholder that directly holds 5% or more of the total number of issued shares of the Company or that holds shares ranking in the top five in holdings.

(6) Not a director, supervisor, officer, or shareholder holding 5% or more of the shares, of a specified Company or institution that has a financial or business relationship with the Company.

(7) Not a professional individual who is an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that provides commercial, legal, financial, accounting services or consultation to the Company or to any affiliate of the Company, or a spouse thereof.

(8) Not a spouse or relative within the second degree of kinship of any other director of the Company.

(9) Not a person of any conditions defined in Article 30 of the Company Act.

(10) Not elected with the conditions of government, juristic person or its representative defined in Article 27 of the Company Act.

(II) Information on the Company's President, Vice President, Assistant Vice President, and the supervisors of all the Company's Divisions and Branch Units as follows

April 30, 2019 Unit: Share; %

Title (Note 1)	Nationality	Name	Gender	Date Elected	Current Shareholding		Spouse & Minor Shareholding		Shareholding in Other Persons' Names		Principal Work Experiences and Academic Qualifications (Note 2)	Positions Held Concurrently in The Company and/or in Any Other Company	Other executives, Directors and supervisors who are spouses or within second-degree relative of consanguinity		
					Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio			Title	Name	Relationship
CEO	Republic of China	Ming-Kuang Lu	Male	April 2nd, 2007	10,053,000	1.71%	2,001,685	0.34%	0	0	Honorary Doctor of Engineering of National Chiao Tung University/Academician of Industrial Technology Research Institute/Vice President of Gounbot Affiliated Enterprise Group	Note 1	None	None	None
Vice CEO	Republic of China	Tang-liang Yao	Male	October 1st, 1998	3,330,395	0.57%	14,413	0	0	0	Master of Management and Research Institute of Tamjiang University/Assistant Manager of Manufacturing Department of Xuxing Technology Corporation/President of the Company	Note 2	None	None	None
President	Republic of China	Hsiu-Lan Hsu	Female	February 1st, 2008	2,971,085	0.51%	0	0	0	0	Master of Computer Science, University of Illinois/President of Creative Sensors Inc. and Vice President of the Company	Note 3	None	None	None
Executive Vice President Manager	Republic of China	Hau-chun Shih	Male	August 1st, 2014	293,000	0.05%	0	0	0	0	Engineering Science Department of National Cheng Kung University/Vice President of SIBOND Science and Technology Manufacturing Center/Senior Vice President of Sunrise Global Solar Energy Co., Ltd.	None	None	None	None
Vice President of Marketing	Republic of China	Yu-tse Lin	Male	October 1st, 2005	130,369	0.02%	0	0	0	0	Master of Institute of Mining, Metallurgy and Materials, National Cheng Kung University/Deputy Director, General Manufacturing Department, Taiwan	Note 4	None	None	None
Vice President of Enterprise Development	Republic of China	C.W. Lee	Male	March 21st, 2017	60,000	0.01%	0	0	0	0	Master of Business Administration, Meiji University, Japan/Executive Vice President and President of Covalent Materials Taiwan/Associate of MITSUI & CO. (Taiwan), LTD.	Note 5	None	None	None
R&D Chief	Indonesia	BUDI TJAHJONO	Male	August 9, 2016	300,000	0.05%	0	0	0	0	Doctor of New South Wales University, Australia/CTO of Sunrise Global Solar Energy Co., Ltd.	None	None	None	None
R&D Center Chief	Republic of China	Chien-hong Liu	Male	August 1st, 2017	38,925	0.01%	0	0	0	0	Department of Mathematics, Chung Yuan Christian University/Factory Director of Sunrise Global Solar Energy Co., Ltd.	None	None	None	None
Sales Assistant VP	Republic of China	Pei-yi Chen	Female	August 1st, 2017	214,035	0.04%	0	0	0	0	Department of Geopolitics, National Chengchi University/Director of Business of Sunrise Global Solar Energy Co., Ltd.	None	None	None	None
Accounting Department Chief	Republic of China	Hsiu-Ling Hsu	Female	March 23, 2018	0	0	0	0	0	0	Enterprise Management Research Institute of Taipei University/Director of PwC Taiwan/Accounting Manager of Sunrise Global Solar Energy Co., Ltd./Accounting Manager of GlobalWafers Co., Ltd.	None	None	None	None

Note 1: At present, he is also the Chairman and CEO of Actron Technology Corporation, Legal Person, Director and Representative of GlobalWafers Co., Ltd., Chairman of Formerica OptoElectronics Inc., Legal Person, Chairman and Representative of Sino Silicon Technology Inc., Legal Person, Director and Representative of SAS Sunrise Inc., Legal Person, Director and Representative of SAS Sunrise Pte. Ltd. Legal Person, Chairman and Representative of Sunrise PV World Co., Director of GlobiTech Incorporated, Director of GlobalWafers Japan Co., Ltd., and Director of GWafers Singapore Pte.Ltd.

Note 2: At present, he is concurrently Legal Person, Director and Representative of GlobalWafers Co., Ltd., Legal Person, Director and Representative of Actron Technology Corporation, Chairman and CEO of Crystalwise Corporation, Director of Songlong Electronics Corporation, Director of Yuanhong (Shandong) Photoelectric Material Co., Ltd., Director of Shanghai Zhaoye Shenkai Electronic Material Co., Ltd., Director of SY Company LLC, Legal Person, Director and Representative of SAS Sunrise Pte., Corporation Legal Person, Supervisor and Representative of Sunrise PV World Co. (Stock), Legal Person, Director and Representative of Sunrise PV Three Co., Ltd., Legal Person, Director and Representative of Sunrise PV Four Co., Ltd., Legal Person, Director and Representative of Sunrise PV Electric Power Two, Legal Person, Director and Representative of Taiwan Speciality Chemicals Corporation, Director of GlobiTech Incorporated, Director of GlobalWafers Japan Co., Ltd, Chairman of Kunshan Sino Silicon Technology Co., Ltd., and Director of GWafers Singapore Pte. Ltd.

Note 3: At present, she is also Chairman and CEO of GlobalWafers Co., Ltd., Director of Crystalwise Corporation, Legal Person, Director and Representative of SAS Sunrise Inc., Legal Person, Director and Representative of SAS Sunrise Pte. Ltd., Supervisor of Sunrise PV One Co., Ltd., Supervisor Representative of Cathy Sunrise One Co., Ltd., Legal Person and Supervisor Representative of Cathy Sunrise Two Co., Ltd., Legal Person and Supervisor of Cathy Sunrise Electric Power One, Cathy Sunrise Electric Power Two legal person supervisor representative, Legal Person, Director and Representative of Sunrise PV World Co., Legal Person, Director and Representative of Sunrise PV Three Co., Ltd., Legal Person, Director and Representative of Sunrise PV Four Co., Ltd., Legal Person, Director and Representative of Sunrise PV Electric Power Two, Legal Person, Chairman and Representative of Taiwan Speciality Chemicals Corporation, Director of GlobalWafers Inc., Director of GlobalSemiconductor Inc., Chairman and CEO of Director of GlobiTech Incorporated, Director of GlobiTech Incorporated, Chairman of GlobalWafers Japan Co., Ltd., Vice Chairman of Kunshan Sino Silicon Technology Co., Ltd., Director of Shanghai GROWFAST Semiconductor Technology Co. Ltd., Chairman of Topsil GlobalWafers A/S, Director of GWafers Singapore Pte., Director of GlobalWafers Singapore Pte., Director of GlobalWafers B.V., Chairman of MEMC Japan Limited, Legal Person, Chairman and Representative of Sino-German Electronic Materials Corporation and Director of MEMC Korea Company

Note 4: At present, he is concurrently Legal Person, Director and Representative of Zhenmeijing Energy Corporation.

Note 5: At present, he is concurrently Vice President of Corporate Development of GlobalWafers Co., Ltd..

(III) Compensation Paid to CEO, President and Vice Presidents

1. Remuneration Paid to Directors (Independent Directors included): 2018

December 31, 2018 Unit: NT$ thousands

Title	Name	Remuneration								Ratio of Total Remuneration (A+B+C+D) to Net Income (%		Relevant Remuneration Received by Directors Who are Also Employees								Ratio of Total Compensation (A+B+C+D+E+F+G) to Net Income (%)		Compensation Paid to Directors from an Invested Company Other than the Company's Subsidiary
		Base Compensation (A)		Severance Pay (B)		Bonus to Directors (C)		Allowances (D)				Salary, Bonuses, and Allowances (E)		Severance Pay (F)		Profit Sharing- Employee Bonus (G)						
																The company		Companies in the consolidated financial statements				
		The company	All companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	Cash	Stock	Cash	Stock	The company	Companies in the consolidated financial statements	
Director	Ming-Kuang Lu	24,760	24,760	0	0	44,010	58,717	345	445	3.54.%	4.30%	7,112	10,564	0	0	21,000	0	71,000	0	4.98%	8.48%	None
Director	Tang-liang Yao																					
Director	Hsiu-Lan Hsu																					
Director	Wen-huei Tsai																					
Director	United Renewable Energy Co., Ltd. Representative: Chuan-hsien Hong Representative: Liu Kangxin (Note 1)																					
Director	Kai-chiang Company Representative: Hau Fang																					
Director	Mao-Yang Co.,Ltd. Representative: Rong-kang Sun																					

Director	Representative of Kun-chang Investment Company: Yu-da Chang																				
Director	Hung-mau Investment Company Representative: Chu-wang Chen Representative: Lu Xuezhong (Note 2)																				
Director	CDIB Venture Capital Corp. Representative: He Junhui (Note 3)																				
Independent Director	Ting-ko Chen																				
Independent Director	Shing-hsien Lin																				
Independent Director	Mong-hua Huang																				
* Apart from above disclosure, compensation paid to directors who provide service in all companies in the consolidated financial statements (such as being consultant): NA																					

Note: 1. On November 30, 2018, United Renewable Energy Co., Ltd. reassigned Mr. Chuan-hsien Hong as Representative.

2. On November 1, 2018, Hung-mau Investment Company reassigned Mr. Chu-wang Chen as Representative.

3. On December 28, 2018, CDIB Venture Capital Corp. resigned.

Remuneration Paid to Directors

Remuneration Paid to Directors	Name of Directors			
	Total Remuneration (A+B+C+D)		Total Compensation (A+B+C+D+E+F+G)	
	The Company	Companies in the consolidated financial statements	The Company	Companies in the consolidated financial statements
Under NT$ 2,000,000	Ting-ko Chen, Shing-hsien Lin and Mong-hua Huang	Ting-ko Chen, Shing-hsien Lin and Mong-hua Huang	Ting-ko Chen, Shing-hsien Lin and Mong-hua Huang	Ting-ko Chen, Shing-hsien Lin and Mong-hua Huang
NT$ 2,000,000 ~ NT$ 4,999,999	Hsiu-Lan Hsu, Wen-huei Tsai, Chuan-hsien Hong, Representative of United Renewable Energy Co., Ltd., Hau Fang, Kai-chiang Company, Rong-kang Sun, Mao-Yang Co.,Ltd., Yu-da Chang, Kun-chang Investment Company, Chu-wang Chen, Hung-mau Investment Company, and He Junhui, CDIB Venture Capital Corp.	Wen-huei Tsai, Chuan-hsien Hong, Representative of United Renewable Energy Co., Ltd., Hau Fang, Kai-chiang Company, Rong-kang Sun, Mao-Yang Co.,Ltd., Yu-da Chang, Kun-chang Investment Company, Chu-wang Chen, Hung-mau Investment Company, and He Junhui, CDIB Venture Capital Corp.	Wen-huei Tsai, Chuan-hsien Hong, Representative of United Renewable Energy Co., Ltd., Hau Fang, Kai-chiang Company, Rong-kang Sun, Mao-Yang Co.,Ltd., Yu-da Chang, Kun-chang Investment Company, Chu-wang Chen, Hung-mau Investment Company, and He Junhui, CDIB Venture Capital Corp.	Wen-huei Tsai, Chuan-hsien Hong, Representative of United Renewable Energy Co., Ltd., Hau Fang, Kai-chiang Company, Rong-kang Sun, Mao-Yang Co.,Ltd., Yu-da Chang, Kun-chang Investment Company, Chu-wang Chen, Hung-mau Investment Company, and He Junhui, CDIB Venture Capital Corp.
NT$ 5,000,000 ~ NT$ 9,999,999	—	—	—	—
NT$ 10,000,000 ~ NT$ 14,999,999	—	—	Hsiu-Lan Hsu	—
NT$ 15,000,000 ~ NT$ 29,999,999	Ming-Kuang Lu and Tang-liang Yao	Ming-Kuang Lu, Tang-liang Yao and Hsiu-Lan Hsu	Ming-Kuang Lu and Tang-liang Yao	Ming-Kuang Lu and Tang-liang Yao
NT$ 30,000,000~ NT$ 49,999,999	—	—	—	—
NT$ 50,000,000 ~ NT$ 99,999,999	—	—	—	Hsiu-Lan Hsu
More than NT$ 100,000,000	—	—	—	—
Total	13	13	13	13

2. Remuneration of supervisors: The Company has changed its Audit Committee, so there is no remuneration of supervisors.

3. Remuneration of President and Vice President

December 31, 2018 Unit: NT$ thousands

Title	Name	Salary (A)		Severance Pay (B)		Bonuses and Allowances (C)		Profit Sharing- Employee Bonus (D)				Ratio of total compensation (A+B+C+D) to net income (%)		Compensation Paid to Directors from an Invested Company Other than the Company's Subsidiary
								The Company		Companies in the consolidated financial statements				
		The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements	Cash	Stock	Cash	Stock	The company	Companies in the consolidated financial statements	
CEO	Ming-Kuang Lu	18,827	22,138	313	313	2,876	3,326	25,400	0	76,900	0	2.43%	5.26%	None
Vice CEO	Tang-liang Yao													
President	Hsiu-Lan Hsu													
Vice President	Yu-tse Lin													
Executive Vice President	Hau-chun Shih													
Vice President	C.W. Lee													
R&D Chief	BUDI TJAHJONO													

Note: 1. The actual amount of Severance Pay paid in 2018: NT$ 0.

2. The amount of withdrawal or funding of Severance Pay: NT$ 313 thousand.

Range of Remuneration

Range of Remuneration of Presidents and Vice President of the Company	Name of Presidents and Vice President	
	The Company	Companies in the consolidated financial statements
Under NT$ 2,000,000	-	-
NT$ 2,000,000~ NT$ 4,999,999	C.W. Lee and Yu-tse Lin	C.W. Lee and Yu-tse Lin
NT$ 5,000,000~ NT$ 9,999,999	Ming-Kuang Lu, Tang-liang Yao and Hsiu-Lan Hsu Hau-chun Shih and BUDI TJAHJONO	Ming-Kuang Lu and Tang-liang Yao Hau-chun Shih and BUDI TJAHJONO
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	—	Hsiu-Lan Hsu
More than NT$ 100,000,000	—	—
Total	7	7

4. Employee Profit Sharing Granted to Management Team

December 31, 2018 Unit: NT$ thousands

	Title	Name	Employee Bonus - in Stock	Employee Bonus - in Cash	Total	Ratio of Total Amount to Net Income (%)
Manager	CEO	Ming-Kuang Lu	0	30,000	0	1.54%
	Vice CEO	Tang-liang Yao				
	President	Hsiu-Lan Hsu				
	Vice President of Marketing	Yu-tse Lin				
	Execution Vice President	Hau-chun Shih				
	Vice President	C.W. Lee				
	R&D Chief	BUDI TJAHJONO				
	Sales Assistant VP	Pei-yi Chen				
	Chief of R&D Department of Yilan Branch	Chien-hong Liu				
	Accounting Supervisor	Hsiu-Ling Hsu				

(IV) The proportions of total remuneration paid to directors, supervisors, Presidents and Vice President of the Company in net income after tax in the last two years are compared and explained. The policies, standards and combination of remuneration payment, the procedure of remuneration setting, the relationship between remuneration and operating performance, and the relationship between remuneration and future risks are explained.

1. Total Remuneration to Net Income

Title	The ratio of total remuneration of 2018 to net income after tax (%)		The ratio of total remuneration of 2017 to net income after tax (%)	
	The company	Companies in the consolidated financial statements	The company	Companies in the consolidated financial statements
Director	3.54%	4.30%	2.91%	3.51%
President and Vice President	2.43%	5.26%	4.51%	7.98%

2. The policies, standards, and portfolios for the payment of remuneration, the procedures for determining remuneration, and the correlation with business performance:

(1) The policies, standards, and portfolios for the payment of remuneration

The Company's remuneration for directors is handled in accordance with the Articles of Incorporation and the allocation rules of directors' remuneration,

which can be divided into three categories: directors' compensation, directors' remuneration and operating expenses; and the remuneration for Presidents and Vice President of the Company can be divided into three categories: salary, bonus, car allotment and employee remuneration, which are authorized by the Board of Directors to be verified based on the relevant provisions of the Company's salary verification.

(2) Procedures of Remuneration

According to the Articles of Incorporation, if the Company is profitable in the year, it should allocate 3-15% as employees' remuneration. The Board of Directors decides to distribute the remuneration in stock or cash. The object of the distribution includes the employees of the subordinate company who meet certain conditions. If the Company can make profit with the above amount, the Board of Directors decides to allocate up to 3% as its directors' remuneration. The distribution proposal of remuneration of employees and directors should be submitted and reported to the shareholders' meeting.

If it has accumulative losses, the Company should reserve and make up the amount before distributing remuneration to the employees and directors according to the percentage mentioned in the preceding paragraph. In addition, in the business execution cost, only the traffic allowance for each directors' meeting is distributed. The procedures for determining directors' remuneration should be based on the performance evaluation method of the Board of Directors of the Company, the participation in and contribution to the Company's operation should be considered, and reasonable remuneration should be given. The part of remuneration received by the President and Vice President of the Company is based on the operating performance quota of the annual budget approved by the Board of Directors each year. The payment method is based on "Measures for the Administration of Wages and Remuneration of the Company's Managers" and "Measures for Employee Remuneration Distribution".

The Company established Remuneration Committee at the end of 2011, which periodically examines performance of directors and managers, as well as remuneration policy, system, standard and structure. Report if above-mentioned will be reported in the Board of Directors.

(3) Connection between operation performance and future risk

Performance evaluation and remuneration of directors and managers are measured based on market average, monetary amount, distribution method and future risk of the company. It has a positive correlation with the performance and responsibility of the company's business.

III. Implementation of Corporate Governance

(I) Attendance of Directors for Board Meetings

The thirteenth meeting of the Board of Directors was held for six sessions in 2018. The attendance of directors was as follows:

Title	Name	Attendance in Person	By Proxy	Attendance Rate in Person (%)	Remarks
Chairman	Ming-Kuang Lu	6	0	100%	
Vice Chairman	Tang-liang Yao	6	0	100%	
Director	Hsiu-Lan Hsu	6	0	100%	
Director	Wen-huei Tsai	5	1	83%	
Director	United Renewable Energy Co., Ltd. Representative: Chuan-hsien Hong	1	0	100%	Appointed on November 30th, 2018
Director	United Renewable Energy Co., Ltd. Representative: Liu Kangxin	3	2	60%	Relieved of his office on November 30th, 2018
Director	Mao-Yang Co.,Ltd. Representative: Rong-kang Sun	6	0	100%	
Director	Kai-chiang Company Representative: Fang Hao	6	0	100%	
Director	Kun-chang Investment Company Representative: Yu-da Chang	6	0	100%	
Director	Hung-mau Investment Company Representative: Chu-wang Chen	0	2	0%	Appointed on November 1st, 2018
Director	Hung-mau Investment Company Representative: Lu Xuezhong	4	0	100%	Relieved of his office on November 1st, 2018
Director	Representative of CDIB Venture Capital Corp.: He Junhui	4	2	67%	Resigned on December 28th, 2018
Independent Director	Ting-ko Chen	6	0	100%	
Independent Director	Shing-hsien Lin	5	1	83%	
Independent Director	Mong-hua Huang	5	1	83%	

Note: 1. On November 1st, 2018, Hung-mau Investment Company reassigned Mr. Chu-wang Chen as Director Representative.
2. On November 30th, 2018, United Renewable Energy Co., Ltd. reassigned Mr. Chuan-hsien Hong as Director Representative.
3. On December 28th, 2018, CDIB Venture Capital Corp. resigned.

Other mentionable items:

I. If there are any of below circumstances, the dates of meetings, sessions, contents of motions, all independents' opinion and the Company's response to independent directors' opinion should be specified:

(I) The matters referred to in Article 14-3 of the Securities and Exchange Act:

Not applicable. The Company has set up an Audit Committee, which is governed by Article 14-5 of the Securities and Exchange Act.

(II) Other resolutions of the directors' meetings objected to by independent directors or subject to qualified opinion and recorded or declared in writing: No such matter has occurred in the Company.

II. If there is Directors' avoidance of motions in conflict of interest, the Directors' names, contents of motions, causes for avoidance and voting should be specified:

1. On December 13, 2018, the Board of Directors discussed about the case of increasing the shareholding of Actron Technology Corporation. As Chairman Ming-Kuang Lu was Chairman of Actron Technology Corporation and the interested party in the case, he was avoided of motions in conflict of interest according to law and did not participate in the discussion and voting.
2. On December 13, 2018, the Board of Directors discussed about the Letter of Support to be issued by the Company for Crystalwise and Technology Corporation. As Vice Chairman Tang-liang Yao was Chairman of Crystalwise and Technology Corporation and the interested party in the case, he was avoided of motions in conflict of interest according to law and did not participate in the discussion and voting.
3. On December 13, 2018, the Board of Directors discussed about the Letter of Support to be issued by the Company for Taiwan Speciality Chemicals Corporation. As Vice Chairman Tang-liang Yao and Director Hsiu-Lan Hsu were Director and Chairman of Taiwan Speciality Chemicals Corporation and the interested partys in the case, they was avoided of motions in conflict of interest according to law and did not participate in the discussion and voting.

III. Functional objectives (e.g. setting up Audit Committee, improving information transparency, etc.) and implementation evaluation:

Strengthen functional objectives of the Board of Directors	Implementation evaluation
Establish Independent Directors	Strengthen the independent and objective functions of professional directors and supervise the operation of the Board of Directors.

Establish the Remuneration Committee	Assist the Board of Directors in implementing and evaluating the Company's overall compensation and benefits system, and regularly review the appropriateness of remuneration for directors, supervisors and managers.
Establish the Audit Committee	Exercise the functions and powers stipulated in the Securities and Exchange Law, Company Law and other relevant laws and decrees.
Continuously improve the information transparency	The Company appointed a special person to be responsible for the disclosure of company information and updating of company website information.
Actively make communication with stakeholders	The Company has spokespersons and acting spokespersons, and stakeholders can use them as channels of communication. Every year, the board of shareholders accepts the shareholders' proposals according to the schedule. The shareholders who have the right to submit proposals can apply to the Company during the period of acceptance. The Company will convene the meeting of Board of Directors to examine the proposals in accordance with the relevant provisions.
Improve the operational efficiency and decision-making ability of the Board of Directors	The Company has formulated "the Meeting Standards of Board of Directors" to strengthen the implementation of the functions of the Board of Directors, and promote the healthy development of the Board of Directors' participation in decision-making.
Strengthen professional knowledge	The directors and supervisors of the Company should study for a number of hours per year as prescribed by the competent authority, the relevant members of the Board of Directors should be encouraged to participate in various professional courses, and the relevant decrees should be promulgated at the meeting of the Board of Directors to comply with the provisions of the decree.
Set the position of Corporate Governance Supervisor	In order to implement corporate governance and enhance the effectiveness of the Board of Directors, on May 9, 2019, the Board of Directors set the position of Corporate Governance Supervisor to providing directors with relevant information to perform their duties and other necessary assistance.

(II) The Operation of the Audit Committee:

A total of 6 Audit Committee meetings were held in 2018. The attendance of the independent directors was as follows:

Title	Name	Attendance in Person	By Proxy	Attendance Rate (%)	Remarks
Independent Director	Ting-ko Chen	6	0	100%	
Independent Director	Shing-hsien Lin	5	1	83%	
Independent Director	Mong-hua Huang	5	1	83%	

The Audit Committee of the Company is composed of three independent directors. In 2018, a total of 6 Audit Committee meetings were held. The matters under consideration include:

(I) The fair expression of the Company's financial statements.

(II) Selection (relieving) of CPAs and their competence, independence and performance as well as certified public expense.

(III) Effective implementation of the Company's internal control.

(IV) Major assets, derivatives, capital loans and endorsements or guaranteed transactions.

(V) Revision of the procedures for dealing with derivative commodities and the Procedures for Endorsement and Guarantee.

(VI) Appointment of Accounting Supervisor.

Other mentionable items:

I. 1.If there are the circumstances referred to in any of below, the dates of meetings, sessions, contents of motion, resolutions of the Audit Committee and the Company’s response to the Audit Committee’s opinion should be specified.

(I) The matters referred to in Article 14-5 of the Securities and Exchange Act and resolutions:

The motions of 2018 were approved by all the members present in the Audit Committee and all the directors present in the Board of Directors. The operation of the Audit Committee in 2018 was as follows.

Date of meeting (session)	Content of motion	Matters listed in Article 14-5 of Securities and Exchange Law	Resolution results of the Audit Committee and the Company's Treatment of the Audit Committee's Opinions
March 22, 2018 (The First Regular Meeting in 2018)	Audit Report	V	Adopted with the consent of all the members present in the Audit Committee
	Report of "IFRS No. 16 Leasing Bulletin Plan" of the Company	V	
	Report on the Evaluation of the Competency and Independence of CPAs	V	
	Discussion about the amendment to "Procedures for Endorsement and Guarantee"	V	
	Report of Derivative Financial Instruments	V	
	Evaluation of the Effectiveness of the Internal Control System in 2017 and "the Declaration on the Internal Control System"	V	
	Serving as Joint Guarantor for a Subsidiary's Loan from a Financial Institution	V	
	The Company's Business Report and Financial Statements of 2017	V	
	The Company's Appropriation of Profit and Loss in 2017	V	
	Discussion about Cash Giving by Capital Reserve	V	
	Amendment to "Policies and Procedures for Financial Derivatives Transactions"	V	
	Discussion about Non-handling of the Issuance of New Shares by Capital	V	

	Increase of Private Equity upon Expiration		
	Discussion about Dealing with Public or Private Offerings of Securities to Meet the Company's Financial Needs	V	
	Discussion about Fees for Appointing CPAs in 2017	V	
	Appointment of Accounting Supervisor of the Company	V	
	"The Company's Self-Evaluation Report" of Corporate Governance in 2017	V	
	Discussion about Loan of Funds to Sub-subsidiaries	V	
May 10, 2018 (The Second Regular Session in 2018)	Audit Report	V	Adopted with the consent of all the members present in the Audit Committee
	The Company's Consolidated Financial Quarterly Report for the First Quarter in 2018	V	
	Report of "IFRS No. 16 Leasing Bulletin Plan" of the Company	V	
	Report of Derivative Financial Instruments	V	
	Discussion about Dealing with Public or Private Offerings of Securities to Meet the Company's Financial Needs	V	
	Cash Giving by Capital Reserve	V	
	Amendment to the Company's "Measures for Business Rights and Responsibilities"	V	
June 7, 2018 (The Third Regular Meeting in 2018)	Report of Derivative Financial Instruments	V	Adopted with the consent of all the members present in the Audit Committee
	The Company's Reinvestment	V	
August 9, 2018 (The Fourth Regular Meeting in 2018)	Audit Report	V	Adopted with the consent of all the members present in the Audit Committee
	The Company's Consolidated Financial Quarterly Report for the Second Quarter in 2018	V	
	Report on the Implementation Progress of "Introduction Plan of IFRS No. 16 Lease Bulletin"	V	
	Amendment to the Company's Business Plan of 2018	V	
	Amendment to the Company's Internal Control System	V	
	Loan of Funds to Subsidiaries of Power Plant	V	
	Serving as Guarantor for Loan of Power Plant Subsidiary from a Financial Institution	V	
November 13, 2018 (The Five Regular Meeting in 2018)	Audit Report	V	Adopted with the consent of all the members present in the Audit Committee
	Consolidated Financial Quarterly Report of the Company for the Third Quarter in 2018	V	
	Report on the Implementation Progress of "Introduction Plan of IFRS No. 16 Lease Bulletin"	V	
	Discussion about the Internal Audit Plan of 2019	V	
	Serving as Guarantor for Loan of Power Plant Subsidiary from a Financial Institution	V	
	Serving as Guarantor for Loan of Subsidiaries from a Financial Institution	V	
	Loan of Funds to Subsidiaries	V	
	The Company's Investment	V	
December 13, 2018 (The Sixth Regular Meeting in 2018)	Audit Report	V	Adopted with the consent of all the members present in the Audit Committee
	Over-limit Description of Subsidiary's Loan and Improvement Report	V	
	Making the Company's Operating Plan of 2019	V	
	The Company's Investment	V	
	Discussion about the Letter of Support to be Issued by the Company	V	

(II) Other resolutions which were not approved by the Audit Committee but were approved by two thirds or more of all directors: None.

II. If there are independent directors' avoidance of motions in conflict of interest, the directors' names, contents of motion, causes for avoidance and voting should be specified: The

Company has no above circumstance.

III. Communications between the independent directors, the Company's chief internal auditor and CPAs (e.g. the items, methods and results of audits of corporate finance or operations, etc.).

(I) The chief internal auditors have communicated the result of the audit reports to the members of the Audit Committee periodically, and have presented the findings of all audit reports in the quarterly meetings of the Audit Committee. In case of special circumstances, they will inform the members of the Audit Committee in a timely manner. There was no above special situation in 2018. The communication channel between the Audit Committee and the chief internal auditor of the Company has been functioning well.

(II) The Company's CPAs have presented the findings or the comments for the quarterly corporate financial reports, as well as those matters communication of which is required by law, in the regular quarterly meetings of the Audit Committee. In case of special circumstances, they will inform the members of the Audit Committee in a timely manner: There was no above special circumstance in 2018. The communication channel between the Audit Committee and the CPAs of the Company has been functioning well. The communication matters between independent directors, chief internal auditor and CPAs in 2018 were as follows:

Date	Focus of communication	Recommendations and results
March 23, 2018 Audit Committee	1. Accountants explained the financial, profit and loss and industry situation of Q4 in 2017, and discussed about the application of some accounting principles and the impact of the newly revised decree. 2. Accountants discussed and communicated about questions raised by participants. 3. Chief internal auditor made the internal audit report. 4. Issued a declaration on the internal control system.	None
May 10, 2018 Audit Committee	1. Accountants explained the financial, profit and loss and industry situation of Q1 in 2018, and discussed about the application of some accounting principles and the impact of the newly revised decree. 2. Accountants discussed and communicated about questions raised by participants. 3. Chief internal auditor made the internal audit report.	None
August 9, 2018 Audit Committee	1. Accountants explained the financial, profit and loss and industry situation of Q2 in 2018, and discussed about the application of some accounting principles and the impact of the newly revised decree. 2. Accountants discussed and communicated about questions raised by participants. 3. Chief internal auditor made the internal audit report. 4. Chief internal auditor reported the revised content of Internal Control System.	In view of the part related to information security of the internal audit project, it is proposed to conduct a information security attack test drill, which has been carried out according to the recommendation of independent directors.
November 13, 2018 Audit Committee	1. Accountants explained the financial, profit and loss and industry situation of Q3 in 2018, and discussed about the application of some accounting principles and the impact of the newly revised decree.	None

	2. Accountants discussed and communicated about questions raised by participants.	
December 13, 2018 Audit Committee	1. Chief internal auditor made the Internal audit report	None
Results: The above matters were examined and approved by the Audit Committee, and the independent directors had no objection.		

(III) Attendance of Supervisors at Board Meetings: The Company has established the Audit Committee, so it is not applicable.

(IV) Corporate Governance Implementation Status

Corporate Governance Implementation Status, Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
I. Does the company establish and disclose the Corporate Governance Best-Practice Principles based on "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies"?	V		The Company has established the Corporate Governance Best-Practice Principles based on "Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies". The information has been disclosed on the Company's website and Corporate Governance Area of MOPS (http://mops.twse.com.tw/).	No significant difference
II. Shareholding structure & shareholders' rights of the Company				
(I) Does the company establish an internal operating procedure to deal with shareholders' suggestions, doubts, disputes and litigations, and implement based on the procedure?	V		(I) The Company has spokespersons, stock managers and undertakers, who can effectively deal with shareholders' suggestions or disputes. If legal issues are involved, legal affair personnel and professional lawyers will be invited to assist in handling them.	No significant difference
(II) Does the company possess the list of its major shareholders as well as the ultimate owners of those shares?	V		(II) The Company knows the holding of actual directors, managers and major shareholders holding more than 10% of the shares. The Company declares on the Market Observation Post System (MOPS) of the website designated by the Securities and Futures Bureau monthly.	No significant difference
(III) Does the company establish and execute the risk management and firewall system within its conglomerate structure?	V		(III) The Company's internal control covers risk management at the enterprise level and operational activities at the operational level, and has "Measures for Supervision and Governance of Subsidiaries",	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
(IV) Does the company establish internal rules against insiders trading with undisclosed information?	V		which was followed in order to implement total risk control with respect to subsidiaries. The Company has formulated "Measures for Administration of Investment" to regulate the purchase and sale transactions, acquisition and disposal of assets, endorsement guarantees, capital lending and other matters of related enterprises. (IV) The Company has formulated "Management Procedures for the Prevention of Insider Trading" to prevent the occurrence of insider trading.	No significant difference
III. Composition and Responsibilities of the Board of Directors (I) Does the Board develop and implement a diversified policy for the composition of its members?	V		(I) Article 18 of "the Code of Practice on Corporate Governance" of the Company has clearly regulated the diversification policy of board members, and formulated appropriate diversification policies on their own operation, operation patterns and development needs, such as basic composition (e.g. gender, age, nationality and culture), professional knowledge and skills, and industrial experience. At present, there are 12 board members, of which 3 are independent directors, accounting for 25%. The term of office of three independent directors is less than 9 years. Among the 12 board members, there are two female directors, accounting for 17%. The board members have working experience and expertise in operation management, professional technology, legal affairs, finance and strategy management to implement the diversified policy of board	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			members. The Company's diversified policy of board member and the implementation of diversification by individual board members have been disclosed on the Company's website. The implementation of diversification by board members is illustrated in Schedule 1.	
(II) Does the company voluntarily establish other functional committees in addition to the Remuneration Committee and the Audit Committee?	V		(II) The Audit Committee was established in 2014: All three members are independent directors; The Remuneration Committee was established in 2011: All three members are independent directors; The Commission for Sustainable Development of Enterprises was established in 2016: It is composed of management teams and reports the implementation status and results to the Board of Directors every year.	No significant difference
(III) Does the company establish a standard to measure the performance of the Board, and implement it annually?	V		(III) After approval of the Board of Directors, the Company has formulated "the Performance Evaluation Measures for the Board of Directors and Functional Committees". It makes the performance evaluation of the Board of Directors and the Functional Committee (including the Remuneration Committee and the Audit Committee) at least once a year, and submits the evaluation results to the Board of Directors. At the end of each year, the President Room is responsible for executing and coordinating the evaluation process. Internal questionnaires are collected. The evaluation is completed through the internal self-evaluation, and the self-evaluation of board members and functional members. The evaluation scope includes the performance evaluation of the whole Board of Directors, individual members of the Board of Directors, the	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
(IV) Does the company regularly evaluate the independence of CPAs?	V		Remuneration Committee and the Audit Committee. The performance evaluation standards of the Board of Directors and the functional committees of the Company mainly include participation in the operation of the Company, improvement of the decision-making quality of the Board of Directors and functional committees, composition and structure of the Board of Directors and functional committees, selection and continuing education of the Board of Directors and functional members, internal control, etc. The evaluation results are submitted to the Board of Directors for reference when selecting or nominating directors. The performance evaluation results of 2018 were all good, and they were reported to the Board of Directors and disclosed on the Company's website on March 21, 2019. (IV) The Company has formulated "Measures for Accountant Independence and Performance Evaluation", and evaluates the independence of CPAs once a year. The evaluation results of 2018 were submitted to the Audit Committee on March 21, 2019, and reviewed and approved by the Board of Directors. Evaluated by the Accounting Department of the Company, the accountants Cheng-chien Chen and An-chih Cheng of AKPMG International both comply with the Independence Evaluation Standards of the Company (Note 1). They are qualified to serve as CPAs of the Company. The CPAs Firm issues the Declaration of Independence (Note 2). Note 1: Accountant Independence Evaluation Form	No significant difference

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<tr><th rowspan="2">Evaluation Item</th><th colspan="3">Implementation Status (Note 1)</th><th rowspan="2">Deviations from “the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons</th></tr>
<tr><th>Yes</th><th>No</th><th>Abstract Illustration</th></tr>
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<tr><th>Item number</th><th>Evaluation index</th><th>Yes</th><th>No</th></tr>
<tr><td>1</td><td>The term of office of CPA is less than seven years</td><td>V</td><td></td></tr>
<tr><td>2</td><td>Whether members of the Audit Service Team, other co-practicing accountants, shareholders of corporate accounting firms, accounting firms, affiliated firms and alliance firms maintain independence for the Company</td><td>V</td><td></td></tr>
<tr><td>3</td><td>CPAs and members of the Audit Service Team do not currently hold or held in the last two years the position of director, supervisor, manager of audit clients which have a significant impact on the audit.</td><td>V</td><td></td></tr>
<tr><td>4</td><td>CPAs and members of the Audit Service Team have no family relation with the Company's directors, supervisors, managers or persons who have significant impact on the audit.</td><td>V</td><td></td></tr>
<tr><td>5</td><td>CPAs do not hold the positions of directors, supervisors or managers which have a significant impact on the audit within one year after they are relieved of their office.</td><td>V</td><td></td></tr>
<tr><td>6</td><td>There is no direct or indirect significant financial interest relationship between CPAs and the Company</td><td>V</td><td></td></tr>
<tr><td>7</td><td>The CPA firm does not rely excessively on the</td><td>V</td><td></td></tr>
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Evaluation Item	Implementation Status (Note 1)						Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration				
				remuneration source of a single customer (the Company).			
			8	There is no significant close business relationship between CPAs and the Company.	V		
			9	There is no potential employment relationship between CPAs and the Company.	V		
			10	CPAs are not involved in the audit or have Fees.	V		
			11	For the non-audit services provided by the Company, CPAs have no important item which directly influences the audit.	V		
			12	CPAs do not defend for legal cases or other disputes on behalf of the Company and third parties	V		
			13	CPAs do not publicize or serve as broker of the shares or other securities issued by the Company.	V		
			14	CPAs do not receive gifts with high values or special discounts from the Company or its supervisors, managers or major shareholders.	V		
			15	CPAs or members of the Audit Service Team do not keep money for the Company.	V		

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			Note 2:The Declaration of Independence issued by accountants KPMG 安侯建業聯合會計師事務所 KPMG 新竹市科學工業園區30078展業一路11號 No. 11, Prosperity Road I, Hsinchu Science Park, Hsinchu, 30078, Taiwan, R.O.C. Telephone 電話 + 886 (3) 578 9955 Fax 傳真 + 886 (3) 563 2277 Internet 網址 kpmg.com/tw 受文者：中美矽晶製品股份有限公司 主　旨：聲明本會計師受託查核　貴公司民國 107 年度個體及合併財務報告之正直、公正客觀及獨立性。 說　明：茲聲明本會計師受託查核　貴公司民國 107 年度個體及合併財務報告，於執行查核工作時，保持嚴謹公正之態度及超然獨立之精神，並無違反職業道德規範公報第十號所規定之情事。 安侯建業聯合會計師事務所 會計師：陳　振　乾 鄭　安　志 民國 108 年 2 月 26 號	

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
IV. Do TWSE/TPEx Listed Companies have a full-time (part-time) corporate governance unit or personnel responsible for related matters of corporate governance (including but not limited to providing the information needed by directors and supervisors to carry out their business, dealing with the relevant matters of the meetings of the Board of Directors and the Board of Shareholders according to law, dealing with company registration and change registration, making the minutes of meetings of the Board of Directors and the Board of Shareholders, etc.)?	V		In order to implement corporate governance and strengthen the function of directorship, after the approval of the Board of Directors on May 9, 2019, the Company appointed Section Chief Ming-huei Chien as the Company's Governance Supervisor. He has more than three years' experience in finance, stock and meeting management of public issuing companies. The Corporate Governance Supervisor and members of the President Room are responsible for related matters of corporate governance and serve as the Secretary of the Board of Directors. The main responsibilities of the Corporate Governance Supervisor include providing the information needed by the directors to carry out their business, assisting directors to abide by the laws and regulations, assisting directors in taking office and continuing their studies, handling matters related to the meetings of the Board of Directors, committees and the Board of Shareholder, making minutes of meetings, etc. The implementation of corporate governance in 2018 was as follows: 1. Formulated and planned relevant measures for corporate governance, and implemented laws and regulations. 2. Provided the information needed by directors to carry out their business and assisted directors in complying with the decrees. 3. Planned the meeting of Board of Directors, notified all directors at least 7 days before the meeting, provided sufficient information for the meeting, and sent the minutes of the meeting of Board of Directors within 20 days after the meeting.	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			4. Registered the date of the shareholders' meeting in advance according to law, prepared the notice of meeting, meeting handbook and meeting records within the legal time limit, and changed the registration after amending of the Articles of Incorporation or re-election of directors. 5. Provided directors' refresher courses and purchased liability insurance for directors and key employees. 6. Maintained the relationship with investors, organized the inventor conferences, and established diversified communication channels with investors. The Company's Corporate Governance Supervisor was newly appointed. He will complete 18 hours of refresher courses within one year from the date of appointment according to law. Please see (XI) for details regarding Managers' Training on Corporate Governance on refresher courses.	
V. Does the company establish a communication channel and build a designated section on its website for stakeholders (including but not limited to shareholders, employees, customers and suppliers), as well as handle all the issues they care for in terms of corporate social responsibilities?	V		I. The Company has spokespersons, stock managers and business undertakers, establishes smooth communication channels, and respects and safeguards the legal rights and interests of all stakeholders. II. The Company has a corporate responsibility area and a stakeholder area on its website. It also has established contact telephone and e-mail boxes for business personnel, investors, suppliers and employees' welfare. All stakeholders can communicate with each other by telephone or e-mail when necessary. In addition, in the social responsibility area of enterprise, the Company discloses	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			information about stakeholders' concerns, communication channels and so on. Every year, the Board of Directors reports on the promotion and implementation of social responsibility of enterprise and the communication with stakeholders.	
VI. Does the company appoint a professional shareholder service agency to deal with shareholder affairs?	V		The Company designates the professional Yuanta Securities Co., Ltd. to deal with shareholder affairs.	No significant difference
VII. Information Disclosure (I) Does the company have a corporate website to disclose both financial standings and the status of corporate governance? (II) Does the company have other information disclosure channels (e.g. building an English website, appointing designated people to handle information collection and disclosure, creating a spokesman system, webcasting investor conferences)?	V V		I. The Company has set up a website to disclose information regarding the Company's financials, business and corporate governance status. II. The Company has set up an English website and assigned an appropriate person to handle information collection and disclosure, as well as webcasting investor conferences (http://www.saswafer.com), to fully disclose company information and implement the spokesperson system in accordance with the regulations.	No significant difference No significant difference
VIII. Is there any other important information to facilitate a better understanding of the company's corporate governance practices (e.g., including but not limited to employee rights, employee wellness, investor relations, supplier relations, rights of stakeholders, directors' and	V		(1) Status of employee rights and: The Company has always treated its employees in good faith, focused on rational and human-based management, established smooth communication channels, maintained good relations between employer and employees, and safeguarded the legal rights and interests of employees in accordance with the Labor Standard Act and the Company's personnel regulations. (2) Status of employee wellness: The Company establishes a good relationship of mutual	

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
supervisors' training records, the implementation of risk management policies and risk evaluation measures, the implementation of customer relations policies, and purchasing insurance for directors and supervisors)?			trust with employees through its welfare system and education and training system. such as establishing the Staff Welfare Committee, and providing staff travel, employee insurance, various subsidies and benefits and free annual regular health examination, etc. (3) Investor relations: The Company fully discloses information through MOPS and its website, enables investors to fully understand the Company's operating conditions, and communicates with investors through shareholders' meetings and spokespersons. (4) Supplier relations: The Company has formulated "Measures for Supplier Survey, Appraisal and Evaluation" to carefully define suppliers' quality, service level, green products, environmental safety risks, ethics and social responsibility, and select qualified suppliers. The Company deals with suppliers in accordance with its "Ethical Corporate Management Best Practice Principles", maintains a good interactive relationship, and audits regularly to ensure supplier quality. (5) Rights of stakeholders: The Company has contact telephone and e-mail boxes for spokespersons and acting spokespersons, business personnel, investment relations, supplier relations and employee welfare relations, and can communicate directly with stakeholders. It has set up a company website (http://www.saswafer.com) to disclose its information about finance, business, corporate governance and stock agency. (6) Status of directors' training: 1. See (X) Status of Directors' Training. 2. Disclosed in the Corporate Governance Area of MOPS (http://mops.twse.com.tw). (7) Implementation of risk management policies and risk measurement standards: The Company has formulated "Risk Management Policies" and "Risk Management Best-Practice Principles" in accordance with the law for various risk management and evaluation. Please refer to this year's report, review analysis of financial situation and operating results and risk management.	

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Governance Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			(8) Implementation of customer policies: The Company always keeps close contact with customers and maintains stable and good relations to ensure the expected reliability and quality of products and create company profits. (9) The Company's purchasing of liability insurance for directors: The Company has purchased liability insurance for directors to strengthen the protection of shareholders' rights and interests. It is also disclosed in the Corporate Governance Area of MOPS (http://mops.twse.com.tw).	

IX. Please state the improvement according to the corporate governance evaluation results issued by the Corporate Governance Center of Taiwan Stock Exchange Co., Ltd. in recent years, and put forward priority items to be improved and measures for those which have not yet been improved.

Results of the first to the fifth "Corporate Governance Evaluation" of the Company ranked among the top 5% of TPEx Listed Companies. This shows the Company's efforts in corporate governance. Here are some improvements and possible improvements of this year.

(I) Improvements

1. Disclosed the annual financial report in English (including financial statements and notes) on the Company's website.
2. Set the position of Corporate Governance Supervisor responsible for related affairs of corporate governance, and stated limits of functions and powers, business execution priorities and training of the year on the Company website and in the annual report.

(II) Possible improvements in the future

1. Upload the English version of the annual report 7 days before the shareholders' meeting.
2. Upload the English version of annual financial report 7 days before the shareholders' meeting.

Schedule 1: Implementation of Diversification by Board Members

Diversified Core Items / Name of Directors	Nationality	Gender	Operational Judgment Ability	Accounting and Financial Analysis Ability	Business Management Ability	Crisis Handling Procedures	Industrial Knowledge	International Market View	Leadership Ability	Decision-making Ability	Law
Ming-Kuang Lu	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Tang-liang Yao	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Hsiu-Lan Hsu	Republic of China	Female	✓	✓	✓	✓	✓	✓	✓	✓	
United Renewable Energy Co., Ltd. Representative: Chuan-hsien Hong	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Representative of Hung-mau Investment Company: Chu-wang Chen	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Representative of Mao-Yang Co.,Ltd.: Rong-kang Sun	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wen-huei Tsai	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Representative of Kun-chang Investment Company: Yu-da Chang	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Representative of Kai-chiang Company: Fang Hao	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Ting-ko Chen	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Shing-hsien Lin	Republic of China	Male	✓	✓	✓	✓	✓	✓	✓	✓	
Mong-hua Huang	Republic of China	Female	✓	✓	✓	✓	✓	✓	✓	✓	✓

(V) Operations of the Remuneration Committee:

1. Information of Remuneration Committee Members

Title	Conditions / Name	If independent directors equip with over 5 years of working experience and below qualifications			Independence (Note 1)								Concurrently serving in remuneration committee of other listed companies (Counting in company)	Remark (Note 2)
		Owning qualification of national/private college instructor or above of commence, law, finance or corporal operation-related professions	Certified technicians or judge, prosecutor, lawyer, CPA or corporal operation-related national certifications	Experienced in commence, law, finance, accounting or other corporal operation-related business	1	2	3	4	5	6	7	8		
Independent Director	Ting-ko Chen	✓			✓	✓	✓	✓	✓	✓	✓	✓	3	None
Independent Director	Shing-hsien Lin			✓	✓	✓	✓	✓	✓	✓	✓	✓	None	None
Independent Director	Mong-hua Huang			✓	✓	✓	✓	✓	✓	✓	✓	✓	None	None

Note 1: A "√" is marked in the space beneath a condition number when a director or supervisor has met that condition during the two years prior to election and during his or her period of service; the conditions are as follows.

(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. The same does not apply, however, in cases where the person is an independent director of the Company, its parent Company, or any subsidiary in which the Company holds, directly or

(3) The director, or his or her spouse or minor child, does not hold, in his or her own name or in another name, more than 1% of the company's total issued shares, nor is one of the company's top ten natural-person shareholders.

(4) Not a spouse, relative within the second degree of kinship, or lineal relative within the fifth degree of kinship, of any of the persons in the preceding three subparagraphs.

(5) Not a director, supervisor, or employee of a institutional shareholder that directly holds 5% or more of the total number of issued shares of the Company or that holds shares ranking in the top five in holdings.

(6) Not a director, supervisor, officer, or shareholder holding 5% or more of the shares, of a specified Company or institution that has a financial or business relationship with the Company.

(7) Not a professional individual who is an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that provides commercial, legal,

financial, accounting services or consultation to the Company or to any affiliate of the Company, or a spouse thereof.

(8) Not a person of any conditions defined in Article 30 of the Company Act.

Note 2: If a remuneration committee member is director, please specify if matching item 5, Article 6 of "Regulations Governing the Appointment and Exercise of Powers by the Remuneration Committee of a Company Whose Stock is listed on the Stock Exchange or Traded Over the Counter".

2. Operations of the Remuneration Committee

(1) The Company's Remuneration Committee consists of three members and all independent directors.

(2) Term of office of the current members: from June 27, 2017 to June 26, 2020. In the most recent year (2018), the Remuneration Committee held meetings for three times (A). Membership and attendance were as follows:

Title	Name	Attendance in Person (B)	By Proxy	Attendance Rate (%) (B/A)	Remarks
Convener	Ting-ko Chen	3	0	100%	Reappointed on June 27th, 2017
Member	Shing-hsien Lin	2	1	67%	Reappointed on June 27th, 2017
Member	Mong-hua Huang	3	0	100%	Reappointed on June 27th, 2017

Other mentionable items:

I. If the board of directors declines to adopt or modifies a recommendation of the Remuneration Committee, it should specify the date of the meeting, session, content of the motion, resolution by the board of directors, and the Company's response to the Remuneration Committee's opinion (e.g., if the remuneration passed by the Board of Directors exceeds the recommendation of the Remuneration Committee, the circumstances and cause for the difference shall be specified): None.

II. Resolutions of the Remuneration Committee objected to by members or subject to a qualified opinion and recorded or declared in writing, the date of the meeting, session, content of the motion, all members' opinions and the response to members' opinion should be specified: None.

III. The operation of the Remuneration Committee was as follows:

Session/Date of the Remuneration Committee	Content of motion	Resolution results	The Company's response to the Remuneration Committee's opinion
Third session The first meeting in 2018 March 22nd, 2018	Director's Remuneration and Employee's Remuneration Distribution of the Company in 2017	Agreed and approved by all the members present	To be submitted to the Board of Directors after the approval of all the members present
Third session The second meeting in 2018 May 10th, 2018	Distribution of Directors' Remuneration and Special Bonus for Managers in 2017	Agreed and approved by all the members present	
	Compensation for New Managers of the Company	Agreed and approved by all the members present	
Third session The third meeting in 2018 November 13th, 2018	Amendment to the Company's "Management Measures for Managers' Remuneration"	Agreed and approved by all the members present	

(VI) Corporate Social Responsibility:

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
I. Corporate Governance Implementation				
(I) Does the company declare its corporate social responsibility policy and examine the results of the implementation?	V		(I) The Company has formulated policies and codes of practice of corporate social responsibility. Since its establishment, it has always adhered to the concept of corporate social responsibility and its implementation. Through close cooperation among organizations, the Company fully integrates corporate social responsibility into its daily operation. In addition to the implementation within the Company, we look forward to and take practical actions to help our customers, suppliers, business partners or other business contacts to understand and identify with the Company's ethical standards and culture, in order to fulfill our corporate citizenship responsibilities.	No significant difference
(II) Does the company provide educational training on corporate social responsibility on a regular basis?	V		(II) The Company plans training courses on corporate social responsibility and publicizes relevant policies, strategies, systems, environmental education and related implementation results of corporate social responsibility every year. Every year, the Company arranges education and training according to the needs of employees, including law, management, communication and coordination, workplace ethics, labor safety and environmental protection courses.	No significant difference
(III) Does the company establish exclusively (or concurrently) dedicated first-line managers authorized by the board to be in charge of proposing the corporate social responsibility policies and reporting to the board?	V		(III) The Company has established "the Sustainable Development Committee of the Enterprise" to become the decision-making and operation center of corporate social responsibility of Sino-American Silicon Products Inc.. The President regularly reports to the Board of Directors on the implementation results of corporate social responsibility in the current year and the work	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
			plan for the next year. "Sustainable Development Committee of the Enterprise" is a cross-sectoral communication and coordination platform for the Company to fulfill corporate social responsibility. It is led by the President. Representatives are appointed by various functional organizations to serve as members. It holds corporate social responsibility meetings from time to time. To implement environmental, social and governance activities, the Sustainable Development Committee of the Enterprise consists of three groups, which are environmental group, governance group and social group. It also discusses about various issues related to stakeholders such as employees, shareholders, customers, suppliers, governments and society, sets goals, makes plans, and tracks the progress of implementation, so as to systematically and effectively practice corporate social responsibility.	
(IV) Does the company declare a reasonable salary remuneration policy, and integrate the employee performance appraisal system with its corporate social responsibility policy, as well as establish an effective reward and disciplinary system?	V		(IV) The Company has formulated "Measures for Salary, Allowance and Bonus", "Measures for Employee Reward and Punishment" and "Measures for Management of Performance". It has clearly formulated performance indicators and reward and punishment provisions, so as to motivate employees and enable them to understand the spirit of social responsibility and grow together with the enterprise.	No significant difference
II. Sustainable Environment Development (I) Does the company endeavor to utilize all resources more efficiently and use renewable materials which have low impact on the environment?	V		(I) As a member of the global citizen, in order to achieve the goal of sustainable utilization of environmental resources, the Company focuses on the improvement of the efficiency of the use of various resources, gives priority to the process reduction and reuse, and finally makes disposal; in the selection of raw materials, it will choose recycled materials with low impact on the	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
			environment as far as possible in order to reduce the impact on the environment.	
(II) Does the company establish proper environmental management systems based on the characteristics of their industries?	V		(II) The Company's Chunan and Yilan Plants have passed the environmental and occupational safety management system validation, of which Chunan and Yilan Plants have passed the new version of ISO 14001 and ISO 45001. Certificate information is updated as follows ISO 45001: 2018 Term of validity: March 11, 2019-March 11, 2022 Date of certification: March 21, 2019; Certification number: 196466-2016-ASA-RGC-JAS-ANZ ISO 14001: 2015; Term of validity: March 11, 2019-March 11, 2022 Date of certification: February 28, 2019 Certification number: 281279-2018-AE-RGC-UKAS In accordance with the requirements of the new version of ISO, the Company clarifies its stakeholders, identifies and considers the issues of interest to the stakeholders and their impact on the Company, takes action and continuously improves, in order to meet and respond to the expectations of stakeholders.	No significant difference
(III) Does the company monitor the impact of climate change on its operations and conduct greenhouse gas inspections, as well as establish company strategies for energy conservation and carbon reduction?	V		(III) In recent years, global warming issues continuously receive attention. The Company agrees that greenhouse gas reduction is the necessary means to respond to climate change and global warming, and the primary task of greenhouse gas reduction is the greenhouse gas examination. Through the results of the examination, we can understand the Company's current situation, find opportunities and directions for reduction, set goals, and improve on this basis. Before its incorporation into Sino-American Group in 2013, Yilan Plant of the Company entrusted its	No significant difference

<table>
<tr><th rowspan="2">Evaluation Item</th><th colspan="3">Implementation Status (Note 1)</th><th rowspan="2">Deviations from “the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons</th></tr>
<tr><th>Yes</th><th>No</th><th>Abstract Explanation (Note 2)</th></tr>
<tr><td></td><td></td><td></td><td>counseling company to examine the carbon footprint of products and passed the inspection by a third-party notary company. In 2010, Chunan No. 1 Plant cooperated with Solar Photoelectric Association to make an organizational examination and passed the inspection by a third-party notary company. In order to integrate information and facilitate management, the Company re-entrusted the Institute of Industrial Technology in 2016 to make carbon footprint examination and organizational examination, and made the pilot environmental footprint examination in Chunan Plant. In 2017, it will continue to entrust the Institute of Industrial Technology to complete the database, import energy management, greenhouse gas examination, carbon footprint examination, clean production process and other international system verification/examination in Hsinchu Plant in 2017, and carry out in parallel within the group. In the future, it can be applied to the information on the establishment of international systems in the plants of Sino-American Group, and the relevant systems can be checked according to the needs of customers or government agencies.
According to results of the organizational examination, the greenhouse gas emissions from Hsinchu, Chunan and Yilan Plants of the Company from 2017 to 2018 are shown in the following table:
Unit: metric ton of CO2e/year
<table>
<tr><th>Plant / Year</th><th>Hsinchu Plant</th><th>Chunan Plant</th><th>Yilan Plant</th><th>Total</th></tr>
<tr><td>2017</td><td>156,885</td><td>55,022</td><td>42,518</td><td>254,425</td></tr>
<tr><td>2018</td><td>202,145</td><td>28,229</td><td>36,671</td><td>267,045</td></tr>
</table>
According to results of the organizational examination of greenhouse gas emissions, the main source of greenhouse gas emissions of the</td><td></td></tr>
</table>

<table>
<tr><td rowspan="2">Evaluation Item</td><td colspan="3">Implementation Status (Note 1)</td><td rowspan="2">Deviations from “the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons</td></tr>
<tr><td>Yes</td><td>No</td><td>Abstract Explanation (Note 2)</td></tr>
<tr><td></td><td></td><td></td><td>Company is electricity (Category 2). Therefore, the reduction of electricity use and the improvement of energy efficiency are the top priorities of the Company at present. Starting from the core of the Company, by introducing the environmental management system and the energy management system, the Company promotes various energy-saving improvement measures to achieve the goal of energy saving and carbon reduction. In 2015, the Company began to cooperate with BenQESCO, and introduced various improvement plans of energy-saving project, such as air conditioning and cooling water frequency conversion control in the plant, air conditioning system improvement, energy-saving lighting source replacement, waste heat recovery of air compressor, etc. The results of energy-saving measures for electricity are shown in the table below (Hsinchu Plant + Chunan Plant + Yilan Plant). After converted into greenhouse gas, the reduction is 4,251,798 kgCO_2e.
<table>
<tr><td>Plant / Year</td><td>Chunan Plant + Yilan Plant</td><td>Hsinchu Plant</td><td>Total</td></tr>
<tr><td>2018 Total energy saving</td><td>2,764,367 kWh of electricity</td><td>4,910,358 kWh of electricity</td><td>7,674,725 kWh of electricity</td></tr>
</table>
In addition to energy saving and carbon reduction, Sino-American Silicon Products Inc. has introduced the concept of product life cycle through the promotion of the new ISO 14001 environmental management system in other parts of environmental protection improvement, such as water saving and waste reduction, so that the reduction of raw materials at the source can be achieved from the improvement of process and product design stages. In the prevention and control of air pollution and water pollution, with the promotion of environmental management system, it sets the target of energy</td><td></td></tr>
</table>

<table>
<tr><th rowspan="2">Evaluation Item</th><th colspan="2">Implementation Status (Note 1)</th><th rowspan="2">Abstract Explanation (Note 2)</th><th rowspan="2">Deviations from “the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons</th></tr>
<tr><th>Yes</th><th>No</th></tr>
<tr><td></td><td></td><td></td><td>saving, water saving, waste reduction and resource saving each year to reduce the use of energy resources and achieve the effect of reducing greenhouse gas emissions. In the aspect of waste management, the traditional concept of clean-up and disposal is transformed into the concept of effective management of resources, so as to reduce the output of waste. Target setting for 2019, targets for 2018 and the achievement are shown in the following table:
<table>
<tr><th>Major themes</th><th>Targets for 2019</th><th>Targets for 2018</th><th>Target achievement in 2018</th></tr>
<tr><td>Energy and resource consumption and reduction of greenhouse gas emissions</td><td>The annual power saving rate of each plant is higher than 1%.</td><td>The annual power saving rate of each plant is higher than 1%.</td><td>Achieved the target</td></tr>
<tr><td>Pollution prevention and control</td><td>Operating parameters of preventive and control equipment conform to the environmental protection license</td><td>To add burner at outlet of screen printing equipment to reduce VOCs emissions</td><td>Achieved the target</td></tr>
<tr><td>Waste Management</td><td>According to "the Criteria for Confirmation of Duty of Care for Entrusted Cleaning of</td><td>To reduce the quantity of BDG Waste Liquid entrusted to be disposed</td><td>Achieved the target</td></tr>
</table></td><td></td></tr>
</table>

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	

	Business", the waste management procedures in plants are established, and high-risk waste disposal plants are visited at least once a year.	of (the reduction ratio is higher than 40% every month)	

Following the Company's strategy, Sino-American Silicon Products Inc. has been active in raw material management, energy management, water resources management and waste management. In addition to achieving the target for 2018, the key achievements of Sino-American Silicon Products Inc. in environmental improvement in 2018 are summarized as follows:

1. The percentage of recycled raw materials used by silicon raw materials was higher than 50%.
2. The total grid-connected capacity of solar power generation system was higher than 26MW, which could reduce about 9,890 tonnes of carbon dioxide emissions.
3. In the past three years, energy intensity has declined year by year (28.52→11.26→6.08 MJ/KNT)
4. The annual energy-saving measures and management could reduce about 1,531 tonnes of carbon dioxide emissions.
5. Burners were added at the outlet of screen printing equipment, which could reduce VOCs emissions by about 83%.
6. The average monthly reduction of BDG waste liquid entrusted to be disposed of was about 70%.

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
			Risk management In order to cope with the rapidly changing business environment and ensure the stable operation and sustainable development of the Company, Sino-American Silicon Products Inc. formulated policies and Risk Management Best-Practice Principles in 2014, and defined the three major objectives of the risk management system and the process of risk management. Risk management processes include risk identification, risk measurement, risk monitoring, risk reporting and disclosure, and risk response. Through the effective implementation of the risk management process, the Company's risk management strategy was implemented. Sino-American Silicon Products Inc. formulated the measurement method of risk management as the basis for risk management. For quantifiable risks, we adopted the rigorous statistical analysis and technology for analysis and management, and managed the quantification process in a gradual way. For risks difficult to quantify, we measured in a qualitative way and described in words to express the possibility of risk occurrence and the extent of its impact. The relevant operational and operational risk management information is also disclosed in the Company's annual report and on its website. Sino-American Silicon Products Inc. executed risk management in accordance with the three-tier division of labor structure of risk management.	

<table>
<tr><th rowspan="2">Evaluation Item</th><th colspan="2">Implementation Status (Note 1)</th><th rowspan="2">Deviations from “the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons</th></tr>
<tr><th>Yes</th><th>No</th><th>Abstract Explanation (Note 2)</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Front-line responsibilities</th><th>Second-line responsibilities</th><th>Third-line responsibilities</th></tr>
<tr><td>Each unit or business undertaker should be responsible for the risks of its business, carry out business in accordance with internal norms, and be the unit for initial risk discovery, evaluation and control.</td><td>The head of authority and responsibility of each department should be responsible for the risk management of the relevant business and follow up and examine whether the operational rules of the business conform to the statutory norms.</td><td>The President Room should examine the integrity of risk management mechanisms such as corporate hazards, operations, finance, strategies, compliance and contracts, and monitor the related risks of each unit.</td></tr>
</table>

Climate change risks and opportunities
Sino-American Silicon Products Inc. has established an effective risk management mechanism to assess and monitor its risk-taking ability, risk-bearing status, risk response strategies and compliance with risk management procedures. We identified ESG risks and opportunities, and the risks and opportunities of climate change are as follows:</td><td></td></tr>
</table>

<table>
<tr><th rowspan="2">Evaluation Item</th><th colspan="2">Implementation Status (Note 1)</th><th rowspan="2">Deviations from “the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies” and Reasons</th></tr>
<tr><th>Yes</th><th>No</th><th>Abstract Explanation (Note 2)</th></tr>
<tr><td></td><td></td><td></td><td><table>
<tr><th>Risks identified</th><th>Strategies for transforming risks into opportunities</th></tr>
<tr><td>Climate change risks</td><td>Manage according to the two major aspects, including "mitigation" and "adjustment"
Mitigation
1. Promote green products and green production and reduce energy consumption
2. Implement water-saving measures
Adjustment
1. Improve the Company's tolerance to extreme weather (drought, flood and snow)
2. Implement energy management and improve energy efficiency in response to rising energy costs (e.g. electricity tariffs, carbon taxes, energy taxes)</td></tr>
</table></td><td></td></tr>
<tr><td>III. Preserving Public Welfare
(I) Does the company formulate appropriate management policies and procedures according to relevant regulations and the International Bill of Human Rights?</td><td>V</td><td></td><td>(I) According to the Convention on Human Rights of the United Nations (International Covenant on Economic, Social and Cultural Rights) (ICESCR), International Covenant on Civil and Political Rights (ICCPR) and the Employment Services Act, the Company has formulated personnel appointment methods, clearly expressed the prohibition of child labour and related remedial measures; and strictly prohibited any illegal discrimination of employees, including race, class, language, thought, religion, party, native place, place of birth, skin color, age, gender, sexual</td><td>No significant difference</td></tr>
</table>

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
			orientation, marriage, appearance, facial features, nationality, disability, pregnancy, trade union membership, and concealed veteran status in recruitment and actual work. Operating activities in all countries comply with all local laws, including anti-trafficking and anti-slavery bills. The Company will never tolerate any modern slavery, and insists that all commercial transactions, business relations, supply chain activities, personnel recruitment and appointment comply with ethical standards, with integrity as the top priority. It also provides relevant training courses for all employees to strengthen their awareness of human rights. The basic wages, working hours, vacations, pension payments, labor health insurance payments and occupational hazard compensation of employees in the Company comply with the relevant provisions of the Labor Standard Law. It has established the Staff Benefit Committee to handle various welfare matters through the Welfare Committee elected by the staffs. It regularly holds labor meetings to understand the ideas of both sides, in order to achieve a win-win situation.	
(II) Has the company set up an employee hotline or grievance mechanism to handle complaints with appropriate solutions?	V		(II) The Company adopts a ready-to-use communication mechanism, and sets up employee opinion boxes and e-mail boxes to actively understand and reasonably meet the needs of colleagues.	No significant difference
(III) Does the company provide a healthy and safe working environment and organize training on health and safety for its employees on a regular basis?	V		(III) The Company abides by relevant domestic laws and regulations. All the plants have passed the internationally recognized environmental and safety and health management system certification of ISO 14001: 2015 / OHSAS 18001: 2007, in order to provide a safe and healthy working environment for employees. The Company regularly inspects the working environment, increases the number of health lectures, advocates anti-bullying	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
			in the workplace, adjusts the frequency of health examination of employees to once a year, and sends health information to all employees every week to create a happy, healthy and safe workplace environment. In addition, meetings of occupational safety and health committees are held quarterly in various plants to discuss about safety and health management plan, improvement and response measures of working environment determination, safety and health education and training, safety and health audit, safety and health management performance, accident propaganda and prevention, health management and promotion and other matters. The matters discussed about in the meeting are recorded, and continuously tracked and improved.	
(IV) Does the company setup a communication channel with employees on a regular basis, as well as reasonably inform employees of any significant changes in operations that may have an impact on them?	V		(IV) The Company establishes a mechanism for regular communication among employees through labor meetings, and notifies employees through internal website announcements or e-mail prompt notifications of business changes that may have a significant impact on employees.	No significant difference
(V) Does the company provide its employees with career development and training sessions?	V		(V) In order to stimulate the potential of employees and cultivate outstanding talents, the Company has formulated "Measures for Education and Training", made a complete functional training plan, and continuously reviewed and updated functional projects and training courses, in order to improve and strengthen the ability and help staffs with career development.	No significant difference
(VI) Does the company establish any consumer protection mechanisms and appealing procedures regarding research development, purchasing, producing, operating and service?	V		(VI) R&D, purchasing, production, sales and other operations comply with government regulations and relevant international standards. The Company has formulated relevant internal control systems and management measures. It must not cheat, or have any other acts that destroy customer trust and damage customer	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
			rights and interests. If the customer has any doubts about the product, the Company will also be fully responsible for handling, to ensure that the Company's products comply with RoSH and WEEZ green regulations and indicators.	
(VII) Does the company advertise and label its goods and services according to relevant regulations and international standards?	V		(VII) The Company mainly provides solar energy products. The marketing and labeling of products and services comply with relevant regulations and international standards. The products do comply with international environmental protection laws and regulations to ensure that the Company's product output conforms to RoSH and WEEZ green regulations and indicators.	No significant difference
(VIII) Does the company evaluate the records of suppliers' impact on the environment and society before taking on business partnerships?	V		(VIII) Before trading with suppliers, the Company makes supplier evaluation according to "Measures for Supplier Investigation and Evaluation" formulated by the Company. In purchasing transactions, suppliers are required to comply with the RBA Code of Conduct and the Company's environmental policies, to ensure that the products and materials delivered to the Company conform to the relevant regulations and international standards such as RoSH and WEEZ, and there is no product in conflict with minerals.	No significant difference
(IX) Do the contracts between the company and its major suppliers include termination clauses which come into force once the suppliers breach the corporate social responsibility policy and cause appreciable impact on the environment and society?	V		(IX) Since 2014, the Company has signed "the Ethical Corporate Management Best Practice Principles" for all new suppliers. Since 2016, the Company began to require suppliers to sign "the Statement of Compliance with the Code of Conduct for Suppliers". The terms of the contract may be terminated at any time in case of violation of the relevant policies and regulations of the Company's corporate social responsibility and significant impact on the environment and society.	No significant difference
IV. Enhancing Information Disclosure				
(I) Does the company disclose relevant and	V		(I) The Company has set up a website (http:// www.saswafer.com),	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
reliable information regarding its corporate social responsibility on its website and the Market Observation Post System (MOPS)?			which regularly discloses relevant and reliable information on corporate social responsibility and strengthens communication with stakeholders.	

V. If the Company has established the corporate social responsibility principles based on "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies", please describe any discrepancy between the Principles and their implementation:
The Company has "Corporate Social Responsibility Policies", "Code of Practice for Corporate Social Responsibility", "Codes of Ethical Conduct" and "Procedures for Ethical Management and Guideline for Conduct" as the basic criteria for the daily operation of all employees. It has also formulated "Procedures for Handling the Important Documents Reporting Illegal and Unethical Conducts", and provides the reporting mechanism for employees to convey their opinions in a safe and confidential manner. Please refer to the "Corporate Governance Policy" Area on the Company's website at http://www.saswafer.com.

VI. Other important information to facilitate better understanding of the Company's corporate social responsibility practices:

1. Environmental protection: It is everyone's responsibility to promote environmental protection and low-carbon activities. In addition to strengthening energy-saving management and control of the process, the Company actively implements waste classification and resource recovery, promotes energy saving and carbon reduction, and has energy-saving and carbon-reduction equipment expenditure.
2. Encourage employees to participate in public welfare activities:
   (1) Blood donation activities were carried out in April and September of 2018. The amount of blood donation reached 48,750cc and a Certificate of Appreciation was awarded by Hsinchu Blood Donation Center.
   (2) Donation of Mid-Autumn Festival Cash Gift for Love Activities in September 2018: NT$ 5,660 for Holy Family for Special Education, NT$ 5,000 for Xinmiao Development Center, NT$ 36,000 for Saint Shiguang Rehabilitation Home, NT$ 16,000 for God Help the Child, NT$ 20,000 for Xingfu Kindergarten, and NT$ 20,000 for Yilan Jiafu Foundation. A total of NT$ 102,660.
   (3) On November 25, 2018, the Company sponsored NT$ 20,000 to "Warm Winter for Kindergarten" Garden Party of Hsinchu Family Support Center and donated caring goods for charity sale.
   (4) In December 2018, the Company participated in the Dream Plan and donated gifts of NT$ 92,000 to 184 pupils in remote schools.
3. Consumer rights and interests: The Company's main products are solar wafer materials. The main products are sold directly to downstream manufacturers, so it does not directly face consumers. For customers, the Company has "Customer Complaint Processing Operation" to provide customer with complaint channels. Externally, it has signed supply contracts, quality contracts, etc. with customers for perfect guarantee of customer rights and interests.
4. Human rights: The Company attaches great importance to human rights. Regardless of race, gender and age, employees enjoy the same right to work, and the Company also provides opportunities for free expression and development to standalone, in order to achieve respect for personal dignity.
5. Safety and health: With zero disaster as the goal, the Company is committed to the promotion of safety and health policy and the continuous improvement of process and working environment. Through the joint efforts of all staffs, we continuously improve the occupational safety and health performance.

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Corporate Social Responsibility Best-Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Explanation (Note 2)	
6. Employee health care: The Company carries out health examination for employees each year to let them know their health status each ear, and then care for and strengthen their health. We also arrange professional medical specialists to visit our plant every month for consulting services. In the workplace, in order to grasp the status of employees' working environment and assess the exposure status of hazard factors, besides setting detection and alarm equipments at appropriate positions, work environment test is also done regularly as a basis for improving the workplace environment.				
VII. A clear statement shall be made below if the corporate social responsibility reports were verified by external certification institutions: The Company's corporate social responsibility report for 2018 has been verified by DNV-GL and meets the requirements of moderate guarantee grade of GRI G4 core compliance option. The verification statement is disclosed on the Company's website. Please refer to "Corporate Social Responsibility" on the Company's website (http://www.saswafer.com).				

Note 1: Regardless of whether the evaluation item is achieved or not, the company shall state an appropriate explanation.

Note 2: Companies who have compiled CSR reports may cite the source from specific pages of their CSR reports instead.

(VII) The Company's Performance of Ethical Corporate Management and the Measures Taken

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
I. Establishment of ethical corporate management policies and programs	V			
(I) Does the company declare its ethical corporate management policies and procedures in its guidelines and external documents, as well as the commitment from its board to implement the policies?			(I) The Company has "Codes of Ethical Conduct", "Ethical Corporate Management Best Practice Principles" and "Procedures for Ethical Management and Guideline for Conduct" to standardize the Company's policy of ethical corporate management, specifies the matters that directors, managers and employees of the Company should pay attention to when carrying out their business, and regularly provides education and training.	No significant difference
(II) Does the company establish policies to prevent unethical conduct with clear statements regarding relevant procedures, guidelines of conduct, punishment for violation, rules of appeal, and the commitment to implement the policies?	V		(II) The Company has "Codes of Ethical Conduct", "Ethical Corporate Management Best Practice Principles" and "Procedures for Ethical Management and Guideline for Conduct", and has signed "Intelligent Property Rights and Confidentiality Contract" with employees to regulate all employees and prevent employees from sacrificing their company rights and interests for personal benefits. In addition, the Company has formulated "Procedures for Handling the Important Documents Reporting Illegal and Unethical Conducts", which specifies the punishment and appeal system for violating the rules of ethical corporate management, and establishes and announces employee opinion boxes, e-mail boxes and complaint hotline on the Company's internal website to encourage internal and external personnel of Sino-American Silicon Products Inc. to report unethical or improper conducts for implementation. The Company regularly organizes educational training or publicizes the obligation of all employees to keep the business secrets of the Company or other companies confidential. The Company stipulates that all suppliers should abide by the	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			principle of no gift, no deduction and prohibition of dealing with related parties. If there is any violation, they should stop dealing with each other, in order to obtain the most reasonable quotation, the best quality and the best service.	
(III) Does the company establish appropriate precautions against high-potential unethical conducts or listed activities stated in Article 2, Paragraph 7 of "the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies"?	V		(III) The Company has clearly regulated the prohibition clauses for the business activities mentioned in Article 2, Paragraph 7 of "the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies", and formulated "the Ethical Corporate Management Best Practice Principles", "Procedures for Ethical Management and Guideline for Conduct", and "Procedures for Handling Cases of Reporting Illegal and Unethical Conducts", whose execution should be checked regularly and from time to time by the auditors of the Company.	No significant difference
II. Fulfill operations integrity policy				
(I) Does the company evaluate business partners' ethical records and include ethics-related clauses in business contracts?	V		(I) Article 9 of the Company's Ethical Corporate Management Best Practice Principles has clearly stipulated that before business contacts the legitimacy of suppliers, customers or other objects of business transactions and the existence of records of unethical conducts should be taken into account, so as to avoid transaction with those involved in unethical conducts. At the same time, we regularly send the Company's Ethical Corporate Management Propaganda Notice to the suppliers, and ask them to sign "the Statement of Compliance with the Code of Conduct for Suppliers".	No significant difference
(II) Does the company establish an exclusively (or concurrently) dedicated unit supervised by the Board to be in charge of corporate integrity?	V		(II) The Company has established "the Sustainable Development Committee of the Enterprise". President serves as Chairman and various functional organizations appoint representatives as its members. The Company's relevant policies and development strategies about ESG (environment, society and governance) are	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from “the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies” and Reasons
	Yes	No	Abstract Illustration	
			formulated, and the implementation results are reviewed and continuously improved. The annual implementation situation and implementation performance are reported by Chairman to the Board of Directors. Ethical Corporate Management of Enterprises belongs to "governance" under "the Sustainable Development Committee of the Enterprise". The Company's Law Room is responsible for overall promotion of the formulation, supervision and implementation of ethical corporate management policies and preventive plan, and reports its implementation to the Board of Directors in the annual report of "the Sustainable Development Committee of the Enterprise" every year. In addition, auditors also implement in routine audits. When they find anything abnormal, they may report to the Board of Directors at any time. Relevant implementation in 2018: (1) Formulation and review of policies relating to ethical corporate management The Company has "Ethical Corporate Management Best Practice Principles", "Code of Ethics" and "Procedures for Ethical Management and Guideline for Conduct". The above internal regulations are reviewed and updated irregularly by the Law Room with reference to external norms and internal implementation. (2) Internal and external policy propaganda The Company's "Ethical Corporate Management Best Practice Principles", "Codes of Ethical Conduct", "Operational Procedures and Guidelines for Ethical Corporate Management" and other related important internal regulations have been announced on the Company's website	

Evaluation Item	Implementation Status (Note 1)			Deviations from “the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies” and Reasons
	Yes	No	Abstract Illustration	
			and internal website for external personnel and company colleagues to inquire at any time, so as to provide precautions when the Company's directors, managers and employees execute their business. Through education, training and propaganda of the Ethical corporate management policies, the staffs will be made aware of the relevant regulations. Workers are fully aware of and do abide by them, and put into practice in their daily work, in order to improve the behavioral quality and professional ethics of all the colleagues. The Company also requires suppliers to sign "the Statement of Compliance with the Code of Conduct for Suppliers", and the content of the standard contract signed with the objects of transactions also includes the relevant provisions of compliance with Ethical Corporate Management. (3) Prevent corruption The Company insists on anti-corruption and actively guards against unethical conducts. In addition to signing "Intelligent Property Rights and Confidentiality Contract" with employees to regulate all employees and prevent employees from sacrificing the Company’s rights and interests for personal benefits, “Ethical Corporate Management Best Practice Principles” also clearly regulates that colleagues should not directly or indirectly provide, promise, request or accept any illegitimate benefits in the course of engaging in business activities, or have other unethical conducts that violate good faith, are illegal or breach fiduciary obligations, in order to obtain or maintain benefits. (4) Report channels and reporter protection	

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			In order to ensure the implementation of Ethical Corporate Management, the Company has "Procedures for Handling Cases of Reporting Illegal and Immoral or Unethical Conducts", establishes a system of punishment and appeal for violation of the provisions of Ethical Corporate Management, and establishes and announces employee opinion boxes, e-mail boxes and complaint hotline on the Company's internal website to encourage internal and external personnel of the Company to report unethical or improper conducts. The Company will keep the identity of reporter and the content of reporting strictly confidential. The personnel unit is responsible for verifying and handling. Those who do violate the rules of Ethical Corporate Management will be punished according to the seriousness of the circumstances. The President Room is responsible for promoting the formulation and supervision of ethical corporate management policies and preventive plan. It regularly reports the implementation to the Board of Directors every year. No corruption occurred in 2018. The implementation has been disclosed on the Company's website. Please refer to "Investor Area" on the Company's website at http://www.saswafer.com.	
(III) Does the company establish policies to prevent conflicts of interest and provide appropriate communication channels, and implement it?	V		(III) The Company has "Codes of Ethical Conduct" and "Procedures for Ethical Management and Guideline for Conduct" and signed "Intelligent Property Rights and Confidentiality Contract" with employees to regulate all employees and prevent employees from sacrificing the Company's rights and interests for personal benefits. When directors or managers of the Company meets with their own conflicts of interest, they should state the	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from "the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies" and Reasons
	Yes	No	Abstract Illustration	
			contents of their own interests on the meeting of Board of Directors. If they are harmful to the interests of the Company, they should state their opinions and answer questions. They should not participate in discussions and votes, and they should be avoided during discussion and voting. There are also complaint/reporting channels and the identity of the reporter is kept confidential.	
(IV) Has the company established effective systems for both accounting and internal control to facilitate ethical corporate management, and are they audited by either internal auditors or CPAs on a regular basis?	V		(IV) In order to ensure the implementation of Ethical Corporate Management, the Company establishes an effective accounting system and internal control system. The internal auditing unit regularly or irregularly checks the compliance with the preceding systems, and regularly reports the results to the Audit Committee and the Board of Directors.	No significant difference
(V) Does the company regularly hold internal and external educational trainings on operational integrity?	V		(V) The Company makes an annual education and training plan, which covers corporate governance, Ethical Corporate Management and other related fields, and organizes education, training and propaganda for directors, managers and employees. In 2018, a training course was provided on issues related to Ethical Corporate Management, including Ethical Corporate Management and Codes of Ethical Conduct, personal data protection propaganda, intellectual property and confidential information management of company. A total of 180 participants took part in the course, and the total duration was 381 hours.	No significant difference
III. Operation of the Company's reporting system				
(I) Does the Company have a specific reporting and rewarding system, establish a convenient reporting channel, and assign appropriate acceptance personnel to the object of reporting?	V		(I) The Company has "Procedures for Handling Cases of Reporting Illegal and Immoral or Unethical Conducts", and sets up "Employee's Opinion Box", "E-mail Box" and complaint hotline. It also has a special unit to handle related affairs, handles relevant affairs according to the procedures prescribed by the measures,	No significant difference

Evaluation Item	Implementation Status (Note 1)			Deviations from “the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies” and Reasons
	Yes	No	Abstract Illustration	
			and keeps the identity of the reporter and the content of reporting confidential. The personnel unit is responsible for verifying and handling. Those who violate the provisions of Ethical Corporate Management should be punished according to the seriousness of the circumstances.	
(II) Does the Company establish standard operating procedures and relevant confidentiality mechanism for the investigation and acceptance of reporting?	V		(II) Articles 23 and 24 of the Company's "Ethical Corporate Management Best Practice Principles" and Article 5 of "Procedures for Handling Cases of Reporting Illegal and Immoral or Unethical Conducts" have clearly regulated procedures for reporting, punishment and appeal processing, designated special persons to accept cases in person and kept the whole process confidential.	No significant difference
(III) Does the Company take measures to protect the reporter from improper handling due to the reporting?	V		(III) The Company assigns special personnel to accept complaints, in order to protect the reporter from improper retaliation for their reporting.	No significant difference
IV. Enhancing Information Disclosure				
(I) Does the company disclose its Ethical Corporate Management Best Practice Principles and the results of its implementation on the company’s website and MOPS?	V		(I) The Company has "Ethical Corporate Management Best Practice Principles" and discloses its implementation on its website. Please refer to "Investor Area" on the Company’s website at http://www.saswafer.com.	No significant difference
V. If the company has established the ethical corporate management policies based on the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies, please describe any discrepancy between the policies and their implementation: The Company has formulated "Ethical Corporate Management Best Practice Principles" according to “the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies”. There is no difference between the actual operation of the Company and the codes.				
VI. Other important information to facilitate a better understanding of the company’s ethical corporate management policies (e.g., review and amend its policies): (e.g. the Company reviews and amends Ethical Corporate Management Best Practice Principles formulated by it) 1. The Company abides by the Company Law, the Securities Exchange Law, the Commercial Accounting Law, the relevant regulations of TWSE/TPEx Listed Companies or other relevant laws and decrees about commercial conduct, as the basis for the implementation of Ethical Corporate Management Best				

Evaluation Item	Implementation Status (Note 1)			Deviations from “the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies” and Reasons
	Yes	No	Abstract Illustration	
Practice Principles. 2. In the “Rules of Board of Directors Meetings”, there is a system of avoidance of the interests of directors. If motions listed by the Board of Directors have an interest with them and legal person they represent, thereby endangering the interests of the Company, they may state their opinions and answer questions, but may not participate in discussions and votes. They should be avoided by discussion and voting, and may not exercise their voting rights on behalf of other directors. 3. The Company has set up the "Management Procedures for Preventing Insider Trading", which specifies that directors, managers and employees should not disclose the internal material information they know to others, nor should they seek or collect the undisclosed internal material information from those who know the internal material information of the Company, which is not related to their personal position, or disclose the undisclosed internal material information of the Company which they know not due to the performance of their business to others.				

Note 1: Regardless of whether the evaluation item is achieved or not, the company shall state an appropriate explanation.

(VIII) If the Company has formulated code of corporate governance and related regulations, it should disclose its inquiry methods: If the Company has formulated code of corporate governance practice, the relevant measures are implemented in accordance with the spirit and norms of “the Code of Practice for Corporate Governance of TWSE/TPEx Listed Companies”. Please refer to the Investor Service Area on the Company's website (http://www.saswafer.com).

(IX) The Company has formulated "Operation Procedures for Handling the Internal Important Information" and announcement methods:
In March 2010, the Board of Directors of the Company approved "Operation Procedures for Handling the Internal Important Information". In addition to publicizing these procedures to the directors, the relevant procedures were sent to the directors of the Company for reference after the meeting. Internally, after the board's recognition, these procedures and precautions were placed in the Company's intranet publishing area for the Company's managers, managers and all colleagues to follow and avoid violation or insider trading.

(X) Directors’ continuing education:

Title	Name	Training Date	Sponsored by	Training Course	Number of Training Hours	Does it conform to "Key Points of Providing Training for Directors and Supervisors of TWSE/TPEx Listed Companies"
Chairman	Ming-Kuang Lu	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3	Yes
Director	Tang-liang Yao	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		May 9th, 2019	Taiwan Corporation Governance	The Impact of Recent Amendment to Regulations on the	3	Yes

Title	Name	Training Date	Sponsored by	Training Course	Number of Training Hours	Does it conform to "Key Points of Providing Training for Directors and Supervisors of TWSE/TPEx Listed Companies"
			Association	Decision-making of Directors		
Director	Hsiu-Lan Hsu	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3	Yes
Director	Wen-huei Tsai	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3	Yes
Director	Representative of Mao-Yang Co.,Ltd.: Rong-kang Sun	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3	Yes
Director	Representative of Kai-chiang Company: Fang Hao	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		November	Taiwan	The Impact of the New	3	Yes

Title	Name	Training Date	Sponsored by	Training Course	Number of Training Hours	Does it conform to "Key Points of Providing Training for Directors and Supervisors of TWSE/TPEx Listed Companies"
		13th, 2018	Corporation Governance Association	Amendment to the Company Law on the Decision-making of the Board of Directors		
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3	Yes
Director	Representative of Kun-chang Investment Company: Yu-da Chang	April 11th, 2018	Taiwan Academy of Banking and Finance	Corporate Governance Forum-Family Business Inheritance	3	Yes
		May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3	Yes
Director	Representative of Hung-mau Investment Company: Chu-wang Chen	October 24th, 2018	Taiwan Corporation Governance Association	Seminar on Responsibility Risk of Directors and Supervisors	3	Yes
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		November 29th, 2018	Taiwan Institute of Directors	Drive Digital Transition by Corporate Governance and Grasp Digital Risks	3	Yes
		December 13th, 2018	Securities & Futures Institute	Early Warning and Type Analysis of Financial Crisis of Enterprise	3	Yes
Independent Director	Ting-ko Chen	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		May 9th,	Taiwan	The Impact of Recent	3	Yes

Title	Name	Training Date	Sponsored by	Training Course	Number of Training Hours	Does it conform to "Key Points of Providing Training for Directors and Supervisors of TWSE/TPEx Listed Companies"
		2019	Corporation Governance Association	Amendment to Regulations on the Decision-making of Directors		
Independent Director	Shing-hsien Lin	November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		November 29th, 2018	Taiwan Institute of Directors	Drive Digital Transition by Corporate Governance and Grasp Digital Risks	3	Yes
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3	Yes
Independent Director	Mong-hua Huang	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3	Yes
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3	Yes
		November 29th, 2018	Taiwan Institute of Directors	Drive Digital Transition by Corporate Governance and Grasp Digital Risks	3	Yes
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3	Yes

(XI) Managers' Training on Corporate Governance:

Title	Name	Training Date	Sponsored by	Course Name	Number of Training Hours
President	Hsiu-Lan Hsu	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3
Accounting Supervisor	Hsiu-Ling Hsu	May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3
		September 26th, 2018	KPMG United Accounting Firm	IFRS 9 Accounting Treatment of Financial Instruments	1.5
		September 26th, 2018	KPMG United Accounting Firm	IFRS 16 Lease Accounting Standards	1.5
		November 1st-2nd, 2018	Accounting Research and Development Foundation	Continuous Training Course for Accounting Supervisors of Issuers, Securities Dealers and Stock Exchanges	12
		November 13th, 2018	Taiwan Corporation Governance Association	The Impact of the New Amendment to the Company Law on the Decision-making of the Board of Directors	3
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3
Audit Supervisor	Ssu-chen Fan	April 20th, 2018	Accounting Research and Development Foundation	Internal Audit and Control Practice under Lease Accounting of New IFRS16	6
		May 10th, 2018	Taiwan Corporation Governance Association	Common Tax Disputes in Mergers and Acquisitions of Enterprises	3
		October 25th, 2018	The Institute of Internal Auditors-Chinese Taiwan	How Do Internal Auditors Enforce Laws and Regulations and Follow Audit Priorities	6
		November 13th, 2018	Taiwan Corporation Governance	The Impact of the New Amendment to the	3

			Association	Company Law on the Decision-making of the Board of Directors	
		May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3
Corporate Governance Supervisor	Ming-huei Chien	May 9th, 2019	Taiwan Corporation Governance Association	The Impact of Recent Amendment to Regulations on the Decision-making of Directors	3

(XII) Other important information sufficient to enhance understanding of the operation of corporate governance should be disclosed together:

The inquiry method is as follows:

1. MOPS: http://mops.twse.com.tw
2. Website of the Company: http://www.saswafer.com Investor Area

(XIII) Internal Control System Execution Status

1. Statement of Internal Control System

Sino-American Silicon Products Inc.

Internal Control Disclosure Statement

Date: March 21, 2019

Based on the findings of a self-assessment, Sino-American Silicon Products Inc. states the following with regard to its internal control system during the year 2018:

I. Sino-American Silicon Products incorporation's Board of Directors and Management are responsible for establishing, implementing, and maintaining an adequate internal control system. Our internal control is a process designed to provide reasonable assurance over the effectiveness and efficiency of our operations (including profitability, performance, and safeguarding of assets), reliability of our financial reporting, and compliance with applicable laws and regulations.

II. An internal control system has inherent limitations. No matter how perfectly designed, an effective internal control system can provide only reasonable assurance of accomplishing its stated objectives. Moreover, the effectiveness of an internal control system may be subject to changes due to extenuating circumstances beyond our control. Nevertheless, our internal control system contains self-monitoring mechanisms, and Sino-American Silicon Products Inc. takes immediate remedial actions in response to any identified deficiencies.

III. Sino-American Silicon Products Inc. evaluates the design and operating effectiveness of its internal control system based on the criteria provided in the Regulations Governing the Establishment of Internal Control Systems by Public Companies (herein below, the "Regulations"). The criteria adopted by the Regulations identify five key components of managerial internal control: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, and (5) monitoring.

IV. Sino-American Silicon Products Inc. has evaluated the design and operating effectiveness of its internal control system according to the aforesaid Regulations.

V. Based on the findings of such evaluation, Sino-American Silicon Products Inc. believes that on December 31, 2018, we have maintained, in all material respects an effective internal control system (that includes the supervision and management of our subsidiaries), to provide reasonable assurance over our operational effectiveness and efficiency, reliability of financial reporting, and compliance with applicable laws and regulations.

VI. This Statement will be an integral part of Sino-American Silicon Products incorporation's Annual Report for the year 2018 and Prospectus, and will be made public. Any falsehood, concealment, or other illegality in the content made public will entail legal liability under Articles 20, 32, 171, and 174 of the Securities and Exchange Law.

VII. This Statement has been passed by the Board of Directors in the meeting held on 21th Mar. 2019, with none of the eleven attending directors expressing dissenting opinions, and the remainder all affirming the content of this Statement.

Sino-American Silicon Products Inc.

Chairman: Ming-Kuang Lu

President: Hsiu-Lan Hsu

Note 1: Design and implementation of a public company's internal control system, as there are significant deficiency in the year, the internal control system statement should be added explanatory note in the Article 4 that list and explain the significant lack discovery of self-assessment, and the company taken the corrective action to improve the situation before the data of balance sheet.

Note 2: Date of declaration as " the end of fiscal year ".

2. Internal audit organization and operation

The auditing unit of the Company is affiliated to the Board of Directors, and the appointment or removal of the chief internal auditor must be examined by the Audit Committee and sent to the Board of Directors for approval. The Company should report by the Internet Information System for reference in accordance with the provisions of the Financial Regulatory Commission 10 days in the next month after the approval of the Board of Directors. There is currently one chief internal auditor (department manager) and two auditors.

The auditing unit makes an annual audit plan based on the results of risk evaluation, including items to be audited each month. It does carry out audit operations in accordance with the annual audit plan, so as to check the internal control system of the Company.

The Company has set up Audit Committee, all of which are composed of independent directors. When submitting the annual audit plan to the Audit Committee for discussion according to regulations, the opinions of independent directors have been fully taken into account. After each audit, the audit report is made, and the working manuscript and related information are attached. The deficiencies and improvement suggestions will be reported to the management. The audit findings are disclosed in the audit report according to the facts and tracked after the report has been audited at least on a quarterly basis. A tracking report is made until improvement, in order to confirm that the relevant units have taken appropriate improvement measures in time. Members of the Company's Audit Committee communicate well with the chief internal auditor.

The Company's CPAs report the results of the audit or review of the current quarter's financial statements at quarterly meetings of the Audit Committee, as well as other communication matters required by relevant laws and regulations. Members of the Company's Audit Committee communicate well with CPAs.

3. CPA audit report Should Be Disclosed If CPA Is Entrusted To Perform Internal Audit: Not applicable.

(XIV) Punishment on the Company and its Staff in Violation of Law, or Punishment on its Employees in Violation of Internal Control System and Other Internal Regulations, Major Shortcomings and Status of Correction: None.

(XV) As of the date of this Annual Report, the following resolutions are adopted regarding annual shareholders' meeting and Board of Directors Meeting:

1. Important resolutions and implementation of 2018 Shareholders' Meeting (June 26, 2018):

Important resolutions	Implementation status
1. Distribution of cash dividend through capital reserve.	According to the content of the resolution, the distribution was made. The base date of distribution is July 29, 2018, and the distribution of cash dividend of shareholders was completed on August 16, 2018. (NT$ 3 per share)
2. To meet the Company's financial needs, it is proposed to handle public or private offerings of securities.	The Board of Directors approved it officially on March 21, 2019. It will not be dealt with due to the consideration of the whole fund.
3. Amendment to "Rules and Procedures of Shareholders' Meeting" was approved.	After the resolution of the shareholders' meeting, the new revised provisions were implemented.
4. Amendment to "Policies and Procedures for Financial Derivatives Transactions" was approved.	After the resolution of the shareholders' meeting, the new revised provisions were implemented.
5. The recognition of the Business Report and Financial Statements of 2017 was approved.	After the resolution of the shareholders' regular meeting, it was announced on MOPS in accordance with the regulations.
6. The recognition of the loss appropriation of 2017 was approved.	Recognized in accordance with the resolution.

2. Important resolutions of the Board of Directors:

Date	Important resolutions
March 22nd, 2018	1. Audit Report 2. Report of "IFRS No. 16 Leasing Bulletin Plan" of the Company 3. Report on the Evaluation of the Competency and Independence of CPAs 4. The Company's "Performance Evaluation Report of the Board of Directors" 5. The Company's "Performance Evaluation Report of the Audit Committee" 6. The Company's "Performance Evaluation Report of the Remuneration Committee" 7. The Company's Report on the Implementation of Ethical

	Corporate Management in 2017 8. Report on Derivative Financial Instruments 9. Evaluation of the Effectiveness of the Internal Control System in 2017 and "the Declaration on the Internal Control System" 10. Serving as Joint Guarantor for Loan from a Financial Institution of Subsidiary Sunrise PV World Co. 11. The Company's Business Report and Financial Statements of 2017 12. The Company's Appropriation of Profit and Loss in 2017 13. Discussion about Cash Giving by Capital Reserve 14. Amendment to the “Policies and Procedures for Financial Derivatives Transactions” 15. Amendment to the Company's "Management Procedures for Preventing Insider Transactions" 16. Amendment to the Company's "Operation Procedures for Transactions of Group Enterprises, Specific Companies and Related Persons" 17. Amendment to "Rules and Procedures of Shareholders’ Meeting" 18. Discussion about Non-handling of the Issuance of New Shares by Capital Increase of Private Equity upon Expiration 19. Discussion about Dealing with Public or Private Offerings of Securities to Meet the Company's Financial Needs 20. Discussion about Fees for Appointing CPAs of the Company in 2017 21. Appointment of Accounting Supervisor of the Company 22. Appointment of Acting Spokesperson of the Company 23. Appointment of Secretary of the Board of Directors of the Company 24. The Company's "Corporate Governance Self-Evaluation Report" in 2017 25. Removal of Restrictions on Competition of Company Managers 26. Agenda of the 2018 Shareholders' Regular Meeting and Related Matters 27. Discussion about Loan of Funds to Sub-subsidiary Sulu Electric Power and Light
May 10th, 2018	1. Audit Report 2. The Company's Consolidated Financial Quarterly Report for the First Quarter in 2018 3. Report on the Implementation Progress of "Introduction Plan of IFRS No. 16 Lease Bulletin" 4. Report of Derivative Financial Instruments 5. Discussion about Dealing with Public or Private Offerings of Securities to Meet the Company's Financial Needs 6. The Company's New Manager Compensation 7. Amendment to the Company's "Measures for Business Rights and Responsibilities"

	8. Provision of Credit Quota and Foreign Exchange Quota by Financial Institution
June 7th, 2018	1. The Company's Reinvestment
August 9th, 2018	1. Report on the Implementation of the Internal Audit Plan 2. The Company's Consolidated Financial Quarterly Report for the Second Quarter in 2018 3. Report on the Implementation Progress of "Introduction Plan of IFRS No. 16 Lease Bulletin" 4. The Company's Investment Report 5. Amendment to the Company's Business Plan for 2018 6. Amendment to the Company's Internal Control System 7. Dealing with the Cancellation of Treasury Stocks and Defining the Benchmark Date of Capital Reduction 8. Loan of Funds to Power Plant Subsidiary 9. Serving as Guarantor for Loan of Power Plant Subsidiary from a Financial Institution 10. Provision of Credit Quota and Foreign Exchange Quota by Financial Institution
November 13th, 2018	1. Report on the Implementation of the Internal Audit Plan 2. The Company's Consolidated Financial Quarterly Report for the Third Quarter in 2018 3. Report on the Implementation Progress of "Introduction Plan of IFRS No. 16 Lease Bulletin" 4. Report on the Renewal of Directors' and Managers' Liability Insurance Contracts 5. Restriction of New Shares of Employee Rights for Capital Reduction in Cancellation of Buying Back 6. Internal Audit Plan of 2019 7. Serving as Guarantor for Loan of Power Plant Subsidiary from a Financial Institution 8. Loan of Funds to Subsidiaries 9. Provision of Credit Quota and Foreign Exchange Quota by Financial Institution 10. Amendment to the Company's "Management Measures for Managers' Compensation" 11. Amendment to the Company's "Procedures for Handling Cases of Reporting Illegal and Immoral or Unethical Conducts" 12. The Company's Investment
December 13th, 2018	1. Report on the Implementation of the Internal Audit Plan 2. Report on the Implementation of the Corporate Sustainable Development Committee of the Company

	3. Report on the Company's Investment 4. Over-limit Description and Improvement Report of Loan of Funds of Subsidiary Aleo Solar Gmbh to its Subsidiary Aleo Sunrise Gmbh with 100% Shareholding 5. Making the Company's Operating Plan for 2019 6. Discussion about the Letter of Support to be Issued by the Company 7. Provision of Credit Quota and Foreign Exchange Quota by Financial Institution 8. Developing the Company's "Performance Evaluation Method for the Board of Directors and Functional Committee" 9. The Company's Investment
January 11th, 2019	1. Report on the Company's Investment 2. Agreement of the Company to Amend the Long-term Supply Contract 3. The Company's 2018 Asset Impairment 4. The Company Intending to Subscribe the Private Unsecured Ordinary Corporate Bonds of Crystalwise and Technology Co., Ltd.
February 21st, 2019	1. Report on the Company's Investment 2. Change of the Company's Acting Spokesperson 3. Amendment to the Company's " Supervision Measures for Subsidiaries of Sino-American" 4. The Company's Investment 5. Disposal of Shareholding of Investment Company 6. Cancellation of the Company's Investment 7. The Company's 2018 Certified Fees of CPAs
March 21st, 2019	1. Audit Report 2. Report on the Implementation Progress of "Introduction Plan of IFRS No. 16 Lease Bulletin" 3. Report on the Evaluation of the Competency and Independence of CPAs 4. Performance Evaluation Report of the Company's "Board of Directors and Functional Committee" 5. Report on the Company's Guarantee for Reinvested Subsidiary 6. The Company's Business Report and Financial Statements of 2018 7. Employee Remuneration and Director Remuneration Distribution Plan of the Company of 2018 8. The Company's Earnings Allocation of 2018 9. Discussion about Cash Giving by Capital Reserve 10. Amendment to the Company's “Articles of Incorporation” 11. Amendment to the Company's "Acquisition of Disposal of Assets Procedures” 12. Amendment to the Company's "Policies and Procedures for Financial Derivatives Transactions”" 13. Amendment to the Company's "Procedures for Lending

	Funds to Other Parties" 14. Amendment to the Company's " Procedures for Endorsement and Guarantee " 15. Amendment to the Company's "Codes of Ethical Conduct" 16. Amendment to the Company's "Procedures for Ethical Management and Guidelines for Conduct" 17. Amendment to the Company's "Procedures for Handling Cases of Reporting Illegal and Immoral or Unethical Conducts" 18. Formulating the Company's "Measures for Accountant Independence and Performance Evaluation" 19. Discussion about Non-handling of the Issuance of New Shares by Capital Increase of Private Equity upon Expiration 20. Discussion about Dealing with Public or Private Offerings of Securities to Meet the Company's Financial Needs 21. Relevant Matters Concerning the Agenda and Proposals for the Convening of the 2019 General meeting of Shareholders 22. Restriction of New Shares of Employee Rights for Capital Reduction in Cancellation of Buying Back 23. "Declaration of Internal Control System" of 2018 24. Serving as Joint Guarantor for a Subsidiary's Loan from a Financial Institution 25. Discussion about Loan of Funds to Sub-subsidiaries 26. Amendment to the Company's “Accounting System” 27. The Company's Investment 28. Annual Salary Adjustment for Managers of the Company
May 9th, 2019	1. Audit Report 2. The Company's Consolidated Financial Quarterly Report for the First Quarter in 2019 3. Report on the Company's Investment 4. Over-limit Improvement Completing Report of Subsidiary's Loan 5. Provision of Credit Quota and Foreign Exchange Quota by Financial Institution 6. Participation in Subscription and Private Placement 7. Formulating the Company's “Standard Operating Procedures for Dealing with Directors' Requirements” 8. Appointment of the Company's “Corporate Governance Supervisor” 9. Amendment to the Company's "Allocation Rules of Directors' Remuneration” 10. Allocation of Directors' Remuneration of the Company of 2018 11. The Company's Allocation of Managers’ Remuneration of 2018

(XVI) As Of The Date Of This Annual Report, A Director Or A Supervisor Has Expressed Disagreement To A Resolution Passed By The Board Of Directors And Kept

Document Or A Written Statement: None.

(XVII) As Of The Date Of This Annual Report, Resignation Or Dismissal Of Personnel Responsible For Financial Report (Including Chairman, President, Accounting And Audit Managers) : None.

April 30, 2019

Title	Name	Date of Appointment	Date of Termination	Reasons for Resignation or Dismissal
Accounting Manager	Mei-ying Chiu	April 27, 2010	March 22, 2018	Transfer

IV. Information Regarding Audit Fees

(I) Information Regarding Audit Fees

1. Levels of Information Regarding Audit Fees

Name of Accounting Firm	Name of Accountant		Period of Verification	Remarks
KPMG United Accounting Firm	Cheng-chien Chen	An-chih Cheng	January 2018-December 2018	

Unit of amount: NT$ 1,000

Fee Range \ Fee Items		Audit Fee	Non-audit Fee	Total
1	Under NT$ 2,000,000	—	—	—
2	NT$ 2,000,000 (including) ～NT$ 4,000,000	—	—	—
3	NT$ 4,000,000 (including) ～NT$ 6,000,000	5,600	50	5,650
4	NT$ 6,000,000 (including) ～NT$ 8,000,000		—	
5	NT$ 8,000,000 (including) ～NT$ 10,000,000	—	—	—
6	Over NT$ 10,000,000 (including)	—	—	—

Unit of amount: NT$ 1,000

Accounting Firm	Name of CPA	Audit Fee	Non-audit Fee					Period Covered by CPA's Audit	Remarks
			System of Design	Company Registration	Human Resource	Others (Note 2)	Subtotal		
KPMG United Accounting Firm	Cheng-chien Chen An-chih Cheng	5,600	—	50	—	—	5,650	January 1, 2018 - December 31, 2018	

Note 1: When the Company changes its auditors and the accounting firm, shall separately specify audit period and reason in the Note column, and disclose information of audit and non-audit fees.

Note 2: Please record non-audit fees separately according to service item, if non-audit fees indicated under "Other" constitute 25 percent of total non-audit fees, the nature of those service items shall be indicated in the Note column.

(II) Non-Audit Fee Paid to Auditors and the Accounting Firm Accounted for More Than One-Fourth of Total Audit Fee Shall Disclose the Amount and The Service Item: None.

(III) When the Company Changes Its Accounting Firm and the Audit Fees Paid for the Fiscal Year in Which Such Change Took Place Are Lower Than Those for the Previous Year, The Reduction in the Amount of Audit Fees, Reduction Percentage, and Reason(S) Therefore Shall Be Disclosed: None.

(IV) When the Audit Fees Paid for the Current Year Are Lower Than Those for the Previous Fiscal Year by 15 Percent Or More, the Reduction in the Amount of Audit Fees, Reduction Percentage, and Reason(S) Therefore Shall Be Disclosed: None.

V. Information on Replacement of Independent Auditors in the Last Two Years and Thereafter: None.

VI. Name, professional title and employment in the firm of CPA or his/her related enterprise of the Chairman, President, Finance or Accounting Manager Who Has Worked in the Accounting Firm or Affiliates in the Most Recent Year, the Name, Position and the Service Period Shall Be Disclosed: None.

VII. Changes in Shareholding of Directors, Supervisors, Managers and Major Shareholders in Last Year and as of the Date of this Annual Report:

(I) Changes in shareholding rights of directors, supervisors, managers and shareholders with a shareholding ratio of more than 10%

Title	Name	2018		The year ended April 30, 2019		Remarks
		Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged	
Chairman	Ming-Kuang Lu	376,000	0	(2,000,000)	0	CEO of the Company
Vice Chairman	Tang-liang Yao	(50,000)	0		0	Deputy CEO of the Company
Director	Hsiu-Lan Hsu	0	0	0	0	President of the Company
Director	Wen-huei Tsai	0	0	0	0	
Director	United Renewable Energy Co., Ltd. Representative: Chuan-hsien Hong	0 0	0 0	0 0	0 0	
Director	Mao-Yang Co.,Ltd. Representative: Rong-kang Sun	0 0	0 0	0 0	0 0	
Director	Representative of Kai-chiang Company: Fang Hao	0 0	0 0	0 0	0 0	
Director	Kun-chang Investment Company Representative: Yu-da Chang	0 0	0 0	0 0	0 0	
Director	Representative of Hung-mau Investment Company: Chu-wang Chen	0 0	0 0	0 0	0 0	
Independent Director	Ting-ko Chen	0	0	0	0	
Independent Director	Shing-hsien Lin	0	0	0	0	
Independent Director	Mong-hua Huang	0	0	0	0	
Manager	Hau-chun Shih	(142,000)	0	0	0	

Title	Name	2018		The year ended April 30, 2019		Remarks
		Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged	
Manager	BUDI TJAHJONO	0	0	0	0	
Manager	Yu-tse Lin	0	0	0	0	
Manager	C.W. Lee	0	0	0	0	
Manager	Chien-hong Liu	(22,000)	0	0	0	
Manager	Pei-yi Chen	(51,000)	0	0	0	
Accounting Supervisor	Hsiu-Ling Hsu	0	0	0	0	Appointed on March 23, 2018
Accounting Supervisor	Mei-ying Chiu	0	0	0	0	Relieved of her office on March 22, 2018

Note 1: Shareholders holding more than 10% of the total shares of the Company should be identified as major shareholders and listed separately.

Note 2: If the relative person concerned in the transfer or pledge of shares is a related party, the following table should be filled out.

(II) Shares Trading with Related Parties: None.

(III) Shares Pledge with Related Parties: None.

VIII. Information Regarding the Relationship among the Top Ten Shareholders Who are Related Parties in the Financial Accounting Standards Bulletin No. 6:

April 28, 2019

Name	Shareholding		Shareholding under spouse or underage children		Shareholding under other		Top 10 shareholders among who are related parties		Remarks
	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Name	Relationship	
Cathy Life Insurance Co., Ltd.	24,404,000	4.16%	0	0	0	0	None	None	
Representative of Cathy Life Insurance Co., Ltd.: Huang Tiaogui	0	0	0	0	0	0	None	None	
Hongwang Investment Co., Ltd.	24,147,000	4.12%	0	0	0	0	None	None	
Representative of Hongwang Investment Co., Ltd. Jiang Sulan	0	0	0	0	0	0	None	None	
United Renewable Energy Co., Ltd.	21,860,379	3.73%	0	0	0	0	None	None	
Representative of United Renewable Energy Co., Ltd.: Chuan-hsien Hong	0	0	0	0	0	0	None	None	
Special Investment Account of Morgan Stanley International Limited hosted by HSBC (Taiwan) Commercial Bank	13,944,463	2.38%	0	0	0	0	None	None	
Special Investment Account of Merrill Lynch International	13,769,200	2.35%	0	0	0	0	None	None	

Hosted by HSBC									
Weilian Technology Co., Ltd.	13,114,000	2.24%	0	0	0	0	None	None	
Representative of Weilian Technology Co., Ltd: Jiang Sulan	0	0	0	0	0	0	None	None	
Nanshan Life Insurance Co., Ltd.	11,484,000	1.96%	0	0	0	0	None	None	
Representatives of Nanshan Life Insurance Co., Ltd.: Du Yingzong	0	0	0	0	0	0	None	None	
Hung-mau Investment Company	10,425,000	1.78%	0	0	0	0	None	None	
Representative of Hung-mau Investment Company: Jiang Sulan	0	0	0	0	0	0	None	None	
Ming-Kuang Lu	100,530,000	1.71%	2,001,685	0.35%	0	0	None	None	
Special Investment Account of Citibank Norwegian Central Bank hosted by CITI (Taiwan) Commercial Bank	8,458,164	1.44%	0	0	0	0	None	None	

IX. Total Numbers and Equity of Shares Held In any Single Enterprise by the Company, Directors, Supervisors, Managers and Any Companies Controlled Either Directly or Indirectly by the Company:

December 31, 2018 Unit: thousand shares; %

Reinvestment (Note 1)	Investment by SAS		Investments directly or indirectly controlled by directors, supervisors and managers		Total investment	
	Number of Shares	Shareholding Proportion	Number of Shares	Shareholding Proportion	Number of Shares	Shareholding Proportion
Sino Silicon Technology Inc.	48,526	100.00%	—	—	48,526	100.00%
GlobalWafers Co., Ltd.	222,727	51.17%	—	—	222,727	51.17%
Crystalwise Technology	65,923	40.12%	—	—	65,923	40.11%
Accu Solar Corp	7,452	24.70%	—	—	7,452	24.70%
Aleo Solar GmbH	(Note 2)	100.00%	—	—	(Note 2)	100.00%
Aleo Solar Distribuzione Italia S.r.l	—	—	(Note 2)	100.00%	(Note 2)	100.00%
Aleo Sunrise GmbH	—	—	(Note 2)	100.00%	(Note 2)	100.00%
Sunrise PV World Co.	30,000	100.00%	—	—	30,000	100.00%
Sunrise PV Electric Power Two	—	—	4,200	100.00%	4,200	100.00%
Sunrise PV Two Co., Ltd.	—	—	1,500	100.00%	1,500	100.00%
Sunrise PV Three Co., Ltd.	—	—	1,500	100.00%	1,500	100.00%
Sunrise PV Four Co., Ltd.	—	—	10,000	100.00%	10,000	100.00%
Sunrise PV Five Co., Ltd.	—	—	6,500	100.00%	6,500	100.00%
Cathy Sunrise Corporation	45,000	30.00%	—	—	45,000	30.00%
SAS Sunrise Inc.	24,500	100.00%	—	—	24,500	100.00%
SAS Sunrise Pte. Ltd.	—	—	30,934	100.00%	30,934	100.00%
Sulu Electric Power and Light Inc.	—	—	892,500	85.00%	892,500	85.00%
AMLED International Systems Inc.	—	—	—	—	—	—

Note 1: The Company's investment is based on equity method.

Note 2: It is a limited company, so there is no number of shares.

December 31, 2018 Unit: thousand shares; %

Reinvestment (Note 1)	Investment by SAS		Investments directly or indirectly controlled by directors, supervisors and managers		Total investment	
	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio	Number of Shares	Shareholding Ratio
GlobalWafers Inc.	90,000	100.00%	-	-	90,000	100.00%
GlobalSemiconductor Inc.	25,000	100.00%	-	-	25,000	100.00%
GlobalWafers Japan Co., Ltd.	128	100.00%	-	-	128	100.00%
GWafers Singapore Pte. Ltd.	364,000	67.20%	177,674	32.80%	541,674	100.00%
Topsil GlobalWafers A/S	1,000	100.00%	-	-	1,000	100.00%
Hongwang Investment Co., Ltd.	312	24.38%			312	24.38%
Taisil Electronic Materials Corp.	9,999	99.99%	-	-	9,999	99.99%
Kunshan Sino Silicon Technology Co., Ltd.	-	-	(Note 2)	100.00%	(Note 2)	100.00%
Shanghai GROWFAST Semiconductor Technology Co. Ltd.	-	-	(Note 2)	60.00%	(Note 2)	60.00%
MEMC Japan Ltd.	-	-	750	100.00%	750	100.00%
Topsil Semiconductor sp z o.o.	-	-	0.1	100.00%	0.1	100.00%
GlobalWafers Singapore Pte. Ltd.	-	-	299,445	100.00%	299,445	100.00%
GlobalWafers B.V.	-	-	0.1	100.00%	0.1	100.00%
MEMC Electronic Materials, SpA	-	-	65,000	100.00%	65,000	100.00%
MEMC Electronic Materials France SarL	-	-	0.5	100.00%	0.5	100.00%
MEMC Electronic Materials GmbH	-	-	0.002	100.00%	0.002	100.00%
MEMC Holding B.V.	-	-	0.2	100.00%	0.2	100.00%
MEMC Korea Company	-	-	17,200	100.00%	17,200	100.00%
GlobiTech Incorporated.	-	-	1	100.00%	1	100.00%
MEMC LLC	-	-	-	100.00%	-	100.00%
MEMC Electronic Materials, Sdn Bhd	-	-	1,036	100.00%	1,036	100.00%
MEMC Ipoh Sdn Bhd			619,374	100.00%	619,374	100.00%
SunEdison Semiconductor Technology (Shanghai) Ltd	-	-	(Note 2)	100.00%	(Note 2)	100.00%

Note 1: The Company's investment is based on equity method.

Note 2: It is a limited company, so there is no number of shares.

IV. Capital Overview

I. Capital and Shares

(I) Source of Capital:

1. Issued Shares

Unit: NT$/share

Month/ Year	Par Value	Authorized Capital		Paid-in Capital		Remarks		
		Number of Shares	Amount	Number of Shares	Amount	Sources of Capital	Capital Increased by Assets Other than Cash	Other
January 1981	10	10,800,000	108,000,000	6,044,663	60,446,630	Capital increased by cash 38,902,043	21,544,587	
August 1984	10	10,800,000	108,000,000	10,800,000	108,000,000	Capital increased by cash 111,946	47,441,424	
November 1984	10	14,000,000	140,000,000	14,000,000	140,000,000	Capital increased by cash 32,000,000	None	
April 1990	10	30,000,000	300,000,000	30,000,000	300,000,000	Capital increased by cash 160,000,000	None	Note (1)
November 1995	10	60,000,000	600,000,000	40,000,000	400,000,000	Capital increased by cash 100,000,000	None	Note (2)
February 1998	10	60,000,000	600,000,000	60,000,000	600,000,000	Capital increased by cash 200,000,000	None	Note (3)
August 1998	10	63,000,000	630,000,000	63,000,000	630,000,000	Conversion of capital reserve to capital increase 30,000,000	None	Note (4)
December 1999	10	78,000,000	780,000,000	78,000,000	780,000,000	Capital increased by cash 150,000,000	None	Note (5)
October 2000	10	86,421,000	864,210,000	86,421,000	864,210,000	Conversion of surplus, capital reserve and employee dividend to capital increase 84,210,000	None	Note (6)
October 2001	10	170,000,000	1,700,000,000	100,857,250	1,008,572,500	Conversion of surplus and employee dividend to capital increase 144,362,500	None	Note (7)
October	10	170,000,000	1,700,000,000	105,350,000	1,053,500,000	Conversion of	None	Note (8)

2002						surplus and employee dividend to capital increase 44,927,500		
September 2003	10	170,000,000	1,700,000,000	109,706,100	1,097,061,000	Conversion of surplus, capital reserve and employee dividend to capital increase 43,561,000	None	Note (9)
September 2004	10	170,000,000	1,700,000,000	114,593,000	1,145,930,000	Conversion of surplus and employee dividend to capital increase 48,869,000	None	Note (10)
September 2005	10	170,000,000	1,700,000,000	122,300,000	1,223,000,000	Conversion of surplus and employee dividend to capital increase 77,070,000	None	Note (11)
October 2005	10	170,000,000	1,700,000,000	152,300,000	1,523,000,000	Capital increased by cash 300,000,000	None	Note (12)
September 2006	10	250,000,000	2,500,000,000	161,000,000	1,610,000,000	Conversion of surplus, capital reserve and employee dividend to capital increase 87,000,000	None	Note (13)
October 2006	10	250,000,000	2,500,000,000	181,000,000	1,810,000,000	Capital increased by cash 200,000,000	None	Note (14)
October 2006	10	250,000,000	2,500,000,000	183,289,000	1,832,890,000	Warrants Conversion stock 22,890,000	None	Note (15)
March 2007	10	250,000,000	2,500,000,000	183,692,000	1,836,920,000	Warrants Conversion stock 4,030,000	None	Note (16)
May 2007	10	250,000,000	2,500,000,000	186,506,000	1,865,060,000	Warrants Conversion stock 28,140,000	None	Note (17)
September 2007	10	250,000,000	2,500,000,000	186,831,000	1,868,310,000	Warrants Conversion stock 3,250,000	None	Note (18)
September 2007	10	250,000,000	2,500,000,000	197,241,300	1,972,413,000	Surplus and employees Conversion of dividend to capital increase 104,103,000	None	Note (19)
December 2007	10	250,000,000	2,500,000,000	198,366,300	1,983,663,000	Warrants Conversion stock	None	Note (20)

						11,250,000		
February 2008	10	250,000,000	2,500,000,000	198,386,300	1,983,863,000	Warrants Conversion stock 200,000	None	Note (21)
May 2008	10	250,000,000	2,500,000,000	199,107,700	1,991,077,000	Warrants Conversion stock 7,214,000	None	Note (22)
September 2008	10	250,000,000	2,500,000,000	210,426,710	2,104,267,100	Surplus and employees Conversion of dividend to capital increase 110,860,100 Warrants Conversion stock 2,330,000	None	Note (23)
October 2008	10	250,000,000	2,500,000,000	220,426,710	2,204,267,100	Capital increased by cash 100,000,000	None	Note (24)
December 2008	10	250,000,000	2,500,000,000	221,177,710	2,221,777,100	Warrants Conversion stock 7,510,000	None	Note (25)
April 2009	10	250,000,000	2,500,000,000	221,233,710	2,212,337,100	Warrants Conversion stock 560,000	None	Note (26)
May 2009	10	250,000,000	2,500,000,000	221,923,110	2,219,231,100	Warrants Conversion stock 6,894,000	None	Note (27)
August 2009	10	350,000,000	3,500,000,000	267,929,276	2,679,292,760	Surplus and employees Conversion of dividend to capital increase 460,061,660	None	Note (28)
August 2009	10	350,000,000	3,500,000,000	299,179,276	2,991,792,760	Capital increased by cash 312,500,000	None	Note (29)
September 2009	10	350,000,000	3,500,000,000	299,317,276	2,993,172,760	Warrants Conversion stock 1,380,000	None	Note (30)
November 2009	10	350,000,000	3,500,000,000	299,441,276	2,994,412,760	Warrants Conversion stock 1,240,000	None	Note (31)
March 2010	10	350,000,000	3,500,000,000	299,479,276	2,994,792,760	Warrants Conversion stock 380,000	None	Note (32)
April 2010	10	350,000,000	3,500,000,000	299,626,276	2,996,262,760	Warrants Conversion stock 1,470,000	None	Note (33)
July 2010	10	350,000,000	3,500,000,000	321,025,580	3,210,255,800	Surplus and employees Conversion of	None	Note (34)

						dividend to capital increase 213,993,040		
October 2010	10	500,000,000	5,000,000,000	382,025,580	3,820,255,800	Capital increased by cash 610,000,000	None	Note (35)
May 2011	10	500,000,000	5,000,000,000	402,132,190	4,021,321,900	Stock exchange 201,066,100	None	Note (36)
August 2011	10	600,000,000	6,000,000,000	423,119,081	4,231,190,810	Surplus and employees Conversion of dividend to capital increase 209,868,910	None	Note (37)
November 2011	10	600,000,000	6,000,000,000	443,119,081	4,431,190,810	Cash capital increase 200,000,000	None	Note (38)
August 2012	10	800,000,000	8,000,000,000	523,119,081	5,231,190,810	Cash capital increase 800,000,000	None	Note (39)
May 2014	10	800,000,000	8,000,000,000	523,143,081	5,231,430,810	Warrants Conversion stock 240,000	None	Note (40)
August 2014	10	800,000,000	8,000,000,000	580,031,151	5,800,311,510	Merger of Sunrise Global Issue of new shares 568,880,700	None	Note (41)
October 2017	10	800,000,000	8,000,000,000	592,093,651	5,920,936,510	Warrants Conversion stock 60,625,000 New shares restricting staffs' rights 60,000,000	None	Note (42)
January 2018	10	800,000,000	8,000,000,000	592,058,651	5,920,586,510	Cancellation of new shares restricting staffs' rights 350,000	None	Note (43)
October 2018	10	800,000,000	8,000,000,000	586,503,651	5,865,036,510	Capital injection and reduction of treasury stock 55,550,000	None	Note (44)
December 2018	10	800,000,000	8,000,000,000	586,320,651	5,863,206,510	Cancellation of new shares restricting staffs' rights 1,830,000	None	Note (45)
April 2019	10	800,000,000	8,000,000,000	586,287,651	5,862,876,510	Cancellation of new shares restricting staffs' rights 330,000	None	Note (46)

Note (1) Tai Cai Zheng (1) Approval Letter No. 02824 of October 26th, 1990 (1990) of the Securities Management Committee, Ministry of Finance.

Note (2) Tai Cai Zheng (1) Approval Letter No. 39204 of December 4th, 1995 (1995) of the Securities Management Committee, Ministry of Finance.

Note (3) Tai Cai Zheng (1) Approval Letter No. 85459 of November 27th, 1997 (1997) of Securities

and Futures Commission, Ministry of Finance.

Note (4) Tai Cai Zheng (1) Approval Letter No. 58663 of July 10th, 1998 (1998) of Securities and Futures Commission, Ministry of Finance.

Note (5) Tai Cai Zheng (1) Approval Letter No. 93634 of October 26th, 1999 (1999) of Securities and Futures Commission, Ministry of Finance.

Note (6) Tai Cai Zheng (1) Approval Letter No. 83396 of October 6th, 2000 (2000) of Securities and Futures Commission, Ministry of Finance.

Note (7) Tai Cai Zheng (1) Approval Letter No. 140364 of June 26th, 2001 (2001) of Securities and Futures Commission, Ministry of Finance.

Note (8) Tai Cai Zheng Yi Zi Approval Letter No. 0910144515 of August 9th, 2002 (2002) of Securities and Futures Commission, Ministry of Finance.

Note (9) Tai Cai Zheng Yi Zi Approval Letter No. 0920133758 of July 25th, 2003 (2003) of Securities and Futures Commission, Ministry of Finance.

Note (10) Tai Cai Zheng Yi Zi Approval Letter No. 0930132046 of July 19th, 2004 (2004) of Financial Supervisory Commission, Executive Yuan.

Note (11) Tai Cai Zheng Yi Zi Approval Letter No. 0940126037 of June 29th, 2005 (2005) of Financial Supervisory Commission, Executive Yuan.

Note (12) Tai Cai Zheng Yi Zi Approval Letter No. 0940125440 of July 1st, 2005 (2005) of Financial Supervisory Commission, Executive Yuan.

Note (13) Tai Cai Zheng Yi Zi Approval Letter No. 0950128446 of July 10th, 2006 (2006) of Financial Supervisory Commission, Executive Yuan.

Note (14) Tai Cai Zheng Yi Zi Approval Letter No. 0950128620 of July 12th, 2006 (2006) of Financial Supervisory Commission, Executive Yuan.

Note (15) Yuan Shang Zi Approval Letter No. 0950028768 of October 27th, 2006 of Taiwan Science Park Administration.

Note (16) Yuan Shang Zi Approval Letter No. 0960006570 of March 13th, 2007 of Taiwan Science Park Administration.

Note (17) Yuan Shang Zi Approval Letter No. 0960011004 of May 1st, 2007 of Taiwan Science Park Administration.

Note (18) Jin Guan Zheng Yi Zi Approval Letter No. 0960036973 of July 17th, 2007 of Financial Supervisory Commission, Executive Yuan.

Note (19) Yuan Shang Zi Approval Letter No. 0960025181 of September 13th, 2007 of Taiwan Science Park Administration.

Note (20) Yuan Shang Zi Approval Letter No. 0960033158 of December 5th, 2007 of Taiwan Science Park Administration.

Note (21) Yuan Shang Zi Approval Letter No. 0970007484 of February 15th, 2008 of Taiwan Science Park Administration.

Note (22) Yuan Shang Zi Approval Letter No. 0970012289 of May 14th, 2008 of Taiwan Science Park Administration.

Note (23) Yuan Shang Zi Approval Letter No. 0970023820 of September 1st, 2008 of Taiwan Science Park Administration.

Note (24) Yuan Shang Zi Approval Letter No. 0970031254 of November 5th, 2008 of Taiwan Science Park Administration.

Note (25) Yuan Shang Zi Approval Letter No. 0970033918 of December 1st, 2008 of Taiwan Science Park Administration.

Note (26) Yuan Shang Zi Approval Letter No. 0980010288 of April 13th, 2009 of Taiwan Science Park Administration.

Note (27) Yuan Shang Zi Approval Letter No. 0980012552 of May 13th, 2009 of Taiwan Science Park

Administration.

Note (28) Yuan Shang Zi Approval Letter No. 0980021402 of August 14th, 2009 of Taiwan Science Park Administration.

Note (29) Yuan Shang Zi Approval Letter No. 0980024305 of August 28th, 2009 of Taiwan Science Park Administration.

Note (30) Yuan Shang Zi Approval Letter No. 0980027608 of September 28th, 2009 of Taiwan Science Park Administration.

Note (31) Yuan Shang Zi Approval Letter No. 0980033989 of November 30th, 2009 of Taiwan Science Park Administration.

Note (32) Yuan Shang Zi Approval Letter No. 0990012116 of April 29th, 2010 of Taiwan Science Park Administration.

Note (33) Yuan Shang Zi Approval Letter No. 0990015583 of June 4th, 2010 of Taiwan Science Park Administration.

Note (34) Yuan Shang Zi Approval Letter No. 0990018384 of July 2nd, 2010 of Taiwan Science Park Administration.

Note (35) Yuan Shang Zi Approval Letter No. 0990031133 of October 15th, 2010 of Taiwan Science Park Administration.

Note (36) Yuan Shang Zi Approval Letter No. 1000011943 of May 5th, 2011 of Taiwan Science Park Administration.

Note (37) Yuan Shang Zi Approval Letter No. 1000025568 of August 31st, 2011 of Taiwan Science Park Administration.

Note (38) Yuan Shang Zi Approval Letter No. 1000033672 of November 8th, 2011 of Taiwan Science Park Administration.

Note (39) Yuan Shang Zi Approval Letter No. 1010024319 of August 7th, 2012 of Taiwan Science Park Administration.

Note (40) Zhu Shang Zi Approval Letter No. 10300 12459 of May 8th, 2014 of the Administration of Hsinchu Science Industrial Park, Ministry of Science and Technology.

Note (41) Zhu Shang Zi Approval Letter No. 1030025712 of August 27th, 2014 of the Administration of Hsinchu Science Industrial Park, Ministry of Science and Technology.

Note (42) Zhu Shang Zi Approval Letter No. 1060029808 of October 27th, 2017 of the Administration of Hsinchu Science Industrial Park, Ministry of Science and Technology.

Note (43) Zhu Shang Zi Approval Letter No. 1070000085 of January 4th, 2018 of the Administration of Hsinchu Science Industrial Park, Ministry of Science and Technology.

Note (44) Zhu Shang Zi Approval Letter No. 1070028752 of October 5th, 2018 of the Administration of Hsinchu Science Industrial Park, Ministry of Science and Technology.

Note (45) Zhu Shang Zi Approval Letter No. 1070034774 of December 4th, 2018 of the Administration of Hsinchu Science Industrial Park, Ministry of Science and Technology.

Note (46) Zhu Shang Zi Approval Letter No. 1080009195 of April 2nd, 2019 of the Administration of Hsinchu Science Industrial Park, Ministry of Science and Technology.

2. Type of Stock

Share Type	Authorized Capital			Remarks
	Issued Shares	Un-issued Shares	Total	
Registered common stock	586,287,651	213,712,349	800,000,000	This stock belongs to TPEx listed stock.

3. Shelf Registration: not applicable.

(II) Status of Shareholders

April 28, 2019

Shareholder / Structure Quantity	Government Agencies	Financial Institutions	Other Juridical Persons	Individuals	Foreign Institution & Persons	Total
Number of Shareholders	6	17	210	76,086	408	76,727
Ownership (Share)	3,837,450	38,066,000	94,064,285	262,983,483	187,336,433	586,287,651
Ownership (%)	0.65%	6.49%	16.05%	44.87%	31.94%	100.00%

(III) Diffusion of Ownership

1. Common Shares

NT$ 10 per share

April 28, 2019

Class of Shareholding	Number of Shareholders	Ownership (Share)	Ownership (%)
1 ~ 999	30,765	2,910,176	0.50%
1,000 ~ 5,000	37,539	73,555,606	12.55%
5,001 ~ 10,000	4,542	34,819,035	5.94%
10,001~ 15,000	1,340	16,952,481	2.89%
15,001~ 20,000	782	14,359,667	2.45%
20,001~ 30,000	618	15,807,723	2.70%
30,001~ 40,000	309	11,042,654	1.88%
40,001~ 50,000	173	8,005,196	1.37%
50,001~ 100,000	296	20,980,996	3.58%
100,001~ 200,000	135	19,429,383	3.31%
200,001~ 400,000	98	27,236,924	4.65%
400,001~ 600,000	37	17,854,088	3.05%
600,001~ 800,000	17	11,929,566	2.03%
800,001~ 1,000,000	11	9,388,157	1.60%
1,000,001 or over	65	302,015,999	51.50%
Total	76,727	586,287,651	100.00%

2. Special shares: None.

(IV) List of Major Shareholders

The name, amount and proportion of the major shareholders whose equity ratio is more than 5% or among top 10

April 28, 2019

Shares / Name of Major Shareholders	Shareholding (shares)	Shareholding Ratio (%)
Cathy Life Insurance Co., Ltd.	24,404,000	4.16%
Hongwang Investment Co., Ltd.	24,147,000	4.12%
United Renewable Energy Co., Ltd.	21,860,379	3.73%
Special Investment Account of Morgan Stanley International Limited hosted by HSBC (Taiwan) Commercial Bank	13,944,463	2.38%
Special Investment Account of Merrill Lynch International Hosted by HSBC	13,769,200	2.35%
Weilian Technology Co., Ltd.	13,114,000	2.24%
Nanshan Life Insurance Co., Ltd.	11,484,000	1.96%
Hung-mau Investment Company	10,425,000	1.78%
Ming-Kuang Lu	10,053,000	1.71%
Special Investment Account of Citibank Norwegian Central Bank hosted by CITI (Taiwan) Commercial Bank	8,458,164	1.44%

(V) Market Price, Net Worth, Earnings, and Dividends per Share for the Last Two Years

Unit: NT$

Item \ Year			2017	2018	As of March 31st, 2019
Market Price per Share	Highest Market Price		90.70	153.5	74.4
	Lowest Market Price		33.10	47.1	58.6
	Average Market Price		59.60	98.16	66.76
Net Worth per Share	Before Distribution		45.99	45.85	49.21
	After Distribution		44.02	Note 1	Not applicable
Earnings per Share	Weighted Average Shares (thousand shares)		576,525	581,058	583,096
	Earnings per Share	Before Adjustment	1.8	3.36	3.15
		After Adjustment	1.8	3.36	Not applicable
Dividends per Share	Cash Dividends		3.00	Note 1	Not applicable
	Free Dividends	Dividends from Retained Earnings	—	Note 1	Not applicable
		Dividends from Capital Surplus	—	Note 1	Not applicable
	Accumulated Undistributed Dividends		—	Note 1	Not applicable
Return on Investment	Price / Earnings Ratio		33.11	29.21	Not applicable
	Price / Dividend Ratio		19.87	Note 1	Not applicable
	Cash Dividend Yield Rate		5.03%	Note 1	Not applicable

Note 1: The shareholders' meeting has not yet been convened to allocate the surplus for 2018

(VI) Dividend Policy and Implementation Status

1. Dividend Policy

If there is surplus in the annual final accounts of the Company, after paying taxes and making up for accumulated losses according to law, 10% is accrued as the statutory surplus reserve, but when the statutory surplus reserve has reached the amount of the Company's paid-in capital, it should not be listed, and the rest should be listed or turned back to the special surplus reserve according to the law. If there is still a surplus and the accumulated undistributed surplus, the Board of Directors should make a surplus allocation proposal, which should be submitted to shareholders' meeting to decide to distribute dividends.

In order to maintain continuous operation and steady growth of EPS, dividend for shareholders shall be more than 50% of the profit after tax deducting the

appropriation of special surplus of the year by the regulations, and the shareholder dividend distribution rate shall be no less than 50% of the cash dividend.

2. Dividend allocation

The Company's surplus distribution in 2018 was adopted by the Board of Directors by resolution on March 21, 2019. The relevant situation of proposed surplus distribution adopted by the Board of Directors is as follows:

1. The net after-tax profit of the Company in 2018 was NT$ 1,950,503,835. It is proposed to distribute the cash dividend of shareholders of NT$ 2.3145 per share, which is NT$ 1,356,962,768.
2. The Company intends to allocate NT$ 401,900,185 from the capital reserve of the excess obtained by issuance of shares over par value, and allocate NT$ 0.6855 per share for shares held in the register of shareholders on the based date of distribution.

3. Description of expected significant changes in dividend policy: None.

(VII) Impact of the Stock Dividend Proposal of this Shareholders meeting on Operational Performance and Earning per Share: not applicable.

(VIII) Employee Bonus and Directors' and Supervisors' Remuneration

1. The percentage or scope of remuneration for employees and directors contained in the Articles of Incorporation:
   If the Company is profitable in the year, it should allocate 3-15% as employees' remuneration. The Board of Directors decides to distribute the remuneration in stock or cash. The object of the distribution includes the employees of the subordinate company who meet certain conditions. If the Company can make profit with the above amount, the Board of Directors decides to allocate up to 3% as its directors' remuneration. The distribution proposal of remuneration of employees and directors should be submitted and reported to the shareholders' meeting.
   If it has accumulative losses, the Company should reserve and make up the amount before distributing remuneration to the employees and directors according to the percentage mentioned in the preceding paragraph.
2. The Estimated Basis for Calculating the Employee Bonus and Directors' Remuneration as well as Employee Stock Bonus, Accounting Treatment if the Actual Distribution Is Different from Estimation:
   (1) Allocation for employee stock bonus and directors' remuneration: In compliance with Articles of Incorporation.

(2) Ratio of employee stock bonus to capitalization of earnings: If employee remuneration is distributed via stock, this will be calculated based on the total equity attributable to owners of parent in the latest financial statement audited by CPA. The Company does not distribute employee remuneration via stock this year.

(3) Accounting Treatment if the Actual Distribution Is Different from Estimation: If shareholder resolution is different from the estimation, it will be deemed as changes in accounting estimates and recognized in current profit and loss.

3. Remuneration distribution approved by board meeting:

(1) If the recommended distribution of employees' bonus and directors' remuneration has differences with estimation, therefore, its reason, variance and dealing should be disclosed.
Employees' bonus and directors' remuneration are approved in Board Meeting dated 2019.3.21:
Employees' bonus: NTD 131,990,000, all will be issued in cash
Directors' remuneration: NTD 44,010,000, all will be issued in cash
There is no difference in actual distribution of employee bonus and directors' remuneration with the recognition in 2018 financial statements.

(2) Ratio of recommended employee stock bonus to net income in the current standalone or consolidated financial statements, and the total amount of employees to remuneration: None.

4. Actual distribution of employees bonus, directors' and supervisors' remuneration in the previous year (including shares numbers, amount and price), if there is any difference with estimation, its variation, reason and handling should be specified: The Company did not raised employees' and directors' remuneration in 2017.

(IX) Repurchase of Company Shares: None.

II. Status of Corporate Bonds: None.

III. Status of Preferred Stocks: None.

IV. GDR Issuance:

March 31, 2019

Issue date / Item	September 8, 2010
Date of Issuance	September 8, 2010
Issuance and Listing	Luxembourg Stock Exchange
Total Amount	US$ 177,192,800
Offering Price per GDS	US$ 2.9048.
Units Issued	61,000,000 units of GDR Issuance
Underlying Securities	Common shares of Sino-American Silicon Products Inc.
Common Shares Represented	61,000,000 shares
Rights and Obligations of GDS Holders	1. An global depositary receipt holder exercises the voting rights of ordinary shares of Sino-American Silicon Products Inc. in the depositary receipt on the basis of depositary receipt agreement and the relevant provisions of the Law of the Republic of China. 2. An global depositary receipt holder enjoys the same share allocation and other allotment rights as existing common shareholders in accordance with the Law of Republic of China and other relevant laws. If Sino-American Silicon Products Inc. issues stock dividends or shares for other reasons in the future, the depository institution will issue the global depositary receipt to global depositary receipt holder in accordance with provisions of the depository convention and relevant laws with the proportion of the original holding unit of the global depositary receipt, or increase the number of common shares of Sino-American Silicon Products Inc. for each unit of global depositary receipt. Or the depository institution will sell the stock dividends and allocate the net income (deducting relevant taxes and fees) to the global depositary receipt holder on a pro rata basis. When Sino-American Silicon Products Inc. increases its capital by cash or other warrants, the global depositary receipt holder should have the same rights to subscribe for new shares and other rights as shareholders of ordinary shares in accordance with the Law of Republic of China and other relevant laws. The depository institution should provide such rights to the global depositary receipt holder or sell them in accordance with the Law of the Republic of China and other relevant laws, and distribute the net income (after deduction of taxes and expenses) to the global depositary receipt holder according to the ratio.
Trustee	Not applicable
Depositary Bank	Citibank, N.A.
Custodian Bank	Citibank Taiwan Ltd.
GDSs Outstanding	383,689
Apportionment of expenses for the issuance and maintenance	1. Costs related to the issuance of global depositary receipts: The expenses incurred in connection with the issuance of global depositary receipts, including legal fees, listing fees, financial consulting fees and any other related fees, should be borne by the issuing company and the selling shareholders unless otherwise stipulated by the law or agreed by the issuing company, sponsoring underwriter and depository institution.

			2. Related expenses in the period of existence: Unless otherwise stipulated by the law or agreed by the issuing company, sponsoring underwriter and depository institution, related expenses in the period of existence, including disclosure of information and other expenses, should be borne by the issuing company.
Terms and Conditions in the Deposit Agreement and Custody Agreement			—
Closing Price per GDS	2018	Highest	US$ 5.05
		Lowest	US$ 1.52
		Average	US$ 3.20
	As of March 31, 2019	Highest	US$ 2.40
		Lowest	US$ 1.99
		Average	US$ 2.16

V. Employee Stock Options: None.

VI. Status of New Shares Issuance of Limited Stocks for Employees

(I) Status of New Shares Issuance of Limited Stocks for Employees:

Type of New Restricted Employee Shares	2017 New Restricted Employee Shares
Date of Effective Registration	September 21, 2017
Issue date	October 13, 2017
Number of New Restricted Employee Shares Issued	6,000,000 shares
Par Value	NT$ 20
New Restricted Employee Shares as a Percentage of Shares Issued	1.01%
Vesting Conditions of New Restricted Employee Shares	Those who are still in service upon expiration of the following processes after new restricted employee shares are allocated and obtain the performance evaluation of Grade A (including) or above can obtain the proportion of shares under the vesting conditions as follows: Have worked for 1 year: 40% Have worked for 2 years: 70% Have worked for 3 years: 100%
Restricted Rights of New Restricted Employee Shares	1. Employees should not sell, pledge, transfer, give, set or otherwise dispose of allocated or subscribed shares before the vesting conditions are met. 2. New restricted employee shares have the right to participate in dividend distribution, and the allocation of shares and dividends obtained is not limited by the vested period. The allocated shares and dividends will be allotted to the personal account of employees from a trust account within one month after the date of issuance. 3. The proposals, speeches, voting rights and other matters concerning the rights and interests of shareholders before the employees have met the vested conditions are entrusted to a trust custodian bank to exercise them on their behalf. 4. After the status of New Shares Issuance of Limited Stocks for Employees, they should be immediately delivered to the trust, and the trustee should not be asked to return them in any way or for any reason until the vested conditions have not been met.

Custody Status of New Restricted Employee Shares	Shares are delivered to trust for custody
Measures to be Taken When Vesting Conditions are not Met in Allocation or Subscription for New Shares by Employees	(1) Voluntary dimission, dismissal and lay-off: The Company should withdraw the new restricted employee shares which have not yet been acquired from employee at the issuing price from the effective date of resignation. (2) Retirement: The new restricted employee shares which have not yet been acquired should be deemed to be acquired in full on the day of retirement. (3) Disability or death due to occupational disasters or general death: A. If a person is unable to continue his post due to physical disability caused by occupational disasters, the new restricted employee shares which have not yet been acquired should be deemed to be fully acquired on the effective date of dimission. B. On the day of the death of an employee, the heirs should be deemed to have acquired all the new restricted employee shares which have not yet been acquired for death due to occupational disasters or general death. (4) On leave without pay: A. New restricted employee shares which have not yet been acquired of employees who leave without pay on duty should acquire all the shares if they have resumed their posts before the expiration date of acquiring new restricted employee shares; and those who have not have resumed their posts should acquired after resuming. B. New restricted employee shares which have not yet been acquired of employees who do not leave without pay on duty should be recovered by the Company at the issuing price on the effective date of salary stopping. (5) Transfer: A. New restricted employee shares which have not yet been acquired of employees who are transferred on duty should acquire all the shares if they still work in the unit which they are transferred to on the expiration date of acquiring new restricted employee shares; and those who leave after the transfer should be considered as separated employees of the Company. B. New restricted employee shares which have not yet been acquired of employees who are not transferred on duty should be recovered by the Company at the issuing price on the effective date of transfer. (6) The Company will cancel any new restricted employee shares recovered by the Company. (7) Before the vested conditions are met, if an employee terminates

	or revokes the agency authorization of the Company in violation of the provisions of Paragraph 6 of this article, the Company should buy at the issuing price from the employee.
Number of New Restricted Employee Shares that have been Redeemed or Bought Back	278,000 shares
Number of Released New Restricted Employee Shares	2,341,000 shares
Number of Unreleased New Restricted Shares	3,381,000 shares
Ratio of Unreleased New Restricted Shares to Total Issued Shares (%)	0.577%
Impact on possible dilution of shareholdings	Based on 574,476,151 shares circulated at the time of issuance in the three-year vested period stipulated in the measures and 2017 (excluding 5,555,000 shares of treasury stocks), the annual cost's dilution of earnings per share in 2017, 2018, 2019 and 2020 is about NT$ 0.08, NT$ 0.08, NT$ 0.08 and NT$ 0.02, respectively. The dilution of earnings per share of the Company is still limited, so there should be no significant impact on shareholders' rights and interests.

(II) List of Executives Receiving New Restricted Employee Shares and the Top Ten Employees with New Restricted Employee Shares

May 15, 2019; unit: NT$ thousands; thousand shares

	Title	Name	No. of New Restricted Shares	New Restricted Shares as a Percentage of Shares Issued	Released				Unreleased			
					No. of Shares	Issued Price (NT$)	Amount	Released Restricted Shares as a Percentage of Shares Issued	No. of Shares	Issued Price (NT$)	Amount	Unreleased Restricted Shares as a Percentage of Shares Issued
Manager	CEO	Ming-Kuang Lu	3,555	0.61%	1,476	20	29,520	0.25%	2,079	20	41,580	0.35%
	Vice CEO	Tang-liang Yao										
	President	Hsiu-Lan Hsu										
	President of Yilan Branch	Hau-chun Shih										
	R&D Chief	BUDI TJAHJONO										
	Vice President	C.W. Lee										
	Vice President	Yu-tse Lin										
	Associate	Pei-yi Chen										
	Associate	Dai-long Ma										
	Associate	Chong-wen Wu										
	Chief	Chien-hong Liu										
	Accounting Manager	Meiying Chiu (Note)										
Staff	Staff	Cheng-hong Huang	570	0.10%	228	20	4,560	0.04%	342	20	6,840	0.06%
	Staff	Chih-hsing Lu										
	Staff	Ming-rui Yang										
	Staff	Song-lin Hsu										
	Staff	Yu-jun Peng										
	Staff	Chih-shun Chen										
	Staff	Wen-huai Yu										
	Staff	Jun-he Chen										
	Staff	Shih-long Cheng										
	Staff	Chong-wen Huang										

Note: Accounting Manager Qiu Meiying was transferred on March 22, 2018.

VII. Status of New Shares Issuance in Connection with Mergers and Acquisitions: None.

VIII. Financing Plans and Implementation: None.

V. Operational Highlights

I. Business Activities

(I) Business Scope:

1. Main areas of business operations:

   CC01080 Electronic Parts and Components Manufacturing

   F401010 Energy Technical Services

   IG03010 International Trade

   (1) Develop, design, manufacturing and selling of the following products:
   - Semiconductor silicon materials and components
   - Varistor
   - Photoelectric and communication wafer materials

   (2) The technical and management consulting services of the previous products.

   (3) Photoelectric power generation system integration and installation technology services.

   (4) Concurrently engaged in import and export related to our business.

2. Revenue distribution in 2018:

NT$ in thousands; %

Trade name	Total Sales in Year 2018	(%) of Total Sales
Semiconductor wafer	58,447,151	84.41%
Solar wafer	581,924	0.84%
Solar cell	3,141,457	4.54%
Solar module	2,066,427	2.99%
Solar ingot	1,608,721	2.32%
Semiconductor ingot	492,114	0.71%
Other	2,901,151	4.19%
Total	69,238,945	100%

3. The Company's current products and service items:

   (1) A5+ Ultra-high efficiency multi-crystalline solar wafer

   (2) Ultra-thin solar wafers

   (3) DW Multi-crystalline solar wafer

   (4) Multi-crystalline solar ingot

   (5) Ultra High Efficiency Mono-Si Solar Cell

   (6) High Efficiency Bi-facial Mono-Si Solar Cell

   (7) High Efficiency Metal-Wrap-Through Mono-Si Solar Cell

(8) Very High Efficiency Busbar-less Mono-Si Solar Cell

4. New technologies and products planned for development
   (1) Ultra High Efficiency Mono-Si Solar Cell
   (2) Development of High Efficiency N-Type Mono-Si Solar Cell Technology

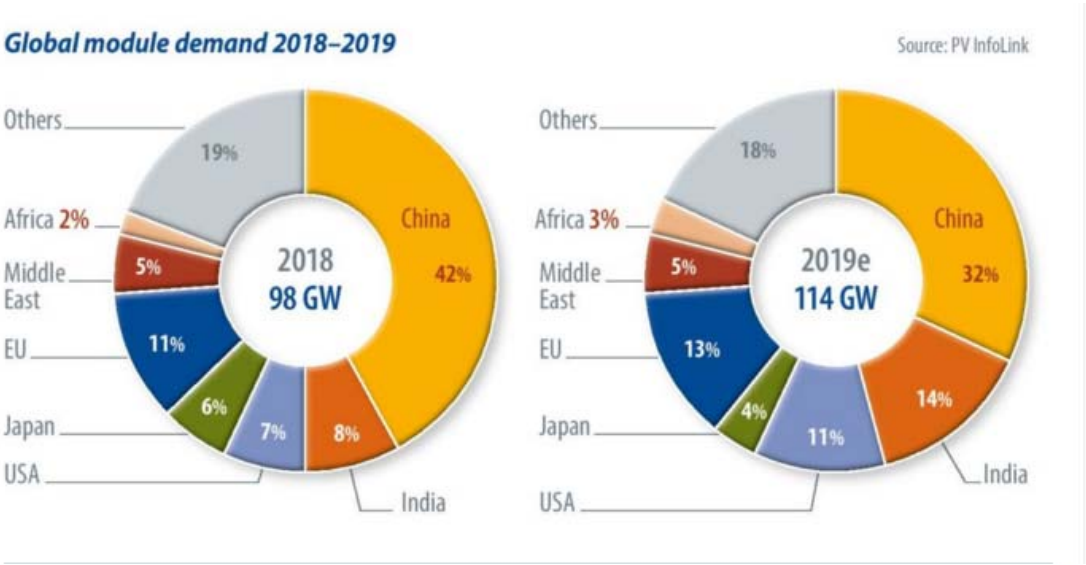
(II) Industry Overview

1. Industrial Current Status and Future Development

(1) Solar energy industry

In recent years, with climate change and increasing energy demand, the goal of greenhouse gas reduction in the era of Kyoto Protocol has been set. The Paris Agreement came into force officially in November 2016. At the COP22 Conference, many governments set renewable energy target and made renewable energy a priority of energy policy. With the sustained development of solar energy technology and the decrease of cost, the long-term demand for solar energy has increased dramatically year by year. The Taiwan government has actively promoted the energy transformation, aiming to achieve a total installed solar energy capacity of 20GW by 2025. It can also be seen that Taiwanese manufacturers are trying to break away from only producing and supplying battery pieces in the past and challenge the transformation to component end and system integration.

In 2018, China, India, the United States, Japan and Australia won the top five positions in the solar energy market. Among them, the Chinese market shrank sharply as a result of the new policy issued on May 31, worsening the problem of over-supply. The spot price of the whole supply chain has dropped by about 30% since May 31, and the overheated atmosphere of the solar industry has returned to calmness. However, the Chinese government has released a positive signal to upgrade the 13th Five-Year Plan, making the demand for components still better than the market expectations for the whole year of 2018 and reach 98GW. China's domestic demand is optimistic. For some mature markets, this will increase the willingness of the terminal market to adopt solar energy. Demand in India and the United States is also expected to increase. With the help of emerging markets, the market is expected to bring global demand back to 114 GW in 2019.



Source: Pvinfo Link, February 25, 2019

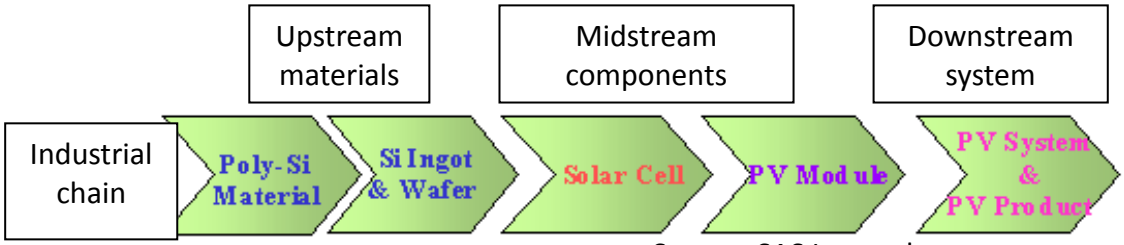
Under the trend of global warming, climate change has become a common challenge faced by the international community. As a global member, Taiwan should bear the responsibility of reducing greenhouse gases even though it has not participated in “the United Nations Framework Convention on Climate Change”. In this regard, China implemented *the Law on Reduction and Management of Greenhouse Gas* on July 1, 2015, specifying the long-term reduction target for 2050. On November 16, 2015, the Executive Yuan approved China's "Intended Nationally Determined Contribution" (INDC) and promised to reduce greenhouse gas emissions by 50% by 2030, i.e. by 20% by 2025.

In order to achieve the goal of carbon reduction and move towards a low-carbon society, the previous government energy plan focused on non-nuclear home in 2025, planning to burn 30% coal, 50% natural gas and 20% renewable energy. However, after the Nine-in-One Election in 2018, a referendum on nuclear greening and anti-air pollution was adopted, and the Executive Yuan no longer set a 2025 deadline for non-nuclear home. In this regard, the Ministry of Economy required Taiwan Power to analyze the current acquisition and power generation of gas, coal, renewable energy, nuclear energy and other fuels, re-examine the energy mix under the premise of energy autonomy, and see Taiwan's energy plan more comprehensively.

(2) Semiconductor industry (See details in annual report of GlobalWafers, the Company's subsidiary (stock code: 6488)

2. Relationship with Up-, Middle- and Downstream Companies

(1) Relevant map of solar energy industry



Source: SAS Internal

(2) Relevant map of semiconductor Industry (See details in annual report of GlobalWafers, the Company's subsidiary (stock code: 6488)

3. Industrial development trend and competition

(1) Solar energy industry

- In 2019, with the continuous expansion of global production capacity and the acceleration of vertical level integration by enterprises, the ineffective production capacity which does not upgrade equipments with the market and whose cost has no competitive advantage will be gradually eliminated.
- Monocrystal products continue to make a strong attack. With the help of RCZ revolution, Diamond Line revolution and PERC battery piece revolution, the market share of the single crystal industry chain has increased rapidly from 15% to 46% by the end of 2018 in just three years. Looking forward to 2019, the wattage of single crystal PERC mainstream module may be 310W in the second quarter, 35W higher than 275W of polycrystal module. It also increases the proportion of single crystal components in domestic and foreign markets.
- The size and thickness of silicon wafers are changing. Because it is more and more difficult to improve the efficiency of batteries, in 2018 various sizes of single and polycrystal silicon wafers were developed one by one. In order to achieve higher wattage output of components, the trend of increasing the area of silicon wafers and components has become clearer. In terms of thickness, in order to reduce the cost, more and more production lines have been adjusted to be able to use silicon wafers with a thickness of 160um, while polycrystals are still at a disadvantage in the process of thinning.
- The impact of trade barriers, such as US 201 and India's survey of defense measures, and the patent war, will have a linkage to the relevant layout of the market.
- Referring to the changes in the price and demand trend of solar modules in the world and the opinions of the merger operators, the Ministry of Economy announced the purchase rate of electricity

generated by renewable energy of 2019 after the consensus was reached by the Audit Committee through discussion. The purchase plan of solar PV focuses on the followings:

- In 2019, the rates of the first and second phases should be differentiated, and the manufacturing capacity planning and decentralized construction period should be considered.
- In order to encourage people to use their own roofs to set solar PV equipments, the international future cost reduction is not considered for the new rate of 1-20KW level for the time being, while the other levels are examined and approved with reference to the international future cost reduction.
- The purchasing rate of new types of UHV power supply lines in parallel of the power industry (roof type of 500KW and above, ground type, water surface type) is about 0.4 NT$ /KWH higher than that of general types.
- The cost of surface type with buoyancy platform is about 0.4 NT$ /KWH higher than that of surface type.
- The recovery cost of solar PV module is incorporated. According to the international report, it is estimated NT$ 1,000 per KW, in order to establish a domestic module recovery mechanism.
- Considering the demand for building booster stations in the solar PV practice, by distinguishing with the device capacity of 10 MW, the purchase rate of 2019 can still be applied if the time for completion of roof type, ground type and water surface type is extended to the end of December next year, i.e. completion before December 31, 2020.
- Participants in the Green Roof Action Program for All People will be awarded an additional bonus of 3%.
- Maintain a 6% bonus for the use of high-efficiency modules, but improve the standard (295→300wp).
- Maintain a 15% bonus for the northern region (North Beiji, Taozhumiao and Yihua).
- Maintain a 15% bonus for the off-island purchase rate.

Schedule 1. Announced Rate of Solar Photoelectricity in 2019

Type	Level (kW)		Phase II Purchase Rate in 2018 (NT$/KWH)	Phase I Purchase Rate in 2019 (NT$/KWH)	Change* (%)	Phase II Purchase Rate in 2019 (NT$/KWH)	Change** (%)
Roof type	Less than 20KW above 1KW		5.7493	5.7983	+0.85	5.7983	0.00
	Less than 100KW above 20KW		4.6885	4.5925	-2.05	4.5083	-1.83
	Less than 500KW above 100KW		4.3636	4.3175	-1.06	4.2355	-1.90
	Above 500KW	Without UHV power supply line with parallel connection	4.2429	4.2313	-0.27	4.1579	-1.74
		With UHV power supply line with parallel connection	--	4.6902	--	4.6168	-1.57
Ground type	Above 1KW	Without UHV power supply line with parallel connection	4.2943	4.1094	-4.31	4.0379	-1.74
		With UHV power supply line with parallel connection	--	4.5560	--	4.4846	-1.57
Water surface type	Above 1KW	Without UHV power supply line with parallel connection	4.6901	4.5016	-4.02	4.4324	-1.54
		With UHV power supply line with parallel connection	--	4.9345	--	4.8652	-1.40

* refers to the change of rates of Phase I of 2019 and Phase II of 2018.

** refers to the change of rates of Phase II of 2019 and Phase I of 2019.

(2) Semiconductor industry (See details in annual report of GlobalWafers, the Company's subsidiary (stock code: 6488)

(III) Overview of Technology and R&D

In recent years, the Company has devoted itself to improving the production of silicon wafer, precision processing and battery module. The increase of productivity of polycrystal wafer, the increase of yield of crystal block, the reduction of density of crystal defects, the improvement of crystal quality, the improvement of the efficiency of wafer conversion and the efficiency of battery conversion have exceeded international indicators. Many technical indicators have become international benchmarks. In addition, in recent years, they have actively carried out patent distribution to protect the Company's intellectual property rights. At present, they have obtained more than 267 patent certificates, and their R&D achievements are brilliant and have won many international awards.

1. The proportion of research and development expenditure in net operating income in the last two years is as follows:

NT$ in thousands

Year	2017	2018	As of March 31st, 2019
Net operating revenues	59,371,198	69,238,945	17,504,776
R&D expenses	1,671,895	1,849,867	450,090
R&D expenses as a percentage of net revenue (%)	2.82%	2.67%	2.57%

2. Technologies or products successfully developed in recent years and up to the date of publication of the annual report

Name of Program	Description of Program	Expected R&D Costs
A5+ Ultra-high cell efficiency multi-crystalline silicon ingot growth technology	Through the thermal field design of polycrystal furnace and computer simulation technology, this program develops the thermal field design of polycrystal furnace with low energy consumption and crystal block growth technology with low defect and high quality. The highest efficiency can reach 21.2% through the verification of actual operation efficiency of solar cell plant. For this technology, multi-national patent protection has been applied for.	NT$ 10,000,000
Multi-crystalline solar wafer diamond wire slicing technology development	With the modification and performance improvement of the existing slicing machine and the adjustment of the diamond wire and slicing process, this program has changed the slicing machine only for Slurry Type into the diamond wire cutting process. Through the matching of wires, the wafers cut have more advantages of quality and cost than the current special machine for diamond in the market.	NT$ 10,000,000
Recovery and recycle of slurry from wire saw slicing	In this program, for the current sludge waste (D0903), with water washing process and plate-and-frame filter pressing, the solid and liquid are separated, the liquid is distilled, the oil product is retrieved, and then the developed formulation package is used to recycle the oil product, thus greatly reducing the material cost and environmental pollution.	NT$ 10,000,000
Development of high Efficiency Mono-Si Celco Cell	CELCO Solar Cells have obtained the patent protection in combination with innovative processes and advanced "Back Passivation" and "Local Back Electric Field" technologies.	NT$ 150,000,000
Development project of advanced Si nano-wire technology in solar wafer and solar cell for higher	This program uses nanocrystalline wafers, ALD technology and high-efficiency cell technology to improve cell efficiency and increase effective power generation.	NT$ 90,000,000

power generation		

(IV) Long-term and Short-term Development

1. Long-term Development

(1) The product with a high conversion rate has always been the Company's strategy and policy. Keeping the leading efficiency and quality will be the key to win in the next three years.

(2) Actively seek the Blue Sea market, strive for LTA customers with large and thin cells and accelerate the development of next generation of N-type high-efficiency new products with price competitiveness, so as to maintain the unique competitiveness of the Company's products in the market.

(3) Integrate the upstream, midstream and downstream resources, give full play to the advantages of vertical and efficient products, further promote the long-term healthy development of the solar industry and enhance the international competitive advantage. In the long run, the future strategic direction of the Company is to develop towards the system end.

(4) New business opportunities after a large number of installations in Taiwan: The solar PV power plant, which is the after-sales maintenance and operation business of the power plant, has been developed and built for about 1 to 2 years. However, it takes more than 20 years to maintain and operate the power plant. The power plant must be able to operate steadily in order to guarantee the investment benefits of investors. Therefore, the demand and income of maintenance and operation are relatively stable. However, there are many factors involved in the optimization of power generation efficiency of PV power plant. The manufacturer responsible for maintenance and operation must have a high integration ability to be competent. SAS Group has invested a lot in Taiwanese solar power plants to accumulate the integration capability of after-sales maintenance and operation of power plants through economies of scale.

(5) Renewable energy has become a global trend, but the intermittent power generation characteristics of renewable energy will affect the power supply quality and grid stability of regional power system. To overcome this limitation, it is necessary to build regional energy storage system. In view of this, Sino-American Silicon Products Inc. and its subsidiary Sunrise PV World Co. cooperated to build a composite energy system on the roof of their

own plant in 2019, integrated 99 kW reset solar PV power generation system, 100 kW/350 kWh energy storage system and adjustable grid-connected 600kW generator, and refitted the micro-grid system of electric power in the plant. It is expected that in Q2 of this year the construction of various subsystems will be completed. At the same time, energy storage devices are developed and integrated into the energy management system platform to meet the future market demand for power storage management. Looking forward to the future, by actively participating in the promotion of green energy, Sino-American Silicon Products Inc. hopes to contribute to the clean environment for the sustainable survival of our future generations.

2. Short-term program

(1) The Company focuses on the customization of solar crystal bar with a high unit price. The depreciation of equipments which was not mainstream in the past competition has been disposed of. The cost control is continuously strengthened to achieve profit targets.
(2) The Company is a leader in manufacturing and supplying of single crystal high-efficiency cells, which will simplify product categories and develop low-cost and high-efficiency cells to maintain market competitiveness.
(3) Considering the sustainability and stability of government policies, the business of power plants will focus on Taiwan and actively invest, develop and build domestic solar power plants. Besides stable project income and electricity sales benefits, it will also create an outlet for efficient solar energy products of the Company.

II. Market and Sales Overview:

(I) Market Analysis

1. Distribution areas of major commodities

(1) Solar energy industry

NT$ in thousands

Region		2017		2018	
		Sales	Rate (%)	Sales	Rate (%)
Sales in domestic market		4,441,313	34%	3,190,990	31%
Export sales	Asia	3,174,793	24%	2,704,005	27%
	America	917,281	7%	1,060,459	10%
	Others	4,625,210	35%	3,239,397	32%
Total		13,158,597	100%	10,194,851	100%

(2) Semiconductor industry (See details in annual report of GlobalWafers, the Company's subsidiary (stock code: 6488)

2. Market share

(1) Solar energy industry

A. Yilan Plant has planned 1GW, which includes the development of the next generation of high-efficiency and cost-effective new products. It has become a leading global high-efficiency single crystal cell plant, with a market share of about 2% of the global high-efficiency single crystal battery piece market.

B. In response to the global trend of green energy development, the Taiwan government has also vigorously promoted renewable energy in recent years. The target of the capacity of solar PV devices of 20GW in 2025 was set previously, including 3GW for roof type and 17GW for ground type. At present, it seems that the development of roof-type solar energy is quite effective. According to the statistics of the Energy Bureau of the Ministry of Economy, by the end of 2018, the accumulative capacity was 2.802GW, in which that of roof-type solar devices was nearly 2.4GW. It is expected to reach the target ahead of time, but that of the ground-type devices is not as expected. The Energy Bureau pointed out that in 2018 the solar PV installation amount was about 1.055GW, the ground-type installation amount was only 226MW, and that of the roof type was 829MW, accounting for 78%. At present, the Energy Bureau has proposed to raise the proportion of the roof type, aiming to install 1.5GW roof solar energy in 2019, on the premise that the total installation target remains unchanged.

C. Since the middle of 2016, the domestic solar energy sites developed by Sunrise PV World Co., including those owned by SAS Group, totaled about 61.8MW, of

which 47.3MW was connected to the grid and the market share was about 1.7%. In addition to the roof of the plant building, this year Sunrise PV World Co. will also actively participate in the public bidding of the county and municipal governments, aiming at the annual total construction volume of 100MW.

(2) Semiconductor industry (See details in annual report of GlobalWafers, the Company's subsidiary (stock code: 6488)

3. The future supply and demand and growth of the market

(1) Solar energy market

A. With the issue of environmental protection and the continuing reduction of solar energy costs, solar energy has become an unanimously recognized alternative energy source in the world. As the price of solar modules decreases, the global market demand for solar power will continue to grow. It is estimated that the global demand for solar power will reach 114GW in 2019. It will gradually replace the general power generation and other convertible power generation forms and become the mainstream.

B. It is anticipated that the global solar energy supply and demand in 2019 will continue to be dominated by highly efficient and competitive products. However, due to the continuously decreased subsidy rates in countries which have developed solar power, the price of solar cells and modules will be easy to fall and difficult to rise. In recent years, the trend of solar supply chain "size does matter" has remained unchanged, and the trend of industrial integration will not stop in 2019.

C. In order to achieve the policy vision of energy transformation, the Ministry of Economy has planned that the ratio of renewable energy power plants will reach 20% in 2025, dominated by solar PV and wind power. It is estimated that the capacity of solar PV devices will reach 20GW and that of wind power devices will reach 6.7GW in 2025, and the development of renewable energy resources such as small waterpower, geothermal and biogas will be driven to promote the vigorous development of domestic renewable energy-related industries.

D. Taiwan's solar energy system has developed from roof to ground, and the construction of roof system has been put on track. Under the government's framework of 20GW in 2025, the policy was implemented with the development strategy of "slow first, then fast", continuously introducing new regulatory frameworks, and counting and releasing land space. In 2018, Taiwan's solar power grid connection reached a new high of 1.055GW. If the installation volume target of 20GW is to be achieved in 2025, since 2018 the annual composite growth rate (CAGR) of Taiwan's market will be as high as 303%, and the demand in 2025 will exceed 4GW.

E. The initial cost of investment (CapEX) for solar PV systems has also declined with

the significant increase of installation and the decrease of module prices. In 2018, the system costs in Taiwan are similar to those in Germany, Italy and the Netherlands. It is expected that the system costs will further decline in 2019, which will boost the willingness of firms to invest.

F. The solar energy industry faced a strong test in 2018, but it also entered the stage of industrial consolidation. It is expected that the long-term development will tend to be stable and healthy. The price of supply chain will be based on the cost of electricity consumption of the whole system. The investment of energy storage system and smart grid technology will be the key to the further marketization of the solar energy industry.

(2) Semiconductor market (See details in annual report of GlobalWafers, the Company's subsidiary (stock code: 6488)

4. Competitive niche

(1) Long-term R&D investment creates core competitive advantages and holds patents.

(2) Extensive cooperation between industry, government and university has a high level of product innovation capability.

(3) It has the largest capacity in the domestic industry, the flexibility of capacity dispatch and the competitiveness of scale economy.

(4) Work closely with downstream customers to grasp market demands and development trend.

(5) Long-term cooperation with raw material suppliers to grasp the stable supply of key raw materials and cost advantages.

(6) Under the benefits released by the government, the Green Roof Action Program for All People is also in full swing. However, efficient and reliable solar energy system is the foundation of stable return on investment. Solar modules operate in outdoor and high-temperature environment for a long time. Therefore, it is necessary to adopt fire-proof, waterproof and salt-resistant materials and lightweight and stable design, in order to effectively utilize the limited power generation area, reduce the cost per KWH of electricity and achieve the long-term and stable power output. SAS Group has accumulated long-term engineering experience. In module layout design, inverter and material selection, construction quality and other aspects, it strictly checks to ensure that the power plant can be operated for 20 years without danger.

(7) Seen from Taiwan's natural environmental conditions, if capital market funds can be introduced into green energy construction through green finance, it will not only help with the long-term development of renewable energy industry, but also bring about business opportunities of nearly NT$ 1 trillion. SAS Group has sound financial strength, and cooperates with financial institutions to invest in power plants to become the main competitive niche in the market with the most competitive unit cost of power generation.

5. Advantages and disadvantages of development prospect

A. Advantages

Solar energy industry

(1) Although the solar PV industry is still not completely separated from the stage of government subsidies, renewable energy is the world trend, which has the value of sustainable operation and long-term development.

(2) The ability of R&D and process improvement is of international standard, which can help to improve product quality and competitiveness.

(3) Vertical integration and layout of marine outfalls are complete. Combined with the government's vigorous promotion of green energy, it has comparative advantages.

(4) The Taiwan government has set a long-term goal of non-nuclear home, and the development of renewable energy is also an established policy. Among them, solar PV is a key development project, with an accumulative installation of 20GW in the next 5 to 10 years.

(5) SAS Group produces solar energy products with high efficiency.

(6) A joint venture with Taiwan's largest life insurance company is established to accumulate the basis for future long-term asset securitization.

Semiconductor industry (See details in annual report of GlobalWafers, the Company's subsidiary (stock code: 6488)

B. Disadvantages and response measures

Solar energy industry

(1) There are a large number of competitors, and the market generally has the trend of oversupply.

(2) As supply exceeds demand in the market, the price of the product has fallen, affecting sales and profits.

(3) Since the United States launched the solar energy trade war on the Chinese mainland in 2012, the solar energy trade war has never stopped. In September 2018, the European Union cancelled the MIP (Minimum Import Price) for China. India's defense tariffs will affect the market supply and demand again due to various policy instability factors of this and next year. In February 2019, the United States imposed a tariff of up to 25% on imported solar cells and modules and formulated Clause 201.

(4) The solar energy industry is still an industry that relies on subsidies from governments around the world. It is not suitable for large-scale production, especially huge capital expenditure.

(5) According to the plan of the Ministry of Economy, in 2025 the target of roof-type solar energy installations is 3GW, and that of ground-type installations is 17GW. The area of required land is about 25,000 hectares. At present, land for the salt industry, serious subsidence area, water space and burial ground are determined as unfavorable farming areas. However, there are many obstacles in the actual promotion, and the progress is not as expected. Cultivation areas not suitable for the agricultural fallow policy, ecological conservation, stratum subsidence and other issues are controversial. There are restrictions of internal land laws and decrees, especially the central and local inconsistencies in the change of land category, which is the reason why the ground-based project cannot be launched.

(6) The existing feeders of Taiwan Power are seriously inadequate. Only UHV substations and transmission and distribution lines are expensive to build. If they are built by renewable energy operators themselves, the site must reach a certain economic scale before it is worth investing. In addition, the capacity and stability of power grid must be further strengthened by Taiwan Power.

(7) The application procedures for renewable energy establishment is complex and lengthy. It takes at least 4 to 6 months in practice, and even more than 10 months for large projects. However, the purchase rate is reviewed and lowered annually. The uncertainty in this period will make investors doubt, worry and

even stop.

(8) Laws and regulations are not complete enough.

Coping measures

(1) The Company has actively developed new customers and new products with high cost performance. Actively integrate downstream power plants and strategic alliances to consolidate business opportunities.

(2) Strengthen R&D links with downstream customers, develop efficient niche products with core technological capabilities, increase added value, and actively reduce manufacturing costs to increase profit margins.

(3) For the Taiwan market, the cell MIT matching with module VPC is under way, and the domestic market will be operated with high-quality products in the future. In the U.S. market, there is still import tax exemption for 2.5GW since 25% of 201 tariff is imposed. There is still a chance to export cells to the U.S. within the quota. In the part of AD tariff, the second administrative review tax rate of 1.33% is applicable to SAS from June 28, 2018. It is expected that the third administrative review tax rate will be updated around July this year.

(4) The site and grid connection are indeed the bottlenecks of the development of solar PV. The Energy Bureau of the Ministry of Economy plans to solve the two bottlenecks of solar PV site and grid connection through the dual-pronged approach of "locating line by ground" and "locating land by line".

(5) “Locating line by ground” is to find the available space for solar PV operation through cross-ministerial examination, and then Taiwan Power will carry out power engineering such as transmission line network, including stratum subsidence area not suitable for cultivation, burial sites, etc. The advantage is that the field is clear, but the towers and substations are mostly adjacent avoidance facilities, and the construction of power projects is relatively time-consuming.

(6) In addition, "locating land by line" is to find the existing transmission and distribution network system of Taiwan Power, and gather nearby developmental sites. The advantage is that no more power grid facility needs to be built, and it will be faster, but whether the land can be used for solar PV is another big problem.

(7) Regarding the land required for the establishment of ground-based solar PV, the Executive Yuan has completed a land examination of 25,000 hectares. In addition to locking specific areas such as stratum subsidence, it also promotes the dual use of one land simultaneously. It is hoped that in the future the objectives of agro-electric symbiosis, fisheries-electric symbiosis and livestock-electric symbiosis can be achieved without affecting the lives of

farmers and fishermen.

(8) In the link of change in land category in the 17GW target of the large-scale ground project, the last mile needs to be completed by the coordination of the local government and the central government. In order to speed up the change of land category of the area, the Ministry of the Interior formally announced in August last year that green power facilities should be set in serious stratum subsidence areas with an area of 30 hectares and below, which will be examined by the county and municipal governments. It is expected that in the future the green power construction in the stratum subsidence areas will be developed in the form of "breaking up the whole into parts".

Semiconductor industry (See details in annual report of GlobalWafers, the Company's subsidiary (stock code: 6488)

(II) Important Uses and Production Processes of Major Products

1. Important uses of products

Product Name	Statement of Important Uses
A5+ ultra-high cell efficiency multi-crystalline silicon wafer	For PERC cell process, the efficiency can reach 21.2%.
Multi-crystalline solar bricks	For solar PV substrate material, it can be reprocessed into solar cells
High Efficiency Mono-Si Solar Cell	1. The conversion efficiency of high-efficiency single crystal solar cells is greater than 21.80%. 2. The conversion efficiency of high-efficiency double-sided single crystal silicon solar cells is greater than 21.50% and double-sidedness is greater than 65%. 3. The conversion efficiency of high-efficiency single crystal silicon metal-penetrating back-electrode solar cells is greater than 22.00%. 4. The conversion efficiency of high-efficiency single crystal solar cells without main conflux is greater than 22.00%. 5. Solar cell modules encapsulated by high-efficiency single crystal solar cells can be encapsulated into 317W modules (60 pieces).

2. Process

Solar wafer

Silicon raw materials→ crystal growth→ opening→ crystal quality evaluation→ grinding→ slicing→ cleaning→ inspection→packaging of finished products

Solar cells

Wafer production→surface roughening→surface diffusion layer formation→surface cleaning and edge insulation→ formation of anti-reflection layer and passivation layer on the surface→metallization and sintering→ solar cell efficiency measurement and classification

(III) Supply of main raw materials

Product Item	Main Raw Materials	Major Suppliers	Supply Situation
Wafer	Polysilicon	Company A, Company B and Company C	Good

(IV)List of major purchasing and selling customers in the last two years

1. List of Main Purchasing Customers in the Last Two Years

NT$ in thousands

	2017				2018			
Item	Company Name	Amount	Percent in the Total Annual Net Purchases	Relation with Issuer	Company Name	Amount	Percent in the Total Annual Net Purchases	Relation with Issuer
1	A	2,332,787	9.52	None	A	1,983,413	8.05	None
2	B	2,439,075	9.96	None	B	2,200,268	8.93	None
3	Other	19,721,279	80.52	None	Other	20,448,763	83.02	None
	Net purchase	24,493,141	100.00		Net purchase	24,632,443	100.00	

Note 1: The name and purchasing amount of suppliers whose proportion of purchasing is higher than 10% of the total purchases in the last two years should be listed. However, if the contract stipulates that the name of the supplier or the object of the transaction is an individual and non-related person, it can be coded.

Note 2: Up to the date of publication of the annual report, companies listed or whose stocks have been bought and sold in the securities firm's business premises should disclose the latest financial information which has been audited and verified by the accountant.

2. List of Main Purchasing Customers in the Last Two Years

NT$ in thousands

	2017				2018			
Item	Company Name	Amount	Percent in the Total Annual Net Sales	Relation with Issuer	Company Name	Amount	Percent in the Total Annual Net Sales	Relation with Issuer
1	B	6,503,622	10.95	None	B	9,494,244	13.71	None
	Other	52,867,576	89.05	None	Other	59,744,701	86.29	None
	Net sales	59,371,198	100.00		Net sales	69,238,945	100	

Note 1: The name and selling amount of customers whose proportion of selling is higher than 10% of the total sales in the last two years should be listed. However, if the contract stipulates that the name of the customer or the object of the transaction is an individual and non-related person, it can be coded.

Note 2: Up to the date of publication of the annual report, companies listed or whose stocks have been bought and sold in the securities firm's business premises should disclose the latest financial information which has been audited and verified by the accountant.

(V) Production in the Last Two Years

NT$ in thousands

Output / Year / Major Products	2017			2018		
	Capacity	Quantity	Amount	Capacity	Quantity	Amount
Solar energy ingot (thousand kg)	6,349	4,245	2,521,729	6,349	2,635	1,395,056
Solar silicon wafer (thousand pieces)	279,892	135,736	2,668,333	211,057	50,760	729,489
Semiconductor crystal rod (thousand pieces)	2,847	2,755	1,544,592	2,912	2,861	1,526,697
Semiconductor wafer (thousand pieces)	55,211	53,371	31,097,321	57,790	56,909	35,294,655
Solar cells (thousand pieces)	144,000	110,366	4,029,900	122,000	104,953	3,635,804
Total	—	—	54,902,519	—	—	42,581,701

Note 1: Capacity refers to the amount of production that the Company can reach under normal operation by using existing production equipments after measuring factors such as necessary shutdown and holidays.

(VI) Sales in the Last Two Years

NT$ in thousands

Sales / Year / Major Products	2017				2018			
	Local		Export		Local		Export	
	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity
Solar energy ingot (thousand kg)	317	158,826	1,415	1,250,587	2	618	1,751	999,181
Solar silicon wafer (thousand pieces)	118,054	2,330,987	10,376	193,627	33,549	482,655	8,394	99,269
Semiconductor crystal bar and wafer (thousand pieces)	12,162	9,370,386	34,453	36,666,632	13,447	13,429,594	34,551	45,614,500
Solar cells (thousand pieces)	16,299	798,092	59,809	2,930,152	26,198	850,674	61,300	2,290,783
Solar modules (thousand pieces)	60	287,145	2	6,208	84	350,710	299	1,715,717
Other	—	518,863	—	4,855,693	—	1,506,333	—	1,898,910
Total	146,892	13,464,299	106,055	45,906,899	73,280	16,620,584	106,295	52,618,361

III. Employee Data for the Last Two Years:

Year		2017	2018	As of March 31, 2019
Number of Employees	Staffs	390	337	328
	Operators	1,212	582	543
	Total	1,602	919	871
Average Age		33.1	38	38
Average Years of Service		4.1	6	6
Education	Masters or above	8.7%	11%	11.7%
	Junior College	55.7%	62.4%	62%
	Senior High School	31.1%	23.2%	22.9%
	Senior High School or below	4.5%	3.5%	3.4%

The Company and the personnel concerned with transparency of financial information have obtained relevant certificates designated by the competent authority as follows:

1. The Basic Ability Test of Internal Control of Enterprise held by the Securities Foundation: 1 person from Audit Department and 1 person from President Room
2. International Internal Auditor Certificate: Audit Department

Employee Training and Actual Implementation in 2018:

Item	Number of Classes	Total Person-time	Total Hours	Total Cost
New recruit training	79	221	499.5	0
Professional function training	1,431	12,026	4,663	1,435,922
General training	515	5,793	815.5	60,225
Total	2,025	18,040	5,978	1,496,147

IV. Environmental Protection Expenditures:

(I) According to the Law, a Company Shall Apply Permission for Pollution Facilities Placement, Pollutant Emission; Pay Prevention Fee; Set up Environmental Department, above Explanations are as below: the Company Has Applied Permission for Pollution Facilities Placement and Set up Environmental Department to Deal with Related Matters.

(II) Investment of pollution preventing main facilities, and the purposes and possible benefits:

1. Pollution and its improvement

   In order to prevent the occurrence of environmental pollution, we have successively carried out the renovation and improvement of old pollution prevention and control equipments in plants, and continuously strengthened the education and training of operators.

2. Capital expenditure on environmental protection in the last three years

   A. Environmental Protection Expenditures in 2016

      The total cost of air pollution prevention and maintenance was NT$ 90,850 thousand.
      The total cost of treatment and maintenance of industrial wastewater was NT$ 29,180 thousand.
      The total cost of industrial waste treatment and maintenance was NT$ 29,203 thousand.

   B. Environmental protection expenditures in 2017

      The total cost of air pollution prevention and maintenance was NT$ 81,539 thousand.
      The total cost of treatment and maintenance of industrial wastewater was NT$ 142,503 thousand.
      The total cost of industrial waste treatment and maintenance was NT$ 81,802 thousand.
      The total cost of other environmental protection expenditures was NT$ 1,615 thousand.

   C. Environmental protection expenditures in 2018

      The total cost of air pollution prevention and maintenance was NT$ 70,493 thousand.
      The total cost of industrial wastewater discharge, treatment and maintenance was NT$ 148,387 thousand.
      The total cost of industrial waste treatment and maintenance was NT$ 89,052 thousand.
      The total cost of other environmental protection expenditures was NT$ 3,757 thousand.

3. Expected improvement

   The investment of the above pollution prevention and control equipments can effectively respond to the amendment to environmental protection laws and regulations, and the environmental pollution of wastewater and waste gas can be more effectively treated and reduced to ensure its discharge quality.

(III) The Company Shall Specify if There's Any Conflict Related to Pollution in the Last Two Years to the Date Issued Annual Report:

There was no pollution dispute in 2017 and 2018.

(IV) The Company Shall Specify the Total Amount of Loss (Including Compensation), Punishment of Environment Pollution, and Disclose Future Countermeasures (Including Improvement) and Possible Expenditures (Including Estimate Of Possible Loss, Punishment, Compensation, or Specify Facts if Cannot Be Estimated) in the Last Two Years to the Date Issued Annual Report:

Sino-American Silicon Products Inc. was fined for five times in 2018. The total amount of the fines was NT$ 362,000. Most of the violations of laws and regulations were in the field of safety and environmental protection. In this regard, we not only need to strengthen internal consolidation, but also require cross audit among the plants in the group to explore potential risks from different perspectives and improve internal management.

Punishment Time	Punished Plant	Penalty Amount	Violation	Corrective Measures
July 20th, 2018	Yilan Plant	100,000	Inconsistency between in-plant conditions and operating permits for fixed pollution sources (Violation of the Air Pollution Prevention and Control Act)	Permit for operation of variable fixed pollution sources
July 30th, 2018	Yilan Plant	100,000	Flowmeter, air pollution control equipment, was not measured by standard method every year (Violation of the Air Pollution Prevention and Control Act)	Execute the air volume measurement of flow meter of air pollution control equipment
August 22nd, 2018	Yilan Plant	66,000	1. Declaration of excessive waste 2. Waste beyond storage period (Violation of the Waste Clearance Act)	1. Change of Waste Cleaning Plan 2. Clean up the waste stored overtime
August 22nd, 2018	Yilan Plant	66,000	1. Inconsistencies between on-site storage amount and the declared amount of waste 2. Waste beyond storage period (Violation of the Waste Clearance Act)	1. Correct declaration data 2. Clean up the waste stored overtime
November 12th, 2018	Yilan Plant	30,000	Inconsistencies between prevention and control facilities and plan for water pollution prevention and control measures (Violation of the Water Pollution Prevention and Control Act)	Change the water pollution prevention and control measure plan

(V) Effects of Current Pollution Condition and Improvement to Company Profit, Competition and Capital Expense, With Anticipated Major Environmental Protection Expenditures in the Next Two Years: None.

(VI) Relevant information of the Company complying with the European Union Environmental Protection Directive (RoHS): Samples of banned and restricted substances of wafer based on RoHS were sent for testing in accordance with the business demands.

V. Labor Relations:

(I) The Company's employee welfare measures, further education, training, retirement system and its implementation, as well as labor agreements and various measures to safeguard employees' rights and interests

1. Employee welfare measures:
   A. High-quality salary, and fair and just incentive and promotion methods are provided to recognize the contributions of all colleagues to the Company. In addition to general benefits such as labor insurance, health insurance, group insurance and pension payment, the benefits provided by the Company to staffs include festival bonuses, birthday and festival gifts, year-end party, weddings and funerals, domestic and foreign tourism, emergency relief, scholarship, birth allowance, group lunch, employee equity, complete education and training, etc.
   B. 0.1% of the monthly turnover and 40% of the sales income is allocated to the Employee Welfare Committee each month, which is operated by its members in accordance with relevant regulations.
2. Employees' further education and training and their implementation:
   The Company provides diversified training courses and various professional on-the-job training and self-development courses, including new entrant training, on-the-job training courses, labor safety and health education training, professional courses and various post-related assignment training courses, in order to cultivate professionally competent and challenging talents.
3. Retirement system and its implementation:
   A. There are two types of retirement: voluntary retirement and compulsory retirement.

      Voluntary retirement: Those who have worked for more than 15 years and are over 55 years old, those who have worked for more than 25 years or those who have worked for more than 10 years and are over 60 years old.

      Compulsory retirement: The Company may compel a person who is over 65 years old from May 14, 2008 or who is mentally or physically disabled and incompetent to retire.

   B. The calculation of seniority: Calculated from the date of arrival: The seniority in the period of leaving without pay should be deducted.
   C. Standards of pension payment:

      Old system: Two bases are given for each year of service. For over 15 years of service, a base is given every year, but the maximum is 45 bases. Less than half a year is counted as half a year, and more than half a year is counted as one year. If the mental loss or physical disability of a compulsorily retired worker is caused by the performance of his duties, the base of his pension should be

increased by 20% in accordance with provisions of the preceding paragraph.

New system: If the new system was chosen after July 2005, the seniority should be calculated by the old system before July 2005, and by the new system after July 2005.

D. The pension of employees arriving after July 2005 is calculated according to the new system (The employer allocates 6% of salary each month and deposits in the personal account of the Labor Insurance Bureau).

4. Labor agreements:

   The Company's provisions are based on the Labor Standard Law as a guideline. In accordance with the implementation measures of the Labor Conference, labor meetings are held regularly. Labor relations have always been quite harmonious, and communication channels are unblocked. At the same time, through the joint discussion of the Labor Conference and the Staff Welfare Committee, the mutual benefit and other issues between the two sides are negotiated. In addition to further understanding of each other’s needs and expectations, all our colleagues work together to create the future of the Company based on the business philosophy of coexistence and co-prosperity.

5. Protection measures of employees’ rights and interests:

   The Company has a sound management system, which sets out various management measures, stipulates the rights and obligations of colleagues and welfare items, and irregularly reviews and revises the welfare content to safeguard the rights and interests of all colleagues.

(II) Losses incurred as a result of labor disputes in recent years and up to the date of publication of the annual report, and disclosure of current and future possible estimated amounts and response measures:

The Company's labor relations are harmonious and labor disputes are mediated in accordance with the adjustment procedures.

(III) Employees' Behaviors or Ethical Codes:

In order to let all employees understand employees' behaviors and ethics and gather them together, the Company has formulated relevant measures and regulations to be followed by the Company's management and all employees. The relevant measures and codes are summarized as follows:

1. Provisions of layered responsibilities and delegation of authorization: The Company implements layered responsibilities. There are also job agents at all levels, all departments comply with provisions of delegation of authorization to ensure the normal operation of the Company's business.
2. Formulate reward and punishment methods: Except for those in the rules of the Company, the rewards can be divided into three categories: reward, small merit and big merit. The punishment can be divided into three categories: admonition, small demerit and big

demerit.

3. Implement measures for maintaining business secrets: In order to ensure the Company's business secrets and intellectual property rights, employees are prohibited from competing in business. Employees are required to sign contracts for keeping business secrets and attribution of intellectual property rights.
4. Employees' annual performance evaluation methods: To enhance the morale and performance of the Company's employees, explore outstanding talents, and make employee promotion, rewards and punishments fair and reasonable.
5. Sexual harassment prevention and treatment measures: In order to safeguard gender equality in work and personal dignity, the Company strictly prohibits sexual harassment in the workplace, and specifies rules and employee complaint channels to regulate employees' behaviors in the workplace.
6. Principles of work and codes of conduct for colleagues: In order to clearly regulate the rights and obligations of both employer and employees, improve the management system of modern operation, and urge all employees to work together to achieve the goal of high utilization of human resources and seek for business development, the Company has formulated these rules with reference to relevant laws and decrees. The main contents are as follows:

   Chapter 1 Personnel Appointment
   Chapter 2 Attendance
   Chapter 3 Working Overtime and Duty on Holidays
   Chapter 4 Salaries, Allowances and Bonuses
   Chapter 5 Performance Evaluation, Rewards and Punishments, Promotion and Mobilization
   Chapter 6 Resignation, Leaving without Pay, Lay-off, Removal and Retirement
   Chapter 7 Labor and Health Group Insurance
   Chapter 8 Employee Welfare Committee
   Chapter 9 Marriage, Funeral, Birthday Celebration, Emergency Relief and Assistance
   Chapter 10 Compensation and Pension for Occupational Disasters
   Chapter 11 Labor Safety and Health
   Chapter 12 Communication System and Others
7. The rewards and punishments in plant regulations and the rules to be followed by employees of plant: The plant has formulated "Code of Work for Colleagues" for behaviors and ethics of employees in the plant. It ensures the quality of products of the Company and conforms to the operating standards. Rules for entering and leaving the dust-free room, and general rules for establishing a good working environment and providing work efficiency to maintain the image of the Company and improve the quality of employees should be followed.

   (1) Follow the rules of work and all laws, regulations and rules.

(2) Obey the distribution, guidance, management and assignment of supervisors at all levels without putting off.
(3) Do not operate business related to the Company's business or use the name of the Company without authorization.
(4) Do not seek personal interests through the use of power or official status or information.
(5) The Company's colleagues should abide by the rules and not disclose the Company's technology, management and business secrets.
(6) Without the consent of the Company, no company information should be released to the communication circle without authorization.
(7) Confidential information of the Company should not be collected or disseminated privately.
(8) No contraband or inflammable articles should be brought into the Company or production area.
(9) Do not enter the prohibited area with warning slogans or bring relatives, friends and employees who have left the Company into the workplace without permission.
(10) The salaries of our colleagues should be treated as confidential and should not be arbitrarily told to others, and the compensation of other colleagues should not be asked about.
(11) Do not gamble, take drugs, smoke, eat betel nut or act indecent in the workplace.
(12) Alcoholic beverages should not be consumed during working hours.
(13) Public property should be cherished, and should not be wasted, damaged, changed or used privately.
(14) Pay attention to appearance, and wear overalls and company service certificates.
General rules formulated to standardize all employees' compliance, ensure that the quality of our products meets the operating standards, and provide work efficiency to maintain the image of the Company and improve the quality of employees. The above measures and regulations should be trained upon the arrival of new employees, and the latest edition should be announced on the bulletin board in the plant for staffs to enquire at any time.

(IV) Measures to Protect the Working Environment and Personal Safety of Employees:
According to the Labor Safety and Health Law, the Company has established “the Labor Safety and Health Management Unit”, set up the management personnel of the Labor Safety and Health Business, and formulated “the Labor Safety and Health Management Guidelines”. The main contents related to the working environment of the plant area and the protection of personal safety of employees are summarized as follows:
1. Work environment regulations and measures
(1) Staffs should always pay attention to self-adjustment of physical and mental health and develop good hygienic habits.

(2) The workplace should be tidied up in proper time and kept clean and tidy.
(3) Smoking, eating betel nut and drinking alcoholic beverages are strictly prohibited in the plant.
(4) Smoking should be in the prescribed smoking room and the cigarette butt should not be discarded at will.
(5) Protective devices should be correctly used when hazardous substances are disposed of.
(6) Hazardous substances should be clearly marked and should not be damaged arbitrarily.
(7) Water drinking equipment that meets the drinking water standards should be installed in appropriate places in the workplace and regularly cleaned, and the water quality should be tested.
(8) Disinfect the whole plant area every year.
(9) Toilets should be well ventilated, cleaned and disinfected.
(10) All employees must keep the 6S environment clean and hygienic in the plant area and form good habits.
(11) No spitting, drowning, throwing of cigarette butts or littering is allowed.

2. Protection of personal safety of employees
(1) All work should be carried out and audited in accordance with relevant safety standards, operating procedures and safety checklist of working procedures.
(2) If temporary or non-regular operations do not have such safety standards to follow, they should not be completed. Flexibly use existing safety standards and decide on the safety steps and methods to be adopted after discussion with the person in charge of the work.
(3) Safety hats and belts should be worn by those who are engaged in elevated work with a height of more than two meters or work with objects fallen or fallen apart, inspectors and supervisors.
(4) Safety belts and auxiliary ropes or safety ropes should be used correctly in the operation on pipes, towers or racks which are not installed with platforms and guardrails and are above two meters above the ground or at the edges and openings of workplaces.
(5) When partial blackout operation is implemented for substation equipment or plant area, the blackout operation scope should be enclosed and isolated by the iron network or construction warning belt, and the signs of "blackout operation" or "power danger" should be suspended separately for warning purposes. After the completion of the operation, it should be confirmed that the employees who are engaged in the operation have left without the risk of induction before removal.
(6) Personal protective devices should be worn in accordance with the regulations of each station in work. If unsafe conditions, equipment and operation methods are found, they should be reported immediately.
(7) Chasing, bantering or other unsafe acts are prohibited in work.
(8) The maximum operating load of machines and tools should not be exceeded in use.

VI. Important Contracts

Agreement	Counterparty	Period	Major Contents	Restrictions
Land lease agreement	Taiwan Science Park Administration	2008.01.26～2027.12.31	The area is 13,000 square meters, the rent is NT$ 346,710 each month, and the total annual rent is NT$ 4,160,520.	Limited-purpose business use
Sales contract	Customer B B-2	2009～2020	Sales contract	None
Sales contract	Customer B B-3	2009～2020	Sales contract	None
Sales contract	Customer B B-4	2010～2021	Sales contract	None
Sales contract	Customer B B-5	2011~2022	Sales contract	None
Sales contract	Customer C C-2	2009～2021	Sales contract	None
Sales contract	Customer D D-2	2006～2020	Sales contract	None
Sales contract	Customer D D-3	2009～2020	Sales contract	None
Sales contract	Customer D D-4	2009～2020	Sales contract	None
Sales contract	Customer E E-1	2008～2020	Sales contract	None
Sales contract	Customer E E-2	2009～2019	Sales contract	None
Sales contract	Customer F F-2	2009～2021	Sales contract	None
Supplier contract	Supplier A A-3	2010～2019	Silicon Raw Material Contract	None
Supplier contract	Supplier A A-4	2013～2020	Silicon Raw Material Contract	None
Supplier contract	Supplier C C-1	2009～2020	Silicon Raw Material Contract	None
Supplier contract	Supplier C C-2	2010～2020	Silicon Raw Material Contract	None
Supplier contract	Supplier C C-3	2013～2027	Silicon Raw Material Contract	None

VI. Financial Information

I. Five-year Concise Balance Sheet, Profit and Loss Statement and Audit Opinions of Accountants

(I) Concise Balance Sheet

1. Concise Balance Sheet- Based on IFRS (Consolidated)

Unit: NT$ thousands

Year / Item		Financial Summary for The Last Five Years					Financial information for the year ended March 31, 2019 (Note 1)
		2014	2015	2016	2017	2018	
Current assets		16,811,804	19,281,427	30,143,619	41,006,059	57,260,849	61,676,370
Funds and investments		4,267,268	4,343,435	3,031,504	3,499,459	3,528,186	3,910,421
Property, plant and equipment (Note 2)		15,243,561	18,904,724	41,397,828	37,528,808	37,438,555	36,911,557
Intangible assets		694,238	701,566	4,436,073	3,939,134	3,649,397	3,563,202
Other assets (Note 2)		3,870,245	2,955,184	4,005,384	3,369,074	2,108,328	3,133,036
Total assets		40,887,116	46,186,336	83,014,408	89,342,533	103,985,315	109,194,586
Current liabilities	Before distribution	9,791,759	10,070,111	31,901,665	17,328,624	30,153,693	30,082,110
	After distribution	9,791,759	10,529,692	33,300,772	21,237,705	Note 3	Note 3
Non-current liabilities		9,512,219	7,546,649	23,885,656	23,885,656	25,917,757	27,374,658
Total liabilities	Before distribution	19,303,978	17,616,760	55,787,321	45,565,622	56,071,450	57,456,768
	After distribution	19,303,978	18,076,341	57,186,428	45,565,622	Note 3	Note 3
Equity attributable to shareholders of the parent		20,898,239	22,986,756	20,898,541	27,140,872	26,881,716	28,851,697
Capital stock		5,800,312	5,800,312	5,800,312	5,920,587	5,862,877	5,862,877
Capital surplus		16,995,509	18,614,691	18,821,483	24,205,831	21,757,292	21,759,494
Retained earnings	Before distribution	772,930	1,292,442	(740,873)	507,252	2,332,634	4,137,387
	After distribution	772,930	832,861	(2,139,980)	507,252	Note 3	Note 3
Other equity interest		(2,670,512)	(2,550,828)	(2,812,520)	(3,322,937)	(3,071,087)	(2,908,061)
Treasury stock		—	(169,861)	(169,861)	(169,861)	Note 3	Note 3
Non-controlling interest		684,899	5,582,820	6,328,546	16,636,039	21,032,149	22,886,121
Total equity	Before distribution	21,583,138	28,569,576	27,227,087	43,776,911	47,913,865	51,737,818
	After distribution	11,142,577	28,109,995	25,827,980	43,776,911	Note 3	Note 3

Note 1: The financial data of the last five years have been audited by accountants, and the financial data of the first

quarter of 2019 have been audited by accountants.

Note 2: The Company has not conducted asset revaluation.

Note 3: The earnings distribution of 2018 is pending resolution by the shareholders' regular meeting.

2. Concise Balance Sheet- Based on IFRS (standalone)

Unit: NT$ thousands

Year / Item		Financial Summary for The Last Five Years (Note 1)					Financial information for the year ended March 31, 2019
		2014	2015	2016	2017	2018	
Current assets		5,158,909	6,560,131	6,873,213	5,545,531	3,786,845	—
Funds and investments		17,960,231	16,811,733	14,555,750	22,253,878	26,965,810	—
Property, plant and equipment (Note 2)		5,999,176	7,282,061	7,114,781	6,333,415	3,589,549	—
Intangible assets		17,785	—	—	—	—	—
Other assets (Note 2)		2,033,801	1,615,670	1,063,399	719,375	150,695	—
Total assets		31,169,902	32,269,595	29,607,143	34,852,199	34,492,899	—
Current liabilities	Before distribution	3,988,981	4,447,442	4,863,770	4,490,335	3,936,996	—
	After distribution	3,988,981	4,907,023	5,725,484	4,490,335	Note 3	—
Non-current liabilities		6,282,682	4,835,397	3,844,832	3,220,992	3,674,187	—
Total liabilities	Before distribution	10,271,663	9,282,839	8,708,602	7,711,327	7,611,183	—
	After distribution	10,271,663	9,742,420	9,570,316	7,711,327	Note 3	—
Equity attributable to shareholders of the parent		20,898,239	22,986,756	20,898,541	27,140,872	26,881,716	—
Capital stock		5,800,312	5,800,312	5,800,312	5,920,587	5,862,877	—
Capital surplus		16,995,509	18,614,691	18,821,483	24,205,831	21,757,292	—
Retained earnings	Before distribution	772,930	1,292,442	(740,873)	507,252	2,332,634	—
	After distribution	772,930	832,861	(1,602,587)	507,252	Note 3	—
Other equity interest		(2,670,512)	(2,550,828)	(2,812,520)	(3,322,937)	(3,071,087)	—
Treasury stock		—	(169,861)	(169,861)	(169,861)	—	—
Non-controlling interest		—	—	—	—	—	—
Total equity	Before distribution	20,898,239	22,986,756	20,898,541	27,140,872	26,881,716	—
	After distribution	20,898,239	22,527,175	20,036,827	27,140,872	Note 3	—

Note 1: The financial data of the last five years have been audited by the accountants.

Note 2: The Company has not conducted asset revaluation.

Note 3: 2018 Annual Earnings Allocation has not yet been approved by the shareholders' regular meeting.

(II) Concise Profit and Loss Statement and Concise Comprehensive Profit and Loss Statement

1. Concise Consolidated Profit and Loss Statement- Based on IFRS (Consolidated)

Unit: NT$ thousands; only the unit of earnings per share is NT$

Year / Item	Financial Summary for The Last Five Years (Note 1)					Financial information for the year ended March 31, 2019 (Note 2)
	2014	2015	2016	2017	2018	
Operating revenues	27,821,456	28,269,357	31,599,040	59,371,198	69,238,945	17,504,776
Gross profit from operations	3,497,876	4,271,231	3,435,013	11,403,236	18,641,853	6,496,525
Operating profit and loss	1,446,794	2,236,612	42,060	6,325,002	13,177,505	5,064,227
Non-operating income and expenses	478,248	(276,431)	(898,438)	(1,199,261)	140,728	202,023
Income before income tax	1,925,042	1,960,181	(856,378)	5,125,741	13,318,233	5,266,250
Net income of the unit continuing business in the current period	1,299,267	1,056,402	(856,378)	5,125,741	13,318,233	5,266,250
Loss from the unit out of business	—	—	—	—	—	—
Net income (loss) in the current period	1,299,267	1,056,402	(1,289,006)	3,518,628	8,635,480	3,715,928
Other comprehensive income in the current period (Net after-tax amount)	(415,044)	162,940	(328,410)	(64,089)	(53,850)	87,843
Total comprehensive income in the current period	884,223	1,219,342	(1,617,416)	3,454,539	8,581,630	3,803,771
Net income attributable to shareholders of the parent	1,128,445	534,837	(1,589,225)	1,035,505	1,950,503	1,838,546
Net income attributable to non-controlling interest	170,822	521,565	300,219	2,483,123	6,684,977	1,877,382
Comprehensive income attributable to shareholders of the parent	714,269	635,474	(1,832,339)	971,676	1,604,225	1,951,345
Comprehensive income attributable to non-controlling interest	169,954	583,868	214,923	2,482,863	6,977,405	1,852,426
Earnings per Share	2.06	0.93	(2.77)	1.8	3.36	3.15

Note 1: The financial information of the last five years has been audited by the accountants.

Note 2: Financial data for the first quarter of 2019 has been reviewed by accountants.

2. Concise Consolidated Profit and Loss Statement-Based on IFRS (Indivistandaloneduals)

Unit: NT$ thousands; only the unit of earnings per share is NT$

Year / Item	Financial Summary for The Last Five Years (Note 1)					Financial information for the year ended March 31, 2019
	2014	2015	2016	2017	2018	
Operating revenues	9,175,737	11,915,968	10,390,005	11,282,980	8,430,747	—
Gross profit from operations	(719,371)	(20,794)	(908,211)	(676,632)	(3,787,340)	—
Operating profit and loss	(1,063,574)	(429,255)	(1,275,282)	(1,090,541)	(4,270,921)	—
Non-operating income and expenses	2,201,335	1,098,347	(317,602)	2,115,992	6,296,677	—
Income before income tax	1,137,761	669,092	(1,592,884)	1,025,451	2,025,756	—
Net income of the unit continuing business in the current period	1,128,445	534,837	(1,589,225)	1,025,451	2,025,756	—
Loss from the unit out of business	—	—	—	—	—	—
Net income (loss) in the current period	1,128,445	534,837	(1,589,225)	1,035,505	1,950,503	—
Other comprehensive income in the current period (Net after-tax amount)	(414,176)	100,637	(243,114)	(63,829)	(346,278)	—
Total comprehensive income in the current period	714,269	635,474	(1,832,339)	971,676	1,604,225	—
Net income attributable to shareholders of the parent	1,128,445	534,837	(1,589,225)	1,035,505	1,950,503	—
Net income attributable to non-controlling interest	—	—	—	—	—	—
Comprehensive income attributable to shareholders of the parent	714,269	635,474	(1,832,339)	971,676	1,604,225	—
Comprehensive income attributable to non-controlling interest	—	—	—	—	—	—
Earnings per Share	2.06	0.93	(2.77)	1.8	3.36	—

Note 1: The financial information of the last five years has been checked by the accountants.

(III) Names of CPAs and Opinions of Audit in the Last Five Years

Year	CPA	Content of Opinions	Remarks
2014	Mei-yu Tseng Yong-hua Huang	Revised unqualified opinions	Note 1
2015	Mei-yu Tseng Yong-hua Huang	Revised unqualified opinions	Note 1
2016	Mei-yu Tseng Yong-hua Huang	Unqualified opinions	Note 1
2017	Cheng-chien Chen An-chih Cheng	Unqualified opinions	Note 1
2018	Cheng-chien Chen An-chih Cheng	Unqualified opinions	Note 1

Note 1: The financial statements of the invested company in the previous financial statements have not been audited by this accountant, but by other accountants. Therefore, in the opinions expressed by this accountant in the previous financial statements, the amount listed in the financial statements of the invested company is based on the audit report of other accountants.

II. Five-Year Financial Analysis

(I) Financial Analysis-Based on IFRS (Consolidated)

Item (Note 2) \ Year		Financial Analysis for the Last Five Years					As of the year ended March 31, 2019 (Note 1)
		2014	2015	2016	2017	2018	
Financial structure %	Debt ratio	47	38	67	51	54	53
	Ratio of long-term capital to property, plant and equipment	204	191	123	162	197	214
Solvency (%)	Current ratio	172	191	94	145	190	206
	Quick ratio	110	123	61	105	161	178
	Interest earned ratio (times)	15.33	25.92	(4.25)	11	58	154
Operating performance	Accounts receivable turnover (times)	6.13	5.05	4.29	6.84	7.40	6.96
	Average collection period	59.54	72.27	85.08	53.86	49.32	52.44
	Inventory turnover (times)	5.39	4.63	3.64	4.86	5.64	5.64
	Accounts payable turnover (times)	8.9	8.5	6.08	8.21	9.56	8.32
	Average days in sales	67.71	78.83	100.27	75.1	64.71	64.72
	Property, plant and equipment turnover (times)	1.83	1.66	1.05	1.5	1.85	1.88
	Total assets turnover (times)	0.68	0.65	0.49	0.69	0.72	0.64
Profitability	Return on assets (%)	3.5	2.57	(1.77)	4.57	9.11	14.07
	Return on equity (%)	6.16	4.21	(4.62)	9.91	18.84	29.83
	Pre-tax income to paid-in capital (%) (Note 7)	33.19	33.79	(14.76)	86.57	227.15	359.29
	Net profit rate (%)	4.67	3.74	(4.08)	5.93	12.47	21.23
	Earnings per share (NT$)	2.06	0.93	(2.77)	1.79	3.36	3.15
Analysis of Cash Flow	Cash flow ratio (%)	30.2	11.52	7.82	54.43	119.68	106.6
	Cash flow adequacy ratio (%)	80.77	50.55	52.47	107.54	192.05	281.1
	Cash reinvestment ratio (%)	(0.44)	0.15	1.78	13.88	28.29	25.34
Leverage	Operating leverage	2.52	1.98	186.54	3.76	2.33	1.86
	Financial leverage	1.1	1.04	(0.32)	1.09	1.02	1.01

Please explain the reasons for the changes in financial ratios in the last two years. (If the increase or decrease is less than 20%, it can be exempted from analysis.)

1. Ratio of long-term capital to property, plant and equipment: Increased profits of reinvestment company and contractual liabilities result in increased relative shareholder equity and non-current liabilities.
2. Current ratio: Increased profits of reinvestment company and contractual liabilities result in increased cash, so the current assets increase relatively.
3. Quick ratio: Increased profits of reinvestment company and contractual liabilities result in increased cash, so the current assets increase relatively.
4. Interest earned ratio (times): Increased profits of reinvestment company result in the increased relative net profit before tax.
5. Property, plant and equipment turnover (times): mainly due to the increase in net sales in 2018.
6. Return on total assets (%): mainly due to the increase of after-tax profits and losses in 2018.
7. Return on stockholders' equity (%): mainly due to the increase of after-tax profits and losses in 2018.
8. Pre-tax income to paid-in capital (%): mainly due to the increase of net operating profit in 2018.
9. Profit ratio (%): mainly due to the increase of after-tax profits and losses in 2018.
10. Earnings per share: mainly due to the increase of after-tax profits and losses in 2018.
11. Cash flow ratio: Contractual liabilities collected by the reinvestment company result in increased cash inflow of operating activities.
12. Cash flow adequacy ratio: Contractual liabilities collected by the reinvestment company result in increased cash inflow of operating activities.
13. Cash reinvestment ratio: Contractual liabilities collected by the reinvestment company result in increased cash inflow of operating activities.
14. Operating leverage: mainly due to the substantial increase of net sales in 2018.

Note 1: The financial data of the last five years have been audited by accountants, and the financial data of the first quarter of 2019 have been audited by accountants.

Note 2: At the end of this table in the annual report, the following calculation formulas should be listed:

1. Financial structure
   (1) Debt ratio = total liabilities/total assets.
   (2) Ratio of long-term capital to property, plant and equipment = (total equity + non-current liabilities) / net property, plant and equipment.
2. Solvency
   (1) Current ratio = current assets/current liabilities.
   (2) Quick ratio = (current assets-inventory-prepaid expenses)/ current liabilities.
   (3) Interest earned ratio (times) = net income before income tax and interest expense/ interest expenditure of the current period.
3. Operating performance
   (1) Accounts receivable (including receivables and notes receivable arising from business) turnover＝net sales/ average receivable balance of different periods (including receivables and notes receivable arising from business).
   (2) Average collection period = 365/receivables turnover.
   (3) Inventory turnover (times) = cost of sales/average inventory.
   (4) Accounts payable (including accounts payable and notes payable arising from business) turnover＝cost of sales/ average payable balance of different periods (including accounts payable and notes payable arising from business).
   (5) Average days in sales = 365/inventory turnover.
   (6) Property, plant and equipment turnover (times) = net sales/average net property, plant and equipment turnover.
   (7) Total assets turnover (times) = net sales/total average assets.
4. Profitability
   (1) Return on total assets (%) = after-tax profits and losses + interest expenses × (1-tax

rate)/ average total assets.

(2) Return on stockholders' equity (%) = after-tax profits and losses/total average equity.

(3) Profit ratio (%)= after-tax profits and losses /net sales.

(4) Earnings per share = profits and losses attributable to shareholders of the parent - special dividend) / weighted average number of issued shares. (Note 3)

5. Cash flow

(1) Cash flow ratio = net cash flow of business activities/current liabilities.

(2) Cash flow adequacy ratio = net cash flow of business activities in the last five years/ (capital expenditure + inventory increase + cash dividend) of the last five years.

(3) Cash reinvestment ratio= (net cash flow of business activities - cash dividend)/(gross property, plant and equipment + long-term investment + other non-current assets + working capital). (Note 4)

6. Leverage:

(1) Operating leverage = (net operating income - variable operating costs and expenses) / operating benefits (Note 5).

(2) Financial leverage = operating benefits/ (operating benefits-interest expense).

Note 3: In the above formula for calculating the earnings per share, the following items should be paid special attention to in measurement:

1. Based on the weighted average number of common shares, rather than the number of issued shares at the end of the year.
2. Where there are cash increases or treasury stock transactions, the weighted average number of shares should be calculated by taking into account the circulation period.
3. For those who have earnings or capital reserve converted to increase capital, when calculating earnings per share in previous years and half a year, they should be adjusted retrospectively according to the proportion of capital increase, without considering the issuance period of the capital increase.
4. If special shares are non-convertible cumulative special shares, their current-year dividend (whether it is issued or not) should be deducted from their net after-tax profit or increase their net after-tax loss. If special shares are non-cumulative, with net after-tax profits, special dividends should be deducted from net after-tax profits; if they are losses, they need not to be adjusted.

Note 4: In cash flow analysis, the following items should be paid special attention to in measurement:

1. Net cash flow of business activities refers to the net cash inflow of business activities in the statement of cash flows.
2. Capital expenditure refers to the cash outflow of capital investment each year.
3. Inventory increase is only counted when the end-of-period balance is greater than the beginning-of-period balance. If the end-of-year inventory decreases, it is counted as zero.
4. Cash dividends include cash dividends for common shares and special shares.
5. Gross property, plant and equipment refers to the total amount of property, plant and equipment before the accumulated depreciation is deducted.

Note 5: The issuer should divide the operating costs and operating expenses into fixed and variable ones according to their nature. If estimates or subjective judgments are involved, their reasonableness should be paid attention to and consistency should be maintained.

Note 6: The ratio of paid-in capital of a foreign company is calculated by the ratio in net value.

Note 7: Where the Company's shares have no par value or par value per share is not NT$10, the above ratio in paid-in capital should be calculated based on the equity ratio of the balance sheet attributable to shareholders of the parent.

(II) Financial Analysis-Based on IFRS (standalone)

Item (Note 2) \ Year		Financial Analysis for the Past Five Years (Note 1)					The year ended March 31, 2019
		2014	2015	2016	2017	2018	
Financial structure %	Debt ratio	32.95	28	29	22	22	—
	Ratio of long-term capital to property, plant and equipment	453.08	382.06	347.77	479.39	851.25	—
Solvency (%)	Current ratio	129.33	147.50	141.31	123.5	96.19	—
	Quick ratio	78.82	92.76	90.1	67.73	67.56	—
	Interest earned ratio (times)	12.64	11.27	(22.98)	23.25	50.02	—
Operating performance	Accounts receivable turnover (times)	7.1	6.24	5.83	10.25	9.27	—
	Average collection period	51.41	58.49	62.61	35.61	39.37	—
	Inventory turnover (times)	8.68	7.06	5.65	5.64	8.65	—
	Accounts payable turnover (times)	7.76	9.19	7.72	9.84	16.52	—
	Average days in sales	42.1	51.7	64.6	64.7	42.20	—
	Property, plant and equipment turnover (times)	1.53	1.79	1.44	1.68	1.70	—
	Total assets turnover (times)	0.29	0.38	0.34	0.35	0.24	—
Profitability	Return on assets (%)	3.99	1.86	(4.96)	3.33	5.72	—
	Return on equity (%)	5.76	2.44	(7.24)	4.31	7.22	—
	Pre-tax income to paid-in capital (%) (Note 7)	19.62	11.54	(27.46)	17.32	(72.85)	—
	Net profit rate (%)	12.3	4.49	(15.3)	9.18	23.14	—
	Earnings per share (NT$)	2.06	0.93	(2.77)	1.80	3.36	—
Analysis of Cash Flow	Cash flow ratio (%)	(12.55)	(7.11)	16.26	2.07	0.11	—
	Cash flow adequacy ratio (%)	14.83	(6.95)	(5.41)	(6.3)	0.69	—
	Cash reinvestment ratio (%)	(2.79)	(3.88)	(0.22)	(2.04)	(4.56)	—
Leverage	Operating leverage	0.51	(1.12)	0.19	0.05	0.56	—
	Financial leverage	0.92	0.87	0.95	0.96	0.99	—

Please explain the reasons for the changes in financial ratios in the last two years. (If the increase or decrease is less than 20%, it can be exempted from analysis.)

1. Ratio of long-term capital to fixed assets: The reduction of fixed assets in 2018 results in decrease of amount of property, plant and equipment.
2. Current ratio: The solar energy business group is engaged in inventory reduction, resulting in the reduction of current assets.
3. Interest earned ratio (times): The increase of profits of the investment company results in the increase of relative pre-tax net income.
4. Accounts receivable turnover (times): mainly due to the significant decrease of net sales of solar energy products.
5. Average collection period: mainly due to the significant decrease of net sales of solar energy products.
6. Inventory turnover (times): The solar energy business group is engaged in inventory reduction, resulting in the relative reduction of inventory.
7. Accounts payable turnover (times): Mainly due to impairment in 2018, the cost of sales increased significantly.
8. Average days in sales: mainly due to the significant increase of idle sales of solar products.
9. Return on total assets: mainly due to the significant decrease of net sales of solar products
10. Return on assets: mainly due to increased after-tax profits and losses in 2018.
11. Return on stockholders' equity: mainly due to increased after-tax profits and losses in 2018.
12. Ratio of pre-tax net income to paid-in capital: mainly due to increased net operating profit in 2018.
13. Profit ratio: mainly due to increased after-tax profits and losses in 2018.
14. Earnings per share: mainly due to increased after-tax profits and losses in 2018.
15. Cash flow ratio: The solar energy industry has suffered a huge loss, resulting in a relative decrease in cash inflows from operating activities.
16. Cash flow adequacy ratio: The decrease of cash flow loss in business activities result in the increase of cash flow adequacy ratio.
17. Cash reinvestment ratio: Increase in cash dividend payments results in decrease in cash reinvestment ratio.
18. Operating leverage: mainly due to significant reduction of the net sales of solar products.

Note 1: The financial information of the last five years has been checked by the accountants.

Note 2: At the end of this table in the annual report, the following calculation formulas should be listed:

1. Financial structure
   (1) Debt ratio = total liabilities/total assets.
   (2) Ratio of long-term capital to property, plant and equipment = (total equity + non-current liabilities) / net property, plant and equipment.
2. Solvency
   (1) Current ratio = current assets/current liabilities.
   (2) Quick ratio = (current assets-inventory-prepaid expenses)/ current liabilities.
   (3) Interest earned ratio (times) = net income before income tax and interest expense/ interest expenditure of the current period.
3. Operating performance
   (1) Accounts receivable (including receivables and notes receivable arising from business) turnover＝net sales/ average receivable balance of different periods (including receivables and notes receivable arising from business).
   (2) Average collection period = 365/receivables turnover.
   (3) Inventory turnover (times) = cost of sales/average inventory.
   (4) Accounts payable (including accounts payable and notes payable arising from business) turnover＝cost of sales/ average payable balance of different periods (including accounts payable and notes payable arising from business).
   (5) Average days in sales = 365/inventory turnover.
   (6) Property, plant and equipment turnover (times) = net sales/average net property, plant and equipment turnover.
   (7) Total assets turnover (times) = net sales/total average assets.

4. Profitability
   (1) Return on total assets (%) = after-tax profits and losses + interest expenses × (1-tax rate)/ average total assets.
   (2) Return on stockholders' equity (%) = after-tax profits and losses/total average equity.
   (3) Profit ratio (%)= after-tax profits and losses /net sales.
   (4) Earnings per share = profits and losses attributable to shareholders of the parent - special dividend) / weighted average number of issued shares. (Note 3)
5. Cash flow
   (1) Cash flow ratio = net cash flow of business activities/current liabilities.
   (2) Cash flow adequacy ratio = net cash flow of business activities in the last five years/ (capital expenditure + inventory increase + cash dividend) of the last five years.
   (3) Cash reinvestment ratio= (net cash flow of business activities - cash dividend)/(gross property, plant and equipment + long-term investment + other non-current assets + working capital). (Note 4)
6. Leverage:
   (1) Operating leverage = (net operating income - variable operating costs and expenses) / operating benefits (Note 5).
   (2) Financial leverage = operating benefits/ (operating benefits-interest expense).

Note 3: In the above formula for calculating the earnings per share, the following items should be paid special attention to in measurement:

1. Based on the weighted average number of common shares, rather than the number of issued shares at the end of the year.
2. Where there are cash increases or treasury stock transactions, the weighted average number of shares should be calculated by taking into account the circulation period.
3. For those who have earnings or capital reserve converted to increase capital, when calculating earnings per share in previous years and half a year, they should be adjusted retrospectively according to the proportion of capital increase, without considering the issuance period of the capital increase.
4. If special shares are non-convertible cumulative special shares, their current-year dividend (whether it is issued or not) should be deducted from their net after-tax profit or increase their net after-tax loss. If special shares are non-cumulative, with net after-tax profits, special dividends should be deducted from net after-tax profits; if they are losses, they need not to be adjusted.

Note 4: In cash flow analysis, the following items should be paid special attention to in measurement:

1. Net cash flow of business activities refers to the net cash inflow of business activities in the statement of cash flows.
2. Capital expenditure refers to the cash outflow of capital investment each year.
3. Inventory increase is only counted when the end-of-period balance is greater than the beginning-of-period balance. If the end-of-year inventory decreases, it is counted as zero.
4. Cash dividends include cash dividends for common shares and special shares.
5. Gross property, plant and equipment refers to the total amount of property, plant and equipment before the accumulated depreciation is deducted.

Note 5: The issuer should divide the operating costs and operating expenses into fixed and variable ones according to their nature. If estimates or subjective judgments are involved, their reasonableness should be paid attention to and consistency should be maintained.

Note 6: The ratio of paid-in capital of a foreign company is calculated by the ratio in net value.

Note 7: Where the Company's shares have no par value or par value per share is not NT$10, the above

ratio in paid-in capital should be calculated based on the equity ratio of the balance sheet attributable to shareholders of the parent.

III. Audit Committee's Report in the Most Recent Years

Audit Committee's Audit Report

The Board of Directors has prepared the Company's 2018 Business Report, Consolidated and Standalone Financial Statements and Earnings Distribution Proposal. Sino-American Silicon Products Inc. Consolidated and Standalone Financial Statements have been audited and certified by Cheng-chien Chen, CPA, and An-Chih Cheng, CPA, of KPMG and audit review reports relating to the Financial Statements have been issued. The above business report, consolidated financial statements, standalone financial statements and earnings distribution proposal have been audited by the Audit Committee. It is considered that there is no inconsistency. The above report is submitted in accordance with Article 14-4 of the Securities and Exchange Law and Article 219 of the Company Act. I hereby submit this report.

Hereto
2019 Annual Shareholders' Meeting of Sino-American Silicon Products Inc.

Sino-American Silicon Products Inc.
Convenor of the Audit Committee:

Ting-ko Chen
March 21, 2019

IV. Audited Consolidated Financial Statements for Most Recent Year: Please refer to Annex I of the annual report.

V. Audited Standalone Financial Statements for Most Recent Year: Please refer to Annex II of the annual report.

VI. Difficulties in Financial Turnover in the Most Recent Years and Up to the Date of Publication of the Annual Report of the Company and Its Affiliated Company: None.

VII. Review of Financial Conditions, Operating Results, and Risk Management

I. Analysis of Financial Status

Unit: NT$ thousands

Year / Item	2018	2017	Difference 異 Amount	Difference 異 %
Current assets	57,260,849	41,006,059	16,254,790	39.64
Available-for-sale financial assets	—	685,194	(685,194)	(100.00)
Financial assets held up to maturity date	—	281,366	(281,366)	(100.00)
Cost-based financial assets	—	838,181	(838,181)	(100.00)
Financial assets measured based on fair value through other comprehensive profits and losses	1,204,924	—	1,204,924	100
Financial assets measured by post-amortization costs	281,366	—	281,366	100
Investment measured by using equity method	2,041,896	1,694,717	347,179	20.49
Property, plant and equipment	37,438,555	37,528,808	(90,253)	(0.24)
Intangible assets	3,649,397	3,939,134	(289,737)	(7.36)
Other assets	2,108,328	3,369,074	(1,260,746)	(37.42)
Total assets	103,985,315	89,342,533	14,642,782	16.39
Current liabilities	30,153,693	28,236,998	1,916,695	6.79
Non-current liabilities	25,917,757	17,328,624	8,589,133	49.57
Total liabilities	56,071,450	45,565,622	10,505,828	23.06
Equity capital (including equity capital to be written off)	5,862,877	5,920,587	(57,710)	(0.97)
Capital surplus	21,757,292	24,205,831	(2,448,539)	(10.12)
Retained earnings	2,332,634	507,252	1,825,382	359.86
Other equity interest	(3,071,087)	(3,322,937)	251,850	7.58
Treasury stock	—	(169,861)	(169,861)	(100.00)
Non-controlling interest	21,032,149	16,636,039	4,396,110	26.43
Total shareholder's equity	47,913,865	43,776,911	4,136,954	9.45
Current assets	57,260,849	41,006,059	16,254,790	39.64

Note 1: Explain the main reasons for the major changes in assets, liabilities and shareholders' equity in the last two years (those with changes of more than 20% in the early and late stages and the amount of changes of NT$ 10 million) and their effects and future plans.

Description 1:

(1) Current assets: Increased profits of the reinvestment company and contractual liabilities result in increased cash and equivalent cash.

(2) Available-for-sale financial assets: financial assets that are reclassified according to International Accounting Standards Bulletin based on fair value through other comprehensive profits and losses.

(3) Financial assets held up to maturity date: financial assets which are reclassified according to IAS Bulletin to be measured by post-amortization cost.

(4) Cost-based financial assets: financial assets that are reclassified according to International Accounting Standards Bulletin based on fair value through other comprehensive profits and losses.

(5) Financial assets measured based on fair value through other comprehensive profits

and losses: Available-for-sale financial assets and financial assets at cost held up to maturity date are reclassified in accordance with the IAS Bulletin.

(6) Financial assets measured by post-amortization costs: Financial assets in held measured by cost are reclassified according to the reclassification of IAS Bulletin.

(7) Investment measured by using equity method: mainly due to the increase in investment by Taiwan Speciality Chemicals Corporation.

(8) Other assets: mainly due to the decrease of deferred income tax assets and net defined welfare assets.

(9) Non-current liabilities: mainly due to the increase of amount of contractual liabilities collected.

(10) Total liabilities: mainly due to the increase of amount of contractual liabilities collected.

(11) Retained earnings: mainly due to the increased profits of the reinvestment company.

(12) Treasury stock: treasury stock transactions cancelled in 2018.

(13) Non-controlling rights and interests: Increase in the profits of the reinvestment company results in increase in the amount of relative non-controlling rights and interests.

Description 2: Its impact and future responding plan:

The above changes have no significant adverse effect on the Company, and there is no significant abnormality in the Group's overall performance. There should be no need to make a responding plan.

II. Analysis of Operation Results

(I) Comparative analysis of operation results

Unit: NT$ thousands

Year / Item	2018	2017	Variation ratio	
			Increased or decreased amount	(%)
Operating revenues	69,238,945	59,371,198	9,867,747	16.62
Operating costs	50,597,092	47,967,962	2,629,130	5.48
Gross profit from operations	18,641,853	11,403,236	7,238,617	63.48
Operating expenses	5,464,348	5,078,234	386,114	7.60
Net operating profit (loss)	13,177,505	6,325,002	6,852,503	108.34
Non-operating income and expenses	140,728	(1,199,261)	1,339,989	111.73
Pre-tax net income (loss)	13,318,233	5,125,741	8,192,492	159.83
Income tax benefits (expenses)	4,682,753	1,607,113	3,075,640	191.38
Net income (loss) for the current period	8,635,480	3,518,628	5,116,852	145.42
Total comprehensive income in the current period	8,581,630	3,454,539	5,127,091	148.42

Description of analysis on the change in the ratio of increase to decrease:

1. Operating gross profit: The operating growth of the reinvestment company increases the relative combined gross profit.
2. Net business profit (loss): The operating growth of the reinvestment company increases the relative combined income tax fees.
3. Out-of-business income and expenditure: The appreciation of the US dollar against the Taiwanese dollar increases the relative exchange interest.
4. Pre-tax net income (loss): The operating growth of the reinvestment company increases the relative combined pre-tax net income.
5. Income tax benefits (expenses): The operating growth of the investment company increases the relative combined income tax expenses.
6. Net income (loss) in the current period: The operation growth of the reinvestment company increases the relative combined net income after tax.
7. Total consolidated profits and losses in the current period: The operation growth of the reinvestment company increases the relative combined net income after tax.

III. Analysis of Cash Flow

(I) Liquidity analysis in the last two years

Year Item	2018	2017	Variance (%)
Cash Flow Ratio (%)	119.68%	54.43%	65.25%
Cash Flow Adequacy Ratio (%)	192.05%	107.54%	84.51%
Cash Reinvestment Ratio (%)	28.29%	13.88%	14.41%

Description of analysis on the change in the ratio of increase to decrease:

1. Cash flow ratio in the current period is lower than that in the previous period. The solar industry suffers a huge loss, resulting in a relative decrease in cash inflows from operating activities.
2. Cash flow adequacy ratio in the current period is lower than that in the previous period. The decrease of cash loss of operating activities results in a relative decrease in cash flow adequacy ratio.
3. Cash reinvestment ratio in the current period is lower than that in the previous period. The increase of number of cash dividend payments results in a decrease in the cash reinvestment ratio.

(II) Cash Flow Analysis for the Coming Year

Unit: NT$ thousands

Cash, Beginning of Year	Net Cash Flow from Operating Activities	Cash Outflow	Cash Surplus (Deficit)	Leverage of Cash Deficit	
				Investment Plans	Financing Plans
36,829,131	22,183,380	(23,617,039)	35,387,472	—	Bank financing

1. Cash Flow Analysis of 2019:
   A. Business activities: Although the solar industry is slowing down, the semiconductor industry is operating stably. It is expected that the net cash flow of self-operating activities will be net cash inflow throughout the year.
   B. Investment activities: The Company is expected to receive cash dividends from the investment company and pay for domestic investment, capital expenditure and distributed dividends with them.
   C. Financial activities: repayment (borrowing) of loans.
2. The remedial measures and liquidity analysis of the anticipated cash shortfall: None.

IV. Major Capital Expenditure Items influence on Financial Business

(I) The use of major capital expenditures and sources of funds: None.

(II) Major capital expenditures are expected to yield benefits: None.

V. Recent Reinvestment Policy, Major Reasons for Profits or Losses, Improvement Plan and Investment Plan for the Following Year

1. Reinvestment policy
   The Company's reinvestment policy is based on the Company's future direction of operation and implemented step by step. At this stage, the strategy alliance or reinvestment shareholding of various business links with higher added value in the supply chain of solar energy industry is used to provide comprehensive operation results.
2. Major reasons for profits or losses of reinvestment, improvement plan and investment plan for the next year

Unit: NT$ thousands

Reinvestment Company	2018 Recognized (Losses) Profits	Main Causes of Profits or Losses	Improvement Plan	Investment Plan for the Next Year
Sino Silicon Technology Inc.	33,705	This is mainly the interest generated by fixed deposit and exchange of banks.	None	None
GlobalWafers Co., Ltd.	6,932,303	This is mainly due to the profits generated by the hot semiconductor market.	None	None
Crystalwise Technology	(183,103)	Mainly due to reduction of market demand of LED/LT/LN	Accelerate the development of new products to enhance added value.	Private corporate bonds
Accu Solar Corp	(7,528)	Mainly due to a small number of tenders in the power plant	Accelerate tenders of the power plant	None
Aleo Solar GmbH	(113,212)	Mainly due to the shrinkage of global solar energy market and the decline in prices.	Accelerate the development of efficient niche products to increase added value.	None
Aleo Solar Distribuzione Italia S.r.l	(5,207)	Mainly due to the shrinkage of global solar energy market and the decline in prices.	Develop new customers and accelerate the exploration of India, Southeast Asia and other emerging areas.	None
Aleo Sunrise GmbH	147,324	Mainly due to the shrinkage of global solar energy market and the decline in prices.	Accelerate the development of efficient niche products to increase added value.	None
Sino-American Materials Corp	(435)	It is a supplier of the main materials for solar modules. The shrinkage of solar energy market results in losses.	None	None
SAS Sunrise Inc.	(118,642)	Cayman Holdings, an overseas power plant	None	None
SAS Sunrise Pte. Ltd.	(104,384)	Singapore Holding, an overseas power plant	None	None
Sulu Electric Power and Light Inc.	(93,219)	The electricity tariff of overseas power plants has not yet been confirmed.	Actively seek strategic investment partners, combine with local energy companies, and confirm electricity tariff as soon as possible.	None
Sunrise PV World Co.	(52,097)	Mainly due to defects in project payment of power plant	Establish the credit reporting procedures for power plant project	None
Cathy Sunrise Corporation	11,616	Mainly domestic joint venture power plants; because of the increase in the number of installations, the profits increased.	None	None
Taiwan Specialty Chemicals Corporation	(71,833)	The mass production of products has not started, and there is no turnover	Actively develop customers and create turnover	None

Unit: NT$ thousands

Name of Reinvestment Undertakings	Investment (Losses) Profits Recognized in 2018	Main Causes of Profits or Losses	Improvement Plan	Investment Plan for the Next Year
GlobalWafers Inc.	1,903,803	The business condition is normal	None	None
GlobalSemiconductor Inc.	341,260	The business condition is normal	None	None
GlobalWafers Japan Co., Ltd.	2,098,458	Business and profits are stable	None	None
GWafers Singapore Pte. Ltd.	5,914,715	The business condition is normal	None	None
Topsil GlobalWafers A/S	(50,650)	The business condition is normal	None	None
Hongwang Investment Co., Ltd.	14,439	The business condition is normal	None	None
Taisil Electronic Materials Corp.	1,902,311	Business and profits are stable	None	None
Kunshan Sino Silicon Technology Co., Ltd.	321,712	The business condition is normal	None	None
Shanghai GROWFAST Semiconductor Technology Co.	4,168	The business condition is normal	None	None
MEMC Japan Ltd.	157,805	Business and profits are stable	None	None
Topsil Semiconductor sp z o.o.	(70,472)	The business condition is normal	None	None
GlobalWafers Singapore Pte. Ltd.	7,362,796	Business and profits are stable	None	None
GlobalWafers B.V.	3,589,426	The business condition is normal	None	None
MEMC Electronic Materials, SpA	1,680,298	Business and profits are stable	None	None
MEMC Electronic Materials France SarL	689	The business condition is normal	None	None
MEMC Electronic Materials GmbH	556	The business condition is normal	None	None
MEMC Holding B.V.	691,209	The business condition is normal	None	None
MEMC Korea Company	1,726,189	Business and profits are stable	None	None
GlobiTech Incorporated	803,066	Business and profits are stable	None	None
MEMC LLC	193,960	The business condition is normal	None	None
MEMC Electronic Materials SDN BHD	99,469	The business condition is normal	None	None
MEMC Ipoh Sdn Bhd	143,384	The business condition is normal	None	None
SunEdison Semiconductor Technology (Shanghai) Ltd	706	The business condition is normal	None	None

VI. Risk Management and Assessment

(I) The organizational structure of the Company's risk management, its implementation and responsible units are as follows:

1. Board of Directors: Pay attention to relevant government decrees at all times, review relevant company management measures, and ensure the effectiveness of company management rights and operational risk management.
2. President’s Office: It is mainly responsible for evaluation and execution of response strategies of business decision-making risks, legal risks of the Company, and employee crisis risk management.
3. MIS: The responsible unit for the evaluation and execution of network information security and operational risks.
4. Audit Office: Mainly link the Company's objectives, risk tolerance and strategies, and actively assist company managers to deal with all the interrelated risks of the whole enterprise.
5. Administration: Responsible unit for the evaluation and control of human resources allocation and response, and the evaluation and execution of response strategies of relevant legal business and compliance.
6. Accounting Dept.: Responsible unit for the evaluation and execution of response strategies of relevant financial risk management of the Company, mainly for the evaluation and control of interest rate, exchange rate and financial risk, liquidity risk and credit risk.
7. Procurement: The executing unit which avoids the risk that the purchaser will drive up the price because of monopoly and avoids the risk of concentration of the purchasers.
8. Sales: Responsible unit for the evaluation and execution of response strategies of market risks, and customer accounts receivable management, in order to reduce risks of the Company's order receiving process.
9. Manufacturing: mainly responsible for product production, yield and abnormality management, use and scrap of raw materials, and capacity expansion planning and implementation.
10. R&D: Responsible unit for the evaluation and execution of response strategies for product design and process risks and product life cycle risks.
11. The Company systematically manages and controls risks of the products and

processes.

Execution and responsible units: R&D unit is responsible for new product development, risk identification, evaluation and control of derivative products and other activities. Business unit is responsible for information monitoring after product launching, collection and customer feedback. The quality assurance, manufacturing, legal and intellectual property units are responsible for assisting the relevant processes of the process.

Responding measures: In the early stage of new product development, R&D unit began to analyze the patent distribution of international competitors based on TIPS and APQP operating system, formulated R&D strategies to avoid patent infringement, ensured the rights and interests of the Company and customers, and continuously grasped the world's technological trends in the process of product development and production, so as to respond to changes in product life cycle in advance. The process unit regularly reviews whether it should introduce new processes or overcome the deficiencies of existing processes according to the functions of products and customer complaints, in order to prevent product risks.

(II) Effects of Changes in Interest Rates, Foreign Exchange Rates and Inflation on Corporate Finance, and Future Response Measures:

Item	2018 (NT$ thousands; %)
Net interest income and expenditure	270,899
Net exchange profits and losses	(39,184)
Ratio of net interest income and expenditure to net revenue	0.39%
Ratio of net interest income and expenditure to pre-tax net profit	2.03%
Ratio of net exchange profits and losses to net revenue	(0.06)%
Ratio of net exchange profits and losses to pre-tax net profit	(0.29)%

(1) Changes in interest rates

Long-term and short-term borrowing in 2018 belongs to debt with floating interest rate. Therefore, the change of market interest rate will change the effective interest rate of long-term and short-term borrowing, and make its future cash flow fluctuate. If the market interest rate increases (decreases) by 1%, the annual cash outflow (inflow) will increase by NT$ 9,312,000. The Company will adjust financing tools to reduce the risk of interest rate fluctuation according to the fluctuation of interest rate.

(2) Exchange rate fluctuation

The Company sells and imports raw materials mainly in foreign currency. In 2018, due to changes in industrial conditions, the difference of foreign currency positions in purchasing and sales transactions was almost all natural hedging. In addition, the Company manages spot positions at any time for short-term foreign exchange revenue and expenditure difference. The change of exchange rate does not cause obvious risks to operation.

(3) Inflation

There has been no significant change in the Company's purchasing cost in recent years due to inflation, so in terms of cost, inflation did not have a significant impact in 2018. The Company will continue to pay attention to the situation of inflation and take corresponding measures and make adjustments when necessary.

(III) Policies, Main Causes of Gain or Loss and Future Response Measures with Respect to High-risk, High-leveraged Investments, Lending or Endorsement Guarantees, and Derivatives Transactions

(1) According to policy considerations, the Company is not engaged in high-risk and highly leveraged investment.

(2) The Company and its subsidiaries are engaged in capital lending, endorsement guarantee and derivative commodity transactions in accordance with the Procedures for Lending Funds to Other Parties, Procedures for Endorsement and Guarantees, Policies and Procedures for Financial Derivatives Transactions and relevant regulations of the competent authorities. The executing unit also makes internal audit and supervision in accordance with relevant management measures based on regular audit and announcement, which will not result in risks to operation.

(IV) Future Research & Development Projects and Corresponding Budget

Recent Annual Plan	Completion (%)	Expected Research Expenditure	Expected Completion Schedule	Main Influencing Factors of the Success of Future R&D
Ultra High Efficiency P-Type Mono-Si Solar Cell	P-Type Mono Celco Efficiency ~ 22.20%	NTD 50,000,000	December 2019	Introduction of advanced process technology and materials
Very High Efficiency P-Type Mono-Si Bi-facial Solar Cell	P-type Mono Bifacial Celco Efficiency = 22.00%(Front) / 15.50%(Rear)	NTD 20,000,000	December 2019	Introduction of advanced process technology and materials
Development of Ultra High Efficiency N-Type Mono-Si Solar Cell Technology	Under R&D	NTD 320,000,000	December 2019	Development and introduction of new process technologies

(V) Effects of and Response to Changes in Policies and Regulations Relating to Corporate Finance and Sales in Recent Years at Home and Aboard:

Except that our daily operations are regulated by the relevant laws and regulations at home and abroad, we always pay attention to the development trend and change of policies and regulations at home and abroad, in order to fully grasp the changes of market environment, and timely take the initiative to propose response measures. Up to the date of publication of the prospectus, our group has not been affected by major changes in policies and laws at home and abroad.

(VI) Effects of and Response to Changes in Technology and the Industry Relating to Corporate Finance and Sales in Recent Years:

Looking forward to this year, large plants will continuously expand single crystal PERC, solar energy heavy single crystal, and light polycrystal. The polycrystal supply exceeds demand and price is difficult to rise. The supply chain prices will continuously reduce, so that solar energy will gradually move towards the direction of getting rid of subsidies and affordable access to the grid; and the popularity of non-subsidized systems and their actual Levelized Cost of Energy (LCOE) will become the price indicators of future supply chains. At present, there is a strong wait-and-see atmosphere in the market. The Company will continuously observe the market situation and take the following response measures.

(1) Maintaining the leading advantages of solar cell technology will simplify product categories and develop low-cost and high-efficiency cells, and serve customers vertically in an integrated way, thereby increasing customers' willingness to switch to use.

(2) Rapidly increase the development energy of new technologies and new products, and continuously invest in the growth of high-efficiency polycrystal silicon crystal and the development of precision processing technology of custom-made silicon ingot, in order to create the core competitive advantages.

(3) Actively expand the layout of solar power generation system, respond to the government's policy of vigorous promotion of renewable energy, invest in new business opportunities after Taiwan's installation tide in a large number, and accumulate the integration capacity of after-sales maintenance and operation of power plant through the investment of the Group in Taiwan's solar power plant.

(VII) The Impact of Changes in Corporate Image on Corporate Risk Management, and the Company’s Response Measures in Recent Years:

Since its establishment, the Company has adhered to the business philosophy of "honesty, professionalism, team and innovation", emphasizes the principle of honesty, stimulates individual creativity with cordiality, dedication, activeness and professionalism, and demonstrates the Company's unique culture through the tacit understanding of the team, and continuous innovation of technologies and management. In April 2019, the Company was awarded "Top 5% of TPEx Listed Companies" in the 5th (2018) Corporate Governance Evaluation Ranking, which witnessed the Company's determination to strive for transparency, honesty and sustainable operation. At the same time, the Company will continue to adhere to

the principle of good faith to show the blueprint of corporate governance, and strengthen the Company's physique to improve business performance and implement corporate social responsibility.

(VIII) Expected Benefits from, Risks Relating to and Response to Merger and Acquisition Plans in Recent Years:

Up to the date of publication of the annual report, the Company has no plan for merger and acquisition.

(IX) Expected Benefits from, Risks Relating to and Response to Factory Expansion Plans in Recent Years:

Facing the solar energy market with fierce competition, there is no plan to expand the factory in the near future. We will continuously introduce innovative products with high conversion efficiency and good stability. Through the production and marketing policies of advanced technology and product differentiation, we will create the Company's core competitive advantages, accurately grasp customer needs, provide customers with all-round products and services, and strive for more business opportunities.

(X) Risks Relating to and Response to Excessive Concentration of Purchasing Sources and Excessive Customer Concentration in Recent Years: None.

(XI) Effects of, Risks Relating to and Response to Large Share Transfers or Changes in Shareholdings by Directors, Supervisors, or Shareholders with Shareholdings of over 10% in Recent Years: No such situation.

(XII) Effects of, Risks Relating to and Response to the Changes in Management Rights in Recent Years: None.

(XIII) Litigation or Non-litigation Matters in Recent Years: major litigation, non-litigation or administrative litigation matters in which the Company and its directors, supervisors, Presidents, substantive responsible persons, major shareholders with over 10% shareholdings and affiliated companies which have been judged or are still in attribution should be listed. If the results may have a significant impact on shareholders' rights and interests or securities prices, the facts of the dispute, the amount of the subject matter, the date of commencement of the litigation, the principal parties involved and the handling

of the case up to the date of publication of the annual report should be disclosed:

In March 2015, Hemlock Semiconductor Pte. Ltd. filed a lawsuit against the Company in New York State Court to claim compensation for breach of some silicon raw material supply contracts by the Company. In this case, agreement was reached between the two parties in May 2016, March 2018 and February 2019. The Company agreed to purchase a certain amount of silicon raw materials from Hemlock Semiconductor Pte. Ltd. and its affiliated enterprises. The two parties stopped litigation until April 30, 2019.

(XIV) Other Major Risks:

Key Performance Indicator (KPI)

As the Company is in the manufacturing industry, the following key indicators are important benchmarks affecting the Company:

1. Financial structure:
   In 2018, the accounts receivable turnover of the Company was 7.4 times, the average collection period was 49.32 days, the inventory turnover was 5.64 times, the property, plant and equipment was 1.85 times and the total assets turnover was 0.72 times. Among them, "the accounts receivable turnover" and "the average collection period" are important indicators affecting the use of funds of the Company.
2. Customer structure:
   Customer satisfaction, customer complaint application and after-sales service ability are indicators considered by the Company. The average score of customer satisfaction of the Company in 2018 was 91.
3. Internal process structure indicators:
   The Company's inventory turnover was 5.64 times in 2018. There are relevant internal procedures to control the rate of non-performing purchases. In addition, the delivery date and place specified by customers can be achieved on time.
4. Learning and growth structure indicators:
   The total person-time of internal and external training of employee education and training was 18,040. The information system capability of employees is regularly promoted by the Company through internal education and training. As of the date of publication of the annual report in 2018, 267 patents have been obtained at home and abroad.

VII. Other Major Events:

Information security risk evaluation and response measures:

The Company's information system is subject to annual information system and information security inspection led by the auditing unit, and the status of information security governance is regularly reported to the Board of Directors.

The main axis of information security strategy includes information security governance (executed according to the management measures for information security policy with timely introduction of new technologies to improve information security governance ability), compliance with laws (regular review of new regulations, and introduction of new technology products to enhance information security management), and application of science and technology (cooperation with well-known professional information security manufacturers to improve information security management ability). Through close combination, mutual support, and continuous improvement and optimization, the overall information security defense ability is improved.

In view of the current emerging trends of information security, such as DDoS attacks, extortion software, social engineering software, website record and bugs, the Company exchanges with well-known information security manufacturers every year (has become a member of SP-ISAC). Through project cooperation, it focuses on information security issues, makes response plan, conducts DDoS and APT offensive and defensive drill for different information security situations, and improve the responsiveness of the handling personnel, in order to detect and block in the first time.

In the first half of 2019, KPMG was commissioned to conduct an offensive and defensive drill of information security. The results of the drill will be submitted to the Board of Directors and information security defense will be implemented.

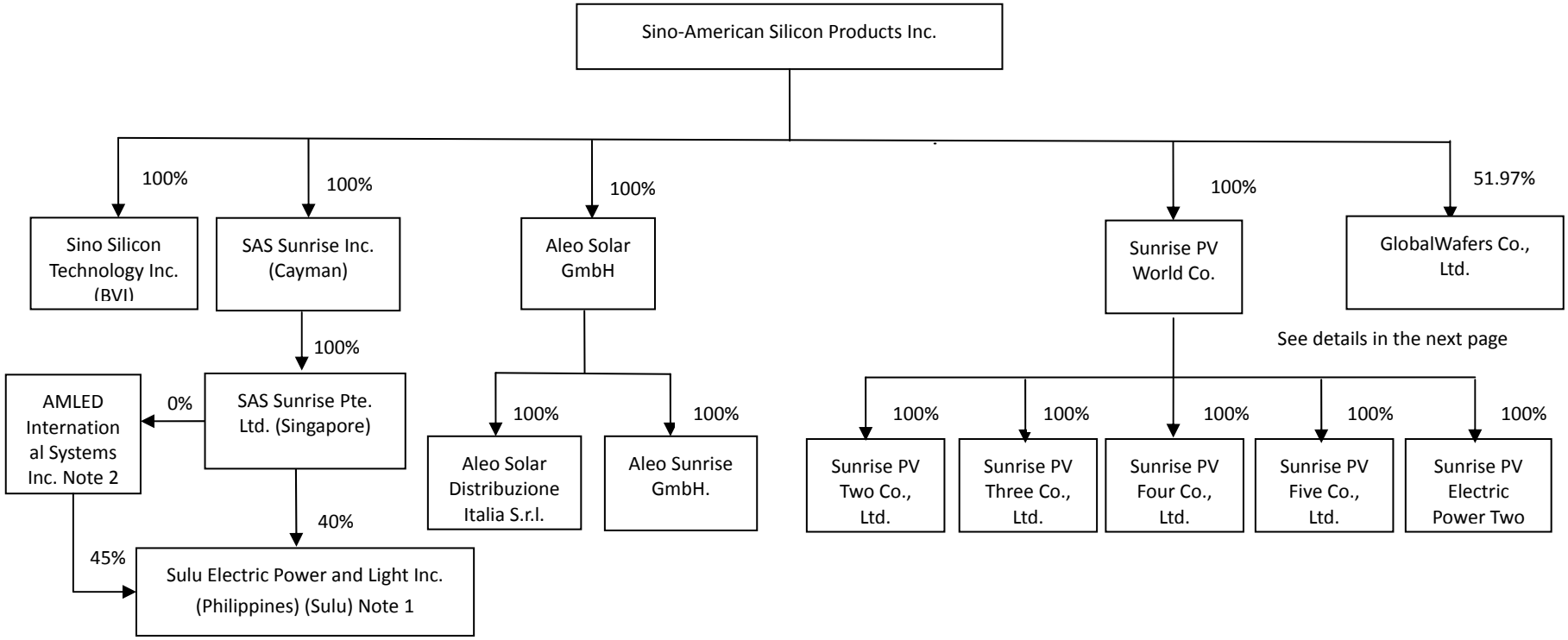
Considering that information security insurance is still a new type of insurance, which involves the relevant supporting facilities such as information security grade testing institutions, claim recognition and non-payment conditions, it needs to be evaluated before deciding whether to purchase information security insurance. The follow-up objectives will be to give priority to complete related norms of information security, make regular information security inspections, continuously strengthen information security protection and establish the joint defense mechanism, to be more active in the training of information security talents, and increase the training hours of information security-related courses year by year, so as to improve the ability of information security control and management.

VIII. Special Disclosure

I. Affiliated Businesses

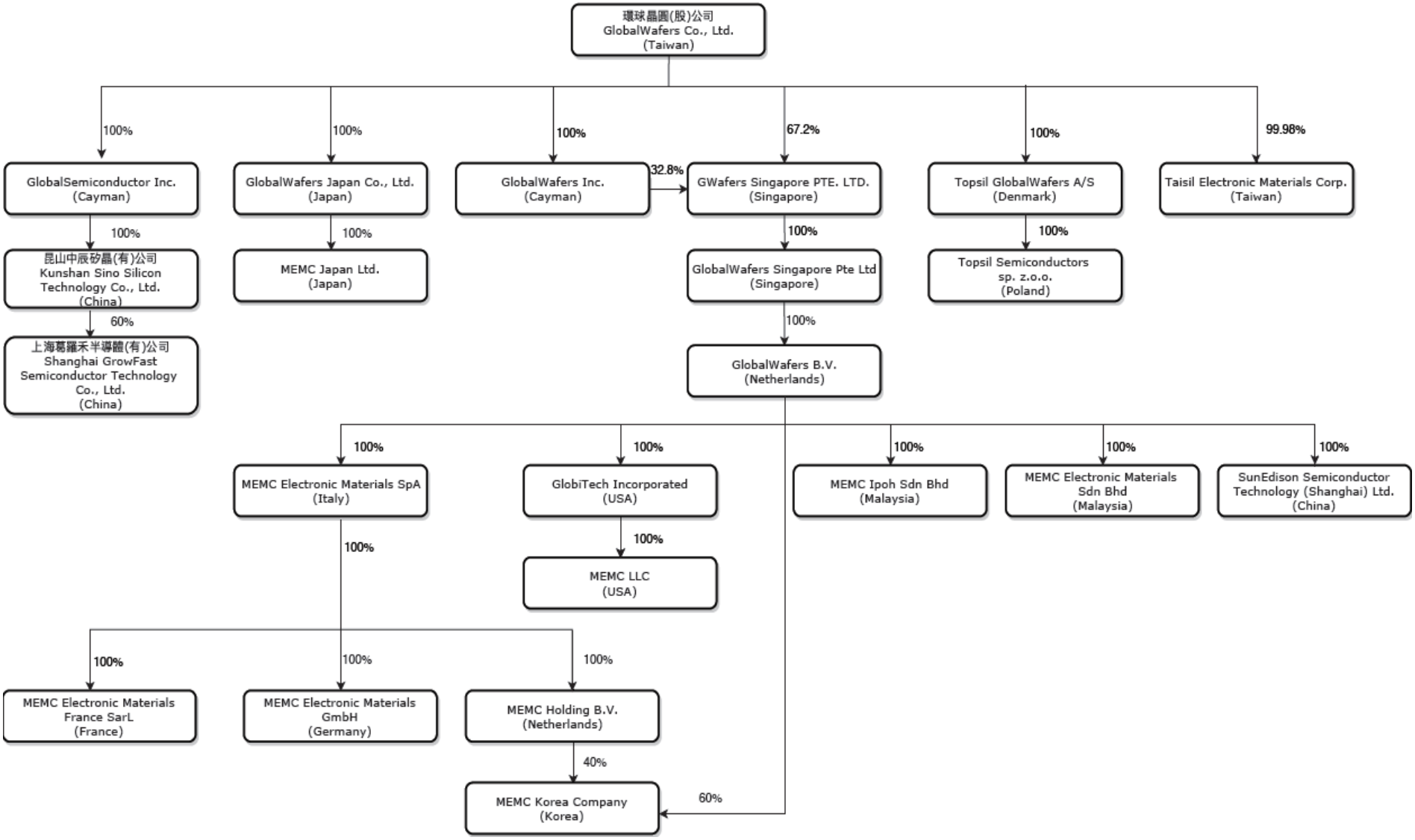
(I) Affiliated Business Consolidated Business Report

1. Affiliated Company Chart



Note 1: Although the merger company has less than 50% of Sulu's voting rights, it can control the Company's financial and operational strategies through effective agreements with other investors of Sulu, so Sulu is regarded as a subsidiary company.

Note 2: Although the merger company does not hold the owner's rights and interests of AMLED, AMLED is regarded as a subsidiary company because it can control the Company's financial and operational strategy and obtain all the benefits of its operation and net assets in accordance with the terms and conditions of the agreement signed by such individuals.


環球晶圓(股)公司
GlobalWafers Co., Ltd.
(Taiwan)
100%
GlobalSemiconductor Inc.
(Cayman)
100%
GlobalWafers Japan Co., Ltd.
(Japan)
100%
GlobalWafers Inc.
(Cayman)
32.8%
67.2%
GWafers Singapore PTE. LTD.
(Singapore)
100%
Topsil GlobalWafers A/S
(Denmark)
99.98%
Taisil Electronic Materials Corp.
(Taiwan)
100%
昆山中辰矽晶(有)公司
Kunshan Sino Silicon
Technology Co., Ltd.
(China)
60%
上海葛羅禾半導體(有)公司
Shanghai GrowFast
Semiconductor Technology
Co., Ltd.
(China)
100%
MEMC Japan Ltd.
(Japan)
100%
GlobalWafers Singapore Pte Ltd
(Singapore)
100%
GlobalWafers B.V.
(Netherlands)
100%
Topsil Semiconductors
sp. z.o.o.
(Poland)
100%
MEMC Electronic Materials SpA
(Italy)
100%
GlobiTech Incorporated
(USA)
100%
MEMC LLC
(USA)
100%
MEMC Ipoh Sdn Bhd
(Malaysia)
100%
MEMC Electronic Materials
Sdn Bhd
(Malaysia)
100%
SunEdison Semiconductor
Technology (Shanghai) Ltd.
(China)
100%
MEMC Electronic Materials
France SarL
(France)
100%
MEMC Electronic Materials
GmbH
(Germany)
100%
MEMC Holding B.V.
(Netherlands)
40%
MEMC Korea Company
(Korea)
60%

2. Basic information of affiliated companies

December 31, 2018 Unit: NT$ thousands

Enterprise Name	Date of Incorporation	Address	Paid-in Capital	Major Business or Production Items
Sino Silicon Technology Inc.	1999/08/05	3rd Floor, Omar Hodge building, Wickhams Cay 1, P.O. Box 362, Road Town, Tortola British Virgin Islands	USD 48,526	Investment holding and international trade business
GlobalWafers Co., Ltd.	2011/10/0	No. 8, Industrial East Second Road, Hsinchu Science Industrial Park	NTD 4,372,500	Manufacturing and sales of semiconductor silicon materials and components
Aleo Solar GmbH	2014/01/23	Marius-Eriksen-Str.1,17291 Prenzlau, Germany	EUR 13,500	Manufacturing and sales of solar modules
Aleo Solar Distribuzione Italia S.r.l	2014/05/16	Viale Trento e Trieste 12/A 31100 Treviso, Italy	EUR 100	Sales of solar modules
Aleo Sunrise GmbH	2015/08/24	Marius-Eriksen-Str.1,17291 Prenzlau, Germany	EUR 2,500	Manufacturing and sales of solar cells
SAS Sunrise Inc.	2015/06/04	Floor 4, Willow House, Cricket Square, P O Box 2804, Grand Cayman KY1-1112, Cayman Island	USD 24,500	Investment in various businesses
SAS Sunrise Pte. Ltd.	2015/12/01	8 Wilkie Road #03-01 Wilkie edge Sinagpore	USD 22,000	Investment in various businesses
Sulu Electric Power and Lights Inc.	2014/01/17	Eastwood, New National Highway, Barangay Salvacion, Municipality of Palo, Leyte, Philippines	PHP 1,050,000	Power generating business
AMLED International Systems Inc.	2015/01/09	3B Bakawan Bldg., Westmont Village, 8227 Dr. Santos Ave., Paranaque city, Philippines	PHP 3,000	Investment in various businesses
Sunrise PV World Co.	2015/12/09	2F, No. 1, Second Section, Ligong First Road, Chengxing Village, Wujie Township, Yilan County	NTD 300,000	Power generating business
Sunrise PV Two Co., Ltd.	2017/04/14	2F, No. 1, Second Section, Ligong First Road, Chengxing Village, Wujie Township, Yilan County	NTD 15,000	Power generating business
Sunrise PV Three Co., Ltd.	2017/04/14	2F, No. 1, Second Section, Ligong First Road, Chengxing Village, Wujie Township, Yilan County	NTD 15,000	Power generating business
Sunrise PV Four Co., Ltd.	2017/04/14	2F, No. 1, Second Section, Ligong First Road, Chengxing Village, Wujie Township, Yilan County	NTD 100,000	Power generating business
Sunrise PV Five Co., Ltd.	2015/09/16	2F, No. 1, Second Section, Ligong First Road, Chengxing Village, Wujie Township, Yilan County	NTD 65,000	Power generating business
Sunrise PV Electric Power Two	2017/12/13	Room 106, 1F, No. 29, Keya West Road, Daya District, Taichung City, Central Science and Industry Park	NTD 42,000	Power generating business

December 31, 2018 Unit: NT$ thousands

Enterprise Name	Date of Incorporation	Address	Paid-in Capital	Major Business or Production Items
GlobalWafers Inc.	2011/05/03	2nd Floor, The Grand Pavilion Commercial Centre, 802 West Bay Road, P.O. Box 10338,Grand Cayman KY1-1003, Cayman Islands	USD 0.001	Investment in various businesses and triangular trade center with subsidiaries in China
GlobalSemiconductor Inc.	2011/05/03	2nd Floor, The Grand Pavilion Commercial Centre, 802 West Bay Road, P.O. Box 10338,Grand Cayman KY1-1003, Cayman Islands	USD 26,555	Investment in various businesses
GlobalWafers Japan Co.,Ltd.	1991/06/18	6-861-5 Seiro-machi Higashiko, Kitakanbara-gun, Niigata 957-0197 Japan	JPY 6,967,000	Manufacturing and trading of semiconductor silicon wafer
GWafers Singapore Pte. Ltd.	2016/02/02	9 Battery Road,15-01 MYP Centre, Singapore, 049910	USD 541,674	Investment in various businesses
Topsil GlobalWafers A/S	2016/07/01	Siliciumvej 1, 3600 Frederikssund, Copenhagen, Denmark	DKK 1,000	Manufacturing and trading of semiconductor silicon wafer
Taisil Electronic Materials Corp.	1994/09/26	No. 2, Creation Road 1, HsinChu Science Park, Hsin chu, Taiwan	NTD 100,000	Manufacturing and sales of semiconductor silicon wafer
Kunshan Sino Silicon Technology Co., Ltd.	1999/08/17	No. 303, Hanpu Road, Chengbei High-tech Industrial Park, Kunshan City, Jiangsu Province, China	USD 26,555	Processing trade of silicon ingot, silicon wafer, etc.
Shanghai GROWFAST Semiconductor Technology Co. Ltd.	2016/05/20	Room 2013 B, Building C, No. 155 ,Fute West Road, China (Shanghai) Free Trade Pilot Area	RMB 5,000	Sales and marketing business
MEMC Japan Ltd.	1979/12/11	11-2 Kiyohara Industrial Park, Utsunomiya City, Tochigi 3213296 Japan	JPY 100,000	Manufacturing and sales of semiconductor silicon wafer
Topsil Semiconductor sp z o.o.	2008/10/01	133 Wolczynska St., 01-919 Warsaw, Poland	PL 5	Manufacturing and trading of semiconductor silicon wafer
GlobalWafers Singapore Pte. Ltd.	2013/12/20	9 Battery Road,15-01 MYP Centre, Singapore, 049910	SGD 1 USD 544,875	Investment, marketing and trade business
GlobalWafers B.V.	2013/11/26	A tower, 7 floor, Laan van Langerhuize 1, 1186 DS Amstelveen, The Netherlands	USD 0.1	Investment in various businesses
MEMC Electronic Materials, SpA	1960/01/29	Viale Gherzi, 31 28100 Novara, Italy	EUR 31,200	Manufacturing and sales of semiconductor silicon wafer
MEMC Electronic Materials France SarL	1998/07/27	5-7 BLD EDGAR QUINET 92700 COLOMBES, France	EUR 16	Trade business
MEMC Electronic Materials GmbH	1998/02/10	c/o Rene Schaeffler-Steinsdorfstr, 13, D-80538 Muenchen, Germany	EUR 0.2	Trade business
MEMC Holding B.V.	2000/04/20	A tower, 7 floor, Laan van Langerhuize 1, 1186 DS Amstelveen, The Netherlands	EUR 20	Investment in various businesses

Enterprise Name	Date of Incorporation	Address	Paid-in Capital	Major Business or Production Items
MEMC Korea Company	1990/12/18	854, Manghyang-ro, Sunggeo-eup, Cheonan-si, Chungchongnam-do, Korea	KRW 86,000	Manufacturing and sales of semiconductor silicon wafer
GlobiTech Incorporated	1998/12/15	200 FM 1417 West/Sherman, TX 75092, U S A	USD 0.001	Epitaxial silicon wafer production, epitaxy processing and other trades
MEMC LLC	2013/08/28	501 Pearl Drive St. Peters, MO 63376, USA	USD 0.01	R&D, manufacturing and sale of semiconductor silicon wafers
MEMC Electronic Materials, Sdn Bhd	1972/06/15	Sungai Way Free Industrial Zone, 47300 Petaling Jaya, Selangor Darul Ehsan, Malaysia	MYR 1,036	R&D, manufacturing and sale of semiconductor silicon wafers
MEMC Ipoh Sdn. Bhd.	2007/10/10	Unit 30-01, Level 30, Tower A, Vertical Business Suite, Avenue 3, Bangsar South, No 8, Jalan Kerinchi, Kuala Lumpur	MYR 619,374	R&D, manufacturing and sale of semiconductor silicon wafers
SunEdison Semiconductor Technology (Shanghai) Ltd	2015/04/25	Room 03B, Floor 16, Jiaqi Building, 666 Gubei Road, Changning District, Shanghai, China	RMB 1,500	Trade business

3. The same shareholder information presumed to have a controlling and subordinate relationship: None.

4. Industries covered by the operation of affiliated companies
   The businesses of the Company and its affiliated companies include:
   A. Research, design, manufacturing and sales of the following products:
      (A) Semiconductor silicon wafer materials and their components
      (B) Rheostat
      (C) Photoelectric and communication wafer materials
      (D) Photoelectric wafers and patterned substrates
   B. Technical and management consulting services for the previous products.
   C. Technical services for integration and installation of photoelectric power generation systems.
   D. Concurrently engaged in import and export trade related to businesses of the Company.

5. Information of directors, supervisors and managers of affiliated companies

December 31, 2018

Enterprise Name	Title	Name or Representative	Shareholding	
			Number of Shares (Thousands)	Proportion
Sino Silicon Technology Inc.	Director	Sino-American Silicon Products Inc. Representative: Ming-Kuang Lu	48,526	100%
GlobalWafers Co., Ltd.	Chairman and CEO	Hsiu-Lan Hsu	222,727	51.17%
	Director	Sino-American Silicon Products Inc. Representative: Ming-Kuang Lu		
	Director	Sino-American Silicon Products Inc. Representative: Tang-liang Yao		
	Director	Kuo-Chou Chen		
	Independent Director	Chieh-Hsiun Cheng		
	Independent Director	Chun-Yen Cheng		
Aleo Solar GmbH	No Board of Directors		—	100%
Aleo Solar Distribuzione Italia S.r.l	No Board of Directors		—	100%
Aleo Sunrise GmbH	No Board of Directors		—	100%
SAS Sunrise Inc.	Director and President	Sino-American Silicon Products Inc. Representative: Cheng-hong Huang	24,500	100%
	Director	Sino-American Silicon Products Inc. Representative: Ming-Kuang Lu		
	Director	Sino-American Silicon Products Inc. Representative: Hsiu-Lan Hsu		
SAS Sunrise Pte. Ltd.	Director	Sino-American Silicon Products Inc. Representative: Ming-Kuang Lu	30,934	100%
	Director	Sino-American Silicon Products Inc. Representative: Hsiu-Lan Hsu		
	Director	Sino-American Silicon Products Inc. Representative: Tang-liang Yao		
	Director	Sino-American Silicon Products Inc. Representative: Cheng-hong Huang		
	Director	Sino-American Silicon Products Inc. Representative: Woo Heng Thong		
Sulu Electric Power and Lights Inc.	Chairman	Sino-American Silicon Products Inc. Representative: Cheng-hong Huang	892,500	85%
	Director and President	Ben-Hur F. Castillo		
	Director	Sino-American Silicon Products Inc. Representative: Mike Da Silva		
	Director	Sino-American Silicon Products Inc. Representative: Gilbert S. Castro		
	Director	Sino-American Silicon Products Inc. Representative: Dr. Arcelie T. Castillo		
AMLED international System	Director and President	Mike Da Silva	—	0%

Enterprise Name	Title	Name or Representative	Shareholding	
			Number of Shares (Thousands)	Proportion
	Director	Gilberto S. Castro		
	Director	Magdalena Dela Cruz		
	Director	Alfonso De la Cruz		
	Director	Thess Quicho		
Sunrise PV World Co.	Chairman	Sino-American Silicon Products Inc. Representative: Ming-Kuang Lu	30,000	100%
	Director and President	Sino-American Silicon Products Inc. Representative: Cheng-hong Huang		
	Director	Sino-American Silicon Products Inc. Representative: Hsiu-Lan Hsu		
	Supervisor	Sino-American Silicon Products Inc. Representative: Tang-liang Yao		
Sunrise PV Two Co., Ltd.	Chairman	Representative of Sunrise PV World Co.: Cheng-hong Huang	1,500	100%
	Director	Representative of Sunrise PV World Co.: Hsiu-Lan Hsu		
	Director	Representative of Sunrise PV World Co.: Tang-liang Yao		
	Supervisor	Representative of Sunrise PV World Co.: Ming-huei Chien		
Sunrise PV Three Co., Ltd.	Chairman	Representative of Sunrise PV World Co.: Cheng-hong Huang	1,500	100%
	Director	Representative of Sunrise PV World Co.: Hsiu-Lan Hsu		
	Director	Representative of Sunrise PV World Co.: Tang-liang Yao		
	Supervisor	Representative of Sunrise PV World Co.: Ming-huei Chien		
Sunrise PV Four Co., Ltd.	Chairman	Representative of Sunrise PV World Co.: Cheng-hong Huang	10,000	100%
	Director	Representative of Sunrise PV World Co.: Hsiu-Lan Hsu		
	Director	Representative of Sunrise PV World Co.: Tang-liang Yao		
	Supervisor	Representative of Sunrise PV World Co.: Ming-huei Chien		
Sunrise PV Five Co., Ltd.	Chairman	Representative of Sunrise PV World Co.: Tang-liang Yao	6,500	100%
	Director	Representative of Sunrise PV World Co.: Hsiu-Lan Hsu		
	Director	Representative of Sunrise PV World Co.: Cheng-hong Huang		
	Supervisor	Representative of Sunrise PV World Co.: Yu-tse Lin		
Sunrise PV Electric Power Two	Chairman	Representative of Sunrise PV World Co.: Cheng-hong Huang	4,200	100%
	Director	Representative of Sunrise PV World Co.: Hsiu-Lan Hsu		

Enterprise Name	Title	Name or Representative	Shareholding	
			Number of Shares (Thousands)	Proportion
	Director	Representative of Sunrise PV World Co.: Tang-liang Yao		
	Supervisor	Representative of Sunrise PV World Co.: C.W. Lee		

Enterprise Name	Title	Name or Representative	Shareholding	
			Number of Shares (Thousands)	Proportion
GlobalWafers Inc.	Director	Hsiu-Lan Hsu	90,000	100%
GlobalSemiconductor Inc.	Director	Hsiu-Lan Hsu	25,000	100%
GlobalWafers Japan Co., Ltd.	Chairman	Hsiu-Lan Hsu	128	100%
	Director	Ming-Kuang Lu		
	Director	Tang-liang Yao		
	Director and President	Takashi Araki		
	Director	Toru Masaoka		
	Supervisor	C.W. Lee		
GWafers Singapore Pte. Ltd.	Chairman	Hsiu-Lan Hsu	541,674	100%
	Director	Tang-liang Yao		
	Director	Ming-Kuang Lu		
	Director	Chen Ye Huang		
Topsil GlobalWafers A/S	Director	Hsiu-Lan Hsu	1,000	100%
	Director	Chen Weiwen		
	Director	Hans Peder Mikkelsen		
Taisil Electronic Materials Corp.	Chairman	Hsiu-Lan Hsu	9,999	99.99%
	Director	Yin-sheng Xue		
	Director	Mark England		
	Supervisor	Ming-huei Chien		
Kunshan Sino Silicon Technology Co., Ltd.	Chairman	Tang-liang Yao	—	100%
	Vice Chairman	Hsiu-Lan Hsu		
	Director and President	Ching-Chang Chin		
	Director	Sheng-hsiung Hong		
	Director	Ming-huei Chien		
	Supervisor	Wei-wen Chen		
Shanghai GROWFAST Semiconductor Technology Co. Ltd.	Chairman	Ching-Chang Chin	—	60%
	Director	Hsiu-Lan Hsu		
	Director	Hsien-Han He		
	President	Sheng-hsiung Hong		
	Supervisor	Wei-wen Chen		
	Supervisor	Takanori Suzuki		
MEMC Japan Ltd.	Director and Chairman	Hsiu-Lan Hsu	750	100%
	Director and President	Takashi Araki		
	Director	C.W. Lee		
	Director	Toru Kobayashi		
	Director	Katsuaki Kotari		
	Supervisor	Masashi Sugahara		
Topsil Semiconductor sp z o.o.	Director	Hans Peder Mikkelsen	0.1	100%
GlobalWafers Singapore	Director	Hsiu-Lan Hsu	299,445	100%

Enterprise Name	Title	Name or Representative	Shareholding	
			Number of Shares (Thousands)	Proportion
Pte. Ltd.	Director	Mark Lynn England		
	Director	Chen Ye Huang		
GlobalWafers B.V.	Director	Hsiu-Lan Hsu	0.1	100%
	Director	Liang Shi		
MEMC Electronic Materials, SpA	Chairman	Mauro Pedrotti	65,000	100%
	Director	Ming-huei Chien		
	Director	Chih-hsing Lu		
	Director	Prof. Gianluigi Tosato		
	Supervisor	Richard Murphy		
	Supervisor	PierMario Barzaghi		
	Supervisor	Eleonora Guerriero		
MEMC Electronic Materials France SarL	Director	Marco Maffr	0.5	100%
MEMC Electronic Materials GmbH	Director	Marco Sciamanna	0.002	100%
MEMC Holding B.V.	Director	Ming-huei Chien	0.2	100%
	Director	Liang Shi		
MEMC Korea Company	Chairman	Charlie Cho	17,200	100%
	Director	Hsiu-Lan Hsu		
	Director	Mark England		
	Supervisor	Chih-hsing Lu		
GlobiTech Incorporated	Chairman and CEO	Hsiu-Lan Hsu	1	100%
	Director	Ming-Kuang Lu		
	Director	Tang-liang Yao		
	Director and President	Mark Lynn England		
	Director	Curtis Hall		
MEMC LLC	President	Mark England	—	100%
	Vice President	Rick Boston		
MEMC Electronic Materials, Sdn Bhd	Director	Ching-Chang Chin	1,036	100%
	Director	Tony Wang		
	Director	Joanne Leung		
	Director	Chih-hsing Lu		
MEMC Ipoh Sdn. Bhd.	Director	Ching-Chang Chin	619,374	100%
	Director	Tony Wang		
	Director	Joanne Leung		
SunEdison Semiconductor Technology (Shanghai) Ltd	Director and President	Sheng-hsiung Hong	—	100%

6. General situation of operation of affiliated companies

Financial status and operating results of affiliated companies

December 31, 2018 Unit : NT$ thousands

Enterprise Name	Capital	Total Assets	Total Liabilities	Net Value	Operating revenues	Operating profit	After-tax Profits and Losses in the Current Period	After-tax Earnings Per Share (NT$)
Sino Silicon Technology Inc.	1,425,603	989,871	16,511	973,360	0	(257)	33,705	—
GlobalWafers Co., Ltd.	4,372,500	89,822,121	46,666,008	43,156,113	59,063,510	17,578,051	13,633,771	31.18
Aleo Solar GmbH	558,139	684,119	444,158	239,961	1,629,269	(52,112)	(113,212)	—
Aleo Solar Distribuzione Italia S.r.l	4,078	93,202	94,796	(1,594)	355,655	(5,486)	(5,207)	—
Sino-American Materials Corporation	100,000	5,025	0	5,025	(391)	(91)	(484)	—
SAS Sunrise Inc.	794,373	785,414	277,119	508,295	0	(14,149)	(118,642)	—
Aleo Sunrise Inc.	91,250	120,395	65,144	55,251	171,564	(56,425)	147,324	—
Sulu Electric Power and Light Inc.	737,896	2,560,617	2,112,664	447,953	127,536	(37,855)	(109,669)	—
AMLED International Systems Inc.	0	0	0	0	0	0	0	—
SAS Sunrise Pte. Ltd.	719,292	596,096	2,163	593,933	0	(454)	(104,384)	—
Sunrise PV World Co.	300,000	569,807	323,319	246,488	991,407	(77,553)	(53,747)	—
Sunrise PV Two Co., Ltd.	15,000	14,918	20	14,898	0	(95)	(88)	—
Sunrise PV Three Co., Ltd.	15,000	144,587	128,245	16,342	9,788	3,904	1,441	—
Sunrise PV Four Co., Ltd.	100,000	103,857	3,454	100,403	1,267	379	443	—

Enterprise Name	Capital	Total Assets	Total Liabilities	Net Value	Operating revenues	Operating profit	After-tax Profits and Losses in the Current Period	After-tax Earnings Per Share (NT$)
Sunrise PV Five Co. Ltd.	65,000	240,918	166,047	74,871	33,791	15,203	9,746	—
Sunrise PV Electric Power Two	42,000	154,675	110,800	43,875	11,689	4,614	2,264	—
GlobalWafers Inc.	1	5,677,436	—	5,677,436	0	0	1,903,803	—
GlobalSemiconductor Inc.	756,809	1,378,905	2,304	1,376,601	45,906	19,334	341,260	-
GlobalWafers Japan Co., Ltd.	2,750,510	18,437,708	4,879,635	13,558,073	12,372,966	2,598,220	2,107,707	-
GWafers Singapore Pte. Ltd.	11,966,930	25,644,377	7,306	25,637,071	0	(4,304)	7,395,394	-
Topsil GlobalWafers A/S	4,832	2,184,551	496,938	1,687,613	1,174,762	(54,625)	(40,596)	-
Taisil Electronic Materials Corp.	100,000	19,220,766	3,134,216	16,086,550	10,461,849	2,094,481	1,889,479	-
Kunshan Sino Silicon Technology Co., Ltd.	769,177	2,008,974	695,830	1,313,144	2,614,188	383,322	321,712	-
Shanghai GROWFAST Semiconductor Technology Co. Ltd.	9,756	300,032	265,298	34,733	469,632	9,827	6,946	-
MEMC Japan Ltd.	28,020	2,872,955	1,424,877	1,448,078	4,425,983	326,516	157,805	-
Topsil Semiconductor sp z o.o.	41	44,760	168,736	(123,976)	263,777	(101,575)	(70,472)	-
GlobalWafers Singapore Pte. Ltd.	—	52,228,656	25,191,167	27,037,489	23,313,283	3,991,246	7,362,796	-
GlobalWafers B.V.	3	29,181,095	1,808	29,179,287	0	(13,520)	3,589,426	-
MEMC Electronic Materials, SpA	1,061,244	13,801,760	2,453,103	11,348,657	10,130,458	1,343,566	1,680,298	-
MEMC Electronic Materials France SarL	544	3,733	3,651	82	0	1,122	689	-
MEMC Electronic Materials	7	6,380	703	5,677	0	839	556	-

Enterprise Name	Capital	Total Assets	Total Liabilities	Net Value	Operating revenues	Operating profit	After-tax Profits and Losses in the Current Period	After-tax Earnings Per Share (NT$)
GmbH								
MEMC Holding B.V.	680	3,423,819	1,127	3,422,692	0	946	691,209	-
MEMC Korea Company	2,343	12,336,105	3,796,361	8,539,744	7,547,613	2,069,146	1,726,189	-
GlobiTech Incorporated	1	9,855,300	1,124,208	8,731,092	6,269,725	1,093,324	803,066	-
MEMC LLC	—	4,980,982	888,974	4,092,008	2,573,382	(589,229)	193,960	-
MEMC Electronic Materials, Sdn Bhd	7,452	1,250,706	331,104	919,602	1,896,487	104,011	99,469	-
MEMC Ipoh Sdn Bhd	4,454,217	57,670	1,873	55,797	0	(1,684)	143,384	-
SunEdison Semiconductor Technology (Shanghai) Ltd	7,527	10,452	603	9,849	0	76	706	-

Exchanges rate on December 31, 2018 US Dollar: NTD = 30.715: 1 JPY: NTD = 0.2782: 1 EUR: NTD = 35.2: 1

Note 1: All affiliated companies should be disclosed, regardless of their size.

Note 2: If an affiliated company is a foreign company, the relevant figures should be converted to NT$ at the exchange rate on the reporting date.

Note 3: Sino-American Materials was dissolved and liquidated in June 2018.

(III) Consolidated Statements of Affiliated Companies: Please refer to Annex I of this annual report (Consolidated Financial Report of 2018 Audited and Checked by Accountants)

(IV) Report of Affiliated Companies: Not applicable

II. Private Placement Securities in the Most Recent Years: None.

III. The Shares in the Company Held or Disposed of By Subsidiaries in the Most Recent Years: None.

IV. Other Necessary Supplement: None.

V. Any Events And as of the Date of this Annual Report that Had Significant Impacts on Shareholders' Rights or Security Prices as Stated in Item 3 Paragraph 2 of Article 36 of Securities and Exchange Law of Taiwan: None.

Attachment 1

Representation Letter

The entities that are required to be included in the combined financial statements of Sino-American Silicon Products Inc. as of and for the year ended December 31, 2018 under the Criteria Governing the Preparation of Affiliation Reports, Consolidated Business Reports, and Consolidated Financial Statements of Affiliated Enterprises are the same as those included in the consolidated financial statements prepared in conformity with International Financial Reporting Standards No. 10 endorsed by the Financial Supervisory Commission, "Consolidated Financial Statements". In addition, the information required to be disclosed in the combined financial statements is included in the consolidated financial statements. Consequently, Sino-American Silicon Products Inc. and Subsidiaries do not prepare a separate set of combined financial statements.

Sino-American Silicon Products Inc.

Chairman: Ming-Kuang Lu

March 21, 2019

Independent Auditors' Report

To the Board of Directors of Sino-American Silicon Products Inc.

Opinion

We have audited the consolidated financial statements of Sino-American Silicon Products Inc. and its subsidiaries (“the Group”), which comprise the consolidated balance sheets as of December 31, 2018 and 2017, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, based on the audit results of the accountant and the audit report of other accountants the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2018 and 2017, 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 with the International Financial Reporting Standards (“IFRSs”), International Accounting Standards (“IASs”), Interpretations developed by the International Financial Reporting Interpretations Committee (“IFRIC”), and the former Standing Interpretations Committee (“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 Certification of Financial Statements by Certified Public Accountants and the 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 Certified Public Accountants Code of Professional Ethics in Republic of China (“the Code”), and we have fulfilled our other ethical responsibilities in accordance with the Code. Based on the audit results of the accountant and the audit report of other accountants, we believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis of our opinion.

Other Matter

Among the investments included in the consolidated company under equity method, the financial statements of Crystalwise Technology Inc. have not been checked by the accountant and have been checked by other accountants. Therefore, among the opinions expressed by the accountant on the consolidated financial statements, the amount booked in the financial statements of is based on the audit report of other accountants. The amount of investment in Crystalwise Technology Inc. under equity method was 0.4% and 1% of the total assets respectively On December 31, 2018 and 2017. The share of gain or loss of related companies under equity method for 2018 and from January 1 to December 31, 2017 accounted for (3)% and (5)% of the net profit before tax respectively.

The consolidated company has prepared standalone financial statements for 2018 and 2017, and the audit report issued by the accountant with unqualified opinions plus other matters is available for reference.

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 of the current period. These matters were addressed in the context of our audits 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. Based on our judgment, the key audit matters that should be disclosed in this audit report are as follows:

1. Revenue recognition of customer contracts

   Please refer to note 4(16) “Revenue recognition” for accounting policy and note 6(27) “Revenue from contracts with customers” of the consolidated financial statements for further information.

   Description of key audit matter:

   The main source of Revenue of the semiconductor business unit of the consolidated company is the sales of semiconductor silicon crystal materials and their components. The recognition of operating revenue is determined according to the trading conditions agreed with the customers. As the transaction volume is large and from globalized operation locations, as a result, the accountant has recognized the Revenue as one of the important evaluation items for the implementation of the consolidated financial report audit.

   How the matter was addressed in our audit:

   In relation to the key audit matter above, we have performed certain key audit procedures that included understanding of revenue recognition policies and assessing whether revenue recognition policies are appropriate based on sales terms and revenue recognition criteria; understanding the design and process of implementation of internal controls and testing operating effectiveness; testing selected sales samples and agreeing to customer orders, delivery note and related documentation supporting sales recognition; testing sales cut-off, on a sample basis, for transactions incurred within a certain period before or after the balance sheet date by reviewing related sales terms, inspecting delivery documents, and other related supporting document to evaluate whether the revenue was recorded in proper period.

2. Assessment of impairment loss on property, plant and equipment

   For the accounting policy of asset impairment, please refer to Note 4 (13) of the consolidated financial statements for impairment of non-financial assets; for accounting hypothesis and estimated uncertainty of assessment of impairment loss on property, plant and equipment, please refer to Note 5 (1) of the consolidated financial statements. For notes to the assessment of impairment loss on property, plant and equipment, please refer to Note 6 (15) of the consolidated financial statements.

   Description of key audit matters:

   The industry in which the solar power business unit of the consolidate company is located is subjected to fluctuations due to the market environment and the energy policies of various governments, with fierce market competition and continuous price drop of products. Therefore, the assessment of impairment loss on property, plant and equipment is important; the asset impairment assessment includes Identifying the cash-generating unit, determining the evaluation method, selecting important assumptions, and calculating the recoverable amount that must rely on the subjective judgment of the management. The evaluation process is complicate d and contains the subjective judgment of the management. Therefore, the accountant booked it as one

of the important audit matters.

Audit procedure implemented:

The principal audit procedures for the above key audit matters by the accountant include: assessing whether the cash-generating unit and its related tested assets that the consolidated company management has identified to impair show possible signs of impairment, and further understanding and testing the evaluation models and key assumptions such as future cash flow projections, use period and weighted average cost of capital that the management use in the impairment test, including expected product Revenue, costs and expenses, and assessing the accuracy of previous management forecasts; and carrying out sensitivity analysis of results. Furthermore, the management authority is also consulted on relevant procedures in order to identify whether there will be matters capable of affecting the impairment test result in the future after the financial statements. And assess whether the consolidated company has properly disclosed the policy of long-term non-financial asset impairment and other related information

3. Impairment of goodwill

Please refer to the note 4(12) “Intangible assets” for accounting policy, note 5(2) “Significant accounting assumptions and judgments, and major sources of estimation uncertainty” for impairment assessment, and note 6(16) “Intangible assets” for further details.

Description of key audit matter:

The Group is in a capital intensive industry, with goodwill arising from business combinations' Moreover, the Group operates in an industry in which the operations are easily influenced by various external factors, such as market conditions and governmental policies. Therefore, the assessment of impairment of goodwill is one of the key areas in our audit. The assessment procedures, including identification of cash-generating units, valuation models, selection of key assumptions and calculations of recoverable cash inflows, depend on the management’s subjective judgments, which contained uncertainty in accounting estimations. Consequently, this is one of the key areas in our audit.

How the matter was addressed in our audit:

In relation to the key audit matter above, we have performed certain key audit procedures that included: assessing triggering events identified by management for impairment indicators existing in a cash-generating unit, assessing whether the assumptions used for evaluating the recoverable amount are reasonable; evaluating the achievement of prior year financial forecasts; inspecting the calculations of recoverable amounts; assessing the assumptions used for calculating recoverable amounts and cash flow projections; performing the sensitivity analysis based on key factors; assessing whether the accounting policies for goodwill impairment and other relevant information have been appropriately disclosed.

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 with the IFRSs, IASs, IFRIC, and 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 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 appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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 of the current period 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 Cheng-Chien, Chen and An-Chih, Cheng.

KPMG

Taipei, Taiwan (Republic of China)
March 21, 2019

Sino-American Silicon Products Inc. and subsidiaries
Consolidated Balance Sheet
December 31, 2018 and 2017

Expressed in thousands of New Taiwan Dollars

		2018.12.31		2017.12.31	
	Assets	**Amount**	**%**	**Amount**	**%**
	Current assets:				
1100	Cash and cash equivalents (Note 6(1))	$ 36,829,131	35	20,342,780	23
1110	Financial assets at fair value through profit or loss－current (Note 6(2))	323,548	-	21,546	-
1170	Notes and accounts receivable, net (Note 6(5))	9,767,417	9	8,715,836	10
1180	Accounts receivable due from related parties, net (Note 7)	113,915	-	113,707	-
130X	Inventories (Note 6(6))	7,881,367	8	10,047,905	11
1476	Other financial assets – current (Note 8)	770,117	1	174,383	-
1479	Other current assets	1,575,354	2	1,589,902	2
		57,260,849	55	41,006,059	46
	Non-current Assets:				
1523	Available for sale financial assets – non-current (Note 6(7))	-	-	685,194	1
1527	Held-to-maturity financial assets - non-current (Notes 6 (8) and 7)	-	-	281,366	-
1543	Financial assets measured at cost - non-current (Note 6 (9))	-	-	838,181	1
1517	Financial assets at fair value through other comprehensive income - non-current (Note 6 (3))	1,204,924	1	-	-
1535	Financial assets measured at amortized cost - non-current (Note 6 (4) and 7)	281,366	-	-	-
1550	Investments accounted for using equity method (Note 6 (10))	2,041,896	2	1,694,717	3
1600	Property, plant and equipment (Note 6 (15) and 8)	37,438,555	36	37,528,808	42
1780	Intangible assets (Note 6 (16))	3,649,397	4	3,939,134	4
1840	Deferred tax assets (Note 6 (23))	1,514,843	2	2,014,732	2
1980	Other financial assets – non-current (Note 8)	325,660	-	403,078	-
1990	Other non-current assets (Note 6 (22))	267,825	-	951,264	1
		46,724,466	45	48,336,474	54
	Total assets	**$ 103,985,315**	**100**	**89,342,533**	**100**

		2018.12.31		2017.12.31	
	Liabilities and Equity	**Amount**	**%**	**Amount**	**%**
	Current Liabilities:				
2100	Short-term borrowings (Note 6 (17))	$ 9,334,809	9	13,753,204	15
2120	Financial liabilities at fair value through profit or loss–current (Note 6(2))	110	-	5,152	-
2130	Contract liabilities - current (Note 6 (27), 7 and 9)	4,662,837	5	-	-
2170	Notes and accounts payable	5,184,889	5	5,342,167	6
2180	Accounts payable to related parties (Notes 7 and 9)	51,342	-	9,708	-
2230	Current tax liabilities	2,127,809	2	1,316,654	2
2201	Payroll and bonus payable	2,295,168	2	1,990,597	2
2310	Advance sales receipts - current (Notes 7 and 9)	-	-	2,496,832	3
2322	Long term borrowings－current portion (Note 6 (18))	-	-	613,333	1
2399	Other current liabilities (Note 6 (19) and (20))	6,496,720	6	2,709,351	3
		30,153,693	29	28,236,998	32
	Non-current Liabilities:				
2527	Contract liabilities-non-current (Note 6 (27), 7 and 9)	15,712,134	15	-	-
2540	Long-term borrowings (Note 6 (18))	2,040,200	2	5,033,539	5
2570	Deferred tax liabilities (Note 6 (23))	3,664,664	4	2,066,271	2
2600	Other non-current liabilities (Note 6 (19) and (20))	1,327,730	1	1,235,658	2
2640	Net defined benefit liabilities-non-current (Note 6 (22))	3,173,029	3	2,898,535	3
2670	Advance sales receipts – non-current(Note 7 and 9)	-	-	6,094,621	7
		25,917,757	25	17,328,624	19
	Total liabilities	56,071,450	54	45,565,622	51
	Equity (Note 6 (24))				
3110	Ordinary shares	5,863,207	6	5,920,587	7
3170	Pending share capital	(330)	-	-	-
		5,862,877	6	5,920,587	7
3200	Capital surplus	21,757,292	21	24,205,831	27
	Retained earnings:				
3310	Legal reserve	311,579	-	311,579	-
3320	Special reserve	513,302	1	513,302	1
3350	Unappropriated retained earnings (accumulated loss)	1,507,753	1	(317,629)	-
		2,332,634	2	507,252	1
3400	Other equity interest	(3,071,087)	(3)	(3,322,937)	(4)
3500	Treasury shares	-	-	(169,861)	-
	Total equity attributable to shareholders of Sino-American Silicon Products Inc.	26,881,716	26	27,140,872	31
36XX	Non-controlling interests (Note 6 (12 and 13))	21,032,149	20	16,636,039	18
	Total equity	47,913,865	46	43,776,911	49
	Total liabilities and equity	**$ 103,985,315**	**100**	**89,342,533**	**100**

(Please read the attached notes to the consolidated financial statements for details)

Sino-American Silicon Products Inc. and subsidiaries
Consolidated Statements of Comprehensive Income
from January 1 to December 31, 2018 and 2017
Expressed in thousands of New Taiwan dollars

		2018		2017	
		Amount	%	Amount	%
4000	**Operating revenue** (Note 6 (27), (28) and 7)	$ 69,238,945	100	59,371,198	100
5000	**Operating costs** (Note 6 (6), (21), (25) and 7)	50,597,092	73	47,967,962	81
	Gross profit from operations	18,641,853	27	11,403,236	19
	Operating expenses (Note 6 (21), (22), (25) and 7)				
6100	Selling expenses	1,416,904	2	1,379,950	2
6200	Administrative expenses	2,094,839	3	2,026,389	3
6300	Research and development expenses	1,849,867	3	1,671,895	3
6450	Impairment loss determined in accordance with IFRS 9 (Note 6(5))	102,738	-	-	-
	Total operating expenses	5,464,348	8	5,078,234	8
	Net operating income	13,177,505	19	6,325,002	11
	Non-operating income and expenses:				
7010	Other Revenue (Note 6 (30) and 7)	517,896	-	146,938	-
7020	Other gains and losses, net (Note 6 (31))	71,244	-	(586,987)	(1)
7050	Financial costs (Note 6 (32))	(212,003)	-	(506,347)	(1)
7060	Shares of profit of associates and joint ventures accounted for using equity method (Note 6 (10))	(236,409)	-	(252,865)	-
		140,728	-	(1,199,261)	(2)
7900	**Income before income tax**	13,318,233	19	5,125,741	9
7950	Income tax expenses (Note 6 (23))	4,682,753	7	1,607,113	3
	Net income for the year	8,635,480	12	3,518,628	6
8300	**Other comprehensive income (loss):**				
8310	**Items that may not be reclassified subsequently to profit or loss**				
8311	Gains (losses) on remeasurements of defined benefit plans (Note 6 (22))	(265,423)	-	506,710	1
8316	Unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income	(521,764)	(1)	-	-
8349	Income tax related to components of other comprehensive income that will not be reclassified to profit or loss (Note 6 (23))	68,152	-	(88,347)	-
		(719,035)	(1)	418,363	1
8360	**Items that may be reclassified subsequently to profit or loss**				
8361	Exchange differences on translation of foreign operations	940,983	1	(722,292)	(1)
8362	Unrealized gains or losses on valuation of financial assets available for sales	-	-	23,914	-
8370	Share of other comprehensive income of associates and joint ventures accounted for using equity method (Note 6 (33))	(173,644)	-	105,196	-
8399	Income tax related to components of other comprehensive income that will be reclassified to profit or loss (Note 6 (23))	(102,154)	-	110,730	-
	Total Items that may be reclassified subsequently to profit or loss	665,185	1	(482,452)	(1)
8300	**Other comprehensive income (after tax)**	(53,850)	-	(64,089)	-
	Total comprehensive income	**$ 8,581,630**	**12**	**3,454,539**	**6**
	Net income attributable to:				
	Shareholders of Sino-American Silicon Products Inc.	$ 1,950,503	2	1,035,505	2
	Non-Controlling Interests	6,684,977	10	2,483,123	4
		$ 8,635,480	**12**	**3,518,628**	**6**
	Total comprehensive gain or loss attributable to:				
	Shareholders of Sino-American Silicon Products Inc.	$ 1,604,225	2	971,676	2
	Non-Controlling Interests	6,977,405	10	2,482,863	4
		$ 8,581,630	**12**	**3,454,539**	**6**
	Basic earnings per share (NT dollars) (Note 6 (26))				
9750	Basic earnings per share	**$**	**3.36**		**1.80**
9850	Diluted earnings per share	**$**	**3.34**		**1.79**

(Please read the attached notes to the consolidated financial statements for details)

Sino-American Silicon Products Inc. and subsidiaries
Consolidated statement of changes in equity
From January 1, 2017 to December 31, 2018

Expressed in thousands of New Taiwan Dollars

	Equity attributable to the owners of the parent company																
				Retained earnings				Other equity items									
	Ordinary shares	Pending share capital	Capital surplus	Legal reserve	Special reserve	Unappropriated retained earnings (Accumulated loss)	Total	Exchange differences on translation of foreign financial statements	Financial assets at fair value through other comprehensive income	Unrealized gains (losses) on available for sale financial assets	Employees' unearned remuneration	Other	Total	Treasury shares	Total	Non-Controlling Interests	Total Equity
Balance at January 1, 2017	$ 5,800,312	-	18,821,483	311,579	513,302	(1,565,754)	(740,873)	(1,617,512)	-	(1,188,654)	-	(6,354)	(2,812,520)	(169,861)	20,898,541	6,328,546	27,227,087
Net income for the year	-	-	-	-	-	1,035,505	1,035,505	-	-	-	-	-	-	-	1,035,505	2,483,123	3,518,628
Other comprehensive income for the year	-	-	-	-	-	212,620	212,620	(355,822)	-	79,373	-	-	(276,449)	-	(63,829)	(260)	(64,089)
Comprehensive income for the year	-	-	-	-	-	1,248,125	1,248,125	(355,822)	-	79,373	-	-	(276,449)	-	971,676	2,482,863	3,454,539
Cash dividends distribution from capital surplus	-	-	(861,714)	-	-	-	-	-	-	-	-	-	-	-	(861,714)	-	(861,714)
Employees execute stock options to issue new shares	60,625	-	234,013	-	-	-	-	-	-	-	-	-	-	-	294,638	-	294,638
Share of net worth changes of associates and joint ventures accounted for using equity method	-	-	5,670,627	-	-	-	-	-	-	-	-	2,052	2,052	-	5,672,679	8,362,023	14,034,702
Shares issued with restrictions on employee rights	60,000	-	343,200	-	-	-	-	-	-	-	(283,200)	-	(283,200)	-	120,000	-	120,000
Remuneration coast of shares with restrictions on employee rights	-	-	-	-	-	-	-	-	-	-	45,752	-	45,752	-	45,752	-	45,752
shares with restrictions on employee rights written-off	(350)	-	(1,778)	-	-	-	-	-	-	-	1,428	-	1,428	-	(700)	-	(700)
Cash dividends paid by subsidiary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(537,393)	(537,393)
Balance at December 31, 2017	5,920,587	-	24,205,831	311,579	513,302	(317,629)	507,252	(1,973,334)	-	(1,109,281)	(236,020)	(4,302)	(3,322,937)	(169,861)	27,140,872	16,636,039	43,776,911
Effects of retrospective application of new accounting standards	-	-	-	-	-	1,222,787	1,222,787	-	(2,338,298)	1,109,281	-	-	(1,229,017)	-	(6,230)	(6,024)	(12,254)
Balance at January 1, 2018 after adjustments	5,920,587	-	24,205,831	311,579	513,302	905,158	1,730,039	(1,973,334)	(2,338,298)	-	(236,020)	(4,302)	(4,551,954)	(169,861)	27,134,642	16,630,015	43,764,657
Net income for the year	-	-	-	-	-	1,950,503	1,950,503	-	-	-	-	-	-	-	1,950,503	6,684,977	8,635,480
Other comprehensive income for the year	-	-	-	-	-	(107,341)	(107,341)	387,093	(626,030)	-	-	-	(238,937)	-	(346,278)	292,428	(53,850)
Comprehensive income for the year	-	-	-	-	-	1,843,162	1,843,162	387,093	(626,030)	-	-	-	(238,937)	-	1,604,225	6,977,405	8,581,630
Loss made up by capital reserve	-	-	(317,629)	-	-	317,629	317,629	-	-	-	-	-	-	-	-	-	-
Distribution of cash dividends out of capital reserve	-	-	(1,759,511)	-	-	-	-	-	-	-	-	-	-	-	(1,759,511)	-	(1,759,511)
Share changes of associates and joint ventures accounted for using equity method	-	-	124	-	-	-	-	-	-	-	-	922	922	-	1,046	-	1,046
Treasury share cancellation	(55,550)	-	(114,311)	-	-	-	-	-	-	-	-	-	-	169,861	-	-	-
Non-controlling equity changes	-	-	(245,804)	-	-	-	-	-	-	-	-	-	-	-	(245,804)	(425,701)	(671,505)
Received by gift	-	-	239	-	-	-	-	-	-	-	-	-	-	-	239	-	239
Remuneration coast of shares with restrictions on employee rights	-	-	(9,487)	-	-	-	-	-	-	-	160,686	-	160,686	-	151,199	-	151,199
Restrictions on employee rights invalid, pending for cancellation	(1,830)	(330)	(2,160)	-	-	-	-	-	-	-	-	-	-	-	(4,320)	-	(4,320)
Dispose of equity instruments measured at fair value through other comprehensive gains and losses	-	-	-	-	-	(1,558,196)	(1,558,196)	-	1,558,196	-	-	-	1,558,196	-	-	-	-
Cash dividends paid by subsidiary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(2,149,570)	(2,149,570)
Balance at December 31, 2018	**$ 5,863,207**	**(330)**	**21,757,292**	**311,579**	**513,302**	**1,507,753**	**2,332,634**	**(1,586,241)**	**(1,406,132)**	**-**	**(75,334)**	**(3,380)**	**(3,071,087)**	**-**	**26,881,716**	**21,032,149**	**47,913,865**

(Please read the attached notes to the consolidated financial statements for details)

Sino-American Silicon Products Inc. and subsidiaries
Consolidated Statements of Cash Flows
From January 1, 2017 to December 31, 2018
Expressed in thousands of New Taiwan dollars

	2018	2017
Cash flows from operating activities:		
Income before income tax	$ 13,318,233	5,125,741
Adjustments:		
Adjustments to reconcile profit (loss)		
Depreciation expense	5,628,233	5,889,914
Amortization expenses	354,779	351,116
Expected credit losses / Provisions for bad debt expense	102,738	19,581
Net gains on financial assets or liabilities at fair value through profit or loss	(44,659)	(37,583)
Interest expenses	212,003	506,347
Interest income	(482,902)	(131,992)
Dividend income	(34,994)	(14,946)
Share-based payment remuneration cost	151,199	45,752
Shares of profit of associates and joint ventures accounted for using equity method	236,409	252,865
Gains on disposal of property, plant and equipment	(129,992)	(2,303)
Financial asset impairment loss	-	69,501
Reversal of inventory valuation allowance and obsolescence loss	(37,345)	(401,724)
Non-financial asset impairment loss	1,436,217	-
Other net loss without affecting cash flow	-	(33,993)
Total adjustments	7,391,686	6,512,535
Changes in operating assets and liabilities:		
Notes and accounts receivable (including related parties)	(1,153,986)	(289,277)
Inventories	2,203,883	62,440
Prepayments for purchase of materials	1,079,561	660,001
Other current assets	(408,244)	-
Other financial assets	(524,740)	458,718
Notes and accounts payable (including related parties)	(115,644)	(996,186)
Provisions	443,404	(460,680)
Contract liabilities/Advance sales receipts	14,252,038	6,767,274
Net defined benefit liabilities	5,838	(27,949)
Other operating liabilities	811,517	(495,880)
Total changes in operating assets and liabilities	16,593,627	5,678,461
Total adjustments	23,985,313	12,190,996
Cash inflow generated from operations	37,303,546	17,316,737
Interest received	452,590	128,302
Dividends received	34,994	14,946
Interest paid	(233,845)	(509,916)
Income tax paid	(1,467,974)	(834,955)
Net cash flows from operating activities	36,089,311	16,115,114

(Continued on next page)

(Please read the attached notes to the consolidated financial statements for details)

Sino-American Silicon Products Inc. and subsidiaries
Consolidated Statements of Cash Flows (Continued)
From January 1, 2017 to December 31, 2018
Expressed in thousands of New Taiwan dollars

	2018	2017
Cash flows from investing activities:		
Acquisition of financial assets at fair value through other comprehensive income	(197,197)	-
Proceeds from capital reduction of financial assets at fair value through other comprehensive income	8,732	-
Acquisition of financial assets at fair value through profit or loss	(276,529)	-
Acquisition of financial assets measured at cost	-	(49,896)
Acquisition of investments accounted for using equity method	(990,000)	(649,000)
Cash dividends from investments accounted for using equity method	6,422	-
Acquisition of property, plant and advance payments received for equipment	(6,597,886)	(3,347,558)
Proceeds from disposal of property, plant and equipment	560,149	659,779
Acquisition of intangible assets	-	(2,530)
Net cash outflows from subsidiaries from mergers and acquisitions	-	(3,254)
Decrease in other financial assets	56,023	346,884
Net cash flows used in investing activities:	(7,430,286)	(3,045,575)
Cash flows from financing activities:		
Decrease in short term borrowings	(4,464,007)	(2,723,221)
Increase in long term borrowings	1,026,000	7,993,539
Repayments of long term borrowings	(4,632,672)	(19,944,479)
Increase (decrease) in guarantee deposits received	17,858	(745,817)
Distribution of cash dividends out of capital reserve	(1,759,511)	(861,714)
Shares issued with restrictions on employee rights	-	120,000
Employees execute stock options	-	294,638
Shares with restrictions on employee rights written-off	(4,320)	(700)
Received by gift	239	-
Change in non-controlling interests	(575,394)	14,032,548
Cash dividends of distributing non-controlling interests	(2,149,570)	(537,393)
Net cash flows used in financing activities	(12,541,377)	(2,372,599)
Effect of exchange rate changes	368,703	376,380
Net increase in cash and cash equivalents	16,486,351	11,073,320
Cash and cash equivalents at beginning of period	20,342,780	9,269,460
Cash and cash equivalents at end of period	**$ 36,829,131**	**20,342,780**

Assets acquired by the Mergers and Acquisitions transaction and the fair value of liabilities assumed are as follows:	
Cash and equivalents	$ 1,064
Inventories	300
Other current assets	1,823
Property, plant and equipment	32,672
Short term borrowings	(11,015)
Notes and accounts payable	(20,526)
Fair value of acquiring the subsidiary's equity at the acquisition date	4,318
Less: the cash received from subsidiaries	(1,064)
Cash paid for control (net of acquired cash)	**$ 3,254**

(Please read the attached notes to the consolidated financial statements for details)

Sino-American Silicon Products Inc. and subsidiaries
Notes to the Consolidated Financial Statements
For the years ended December 31, 2018 and 2017
(Expressed in Thousands of New Taiwan Dollars, Unless Otherwise Specified)

1. Company history

Sino-American Silicon Products Inc. (hereinafter referred to as "the parent company") was incorporated in accordance with the Company Act of the Republic of China in January 1981; also, the Chunan Branch was established in June 2005 at No.8, Industrial East Road 2, Science Based Industrial Park, Hsinchu, Taiwan, R.O.C. The company, as well as its subsidiaries (collectively referred hereinafter as the "Company") mainly engages in the design, production and sale of semi-conductor silicon materials and components, rheostat, optical and communications wafer materials; also the related technology, management consulting business, and technical services of the photo-voltaic power system generation and installation.

The parent company's stocks have been traded publicly at the Taipei Exchange (referred hereinafter as TPEx) since March 2001.

For the purpose of reorganization and provision of professional work to enhance competitiveness and business performance, a resolution was reached at the shareholders' meeting of the parent company on June 17, 2011 to have the semiconductor business and sapphire business (including the related assets, liabilities and business operations) split and transfer the businesses o the parent company's 100% owned subsidiaries, GlobalWafers Co., Ltd. (hereinafter referred to as "GlobalWafers") and Sino Sapphire Co., Ltd. (hereinafter referred to as "Sino Sapphire") with the base date of split as scheduled on October 1, 2011. The parent company based on the net carrying value of the semiconductor business paid NT$ 38.50 per share to acquire 180,000 thousand shares at NT$ 10 par value per share of GlobalWafers; also, based on the sapphire business net assets the parent company paid NT$ 40 per share to acquire 40,000 thousand shares at NT$ 10 par value per share of Sino Sapphire.

A resolution merging with Sunrise Global Solar Energy Co., Ltd. (hereinafter referred to as "Sunrise Global") was reached by the Board of Directors on August 12, 2013 with the base date of merger scheduled as August 1, 2014. The parent company is the surviving corporation and Sunrise Global is discontinued after the merger.

The shares of GlobalWafers were approved for trading over the counters through the Taiwan Stock Exchange. They were booked on the counters on September 25, 2015 and were closed for trading over emerging counters the same day.

The consolidated company acquired all outstanding ordinary shares of SunEdison Semiconductor Limited (hereinafter referred to as SunEdison) on December 2, 2016 so that it aquired the control over SunEdison Semiconductor Limited and its subsidiaries. SunEdison is the world's leading semiconductor wafer manufacturer and supplier. Since its inception, SunEdison has been a leader in wafer design and R&D technology. SunEdison's R&D and manufacturing bases are located throughout the United States, Europe and Asia to develop next-generation high-performance semiconductor wafers. Through this acquisition, the consolidated company will be able to increase its global market share, customer base and other wafer technology and capacity and expand operations.

2. Approval date and procedures of the consolidated financial statements

These consolidated financial statements were authorized for issuance by the board of directors on March 21, 2019.

3. New standards, amendments and interpretations adopted

(1) The impact of the International Financial Reporting Standards ("IFRSs") endorsed by the Financial Supervisory Commission, R.O.C. ("FSC") which have already been adopted.

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2018.:

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Amendment to IFRS 2 "Classification and Measurement of Share-based Payment Transactions"	January 1, 2018
Amendments to IFRS 4 "Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts"	January 1, 2018
IFRS 9 "Financial Instruments"	January 1, 2018
IFRS 15 "Revenue from Contracts with Customers"	January 1, 2018
Amendment to IAS 7 "Statement of Cash Flows -Disclosure Initiative"	January 1, 2017
Amendment to IAS 12 "Income Taxes- Recognition of Deferred Tax Assets for Unrealized Losses"	January 1, 2017
Amendments to IAS 40 "Transfers of Investment Property"	January 1, 2018
Annual Improvements to IFRS Standards 2014–2016 Cycle:	
Amendments to IFRS 12	January 1, 2017
Amendments to IFRS 1 and Amendments to IAS 28	January 1, 2018
IFRIC 22 "Foreign Currency Transactions and Advance Consideration"	January 1, 2018

Except for the following items, the Group believes that the adoption of the above IFRSs would not have any material impact on its consolidated financial statements. The extent and impact of signification changes are as follows:

1. IFRS 15 "Revenue from Contracts with Customers"

The standard replaces IAS No. 18 "Revenue" and IAS No.11 "Construction Contracts" and related interpretations. The single analysis model determines the method, time and amount of revenue recognition by the company in five steps. The consolidated company's cumulative impact method applies IFRS No.15. Therefore, the comparative information of previous periods does not need to be rewritten and continues to apply IAS No. 18, IAS No. 11 and related interpretations. The cumulative effect of the initial application of IFRS No. 15 is to adjust the retained earnings of the on January 1, 2018.

The nature and impact of this accounting policy change are as follows:

(1) Sales of goods

For the sale of products, in the past, there was evidence of persuasiveness (usually a signed customer order) and the significant risks and rewards of ownership have been transferred to the buyer, and the revenue was recognized at that time. At this point in time, the customer has accepted the product and the significant risks and rewards of the relevant ownership have been transferred to the customer. The revenue and cost can be reliably measured, the consideration is likely to be recovered, and the management of the commodity is no longer continued. Under IFRS No. 15, revenue is recognized when a customer gains control over a product.

(2) Providing labor services

The Company provides labor services to clients. If the labor service in a single agreement is provided during different reporting periods, in the past, the consideration was paid to different services based on the relative fair value, and the labor service revenue was recognized according to the completion ratio method. Under IFRS No. 15, the consideration for the overall service contract is based on the relative individual selling price of the labor service. The consolidated company determines the individual selling price based on the price at which the labor service is sold separately.

(3) Construction contract

Contract revenue used to be recognized within the scope of the most likely revenue generation and can be reliably measured, including the original amount agreed in the contract, plus any changes related to the contract, claims for remuneration and incentive payments. In the case of recognition of claims and changes, the degree of contract completion or contract price is revised and the status of the contract is reassessed on a cumulative basis on each reporting date. Under IFRS No. 15, it is subject to change in the contract when the contract's claim and change have been approved.

(4) Impacts on financial statements

The group adopted IFRS 15 using the cumulative effect method, wherein no adjustment was made to the opening balance of its retained earnings at January 1, 2018. Therefore, the adoption of IFRS 15 did not have any material impact on its consolidated financial statements in 2018.

2. IFRS 9 “Financial Instruments”

IFRS 9 replaces IAS 39 “Financial Instruments: Recognition and Measurement” which contains classification and measurement of financial instruments, impairment and hedge accounting.

As a result of the adoption of IFRS 9, the Group adopted the consequential amendments to IAS 1 “Presentation of Financial Statements”, which requires impairment of financial assets to be presented in a separate line item in the statement of profit or loss and OCI. Previously, the Group’s approach was to include the impairment of trade receivables in operating expenses. Additionally, the Group adopted the consequential amendments to IFRS 7 Financial Instruments: Disclosures that are applied to disclosures about 2018 but generally have not been applied to comparative information.

The details of new significant accounting policies, as well as the nature and effect of the changes to the previous accounting policies are set out below:

(1) Classification of financial assets and financial liabilities

IFRS 9 contains three principal classification categories for financial assets: measured at amortized cost, fair value through other comprehensive income (FVTOCI) and fair value through profit or loss (FVTPL). The classification of financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. The standard eliminates the previous IAS 39 categories of held to maturity, loans and receivables and available for sale. Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification. For an explanation of how the Group classifies and measures financial assets and accounts for related gains and losses under IFRS 9, please see note 4(7).

The adoption of IFRS 9 did not have any a significant impact on the Group's accounting policies on financial liabilities.

(2) Impairment of financial assets

IFRS 9 replaces the 'incurred loss' model in IAS 39 with the 'expected credit loss' (ECL) model. The new impairment model applies to financial assets measured at amortized cost, contract assets and debt investments at FVTOCI, but not to investments in equity instruments. Under IFRS 9, credit losses are recognized earlier than they are under IAS 39, please see note 4(7).

(3) Transition

The adoption of IFRS 9 have been applied retrospectively, except as described below:

- Differences in the carrying amounts of financial assets resulting from the adoption of IFRS 9 are recognized in retained earnings and other equity interest as on January 1, 2018. Accordingly, the information presented for 2017 does not generally reflect the requirements of IFRS 9, and therefore, is not comparable to the information presented for 2018 under IFRS 9.
- The following assessments have been made on the basis of the facts and circumstances that existed at the date of initial application:
  - The determination of the business model within which a financial asset is held.
  - The designation and revocation of previous designations of certain financial assets and financial liabilities as measured at FVTPL.
  - The designation of certain investments in equity instruments not held for trading as at FVTOCI.
- If an investment in a debt security had low credit risk at the date of initial application of IFRS 9, then the Group assumed that the credit risk on its asset will not increase significantly since its initial recognition.

(4) Classification of financial assets on the date of initial application of IFRS 9

The following table shows the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 for each class of the Group's financial assets as of January 1, 2018:

	IAS 39		IFRS 9	
	Measurement categories	**Carrying Amount**	**Measurement categories**	**Carrying Amount**
Financial assets				
Cash and equivalents	Loans and receivables	$ 20,342,780	Amortized cost	20,342,780
Derivative instruments	Hold for trading	21,546	Mandatorily at FVTPL	21,546
Debt instrument investment	Hold to maturity date	281,366	Amortized cost	281,366
Equity instruments	Available-for-sale	685,194	FVTOCI	685,194
Equity instrument investment	Financial assets measured at cost - non-current (Note)	838,181	FVTOCI	825,927
Account and other receivables, net	Loans and receivables	8,829,543	Amortized cost	8,829,543
Other financial assets current and non-current	Loans and receivables	577,461	Amortized cost	577,461

Note: These equity instruments represent investments in the long-term holding strategy of the consolidated company. In accordance with IFRS No. 9, the consolidated company specifies that the investment is classified as measured at fair value through other comprehensive gains and losses on the initial application date. The carrying amount of these assets decreased by NT$ 12,254 thousands on January 1, 2018, and other equity items, retained earnings and non-controlling interests decreased by NT$ 1,229,017 thousands, increased by NT$ 1,222,787 thousands and decreased by NT$ 6,024 thousands respectively.

The following table reconciles the carrying amounts of financial assets under IAS 39 to the carrying amounts under IFRS 9 upon transition to IFRS 9 on 1 January, 2018:

	2017.12.31 IAS 39 Carrying Amount	Reclassifications	Remeasurements	2018.1.1 IFRS 9 Carrying Amount	2018.1.1 Retained earnings	2018.1.1 Other equity	2018.1.1 Non-controlling equity
Financial assets measured at fair value through gain or loss							
Equity method investments	$ 21,546	-	-	21,546	-	-	-
Fair value through other comprehensive income							
Available for sale (including measured at cost) IAS 39 the amount of the beginning of the period	$ 1,523,375	-	(12,254)	1,511,121	1,222,787	(1,229,017)	(6,024)
Financial assets measured at amortized cost							
Cash and cash equivalents, holdings to maturities, receivables and other financial assets IAS 39 the amount of the beginning of the period	$ 30,031,150	-	-	30,031,150	-	-	-

There is no impact on the earnings per share in 2018 and 2017 due to the change.

3. Amendments to IAS 7 "Disclosure Initiative"

The amendments require disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flow and non-cash changes.

To satisfy the new disclosure requirements, the Group presents a reconciliation between the opening and closing balances for liabilities with changes arising from financing activities at note 6(37).

(2) The impact of IFRS endorsed by FSC but not yet effective

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning, or after, January 1, 2019 in accordance with Ruling No. 1070324857 issued by the FSC on July 17, 2018:

New, Revised or Amended Standards and Interpretations	Effective date per IASB
IFRS 16 "Leases"	January 1, 2019
IFRIC 23 "Uncertainty over Income Tax Treatments"	January 1, 2019
Amendments to IFRS 9 "Prepayment features with negative compensation"	January 1, 2019
Amendments to IAS 19 "Plan Amendment, Curtailment or Settlement"	January 1, 2019
Amendments to IAS 28 "Long-term interests in associates and joint ventures"	January 1, 2019
Annual Improvements to IFRS Standards 2015–2017 Cycle	January 1, 2019

Except for the following items, the Group believes that the adoption of the above IFRSs would not have any material impact on its consolidated financial statements. The extent and impact of signification changes are as follows:

1. IFRS 16 "Leases"

IFRS 16 replaces the existing leases guidance, including IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", SIC 15 "Operating Leases–Incentives" and SIC 27 "Evaluating the Substance of Transactions Involving the Legal Form of a Lease".

IFRS 16 introduces a single and an on balance sheet lease accounting model for lessees. A lessee recognizes a right of use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. In addition, the nature of expenses related to those leases will now be changed since IFRS 16 replaces the straight line operating lease expense with a depreciation charge for right of use assets and interest expense on lease liabilities. There are recognition exemptions for short term leases and leases of low value items. The lessor accounting remains similar to the current standard – i.e. the lessors will continue to classify leases as finance or operating leases.

(1) Determining whether an arrangement contains a lease

On transition to IFRS 16, the Group can choose to apply either of the following:

- IFRS 16 definition of a lease to all its contracts; or
- a practical expedient that does not need any reassessment whether a contract is, or contains, a lease.

The Group plans to apply the practical expedient to grandfather the definition of a lease upon transition. This means that it will apply IFRS 16 to all contracts entered into before January 1, 2019 and identified as leases in accordance with IAS 17 and IFRIC 4.

(2) Transition

As a lessee, the Group can apply the standard using either of the following:

- Retrospective approach; or
- Modified retrospective approach with optional practical expedients

The consolidated company is expected to adopt a revised retrospective transition to the new standard. Therefore, the adoption of the new standard has no effect on the retained earnings January 1, 2019, without rewriting the comparative period information.

When applying the modified retrospective approach to leases previously classified as operating leases under IAS 17, the lessee can elect, on a lease by lease basis, whether to apply a number of practical expedients on transition. The Group chooses to elect the following practical expedients:

- Apply a single discount rate to a portfolio of leases with similar characteristics.
- Adjust the right of use assets, based on the amount reflected in IAS 37 onerous contract provision, immediately before the date of initial application, as an alternative to an impairment review.
- Apply the exemption not to recognize the right of use assets and liabilities to leases with lease term that ends within 12 months of the date of initial application.
- Use hindsight when determining the lease term if the contract contains

options to extend or terminate the lease.

(3) Up to now, the most significant impact of the Company's assessment of the application of the new standard is the recognition of the right to use assets and lease liabilities with offices, factory buildings and storage locations under the current operating lease. It is estimated that the above differences may make the right to use assets and lease liabilities on January 1, 2019 increase by NT$ 1,150,876 thousands. There is no significant impact on the current contracts dealt with finance leases. In addition, the consolidated company expects that the application of the new standard will not affect the ability to comply with the maximum number of financing leverages agreed in its loan contract.

2. IFRIC 23 Uncertainty over Income Tax Treatments

In assessing whether and how an uncertain tax treatment affects the determination of taxable profit (tax loss), tax bases, unused tax losses, unused tax credits, as well as tax rates, an entity shall assume that a taxation authority will examine the amounts it has the right to examine and have a full knowledge on all related information when making those examinations.

If an entity concludes that it is probable that the taxation authority will accept an uncertain tax treatment, the entity shall determine its taxable profit (tax loss), tax bases, unused tax losses, unused tax credits, as well as tax rates consistently with the tax treatment used or planned to be used in its income tax filings. Otherwise, an entity shall reflect the effect of uncertainty for each uncertain tax treatment by using either the most likely amount or the expected value, depending on which method the entity expects to better predict the resolution of the uncertainty.

The actual impacts of adopting the standards may change depending on the economic conditions and events which may occur in the future.

(3) The impact of IFRS issued by IASB but not yet endorsed by the FSC

As of the date, the following IFRSs that have been issued by the International Accounting Standards Board (IASB), but have yet to be endorsed by the FSC.

New, Revised or Amended Standards and Interpretations	The effective date announced by the IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets Between an Investor and Its Associate or Joint Venture"	To be decided by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020

The Group is evaluating the impact of its initial adoption of the abovementioned standards or interpretations on its consolidated financial position and consolidated financial performance. The results thereof will be disclosed when the Group completes its evaluation.

4. Summary of significant accounting policies

The significant accounting policies presented in the consolidated financial statements are summarized below. Except for those specifically indicated, the following accounting policies

were applied consistently throughout the periods presented in the consolidated financial statements.

(1) Statement of compliance

The consolidated financial statements have been prepared in accordance with the "Regulations Governing the Preparation of Financial Reports by Securities Issuers" (hereinafter referred to as the Regulations), International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations endorsed and issued into effect by the Financial Supervisory Commission, R.O.C (hereinafter referred to as the "IFRSs endorsed by the FSC").

(2) Basis of preparation

1. Basis of measurement

Expect for the following significant accounts, the consolidated financial statements have been prepared on a historical cost basis:

(1) Financial instruments measured at fair value through profit or loss are measured at fair value;
(2) Financial assets at fair value through other comprehensive income are measured at fair value;
(3) Cash settled shared based payment liability is measured at fair value;
(4) Net defined benefit liabilities are measured at the fair value of the assets of the pension fund, less the present value of the defined benefit obligation and the upper limit impact as stated in Note 4 (17).

2. Functional and presentation currency

The functional currency of each Group entity is determined based on the primary economic environment in which the entity operates. The consolidated financial statements are presented in New Taiwan dollars, which is the Company's functional currency. All financial information presented in New Taiwan dollars has been rounded to the nearest thousand.

(3) Basis of consolidation

1. Principles of preparation of the consolidated financial statements.

The consolidated financial statements comprise the Company and the entities controlled by the Company (its subsidiaries). The Company controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its control over the entity.

The financial statements of the subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. Intra group balances and transactions, and any unrealized income and expenses arising from intra group transactions are eliminated in preparing the consolidated financial statements. Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests, even if doing so causes the non-controlling interests to have a deficit balance.

Subsidiaries' financial statements are adjusted to align the accounting policies with those of the Company.

Changes in the Company's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. 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 shareholders of the parent.

2. List of subsidiaries in the consolidated financial statements:

Subsidiaries included in the consolidated financial statements include:

Name of Investor	Name of subsidiary	Business	Percentage of Ownership		Note
			2018.12.31	2017.12.31	
Sino-American Silicon Products Inc.	Sino Silicon Technology Inc. (hereinafter referred to as "SSTI")	Investment and triangular trade center with subsidiaries in China	100%	100%	
Sino-American Silicon Products Inc.	GlobalWafers	Manufacturing and trading of semiconductor silicon materials and components,	51.17%	50.84%	
Sino-American Silicon Products Inc.	Sino-American Material Inc. (hereinafter referred to as Sino-American Material)	referred hereinafter as Sino-American Material	-	90%	Note 4
Sino-American Silicon Products Inc.	Aleo Solar GmbH (hereinafter referred to as Aleo Solar)	Solar cell manufacturing and sale and wholesale of electronic materials	100%	100%	
Sino-American Silicon Products Inc.	SAS Sunrise Inc.	Reinvestments in various businesses	100%	100%	
Sino-American Silicon Products Inc.	Sunrise PV World Co. (hereinafter referred to as "Sunrise PV World")	Power generating business	100%	100%	
SAS Sunrise Inc.	SAS Sunrise Pte. Ltd.	Reinvestments in various businesses	100%	100%	
SAS Sunrise Pte.Ltd.	Sulu Electric Power and Light Inc.(hereinafter referred to as Sulu)	Power generating business	40%	40%	Note 1
SAS Sunrise Pte.Ltd.	AMLED International Systems Inc.(hereinafter referred to as AMLED)	Reinvestments in various businesses	-	-	Note 2
AMLED	Sulu	Power generating business	45%	45%	
Aleo Solar	Aleo Solar Distribuzione Italia S.r.l	Solar cell manufacturing and sale and wholesale of electronic materials	100%	100%	
Aleo Solar	Aleo Sunrise GmbH (hereinafter referred to as Aleo Sunrise)	Manufacturing of solar cell as well as sale and wholesale of electronic materials	100%	100%	
Sunrise PV World Co.	Sunrise PV Two Co., Ltd. (hereinafter referred to as Sunrise PV Two)	Power generating business	100%	100%	
Sunrise PV World Co.	Sunrise PV Electric Power Two (hereinafter referred to as Sunrise PV Electric)	Power generating business	100%	100%	
Sunrise PV World Co.	Sunrise PV Three Co., Ltd. (hereinafter referred to as Sunrise PV Three)	Power generating business	100%	100%	
Sunrise PV World Co.	Sunrise PV Four Co., Ltd. (hereinafter referred to as Sunrise PV Four)	Power generating business	100%	100%	
Sunrise PV World Co.	Sunrise PV Five Co., Ltd. (hereinafter referred to as Sunrise PV Five)	Power generating business	100%	100%	
GlobalWafers	GlobalSemiconductor Inc. (hereinafter referred to as "GSI")	Reinvestments in various businesses	100%	100%	
GlobalWafers	GlobalWafers Inc. (hereinafter referred to as "GWI")	Reinvestments in various businesses	100%	100%	

Name of Investor	Name of subsidiary	Business	Percentage of Ownership 2018.12.31	Percentage of Ownership 2017.12.31	Note
GlobalWafers	GWafers Co., Ltd. (hereinafter referred to as "GWafers")	Reinvestments in various businesses	-	100%	Note 3 (3)
GlobalWafers	GlobalWafers Japan Co., Ltd. (hereinafter referred to as "GWJ")	Semiconductor silicon wafer manufacturing and trading	100%	-	Note 3 (3)
GlobalWafers	GWafers Singapore Pte. Ltd.(hereinafter referred to as GWafers Singapore)	Reinvestments in various businesses	67.2%	100%	Note 3 (5)
GlobalWafers	Topsil GlobalWafers A/S (hereinafter referred to as Topsil A/S)	Semiconductor silicon wafer manufacturing and trading	100%	100%	
GlobalWafers	Taisil Electronic Materials Corp. (hereinafter referred to as Taisil)	Semiconductor silicon wafer manufacturing and sales	99.98%	99.98%	Note 3 (1)
GSI	Kunshan Sino Silicon Technology Co., Ltd. (hereinafter referred to as "Kunshan Sino")	Processing and trading of silicon ingots and silicon wafers	100%	100%	
GWI	GlobiTech Incorporated (hereinafter referred to as "GTI")	Manufacturing of epitaxy, silicon wafer as well as OEM and trading of epitaxy	-	100%	Note 3 (5)
GWI	GWafers Singapore	Reinvestments in various businesses	32.8%	-	Note 3 (5)
GWafers	GlobalWafers Japan Co., Ltd.(hereinafter referred to as GWI)	Semiconductor silicon wafer manufacturing and trading	-	100%	Note 3 (3)
GWJ	MEMC Japan Ltd. (hereinafter referred to as MEMC Japan)	Semiconductor silicon wafer manufacturing and sales	100%	100%	Note 3 (2)
Kunshan Sino	Shanghai GrowFast Semiconductor Technology Co., Ltd. (hereinafter referred to as Shanghai GrowFast)	Sales and marketing business	60%	60%	
Topsil A/S	Topsil Semiconductor sp z o.o. (hereinafter referred to as Topsil PL)	Semiconductor silicon wafer manufacturing and trading	100%	100%	
GWafers Singapore	GlobalWafers Singapore Pte Ltd. (the original name was SunEdison Semiconductor Limited, hereinafter referred to as GWS)	Investment, marketing and trading business	100%	100%	
GWS	GlobalWafers B.V. (the original name was SunEdison Semiconductor B.V., hereinafter referred to as GWBV)	Reinvestments in various businesses	100%	100%	
GWS	SunEdison Semiconductor Technology Pte. Ltd. (hereinafter referred to as SSTPL)	Reinvestments in various businesses	-	100%	Note 3 (4)
GWBV	MEMC Electronic Materials, SpA (hereinafter referred to as MEMC SpA)	Semiconductor silicon wafer manufacturing and sales	100%	100%	
MEMC SpA	MEMC Electronic Materials France SarL (hereinafter referred to as MEMC SarL)	Trading business	100%	100%	
MEMC SpA	MEMC Electronic Materials GmbH (hereinafter referred to as MEMC GmbH)	Trading business	100%	100%	
MEMC SpA	MEMC Holding B.V. (hereinafter referred to as MEMC BV)	Reinvestments in various businesses	100%	100%	

Name of Investor	Name of subsidiary	Business	Percentage of Ownership 2018.12.31	Percentage of Ownership 2017.12.31	Note
GWBV, MEMC BV	MEMC Korea Company (hereinafter referred to as MEMC Korea)	Semiconductor silicon wafer manufacturing and sales	100%	100%	
GWBV	MEMC LLC (the original name was SunEdison Semiconductor LLC, hereinafter referred to as MEMC LLC)	Semiconductor silicon wafer R&D, manufacturing and sales	-	100%	Note 3 (5)
GWBV	MEMC Electronic Materials, Sdn Bhd (hereinafter referred to as MEMC Sdn Bhd)	Semiconductor silicon wafer R&D, manufacturing and sales	100%	100%	
GWBV	SunEdison Semiconductor Technology (Shanghai) Ltd. (hereinafter referred to as SunEdison Shanghai)	Trading business	100%	100%	
GWBV	GTI	Manufacturing of epitaxy, silicon wafer as well as OEM and trading of epitaxy	100%	-	Note 3 (5)
GTI	MEMC LLC	Semiconductor silicon wafer R&D, manufacturing and sales	100%	-	Note 3 (5)
GWBV	SunEdison Semiconductor Holdings B.V. (hereinafter referred to as SSHBV)	Reinvestments in various businesses	-	100%	Note 3 (4)
GWBV	MEMC Ipoh Sdn Bhd (hereinafter referred to as MEMC Ipoh)	Semiconductor silicon wafer manufacturing and sales	100%	-	Note 3 (4)
SSHBV	MEMC Ipoh Sdn Bhd (hereinafter referred to as MEMC Ipoh)	Semiconductor silicon wafer manufacturing and sales	-	100%	Note 3 (4)

Note 1: The consolidated company is able to control the financial and operating strategies of Sulu through effective agreements with its other investors, so Sulu is considered as a subsidiary.

Note 2: The consolidated company does not hold the interests of the AMLED owners, but the consolidated company can control the financial and operating strategies of AMLED and obtain all the benefits of its operations and net assets in accordance with the terms of the agreements entered into, so AMLED is considered as a subsidiary.

Note 3: The consolidated company adjusted its organizational structure as follows:

(1) Taisil was transferred from GWBV and SSHBV to GlobalWafers investment in October 2017;

(2) MEMC Japan was transferred from GWBV to GWJ investment in October 2017;

(3) GWafers and GWJ were merged in January 2018, and the existing company was GWafers, which was later renamed GWJ.

(4) SSHBV and SSTPL have been cleared for liquidation and have not been incorporated into the consolidated financial statements since the completion of the liquidation. MEMC Ipoh was transferred from SSHBV to GWBV investment.

(5) GWafers Singapore has been adjusted with GlobalWafers and GWI holding 67.2% and 32.8% of equity respectively since July 1, 2018. In

addition, GTI is transferred from GWI to GWBV investment, and MEMC LLC is transferred from GWBV to GTI investment.

Note 4: Sino-American Materials Co., Ltd. has been settled by the shareholders' meeting resolution.

Sunrise PV World sold the subsidiary Sunrise PV One to Cathy Sunrise Corporation (hereinafter referred to as Cathy Sunrise) on March 23, 2017 after reporting to the board of directors.

Sino-American Silicon established Sunrise PV Two, Sunrise PV Three, Sunrise PV Four and Sunrise PV Electric for the expansion of power generation business. These companies were registered in April and December; Sunrise PV Four increased the capital by cash NT$ 85,000 thousands on June 2017.

In order to align with the overall industrial layout and accelerate the solar energy industry to expand the downstream access and obtain long-term stable return, Sunrise PV World Co. acquired 100% equity of Sunrise PV Five in July 2017.

3. Subsidiaries not included in the consolidated financial statements: None.

(4) Foreign currencies

1. Foreign currency transactions

Transactions in foreign currencies are translated to the functional currencies at the exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the last date of reporting period (hereinafter referred as “the reporting date”) are retranslated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between amortized cost in the functional currency at the beginning of the period adjusted for the effective interest and payments during the period, and the amortized cost in foreign currency translated at the exchange rate at the reporting date.

Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined. Non-monetary items in a foreign currency that are measured based on historical cost are translated using the exchange rate at the date of transaction.

Except foreign currency exchange differences arising from conversion of monetary (available for sale) equity instruments measured at fair value through other comprehensive gain or loss are recognized in other comprehensive gain or loss, the rest are recognized as profit and loss.

2. Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to New Taiwan Dollars at the exchange rates at the reporting date. The income and expenses of foreign operations are translated to New Taiwan Dollars at the average rate. Foreign currency differences are recognized in other comprehensive income.

When the settlement of a monetary receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, foreign currency differences are considered parts of investment in foreign operations and are recognized in other comprehensive income.

(5) Classification of current and non-current assets and liabilities

An asset is classified as current under one of the following criteria, and all other assets

are classified as non-current.

1. It is expected to be realized, or intended to be sold or consumed, in the normal operating cycle;
2. It is held primarily for the purpose of trading;
3. It is expected to be realized within twelve months after the reporting period; or
4. The asset is cash or cash equivalent unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

liability is classified as current under one of the following criteria, and all other liabilities are classified as non-current:

1. It is expected to be settled in the normal operating cycle;
2. It is held primarily for the purpose of trading;
3. It is due to be settled within twelve months after the reporting period; or
4. Liabilities that do not have the right to unconditionally defer the settlement period for at least 12 months. No impact will be on classification of liabilities with terms determined by the counterparties that lead to settlement of the liabilities by issuing of equity instruments.

(6) Cash and cash equivalent

Cash comprises cash and cash in bank. Cash equivalents are short term and highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Time deposits which meet the above definition and held for the purpose of meeting short term cash commitments rather than for investment or other purposes are classified as cash equivalents.

(7) Financial instruments

1. Financial assets (policy applicable from January 1, 2018)

Financial assets are classified into the following categories: measured at amortized cost, fair value through other comprehensive income (FVTOCI), and fair value through profit or loss (FVTPL).

The Group shall reclassify all affected financial assets only when it changes its business model for managing its financial assets.

(1) Financial assets measured at amortized cost

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and.
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A financial asset measured at amortized cost is initially recognized at fair value, plus any directly attributable transaction costs. These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses, and impairment loss, are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

(2) Fair value through other comprehensive income (FVTOCI)

Debt instrument investment meeting the following conditions and not specified to be measured at fair value through gain or loss, are measured at fair value through other comprehensive gain or loss

- Holds the financial asset in a business model for the purpose of collecting

contractual cash flows and selling.

- The cash flow of on a specific date of the contractual terms of the financial asset is solely the interest paid on the principal and the amount of the outstanding principal.

The consolidated company may make an irrevocable selection in the initial recognition to present the subsequent fair value changes of the investment in equity instruments that are not held for trading in other comprehensive gain or loss. The aforementioned selections are made on a case-by-case basis.

The initial recognition is measured at fair value plus directly attributable transaction costs; subsequently measured at fair value, except for foreign currency exchange gain or loss of debt instrument investment, interest Revenue calculated by effective interest method, and impairment loss and equity instrument investment dividend Revenue (except for the recovery of the portion of the investment costs) that are recognized in other comprehensive gain or loss, changes in the remaining carrying amount are recognized as other comprehensive gains and losses, accumulated as unrealized profit and loss of financial assets measured at fair value through other comprehensive gain or loss under the equity item. At the time of derecognition, a debt instrument investor reclassifies the accumulated interest or loss under equity to gain or loss; An equity instrument investor reclassifies the accumulated interest or loss under equity to retained earnings and does not reclassify to gain or loss. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

Dividend Revenue from equity investments is recognized on the date on which the consolidated company has the right to receive dividends (usually the ex-dividend date).

(3) Fair value through profit or loss (FVTPL)

All financial assets not classified as amortized cost or FVTOCI described as above are measured at FVTPL. On initial recognition, the Group may irrevocably designate a financial asset, which meets the requirements to be measured at amortized cost or at FVTOCI, as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

When the initial recognition is measured at fair value, the transaction costs are recognized as gain or loss when incurred; subsequently, measured at fair value, the gain or loss (including related dividend Revenue and interest Revenue) generated by remeasurement is recognized as gain or loss. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

(4) Assess whether the contractual cash flow is entirely for the payment of the principal and interest on the outstanding principal amount

For the purpose of assessment, the principal is the fair value of the financial assets at the time of initial recognition. The interest consists of the following considerations: the time value of money, the credit risk associated with the amount of the outstanding principal in a specified period, and other basic loan risks and costs, and margin of profit.

Evaluate whether the contractual cash flow is entirely the interest paid on the principal and the outstanding principal amount. The consolidated company

considers the terms of the financial instrument contract, including assessing whether the financial asset contains a contractual term that changes the point or amount of the contractual cash flow, resulting in not meeting this condition. At the time of the assessment, the consolidated company considers:

- Any contingency that would change the point or amount of the contractual cash flow;
- The terms that adjust the contractual coupon rate, including the characteristics of the variable interest rate;
- Early repayment and extension features; and
- The right to request of the consolidated company is limited to the terms of the cash flow from a particular asset (e.g. non-recourse characteristics).

(5) Impairment of financial assets

The consolidated company recognizes the allowance for the expected credit losses of financial assets measured at amortized cost (including cash and cash equivalents, financial assets measured at amortized cost, notes receivable and accounts receivable, refundable deposits and other financial assets, etc.) and contractual assets.

The following financial assets are measured as allowance losses based on the expected amount of credit losses for the twelve months, and the rest are measured by the amount of expected credit losses during the duration:

- Determining the credit risk of debt securities on the reporting date is low; and
- The credit risk of other debt securities and bank deposits (i.e., The risk of default on the expected duration of the financial instruments) has not increased significantly since the initial recognition.

The allowance for receivables and contractual assets is measured at the amount of expected credit losses during the lifetime.

Expected credit losses during the duration of the period are expected credit losses arising from all possible defaults during the expected duration of the financial instrument.

The expected credit losses for twelve months are expected credit losses arising from the possible default of the financial instrument in the twelve months following the reporting period (or a shorter period if the expected duration of the financial instrument is less than twelve months).

The longest period of measurement of expected credit losses is the longest contract period in which the consolidated company is exposed to credit risk.

In determining whether the credit risk has increased significantly since the initial recognition, the consolidated company considers reasonable and provable information (which can be obtained without excessive cost or investment), including qualitative and quantitative information, and based on the historical experience of the consolidated company, analysis of credit assessments and forward-looking information.

If the credit risk rating of a financial instrument is equivalent to the “investment grade” defined by the world (for S&P's investment grade BBB-, Moody's investment grade Baa3 or China Huaxin's investment grade twA, or higher than this grade), the consolidated company considers the debt securities to have a low credit risk.

If the contract amount is overdue for more than 30 days, the consolidated

company assumes that the credit risk of the financial asset has increased significantly.

If the contract amount is overdue for more than 180 days, or the borrower is unlikely to perform its credit obligations to pay the full amount to the consolidated company, the consolidated company is deemed to have the default on the financial asset.

Expected credit losses are probability-weighted estimates of credit losses for the expected duration of the financial instrument. The credit loss is measured by the present value of all cash shortfalls, which is the difference between the cash flows that the consolidated company can receive based on the contract and the cash flows expected to be received by the consolidated company. Expected credit losses are discounted at the effective interest rate of financial assets.

On each reporting date, the consolidated company assesses whether the financial assets are credit-deductible based on the amortized cost. The financial asset has been credit-deducted when one or more events that have an adverse effect on the estimated future cash flows of the financial asset have occurred. Evidence of credit impairment on financial assets includes observable information on:

- significant financial difficulties for the borrower or issuer;
- breach of contract, such as delay or overdue for more than 90 days;
- Due to economic or contractual reasons related to the financial difficulties of the borrower, the consolidated company gives the borrower a concession that would not have been considered;
- The borrower is likely to claim bankruptcy or other financial restructuring; or
- The active market for the financial assets disappeared due to financial difficulties.

The allowance for financial assets measured as amortized cost is deducted from the carrying amount of the asset.

When the consolidated company cannot reasonably expect the total or part of the recovered financial assets, it will directly reduce the total carrying amount of its financial assets. Usually, the consolidated company determines that the debtor's assets or sources of Revenue cannot generate sufficient cash flow to repay the amount of the write-off. However, the written-off financial assets can still be enforced to meet the procedures for the consolidated company to recover the overdue amount.

(6) Derecognition of financial assets

The Company derecognizes financial asset when the contractual rights to receive cash flows from the financial asset has transferred, or the Company has transferred substantially all risks and rewards of ownership of the financial asset.

2. Derivative financial instruments

The consolidated company holds derivative financial instruments to avoid the risk of foreign currency and interest rate risk. The initial recognition is measured at fair value, and the transaction costs are recognized as gain or loss. Subsequent measured at fair value, benefits or losses of re-measurement is directly included in gain or loss and is presented under non-operating Revenue and expense. If fair value of derivative is positive, it is classified as financial asset; if fair value of derivative is negative, it is classified as a financial liability.

3. Financial assets (applicable before January 1, 2018)

Financial assets of the consolidated company are classified into: financial assets measured at fair value through gain or loss, receivables, held-to-maturity financial assets, financial assets measured at cost, and available for sale financial assets.

(1) Financial assets measured at fair value through profit and loss

Such financial assets are financial assets held for trading. The main purpose of its acquisition or occurrence is to sell or buy back in the short term.

Such financial assets are measured at fair value during the initial recognition. The transaction cost is recognized in gain or loss upon recognition. The subsequent evaluation is measured at fair value with the profit and loss (including related dividend Revenue and interest Revenue) arising from the re-measurement recognized in gain or loss and reported in the “non-operating Revenue and expense” account. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

(2) Financial assets in available-for-sale

Such financial assets are designated as financial assets available for sale or non-derivatives financial assets of other category. Financial assets are measured at fair value plus attributed transaction cost at initial recognition; financial assets are subsequently measured at fair value. Except for impairment losses and dividend Revenue recognized as gains or losses, the change in carrying amount is recognized in other comprehensive Revenue and the unrealized gain or loss of the financial assets available-for sale is accumulated under the equity account. When derecognizing, the cumulative amount of gain or loss under the equity account is reclassified to gain or loss and reported under the “non-operating Revenue and expense” account. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

If such financial assets are equity investments “without quoted market price and reliably measured fair value,” it is measured at cost net of impairment loss and reported at “financial assets measured at cost” account.

Dividend Revenues from equity investment are recognized on the day the Company is entitle to receive it, generally the ex-dividend date, and as under other non-operating Revenue and expenditures.

(3) Held-to-maturity financial assets

Such financial assets are debt securities that the consolidated company has a positive intention and ability to hold until maturity. The initial recognition is measured at fair value plus the directly attributable transaction cost; the subsequent evaluation is measured by the effective interest rate method after the amortized cost minus the impairment loss. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

Interest Revenue is reported in the “non-operating Revenue and expense” account.

(4) Receivables

Accounts receivables are financial assets without a quoted market price and with fixed or determinable payment amount, including notes and accounts receivables and other receivables. It is measured at fair value plus directly attributed

transaction cost at initial recognition. In the subsequent period it is measured in accordance with the effective interest rate method and the amortized cost is net of impairment loss, except for short-term receivables with insignificant interest recognized The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

Interest income is reported in the “non-operating income and expense” account.

(5) Impairment of financial assets

Except for financial assets measured at fair value through profit or loss, financial assets are assessed for impairment at each reporting date. A financial asset is impaired if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset and that loss event has an impact on the estimated future cash flows of the financial asset that can be estimated reliably.

Objective evidence that financial assets are impaired includes the severe financial difficulties, default or delinquency by debtor (such as interest and payment are delay or unpaid), indications that a debtor or issuer will enter bankruptcy, possibility of restructuring increase and economic conditions that correlate with defaults of issuers and the disappearance of an active market for a security. In addition, for an investment in an equity security, a significant or prolonged decline in its fair value below its cost is accounted for as objective evidence of impairment.

After the individual assessment of the accounts receivable has not been derogated, the impairment is assessed on a group basis. The objective impairment evidence for the portfolio of receivables may include past experience of the consolidated company’s past collections, the increase in delayed payments over the average credit period of the group, and changes in national or regional economic conditions associated with arrears of receivables.

For financial assets measured at amortized cost, the amount of impairment loss recognized is the difference between the carrying amount of the asset and the present value of the estimated future cash.

The recognized impairment loss of financial assets measured at cost is the difference between the carrying amount of the assets and the present value of the estimated future cash flow discounted at the market return rate on similar assets. Such impairment loss cannot be reversed in the subsequent period.

Impairment loss of financial assets is directly deducted from carrying amount of financial asset; however, the carrying amount of accounts receivables is adjusted down with the allowance account. The account receivable determined to be uncollectible is written off against the allowance account. The amount recovered that was previously written off is credited to the allowance account. Changes in the carrying amount of the allowance account are recognized in the gain or losses.

If there is impairment loss of the available-for-sale financial instruments, the accumulated gain or loss previously recognized as other comprehensive Revenue shall be reclassified as gain or loss.

When a financial asset is measured at amortized cost, if the amount of the impairment loss in the subsequent period decreases and the decrease is objectively linked to the occurrence of the impairment loss, the previously recognized impairment loss is recognized in gain or loss, except that the carrying amount of the

investment on the deductible reversal date shall not be greater than the amortized cost if the impairment is not recognized.

The impairment loss of equity investments available-for-sale that was previously recognized in the gain or loss shall not be reversed and recognized in gain or loss. The recovery in fair value of any impairment loss previously recognized is recognized in other comprehensive Revenue and accumulated under the “other equity interest” account.

The loss and recovery of the bad debt of accounts receivable are reported as Selling expenses. The impairment loss and recovery of financial assets other than accounts receivables are reported under the “non-operating Revenue and expense” account.

(6) Derecognition of financial assets

Financial assets are derecognized when the contractual rights of the cash inflow from the asset are terminated, or when the Group transfers substantially all the risks and rewards of ownership of the financial assets.

On derecognition of a financial asset in its entirety, the difference between the carrying amount and the sum of the consideration received or receivable and any cumulative gain or loss that had been recognized in other comprehensive income and presented in “other equity–unrealized gains or losses from available for sale financial assets” is recognized in profit or loss, and recognized in non-operating income and expenses.

The Group separates the part that continues to be recognized and the part that is derecognized based on the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part derecognized, and the sum of the consideration received for the part derecognized and any cumulative gain or loss allocated to it that had been recognized in other comprehensive income, shall be recognized in profit or loss, under non-operating income and expenses.

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 derecognized based on the relative fair values of those parts.

4. Financial liabilities and equity instruments

(1) Classification of debt or equity

The consolidated company's debt and equity instruments are classified as financial liabilities or equity based on the substance of the contractual agreements and the definition of financial liabilities and equity instruments.

Equity instrument refers to any contract signifying the Company’s residual interest after deducting all liabilities from the assets. The equity instrument issued by the Company is recognized at the acquisition cost net of the direct issue cost.

Interest and loss or gain related to the financial liabilities are recognized in gain or loss and reported under the “non-operating Revenue and expense” account.

(2) Other financial liabilities

Financial liabilities not held for trading and are not designated as measured at fair value through gain or loss include long-term and short-term borrowings, accounts payable and other payables. Initial recognition is measured at fair value plus directly attributable transaction costs; the evaluation then uses the effective interest rate method measured at amortized cost. Interest expense not capitalized

as an cost of asset is reported under the “non-operating Revenue and expense” account.

(3) Derecognition of financial liabilities

The Company’s financial liability is derecognized when the contractual obligations have been performed, cancelled or expired.

When derecognizing financial liability, the difference between the carrying amount and the total consideration paid or payable (including any non-cash assets transferred or liabilities assumed) is recognized in the gains or losses and reported in the “non-operating Revenue and expense” account.

(4) Offsetting of financial assets and liabilities

Financial assets and liabilities are offset and reported in the net amount in balance sheet when there is a legally enforceable right to offset the recognized amounts and there is intention to settle on a net basis or realize the asset or settle the liability simultaneously

5. Derivative financial instruments

The Group holds derivative financial instruments to hedge its foreign currency exposures. Derivatives are recognized initially at fair value, and attributable transaction costs are recognized in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are recognized in profit or loss and included in other gains and losses. When the fair value of a derivative instrument is positive, it is classified as a financial asset, and when the fair value is negative, it is classified as a financial liability.

(8) Inventories

Inventories are measured at the lower of cost or net realizable value. The cost of inventories is based on the weighted average cost method and includes expenditure incurred in acquiring the inventories, production or conversion cost, and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on operating capacity.

Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses necessary to make the sale.

(9) Investment in associates

Associates are those entities in which the Group has significant influence, but not control or joint control, over their financial and operating policies.

Investments in associates are accounted for using the equity method and are recognized initially at cost. The cost of the investment includes transaction costs. The carrying amount of the investment in associates includes goodwill arising from the acquisition, less any accumulated impairment losses.

The consolidated financial statements include the Group’s share of the profit or loss and other comprehensive income of equity accounted investees, after adjustments to align their accounting policies with those of the Group, from the date that significant influence commences until the date that significant influence ceases. The Group recognizes any changes, proportionately with the shareholding ratio under additional paid in capital, when an associate’s equity changes due to reasons other than profit and loss or comprehensive income, which did not result in changes in actual controlling power.

Unrealized gains on transactions between the Company and affiliates are eliminated to the extent of the Company’s interest in the affiliates. The elimination of unrealized loss

is the same as the written-off unrealized gain but is limited to the circumstances when the impairment evidence is not available.

When the Company's share of losses in the affiliates equals or exceeds its interests in the affiliates, including any other unsecured receivables, the Company does not recognize further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the affiliates, then additional loss or relevant liability would be recognized.

When the Company subscribes to additional shares in the affiliated companies or jointly controlled entity 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 net assets of the affiliated companies or jointly controlled entity. The Company records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital reserve. However if the balance of capital reserve is insufficient from investment accounted under equity method, the difference should debit to retained earnings. If the Company's ownership interest is reduced due to the additional subscription to the shares of affiliated companies or joint controlled entity by other investors, the proportionate amount of the gains or losses previously recognized in other comprehensive Revenue in relation to that affiliated companies or jointly controlled entity shall be reclassified to gain or loss on the same basis as would be required if the associate or jointly controlled entity had directly disposed of the related assets or liabilities.

(10) Property, plant and equipment

1. Recognition and measurement

   Recognition and measurement of property, plant and equipment is based on the cost model. The cost of property, plant and equipment is net of the accumulated depreciation and accumulated impairment. Costs include expenditures directly attributable to assets acquisition. The cost of self-built assets includes raw materials and direct labor, direct attributable cost to have the assets available for the intended use, demolition, removal and restoration of the location, and the loan cost in line with the requirements of assets capitalization. Software acquired for integrating the function of the related equipment is capitalized as part of the equipment.

   When property, plant, and equipment contains different components and the cost is relatively significant to the total cost of the item; also, when the use of a different depreciation rate or method is more appropriate, it should be treated as a separate item of the property, plant and equipment (a significant component).

   The profit and loss from disposition of property, plant and equipment is determined according to the difference between the carrying amount and the disposition amount of the property, plant and equipment; the difference is recognized under the "non-operating Revenue and expense" account at a net amount.

2. Subsequent cost

   If the future benefits for incurring subsequent costs of the property, plant and equipment is expected to flow in the parent company, and the amount can be reliably measured, the expenditures can be included in the asset's carrying amount. The carrying amount of the replacement is derecognized. The routine repair and maintenance cost of property, plant and equipment is recognized in gain or loss when incurred.

3. Depreciation

   Depreciation is calculated in accordance with the asset cost net of residual value,

the estimated years of useful life and the straight-line method. Each significant component the asset is assessed. If the useful life of an integral component is different from others in the asset, the unique component should be depreciated separately. The appropriated depreciation is recognized in gain or loss.

No depreciation on land.

Estimated useful lives for the current and comparative periods are as follows:

(1) Buildings:2-50 years
(2) Machinery and equipment: 1-25 years
(3) Other equipment and leased assets: 1-25 years

The significant components of the building and construction mainly include the main building of the plant, electromechanical power engineering and wastewater treatment system, and are depreciated according to their durability years of 25 to 50 years, 25 years and 4 to 25 years respectively.

The Company should at least review the depreciation method, useful life and salvage value. If the expected value is different from previous estimate, appropriate adjustment should be made. The change will be treated as changes of accounting estimate.

(11) Lessee

In accordance with the lease terms, if the Company assumes almost all risks and rewards in relation to ownership of the leased assets, it is classified as finance lease. Assets held under finance lease are initially recognized as assets at fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. Subsequently they are treated pursuant to accounting policy relevant to these assets.

The minimum finance lease payments should be apportioned between the finance charge and the reduction of the outstanding liability. The finance charge should be allocated so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Other leases are operating lease which are not booked in the balance sheet of the parent company's balance sheet.

For operating leases (not including service charges such as insurance and maintenance fees), the lease payments are recognized as expenses in the Revenue statement over the lease term on a straight-line basis.

Expenditure on the acquisition of land use rights is based on the acquisition cost and is amortized on average over the period of 50 years and 99 years.

(12) Intangible Assets

1. Goodwill

(1) Initial recognition

Goodwill from acquiring subsidiaries are included in the intangible assets.

(2) Subsequent measurement

Goodwill is measured as costs minus accumulated impairment loss. In term of investment accounted for under equity method, the carrying amount of goodwill is included in the carrying amount of the investment. Therefore impairment loss of such investment is not allocated to goodwill and any asset, and is a portion of the carrying value of the investment accounted for under equity method.

2. Research and development

During the research phase, activities are carried out to obtain and understand new scientific or technical knowledge. Expenditures during this phase are recognized in

profit or loss as incurred.

Expenditures arising from the development phase shall be recognized as an intangible asset if all the conditions described below can be demonstrated; otherwise, they are recognized in profit or loss as incurred:

(1) The technical feasibility of completing the intangible asset so that it will be available for use or sale.
(2) The intention to complete the intangible asset and use or sell it.
(3) The ability to use or sell the intangible asset.
(4) How the intangible asset will generate probable future economic benefits.
(5) The availability of adequate technical, financial, and other resources to complete the development and to use or sell the intangible asset.
(6) The ability to measure reliably the expenditure attributable to the intangible asset during its development.

3. Other intangible assets

Other intangible assets that are acquired by the Group are measured at cost less accumulated amortization and any accumulated impairment losses.

4. Subsequent expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure is recognized in profit or loss as incurred.

5. Amortization

The amortizable amount is the cost of an asset less its residual value.

Except for goodwill, amortization is recognized in profit or loss on a straight line basis over the estimated useful lives from the date that they are available for use.

(1) Patents and trademarks: 4-6 years
(2) Development costs: 10 years

The residual value, amortization period, and amortization method of intangible assets are reviewed at least annually at each fiscal year end. Any change shall be accounted for as a changes in accounting estimates.

(13) Impairment of non-financial assets

The Company assesses at each balance sheet date whether there is any indications the assets, except inventories and deferred tax assets, are impaired and the recoverable amount. If the recoverable amount cannot be assessed for individual item, the recoverable amount of each cash generating unit is used for assess of the recoverable amount.

For goodwill, intangible assets whose durability years are not determined and intangible assets that are not yet available for use, the impairment test is conducted annually, regardless of whether there is any indication of impairment.

The recoverable amount is the fair value of an individual asset or the cash-generating unit net of the sale cost or value in use, whichever is higher. In assessing value in use, the estimated future cash flows are translated using the pre-tax discount rate to the present value. The discount rate should reflect the current market's assessment of the time value of money and the specific risks to the asset or cash-generating unit.

If the recoverable amount of an individual asset or cash-generating unit is lower than the carrying amount, the carrying amount of the individual asset or cash-generating unit is adjusted down to the recoverable amount with the impairment loss recognized. Impairment loss is recognized immediately in gain or loss of the current period.

For the testing of impairment, goodwill should be allocated to each cash generating

unit that expects to receive synergized benefit (or cash generating units) If the recoverable amount of the cash-generating unit is less than its book value, the impairment loss is applied to offset the carrying amount of the goodwill amortized to the cash-generating unit and then to the book value of the assets within the unit proportionately. The goodwill impairment loss recognized cannot be reversed in the subsequent period.

The Company reassesses on every reporting date whether there are indications that the impairment loss of non-financial assets other than goodwill recognized previously have been eliminated or reduced. If the estimates used to determine the recoverable amount are changed, the impairment loss should be reversed in order to increase the carrying amount of the individual asset or cash-generating unit to the recoverable amount; however, it shall not exceed the carrying amount of the individual assets or cash-generating unit in the prior period before recognizing the impairment loss but after appropriating the depreciation or amortization.

(14) Provisions

A provision is recognized if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects the current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as interest expense.

1. Site restoration

   In accordance with the environmental policy and applicable regulatory requirements announced by the consolidated company, the provision for recovery liabilities is provided for the environmental remediation obligation, and the relevant expenses are recognized during the period when the land is contaminated and the recovery liabilities are prepared for the leased land, and related costs are recognized during the lease term.

2. Onerous contracts

   A provision for onerous contracts is recognized when the expected benefits to be derived by the Group from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The provision is measured at the present value of the lower of the expected cost of terminating the contract or the expected net cost of continuing with the contract. Before a provision is established, the Group recognizes any impairment loss on the assets associated with that contract.

(15) Treasury stock

The Company has the outstanding stock shares repurchased and classified as “Treasury stock” for the considerations (including the amount attributable to the cost) net of taxes paid and debited to the equity. If the disposition price of the treasury stock is higher than the book value, the difference is classified as “Additional paid-in capital - Treasury stock;” if the disposition price is lower than the book value, the difference is applied to write off the additional paid-in capital of the treasury stock in the same category or debited to retained earnings, if there is an insufficient amount. The carrying amount of treasury stock is calculated in accordance with the weighted average method and is calculated separately in accordance with the reason for repurchase.

When the treasury stock is cancelled, the “capital reserve – Treasury stock” is debited proportionately to the equity shares, the difference is applied to write off the capital reserve - treasury stock in the same category or debited to retained earnings, if there is an

insufficient amount. If the carrying amount is lower than the sum of par value and the premium from issuing stocks, it shall be debited to the additional paid in capital from transactions of the treasury stock in the same category

(16) Revenue recognition

1. Revenue from contracts with customers (policy applicable from January 1, 2018)

Revenue is measured based on the consideration to which the Group expects to be entitled in exchange for transferring goods or services to a customer. The Group recognizes revenue when it satisfies a performance obligation by transferring control of a good or a service to a customer. The accounting policies for the Group's main types of revenue are explained below:

(1) Sale of goods

The consolidated company researches, develops, designs, manufactures and markets semiconductor silicon wafer materials and their components, varistors, optoelectronics and communication wafer materials. The consolidated company recognizes the revenue when the control of the product is transferred. Control transfer of the product means that the product has been delivered to the customer, and the customer can completely determine the sales channel and price of the product, and has no impact on the customer's unfulfilled obligation to accept the product. The delivery occurs when the product is shipped to a specific location, its obsolescence and loss risk has been transferred to the customer, and the customer has accepted the product under the sales contract, the acceptance terms have lapsed, or the consolidated company has objective evidence that all acceptance conditions have been met.

The consolidated company recognizes the accounts receivable when the goods are delivered, because the consolidated company has the right to unconditionally collect the consideration at that time.

(2) Product processing services

The consolidated company provides processing of the company's products and recognizes the relevant Revenue during the financial reporting period of the labor service. Fixed price contracts are based on the proportion of services actually provided as a percentage of total services as of the reporting date. If the circumstances change, the estimates of Revenue, cost and degree of completion will be revised and the changes will be reflected in gain or loss when the management is informed of the change in circumstances and the amendment is made.

Under the fixed price contract, the customer pays a fixed amount in accordance with the agreed time schedule. When the services provided exceed the payment, the contract assets are recognized; if the payment exceeds the services provided, the contract liabilities are recognized.

If the contract is valued based on the number of hours in which the service is provided, the Revenue is recognized by the amount in which the consolidated company has the right to open an invoice. The consolidated company will ask for a monthly payment from the customer and will receive the consideration after opening the invoice.

The consolidated company recognizes the accounts receivable when the goods are delivered, because the consolidated company has the right to unconditionally collect the consideration at that time.

(3) Engineering contract

The consolidated company is engaged in the contracting business of solar power plants. Since the assets are controlled by the customers at the time of construction, the revenue is gradually recognized over time based on the proportion of the engineering costs incurred to date to the estimated total contract costs. A fixed amount paid by the customer in accordance with the agreed time schedule. Certain changes in consideration are estimated using expectations from past experience; other changes are estimated at the most probable amount. The consolidated company recognizes revenue only within the scope of the cumulative Revenue level where it is highly probable that no significant reversal will occur. If the amount of Revenue recognized has not been requested, it is recognized as a contract asset and the contract asset is transferred to the accounts receivable when there is an unconditional right to the consideration.

If the degree of completion of the performance obligation of the construction contract cannot be reasonably measured, the contract revenue is recognized only within the range of expected recoverable costs.

When the consolidated company expects that the inevitable cost of performance of an engineering contract exceeds the economic benefit expected from the contract, the liability provision for the loss-making contract is recognized.

If the circumstances change, the estimates of Revenue, cost and completion will be revised and the changes will be reflected in gain or loss when the management is informed of the change in circumstances and the amendment is made.

2. Revenue recognition (before January 1, 2018)

(1) Sales of goods

The Revenue from product sales in the course of business is measured at the fair value of the considerations received or receivable net of sales return, sales discount and volume discount. Revenue is recognized when persuasive evidence is available (usually a signed purchase order from the customers), the significant risks of ownership and considerations are transferred to the buyer, the proceeds are likely to be collected, the associated cost and possible sales returns can be estimated reliably, do not continue to be involved in instrument management and the amount of Revenue can be measured reliably. If a discount is likely to occur and the amount can be measured reliably, it is credited to the Revenue when the sale is recognized.

The timing for the transfer of risks and considerations depends on the individual term of the sales contracts. Export sales are mainly made FOB Shipping Point, and the risks and returns are transferred to the buyer when the goods are brought on board at the port. For sales in domestic market, the risks and returns are generally transferred to the buyer when the goods are delivered to the customer's warehouse for inspection and acceptance.

(2) Services

The Company provides labor services to clients. Labor service Revenue is recognized in accordance with the percentage of completion on the reporting date.

(3) Government grants

The government R&D grants obtained by the consolidated company are recognized under the item of non-operating Revenue and expenses in accordance

with the proportion of incurred costs to the estimated total cost.

(17) Employee Benefits

1. Defined contribution plans

   Obligations for contributions to defined contribution pension plans are recognized as an employee benefit expense in profit or loss in the periods during which services are rendered by employees.

2. Defined benefit plans

   A defined benefit plan is a post employment benefit plan other than a defined contribution plan. The Group's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. Any fair value of any plan asset is deducted. The discount rate used in calculating the present value is the market yield at the reporting date of government bonds that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

   Enterprise's net obligation is calculated annually by a qualified actuary in accordance with the project unit credit method. When the calculation results are beneficial to the consolidated company, the results are limited to the total amount of the present value of economic benefits available from the funds returned by the plan or the reduction of the accrual for the plan for the plan in the future. The minimum fund appropriation needed for any plan of the Company should be considered when calculating the present value of the economic benefits. If a benefit can be realized in the plan period or upon the liquidation of the plan liability, it is with economic benefit to the Company.

   For the plan benefit that is improved due to the service provided by the employees, the relevant expenses are recognized as gain or loss immediately.

   Remeasurements of the net defined benefit liability (asset), comprising: (1) actuarial gains and losses; (2) return on plan assets, but not including net interest on the net defined benefit liability (asset); and (3) changes in the effect of the asset ceiling, but not including the net interest on the net defined benefit liability (asset). The remeasurement of net defined benefit liabilities (assets) are recognized in other comprehensive Revenue. The consolidated company has chosen to transfer the amount recognized under other consolidated profit and loss items to the retained earnings.

   The Company, when experiencing curtailment or settlement, should recognize the curtailment or settlement gain or loss of the defined benefit plan. Curtailment or settlement gains and losses include any changes in the fair value of any plan assets and changes in the present value of defined benefit obligations.

3. Short term employee benefits

   Short term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

   A liability is recognized for the amount expected to be paid under short term cash bonus or profit sharing plans if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

(18) Share based payment

The grant date fair value of share based payment awards granted to employees is

recognized as employee expenses, with a corresponding increase in equity, over the period that the employees become unconditionally entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards whose related services are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that meet the related services at the vesting date.

The non-vested conditions relating to the share-based payment incentives are reflected in the measurement of the fair value of the share-based payment and the difference between the expected and actual results is not subject to verification adjustment.

(19) Income tax

Income tax expenses include both current taxes and deferred taxes. Except for expenses related to business combinations, recognized directly in equity or other comprehensive income, all current and deferred taxes are recognized in profit or loss.

Current taxes include tax payables and tax deduction receivables on taxable gains (losses) for the year calculated using the statutory tax rate on the reporting date or the actual legislative tax rate, as well as tax adjustments related to prior years.

Deferred taxes arise due to temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases. However, deferred taxes are not recognized for the following:

1. Assets and liabilities that are initially recognized but are not related to the business combination and have no effect on net income or taxable gains (losses) arising from the transaction.
2. Temporary differences arising from equity investments in subsidiaries or joint ventures where there is a high probability that such temporary differences will not reverse.
3. Initial recognition of goodwill

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, which are normally tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities may be offset against each other if the following criteria are met:

1. The entity has the legal right to settle tax assets and liabilities on a net basis; and
2. The taxing of deferred tax assets and liabilities fulfills one of the scenarios below:
   (1) Levied by the same taxing authority; or
   (2) Levied by different taxing authorities, but where each such authority intends to settle tax assets and liabilities (where such amounts are significant) on a net basis every year of the period of expected asset realization or debt liquidation, or where the timing of asset realization and debt liquidation is matched.

A deferred tax asset is recognized for the carry forward of unused tax losses, unused tax credits, and deductible temporary differences to the extent that it is probable that future taxable profit will be available against which the unused tax losses, unused tax credits, and deductible temporary differences can be utilized. Such unused tax losses, unused tax credits, and deductible temporary differences are also be reevaluated every year on the financial reporting date, and adjusted based on the probability that future taxable profit will be available against which the unused tax losses, unused tax credits, and deductible temporary differences can be utilized.

(20) Business combination

The Company has goodwill measured in accordance with the fair value of the consideration paid on the transfer date, including any non-controlling interests attributable to the acquired company, less the identifiable assets acquired and liabilities assumed (usually, it is the fair value). If the balance after deduction is a negative value, the Company will have the purchase interest in a bargain recognized in the gain or loss after reassessing whether all the assets acquired and liabilities assumed have been properly identified.

Except for those related to debt issue or equity instruments, the transaction cost related to the merger must be recognized immediately as the parent company's expense upon its occurrence.

For the non-controlling interests of the entity acquired, if they are interests currently owned and owners are entitled to the entity's net assets in proportion to their shares in the entity upon its liquidation, the Company should measure all transactions, item by item, and choose to measure in accordance with fair value of assets on the acquisition date or the amount already recognized in proportion to its shares through the ownership instrument on the identifiable assets of the entity to be acquired. Other components of non-controlling interests must be measured at acquisition date fair values or in accordance with other applicable IFRSs.

For a merger conducted in progress, the Company will have the fair value of the interests of the acquired company re-measured on the acquisition date and with the relevant gain or loss, if any, recognized in the gain or loss. For the changes in the interests of the acquired company recognized in other comprehensive Revenue prior to the acquisition date, the Company shall have it handled pursuant to the same manner as having the equity disposed of directly. If the equity at the time of disposition should be reclassified as profit and loss, the amount should be reclassified to the gain or loss.

If the original accounting process of the merger is yet to complete prior to the end of the merger reporting period, the Company may have the pending accounting items reported in a provisional amount; also, the provisional amount must be adjusted retro-actively throughout the measurement period or should have additional assets or liabilities recognized to reflect the information of the existing fact and status on the acquisition date throughout the measurement period. The measurement period shall not be more than one year from the acquisition date onwards.

(21) Earnings per share

The Company illustrated the basic and diluted earnings per share attributable to the interests of common stock shareholders. The basic earnings per share of the consolidated company is calculated by dividing the profit and loss attributable to the holders of the ordinary shares of Sino-American Silicon Products Inc.by the current weighted average number of ordinary shares outstanding. Diluted earnings per share is calculated by having the profit and loss attributable to the Company's common stock interests shareholders and the weighted average number of common stock shares outstanding adjusted for the effects of all potential diluted common stock shares, respectively. The potential dilute ordinary shares of Sino-American Silicone Products Inc. include restricted employee rights stocks not obtained and employee remuneration that has not been resolved by the board of directors and has been issued in the form of stocks.

(22) Operating segment

Operating segment is a component of the Company engaging in activities that may earn revenues and incur expenses, including relevant revenues and expenses from other

components of the Company. Operating results of all segments are routinely provided to the chief operating decision-maker for review for set up policy to allocate resources and assess performance of the operating segments. Each operating segment shall have its separate financial information.

5. Significant accounting assumptions and judgments, and major sources of estimation uncertainty

While preparing the financial statements in compliance with the IFRSs as approved by FSC, the management should make judgment, estimate and assumption that would impact the adoption of accounting policy, as well as the amount reported for assets, liabilities, revenues and expenses. The actual results could differ from those estimates.

The management continues to review the estimates and underlying assumptions, and changes in accounting estimates are recognized in the period in the period of change and affected future period

Information that involves significant judgement of the accounting policy has a significant impact on the amounts recognized in this consolidated financial statements is as follows:

(1) Assessment of impairment of property, plant and equipment

In the process of asset impairment assessment, the consolidated company shall rely on subjective judgment and determine the independent cash flow of the specific asset group, the number of years of durability of the asset and the future Revenue and loss due to the asset use model and industry characteristics. Due to economic conditions, any estimated changes resulting from changes or corporate strategies may result in significant impairments or reversal of impairment losses recognized in the future. Please refer to Note 6 (15) for the key assumptions used in the recoverable amount.

(2) Impairment assessment of goodwill

The assessment process of goodwill impairment relies on the subjective judgment of the consolidated company, including identifying the cash-generating unit, apportioning goodwill to the relevant cash-generating unit, and determining the recoverable amount of the relevant cash-generating unit. Please refer to Note 6 (16) for the description of the goodwill impairment assessment.

The accounting policy and disclosure of the Company include the fair value measurement of financial and non-financial assets and liabilities. The Company's financial and accounting departs are responsible for the independent verification of fair value. They have obtained information from independent sources to make the valuation result approximate to the market condition and ensure the information source to be independent, reliable and consistent with other resources and representing exercisable price. They have also rectified the valuation model, conducted retroactive test, update the input value required by the valuation model and other adjustment as necessary to the fair value, in order to ensure the valuation result to be reasonable.

The Company had made its best efforts to use observable input value available in the market when measuring the assets and liabilities. The definition of each fair value category is pursuant to the input values used by valuation techniques summarized as follows:

(1) Level I: Quoted prices (unadjusted) in active markets for identified assets or liabilities.
(2) Level II: Inputs other than quoted prices included within Level 1 that are observable for the assets or liabilities, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
(3) Level III: inputs for the assets or liabilities that are not based on observable market data (unobservable inputs).

In case there is movement between fair value hierarchy, the Companies should recognize such movement at the reporting date. The relevant information on the assumptions used to measure fair value is detailed in Note 6 (34) financial instruments.

6. Explanation of significant accounts

(1) Cash and cash equivalents

	2018.12.31	2017.12.31
Cash on hand	$ 12,175	43,721
Demand deposits	10,475,332	10,510,542
Time deposits	26,267,152	9,788,517
Repurchase agreement	74,472	-
Cash and cash equivalents as stated in the cash flow statement	**$ 36,829,131**	**20,342,780**

Please refer to Note 6 (34) for the disclosure of interest rate risk and sensitivity analysis of the consolidated financial assets and liabilities

(2) Financial assets and liabilities at fair value through profit or loss

	2018.12.31	2017.12.31
Mandatorily measured at fair value through profit or loss:		
Forward exchange contracts	$ 81,798	-
Stocks listed on domestic markets	177,053	-
Privately offered funds	64,697	-
Financial assets designated as at fair value through profit or loss:		
Forward exchange contracts	-	21,546
	$ 323,548	**21,546**
Financial liabilities designated as at fair value through profit or loss:		
Forward exchange contract	**$ 119**	**5,152**

The consolidated company engages in derivative financial instrument transactions to circumvent the exchange rate risk exposed by the business activities. The breakdown of the derivatives of the financial assets and financial liabilities that are available for the transaction due to the failure to apply the hedge accounting report is as follows:

	2018.12.31			
	Contract amount ($ thousands)		Currency	Maturity date
Forward exchange contracts sold	USD	17,850	USD against EUR	2019.01.24-2019.02.26
Forward exchange contracts sold	USD	10,197	USD against KRW	2019.01.24
Forward exchange contracts purchased	JPY	50,000	JPY against EUR	2019.02.26
Forward exchange contracts purchased	EUR	18	EUR against KRW	2019.01.24
Forward exchange contracts purchased	JPY	100,412	JPY against KRW	2019.01.24
Forward exchange contracts purchased	JPY	17,000,000	JPY against NTD	2019.01.15-2019.6.14

	2017.12.31			
	Contract amount ($ thousands)		Currency	Maturity date
Forward exchange contracts sold	USD	20,700	USD against EUR	2018.1.23- 2018.2.22
Forward exchange contracts sold	KRW	74,506,300	KRW against USD	2018.1.24
Forward exchange contracts sold	NTD	267,000	NTD against JPY	2018.1.26
Forward exchange contracts sold	NTD	264,900	NTD against JPY	2018.3.22
Forward exchange contracts sold	NTD	263,000	NTD against JPY	2018.3.28
Forward exchange contracts purchased	JPY	50,000	JPY against EUR	2018.2.18

Please refer to Note 6 (31) for the amount recognized in gain or loss at fair value.
Please refer to Note 6 (35) for market risk information.
The above financial assets are not guaranteed as long-term loans and financing

guarantees

(3) Financial assets at fair value through other comprehensive income

		2018.12.31
Equity instruments measured at fair value through other comprehensive gain or loss:		
Domestic booked (OTC) company stock - Actron Technology Corporation	$	319,427
Domestic booked (counter) company stock – United Renewable Energy Co., Ltd.		270,073
Domestic booked (OTC) company stock – Phoenix Silicon International Corporation		127,920
Domestic non-booked (OTC) company stock - SILFAB SPA stock		352,282
Domestic non-booked (OTC) company stock – Powertech Energy Corp.		130,764
Domestic non-booked (OTC) company stock - GIGA Electronic Technology Corporation		4,458
Total	**$**	**1,204,924**

The consolidated company's investments in these equity instruments are long-term strategic investments and are not held for trading purposes and have been designated as measured at fair value through other comprehensive gain or loss. For the financial assets available for sale and the financial assets measured at cost recognized on December 31, 2017, please refer to Note 6 (7) and 6 (9).

Solartech Energy Corp. (hereinafter referred to as Solartech Energy) and Gintech Energy Corporation (hereinafter referred to as Gintech Energy Corporation) and Neo Solar Power Corporation (hereinafter referred to as Neo Solar Power) jointly signed the merger contract on January 29, 2018. The Neo Solar Power was the existing company (the name of the company after the merger was changed to United Renewable Energy Co., Ltd., hereinafter referred to as URE), and Gintech Energy and Solartech Energy were cancelled. The base date for the merger is October 1, 2018. Solartech Energy's shareholders, in accordance with the issued ordinary shares (including private placement of shares and restrictions on employee rights shares, if issued) they hold, renewed 1.17 shares of Neo Solar Power's shares per share.

The consolidated company was deemed to have sold the shares of Solartech Energy, which were measured at fair value through other comprehensive gain or loss, for the above reasons on October 1, 2018. The fair value of the disposition was NT$ 348,730 thousand and the cumulative penalty was NT$ 1,558,196 thousand. The aforementioned cumulative disposed losses have been transferred from other equity to retained earnings.

Except for the above, the consolidated company did not dispose of the strategic investment in the year of 2018. During the period, the accumulated gain or loss were not transferred within the equity.

Dividend Revenue recognized in 2018 was NT$ 12,776 thousands as a result of the above-mentioned equity instrument investment of the consolidated company, which was measured at fair value through other comprehensive gain or loss.

Please refer to Note 6 (35) for market risk information.

The above financial assets are not guaranteed as long-term loans and financing guarantees

(4) Financial assets measured at amortized cost

	2018.12.31
Corporate debt - Crystalwise Technology	**$ 281,366**

The consolidated company's assessment is to hold the assets to the maturity date to collect the contractual cash flow, and the cash flows of these financial assets are solely for the payment of the principal and the interest on the outstanding principal amount. Therefore, since January 1, 2018 financial assets measured at amortized cost are recognized.

In October 2016, the combined company purchased the private equity corporate bonds of Crystalwise Technology Inc. for a five-year period at a nominal amount of NT$ 280,000 thousands. The coupon rate and effective interest rate were 2.00%. For investment classified as held to maturity date on December 31, 2017, please refer to Note 6 (8).

Please refer to Note 6 (35) for credit risk information.

The above financial assets are not guaranteed as long-term loans and financing guarantees

(5) Notes and accounts receivable, net

	2018.12.31	2017.12.31
Notes receivable	$ 187,522	145,568
Accounts receivable	9,598,538	8,687,046
Accounts receivable-fair value through other comprehensive income	42,578	-
Less: Allowance for doubtful accounts	(61,221)	(99,852)
Allowance for sales discounts and returns	-	(16,926)
	$ 9,767,417	**8,715,836**

The consolidated company used a simplified approach to estimate the expected credit losses for all notes receivables and accounts on December 31, 2018, that is, the use of expected credit losses during the existing period. For the purpose of this measure, the notes receivable and the accounts are grouped by the common credit risk characteristics that represent the ability of the customer to pay all of the maturity amounts in accordance with the terms of the contract, and have been incorporated into forward-looking information. The expected credit losses of the accounts receivable of the solar energy division of the consolidated company on December 31, 2018 are as follows:

	Carrying amount of receivables	Weighted average loss rate	Loss allowance provision
Current	$ 585,381	0%	-
1 to 30 days past due	21,981	0%-1.43%	-
31 to 60 days past due	2,009	0%-9.44%	-
More than 91 days past due	53,045	59.09%-100%	50,023
Total	**$ 662,416**		**50,023**

The expected credit losses of the notes receivables and accounts receivable of the semiconductor business unit of the consolidated on December 31, 2018 are as follows:

	Carrying amount of notes and accounts receivable	Weighted average loss rate	Loss allowance provision
Current	$ 8,631,396	0%	-
1 to 30 days past due	480,384	0%	-
31 to 60 days past due	46,169	3%	3,507
61 to 90 days past due	464	26%	120
91 to 120 days past due	231	50%	115
121 to 150 days past due	408	70%	286
More than 151 days past due	7,170	100%	7,170
Total	**$ 9,166,222**		**11,198**

On December 31, 2017, use the credit loss model that has occurred to consider the allowance for bad debts of notes and accounts receivable. The ageing analysis of the consolidated company's overdue but not deductible notes and accounts receivable (including related parties) as on December 31, 2017 is as follows:

	2017.12.31
Overdue 1-30 days	$ 655,295
Overdue 31-60 days	27,814
Overdue 61-90 days	6,894
Overdue 91-120 days	27
Overdue 121-150 days	350
Overdue 181-365 days	334
	$ 690,714

On December 31, 2017, the notes and accounts receivable that were overdue but not deducted were recognized. After assessing that the credit quality has not changed significantly, there is no derogation. In addition, the consolidated company did not take any collateral for these notes and accounts receivable.

The changes in the allowance for notes and accounts receivable of the consolidated company are as follows:

		2017	
	2018	Individual assessment of impairment losses	Group assessment of impairment losses
Balance on January 1, 2018 and 2017 per IAS39	$ 99,852	48,679	31,592
Adjustment on initial application of IFRS 9	-		
Balance on January 1, 2018 per IFRS 9	99,852		
Impairment losses recognized	35,446	-	19,581
Amounts written off	(73,536)	-	-
Foreign exchange losses	(541)	-	-
Balance on December 31, 2018 and 2017	**$ 61,221**	**48,679**	**51,173**

In order to control the credit risk of accounts receivable, the consolidated company is engaged in the sale of accounts receivable on the reporting date as follows:

The consolidated company enters into a non-recourse sale receivables creditor's contract with the bank and the accounts receivable underwriter. According to the contract, the consolidated company, within the sales quota, does not need to guarantee the ability of the debtor of the receivables to pay at the time of the debt transfer and debt fulfillment. As of the reporting date, the relevant information of debt transfer in relation to accounts receivable (including related party) receivable meet the derecognition criteria are as follows:

Unit: Japanese Yen in thousands

2018.12.31					
Counterpart	Amount de-recognized	Quota	Advanced amount	Range of Interest Rate	Guarantee item
Mitsubishi UFJ and other Accounts receivable underwriter	$ 502,978	-	502,978	1.175%-1.475%	None

2017.12.31					
Counterpart	Amount de-recognized	Quota	Advanced amount	Range of Interest Rate	Guarantee item
Mitsubishi UFJ and other Accounts receivable underwriter	$ 4,269,636	-	4,269,636	1.175%-1.475%	None

The accounts receivable factoring agreement mentioned above has a revolving line of credit.

The notes and accounts receivable of the consolidated company were not provided as collateral guarantee.

(6) Inventories

	2018.12.31	2017.12.31
Finished goods and products	$ 2,047,805	2,695,705
Work in progress	2,160,209	2,249,776
Raw materials	3,673,353	5,102,424
	$ 7,881,367	**10,047,905**

Component of operating cost are as follows:

	2018	2017
Cost of sales	48,156,805	48,419,394
Accrual of impairment loss of property, plant and equipment (Note 6 (15))	1,497,261	-
Reversal of inventory valuation	(37,345)	(401,724)
Unallocated fixed manufacturing expense	536,967	410,972
Add (use) debt preparation (Note 6 (20))	443,404	(460,680)
	50,597,092	**47,967,962**

The inventories of the consolidated company were not provided as a collateral guarantee.

(7) Available for sale financial assets –non-current

	2017.12.31
Booked shares- Solartech Energy	$ 439,258
OTC Stocks – Actron Technology Corporation	245,936
	$ 685,194

The above investment targets are booked in the series of financial assets measured at fair value through other comprehensive gain or loss on December 31, 2018. Please refer to Note 6 (3).

For credit risk and market risk information, please refer to Note 6 (35).

None of the above financial assets of the combined company was provided as a pledge guarantee.

(8) Held-to-maturity financial assets - non-current

	2017.12.31
Corporate debt - Crystalwise Technology	**$ 281,366**

The above corporate bonds booked in the series of financial assets measured at amortized cost on December 31, 2018. Please refer to Note 6 (4).

Please refer to Note 6 (35 for credit risk information.

The financial assets held by the consolidated company to the maturity date are not provided as collateral guarantee.

(9) Financial assets at amortized cost－non-current

	2017.12.31
Equity investment	$ 2,543,262
The cumulative amount of impairment loss recognized	(1,705,081)
	$ 838,181

Cumulative impairments changes are as follows:

	2017
Cumulative impairments – beginning	$ 1,727,916
Impairment loss appropriated this period	69,501
Effect of changes in exchange rates	(92,336)
Cumulative impairments - ending	**$ 1,705,081**

The Company's stock investment referred to above is measured at cost, net of impairment loss on the reporting date. Since the fair value is with a broad range of reasonable estimation and the probability of estimations cannot be reasonably assessed; therefore, the management of the Company believes that the fair value cannot be reliably measured.

Financial assets presented at fair value through other comprehensive gain or loss on December 31, 2018 are detailed in Note 6 (3).

For credit risk and market risk information, please refer to Note 6 (35).

None of the above financial assets of the combined company was provided as a pledge guarantee.

(10) Investments accounted for using equity method

The fair value of the Company's associates which have quoted market price was as follows

	2018.12.31	2017.12.31
Affiliated companies		
Taiwan Specialty Chemicals Corporation (Hereinafter referred to as TSCS)	$ 918,163	-
Cathy Sunrise Corporation (Hereinafter referred to as Cathy Sunrise)	464,252	453,708
Crystalwise Technology Inc.	415,391	849,211
Whole-Global Investment Corporation (Hereinafter referred to as TSCS)	178,442	318,622
Accu Solar Corporation (Hereinafter referred to as TSCS)	65,648	73,176
	$ 2,041,896	**1,694,717**

Names of affiliated companies	The nature of the relationship with the consolidated company	Main location/ country registered in	Ownership interest and Proportion of voting rights	
			2018.12.31	2017.12.31
TSCS	The main business is manufacturing of semiconductor special gas and chemical materials.	Taiwan	30.93%	-
Cathy Sunrise	The main business is manufacturing of power generation, transmission and distribution machinery.	Taiwan	30.00%	30.00%
Crystalwise Technology Inc.	Mainly engages in the manufacturing and trading of optoelectronic wafers and substrate material.	Taiwan	40.11%	40.11%
Whole-Global Investment (Note)	The main business is general investment	Taiwan	24.39%	24.39%
Accu Solar Corporation	The main business is providing solar modules.	Taiwan	24.70%	24.70%

Note: It is transferred from GlobalWafers' investment.

1. The affiliated companies that are significant to the parent company and booked with TPEX.

	2018.12.31	2017.12.31
Crystalwise Technology Inc.	**$ 791,079**	**1,179,391**

Financial information of the affiliated companies that are significant to the Company are summarized as follows. The financial information has been adjusted with amount included in the standalone financial statements of affiliated prepared in accordance with IFRSs to reflect the difference between the adjustment made by the parent company on the fair value upon obtaining the shares of the affiliated companies and the accounting policy.

Financial Summary of Crystalwise Technology:

	2018.12.31	2017.12.31
Current Assets	$ 1,055,915	1,370,465
Non-current Assets	2,134,030	2,627,539
Current Liabilities	(1,225,269)	(1,392,433)
Non-current Liabilities	(872,017)	(1,013,279)
Net assets attributed to owner of the investee parent company	**$ 1,092,659**	**1,592,292**

	2018	2017
Operating Revenues	**$ 1,317,193**	**1,496,642**
Operating net loss from continuing operations	$ (449,780)	(527,910)
Revenue and loss from discontinued operations	-	(93,711)
Other comprehensive Revenue	(59,599)	(19,047)
Total comprehensive Revenue attributed to owner of the investee company	**$ (509,379)**	**(640,668)**

	2018	2017
The Company's share on net assets of the subsidiaries and affiliated companies accounted for under equity method – beginning of the period.	$ 849,211	1,112,819
Recognized change in equity net worthof affiliated companies under equity method this period	124	102
Total operating profit and loss and the impairment loss accrued attributable to the consolidated company	(410,495)	(258,295)
Other comprehensive profit and loss and other attributable to the consolidated company	(23,449)	(5,415)
The Company's share on net assets of the subsidiaries and affiliated companies accounted for under equity method – end of the period.	**$ 415,391**	**849,211**

2. The consolidated company's affiliated companies under equity method are individually insignificant. The aggregated financial information is as follows. The financial information is the amount included in the consolidated company's financial statement:

	2018.12.31	2017.12.31
Total carrying amount of the closing balance of the interests of individual insignificant affiliated companies	**$ 1,626,505**	**845,506**

	2018	2017
Share attributable to the consolidated company:		
Net loss this period	$ (53,306)	5,592
Other comprehensive income (loss)	(149,273)	57,278
Total comprehensive Revenue	**$ (202,579)**	**62,870**

3. The difference in the investment cost of the newly added investment and the fair value of the identifiable net assets of the investee is mainly attributable to the intangible assets.
4. Guarantee

   None of the investments in the consolidated company's equity method has been provided as a collateral guarantee.

(11) Business combination

1. The consolidated company gained control in July 2017 by acquiring 100% equity interest in Sunrise PV Five. Sunrise PV Five is a ground-based solar power plant.

   The consolidated company acquired 100% equity interest in Sunrise PV Five for NT$ 4,318 thousand. The fair value of the identifiable assets and liabilities assumed by Sunrise PV Five on the acquisition date are as follows:

Cash and equivalents	$	1,064
Inventories		300
Other current assets		1,823
Property, plant and equipment (Note 6 (15))		32,672
Short term borrowings		(11,015)
Notes and accounts payable		(20,526)
	$	**4,318**

2. From the acquisition date to December 31, 2017, the revenue contributed by Sunrise PV Five was NT$ 6,114 thousands, and the net profit before tax was NT$ 2,687 thousands. If the acquisition took place on January 1, 2017, the management estimates that the consolidated company's revenue from January 1 to December 31, 2017 will reach NT$ 59,371,990 thousand, and the net profit before tax will be NT$ 5,124,927 thousand. In determining the amounts, the management assumes that the acquisition occurred on January 1, 2017, and the provisional fair value adjustments generated on the date of the acquisition are the same.

(12) Changes in equity of subsidiaries

1. Additional shares obtained of the subsidiary

The consolidated company acquired the equity of GlobalWafers in October 2018 with an increase of cash of NT$ 91,006 thousand, increasing the equity from 50.84% to 50.94%. The consolidated company did not trade with non-controlling interests in 2017.

The effect of changes in the ownership of the booked subsidiaries on the equity of the owners of the parent company is as follows:

		2018
Carrying amount of non-controlling interests purchased	$	41,341
Consideration and other benefits paid to non-controlling interests		(92,445)
The capital reserve - the difference between the equity price of the company actually acquired or disposed of and the carrying amount	**$**	**(51,104)**

2. The subsidiary bought back the treasury shares without causing loss of control

GlobalWafers implemented the treasury stock system in 2018 and bought back the company's shares at Taiwan Stock Exchange, which increased the company's interest in GlobalWafers by 0.23%.

The impact of the changes of the Company's equity of GlobalWafers on the equity attributable to the parent company is as follows:

		2018
Reduction in equity after a subsidiary buys back treasury shares	**$**	**194,600**
Capital reserve - long-term equity investment recognized by equity method	**$**	**(194,600)**

3. Subsidiary cash increase was not subscribed according to the shareholding ratio and did not result in loss of control.

In April 2017, GlobalWafers handled the cash increase and issued new shares to participate in the issuance of overseas depositary receipts to the non-controlling interests of NT$ 14,035,424 thousands. Sino-American Silicon Products. Inc. did not

subscribe for the shareholding ratio. The impact of changes of the equity of Sino-American Silicon Products Inc. held by GlobalWafers on the owners' equity of the parent company is as follows:

	2017
The increase in interests the parent company is entitled to after the issuance of new shares by the subsidiary.	$ 5,670,467
Capital reserve - long-term equity investment recognized by equity method	$ 5,670,467

(13) Subsidiaries with significant non-control interests

Non-Controlling interests in the subsidiary that are significant to the parent company:

Name of subsidiary	Main business place / company registered country	% of ownership interests under non-controlling interests as well as the voting rights	
		2018.12.31	2017.12.31
GlobalWafers	Taiwan	48.83%	49.16%

The aggregated financial information of the above-mentioned GlobalWafers is as follows. The financial information is prepared in accordance with the International Financial Reporting Standards approved by FSC and reflects the fair value adjustments made by the consolidated company on the acquisition date, and the financial information is about the amount before the inter-company transaction has not been written off:

	2018.12.31	2017.12.31
Current Assets	$ 53,200,515	35,110,873
Non-Current Assets	36,621,606	35,121,464
Current Liabilities	(24,422,441)	(22,251,273)
Non-Current Liabilities	(22,243,567)	(13,926,658)
Net Assets	$ 43,156,113	34,054,406
Net assets attributed to non-controlling interests	$ 16,658	8,478

	2018	2017
Operating Revenues	$ 59,063,510	46,212,601
Net income for the year	$ 13,633,771	5,278,207
Other comprehensive income (loss)	431,248	18,274
Total comprehensive income	$ 14,065,019	5,296,481
Net income attributed to non-controlling interests	$ 3,098	3,484
Total comprehensive Revenue attributed to non-controlling interests	$ 9,762	(32,329)

	2018	2017
Cash flow from operating activities	$ 36,178,722	16,276,374
Cash flow from investing activities	(6,368,165)	(2,651,022)
Cash flow from financing activities	(13,767,728)	(754,734)
Effect of changes in exchange rates	377,132	295,765
Increase of cash and cash equivalent	**$ 16,419,961**	**13,166,383**

(14) Loss of control over subsidiaries

The consolidated company disposed of 100% equity interest in Sunrise PV One at the end of February 2017 and lost the control over it. The disposition price is NT$ 2,000 thousand, and the disposition of interest of NT$ 1,119 thousand is included in the item of "other interests and losses" of the consolidated profit and loss statement.

The carrying amount of Sunrise PV One's assets and liabilities at the end of February 2017 is as follows:

Cash and cash equivalents	$ 330
Current Assets	14,853
Property, plant and equipment	295,281
Non-current Assets	5,494
Current Liabilities	(313,783)
Non-current Liabilities	(1,294)
Carrying amount of the previous subsidiary's net assets	**$ 881**

(15) Property, plant and equipment

1. Changes in the cost, depreciation and impairment loss of the Company's property, plant and equipment are as follows:

	Land	Building	Machinery equipment	Other equipment	Construction in progress and quarantined equipment	Total
Cost:						
Balance of January 1, 2018	$ 3,408,791	17,896,097	56,760,858	4,280,713	2,548,249	84,894,708
Additions	-	20,569	423,930	538,618	5,786,780	6,769,897
Disposition	(49,905)	(292,307)	(2,630,918)	(553,415)	(2,352)	(3,528,897)
Reclassification	-	319,147	3,656,152	254,317	(4,229,616)	-
Transfer and other	-	68,307	452,284	26,512	(725,585)	(178,482)
Effect of changes in exchange rates	107,148	581,649	1,376,254	87,432	1,659	2,154,142
Balance of December 31, 2018	**$ 3,466,034**	**18,593,462**	**60,038,560**	**4,634,177**	**3,379,135**	**90,111,368**
Balance of January 1, 2017	$ 3,619,236	18,686,141	58,620,449	3,551,350	2,076,313	86,553,489
Acquired through merger	-	-	13,123	-	19,549	32,672
Additions	-	24,326	200,934	170,023	3,381,118	3,776,401
Disposals	-	(64,220)	(3,105,205)	(179,294)	(90,209)	(3,438,928)
Reclassification	3,030	114,902	1,994,590	672,797	(2,919,297)	(133,978)
Effect of changes in exchange rates	(213,475)	(865,052)	(963,033)	65,837	80,775	(1,894,948)
Balance of December 31, 2017	**$ 3,408,791**	**17,896,097**	**56,760,858**	**4,280,713**	**2,548,249**	**84,894,708**
Depreciation and impairment loss:						
Balance of January 1, 2018	$ -	8,026,379	37,081,741	2,257,780	-	47,365,900
Depreciation for the year	-	759,686	4,397,963	470,584	-	5,628,233
Impairment loss		328,088	1,128,814	38,654	1,705	1,497,261
Disposal	-	(285,851)	(2,524,419)	(526,912)	-	(3,337,182)
Transfer and other	-	(8,548)	(147,653)	57,877	-	(98,324)
Effect of changes in exchange rates	-	330,954	1,271,760	14,211	-	1,616,925
Balance of December 31, 2018	**$ -**	**9,150,708**	**41,208,206**	**2,312,194**	**1,705**	**52,672,813**
Balance of January 1, 2017	$ -	7,580,754	35,622,817	1,952,090	-	45,155,661
Current depreciation	-	791,488	4,590,816	507,610	-	5,889,914
Disposals	-	(46,108)	(2,637,444)	(97,899)	-	(2,781,451)
Reclassification	-	-	(2,114)	2,114	-	-
Effect of changes in exchange rates	-	(299,755)	(492,334)	(106,135)	-	(898,224)
Balance of December 31, 2017	**$ -**	**8,026,379**	**37,081,741**	**2,257,780**	**-**	**47,365,900**
Carrying amounts:						
December 31, 2018	**$ 3,466,034**	**9,442,754**	**18,830,354**	**2,321,983**	**3,377,430**	**37,438,555**
January 1, 2017	**$ 3,619,236**	**11,105,387**	**22,997,632**	**1,599,260**	**2,076,313**	**41,397,828**
December 31, 2017	**$ 3,408,791**	**9,869,718**	**19,679,117**	**2,022,933**	**2,548,249**	**37,528,808**

2. Impairment loss

In the fourth quarter of 2018, the consolidated company evaluated that as the

production line of the solar energy division was affected by the global economy, the production output declined. Therefore, the recoverable amount of the production line must be evaluated.

The solar energy production line of the consolidated company is a cash-generating unit whose recoverable amount is based on its value in use as of December 31, 2018. The carrying amount of the property, plant and equipment is higher than its recoverable amount, so the impairment loss is recognized as NT$ 1,497,261 thousands, which is included in the operating cost of the Consolidated Balance Sheets.

The estimated value of use in 2018 is calculated at a pre-tax discount rate of 8.94%.

3. Guarantees

For details of long-term and short-term borrowings and financing quota guarantees as of December 31, 2018 and 2017, please refer to Note 8.

(16) Intangible assets

The breakdown of the costs and amortization of the intangible assets of the consolidated company in 2018 and 2017 is as follows:

	Goodwill	Patent and trademark	Development cost	Total
Costs:				
Balance of January 1, 2018	$ 2,429,026	1,702,225	164,472	4,295,723
Effect of changes in exchange rates	59,291	2,258	(3,957)	57,592
Balance of December 31, 2018	**$ 2,488,317**	**1,704,483**	**160,515**	**4,353,315**
Balance of January 1, 2017	$ 2,585,621	1,708,113	153,291	4,447,025
Acquired this period	-	-	2,530	2,530
Effect of changes in exchange rates	(156,595)	(5,888)	8,651	(153,832)
Balance of December 31, 2017	**$ 2,429,026**	**1,702,225**	**164,472**	**4,295,723**
Amortization:				
Balance of January 1, 2018	$ -	333,694	22,895	356,589
Current amortization	-	331,763	16,576	348,339
Effect of changes in exchange rates	-	765	(1,775)	(1,010)
Balance of December 31, 2018	**$ -**	**666,222**	**37,696**	**703,918**
Balance of January 1, 2017	$ -	2,286	8,666	10,952
Current amortization	-	331,893	11,411	343,304
Effect of changes in exchange rates	-	(485)	2,818	2,333
Balance of December 31, 2017	**$ -**	**333,694**	**22,895**	**356,589**
Carrying amount:				
December 31, 2018	**$ 2,488,317**	**1,038,261**	**122,819**	**3,649,397**
January 1, 2017	**$ 2,585,621**	**1,705,827**	**144,625**	**4,436,073**
December 31, 2017	**$ 2,429,026**	**1,368,531**	**141,577**	**3,939,134**

The amortization expenses of intangible assets in 2018 and 2017 were reported in the Consolidated Balance Sheets with operating expenses of NT$ 348,339 thousand and NT$ 343,304 thousand.

For the purpose of impairment test, goodwill is directly attributed to the semiconductor departed The Company conducts impairment test of the goodwill on the

book at least once a year after the reporting date. The expected cash flow of the unit is used as basis to calculate recoverable amount.

Goodwill of the Company, after assess, has no indication of impairment.

None of the intangible assets of the consolidated company was provided as a pledge guarantee.

(17) Short-term borrowings

	2018.12.31	2017.12.31
Unsecured bank loans	$ 9,217,684	13,753,204
Purchase of materials loan	117,125	-
	$ 9,334,809	**13,753,204**
Unused credit lines	**$ 23,333,968**	**13,014,095**
Range of interest rates at year end	**0.76% -3.88%**	**0.83%-3.42%**

Please refer to Note 8 for the consolidated company's assets pledged as collateral for bank loans

(18) Long-term borrowings

Details, terms and conditions of the Company's long-term loan are as follows:

	2018.12.31			
	Currency	Range of interest rates at year end	expiry date	Amount
Unsecured bank loans	NTD	1.04%-1.18%	2020.06-2020.11	$ 1,159,000
Secured Bank Loans	NTD	1.28%	2022.01-2033.01	881,200
Total				**$ 2,040,200**
Unused credit lines				**$ 301,000**

	2017.12.31			
	Currency	Range of Interest Rate	expiry date	Amount
Unsecured bank loans	NTD	1.1%-1.17%	2019.06-2020.10	$ 3,976,333
Secured Bank Loans	NTD	1.28%-2.98%	2021.11-2032.01	1,670,539
Total				5,646,872
Less: due within one year				(613,333)
Total				**$ 5,033,539**
Unused credit lines				**$ 2,527,000**

Please refer to Note 8 for the Company's assets pledged as collateral for bank loans.

(19) Financial lease liabilities

The Company had part of the property, plant and equipment acquired through a financial lease with the finance lease liability payable booked in the "Other current liability" and "Other non-current liability" as follows:

	2018.12.31		
	Future minimum lease payments	Interest	Present value of minimum lease payments
Within 1 year	$ 9,102	(1,315)	7,787
1-5 years	21,995	(1,390)	20,605
	$ 31,097	**(2,705)**	**28,392**

	2017.12.31		
	Future minimum lease payments	Interest	Present value of minimum lease payments
Within 1 year	$ 12,666	(1,735)	10,931
1-5 years	31,455	(2,737)	28,718
	$ 44,121	**(4,472)**	**39,649**

(20) Provision

The details of the changes in the liabilities provision of the consolidated company are as follows:

		Site restoration	Onerous contract	Total
Balance of January 1, 2018	$	62,895	513,377	576,272
Provisions made during the year		5,620	533,292	538,912
Provisions used during the year		(6,255)	(89,253)	(95,508)
Effect of changes in exchange rates		2,391	2,876	5,267
Balance of December 31, 2018	**$**	**64,651**	**960,292**	**1,024,943**
Current	$	10,074	-	10,074
Non-current		54,577	960,292	1,014,869
Total	**$**	**64,651**	**960,292**	**1,024,943**
Balance of January 1, 2017	$	142,962	911,639	1,054,601
Provisions made during the year		5,401	-	5,401
Provisions used during the year		(77,701)	(388,380)	(466,081)
Effect of changes in exchange rates		(7,767)	(9,882)	(17,649)
Balance of December 31, 2017	**$**	**62,895**	**513,377**	**576,272**
Current	$	9,984	60,880	70,864
Non-current		52,911	452,497	505,408
Total	**$**	**62,895**	**513,377**	**576,272**

1. Site restoration

   The site restoration means that the consolidated company, in accordance with the factory lease contract, when the lease term expires and the lease is not renewed, the consolidated company has the obligation to restore the plant, and in accordance with the environmental policy issued by the consolidated company and applicable laws and regulations, liabilities provisions is accrued for environmental remediation obligation.

2. Onerous contract

   The consolidated company's accrual of loss-making contract liabilities provisions are due to the signing of long-term purchase contracts with a number of suppliers of silicon raw materials. The parties have agreed that from January 1, 2006 to December 31, 2019, the contracted supply and price will be delivered. The Company is to pre-pay the suppliers for the materials to be purchased and the payment can be made by installments but are non-refundable and the transaction is irrevocable. The materials supplier guarantees to have the agreed quantities of silicon materials supplied to the parent company. In view of the fluctuation of the spot market price, the consolidated company proposes the relevant liabilities provisions recognized under operating costs. Please refer to Note 9 for a description of the agreement with the raw material supplier.

(21) Operating lease

1. Lease of lessee

The rent payment of the irrevocable operating leases is as follows:

		2018.12.31	2017.12.31
Within 1 year	$	199,460	191,541
1-5 years		680,949	528,324
Over 5 years		539,558	649,522
	$	**1,419,967**	**1,369,387**

The operating expenses for 2018 and 2017 were stated at the expense of NT$ 249,592 thousands and NT$ 331,649 thousands respectively in the profit and loss item.

The land, building and equipments for plants in Japan's Oguni, Hadano, Tokuyama are leased from the Japanese companies including Covalent Materials Corporation. The lease term for land and buildings are from November 30, 2011 to December 31, 2035 with annual rent amounted to a total of NT$ 30,155 thousand.

The base of the consolidated company located in the factory building of Hsinchu Science Park was leased from the Science Park Bureau. The original lease period was from October 1, 2000 to December 31, 2037. The rent for the contract should be adjusted according to the adjustment of the land price set by the government. The annual rent is about NT$ 41,764 thousands.

The consolidated company leased land and building materials from Ming Yang Co., Ltd. for the expansion of production capacity and the factory. The lease period lasted from July 2015 to July, 2025 for a total of ten years. Pursuant to the lease term, the rent is reviewed every two years. The rent payment is around NT$ 1,890 thousands per month.

To set up solar power plant, the consolidated company lease the roof of buildings and land to install solar power equipment. The lease period was from December 2016 to June 2038. Part of the agreed rental expenses are based on a certain percentage of the revenue generated. For a fixed-rate lease, the annual rent is about NT$ 3,344 thousands.

2. Prepaid Rent – Long Term

The consolidated company leases land use rights under operating leases, with lease periods of 50 and 99 years respectively, and rents are paid once. The land use right of one of the subsidiaries was transferred to the assets to be sold in the fourth quarter of 2017 due to the expected sale of property, plant and equipment, and was accounted for under other current assets. The expenses for profit and loss reported in 2018 and 2017 were NT$ 225 thousands and NT$ 448 thousands respectively. As of December 31, 2018, the balance that had not been amortized was NT$ 7,538 thousand. The above assets to be sold were sold in the first quarter of 2018.

(22) Employee benefits

1. Defined benefit plan

The present value of the Company's defined benefit obligations and fair value of the plan assets are adjusted as follows:

		2018.12.31	2017.12.31
Total present value of obligations	$	(8,164,777)	(8,176,190)
Fair value of plan assets		4,994,981	5,277,655
Recognized liabilities for defined benefit obligations	**$**	**(3,169,796)**	**(2,898,535)**

The details of the account are as follows:

		2018.12.31	2017.12.31
Recognized assets for defined benefit obligations	$	3,233	-
Recognized liabilities for defined benefit obligations		(3,173,029)	(2,898,535)
	$	**(3,169,796)**	**(2,898,535)**

The above defined benefit plans are calculated based on the base earned by the employee's service years.

(1) Movements in present value of the defined benefit obligations

The movements in present value of the defined benefit obligations of the Group were as follows:

		2018	2017
Defined benefit obligations at January 1	$	8,176,190	8,854,222
Current service cost and interest cost		463,686	472,758
Re measurements for defined benefit obligations			
- Actuarial gains and losses arising from experience adjustments		(25,922)	13,588
- Actuarial gains and losses resulting from changes in demographic assumptions		(172,289)	33,980
- Actuarial gains and losses resulting from changes in financial assumptions		72,519	(181,635)
Employer contributions		-	5,621
Benefits paid		(573,870)	(504,133)
Effect of changes in exchange rates		224,463	(518,211)
Defined benefit obligations at December 31	**$**	**8,164,777**	**8,176,190**

(2) Movements in fair value of defined benefit plan assets

The movements in fair value of the defined benefit plan assets of the Group were as follows:

	2018	2017
Fair value of the plan assets at January 1	$ 5,277,655	5,343,497
Interest income	144,935	140,457
Re measurements for defined benefit obligations		
- Return on plan asset (excluding interest revenue)	(391,115)	372,643
Contributions made	221,095	259,988
Benefits paid	(416,105)	(472,838)
Effect of changes in exchange rates	158,516	(366,092)
Fair value of the plan assets at December 31	**$ 4,994,981**	**5,277,655**

As for plan assets of the defined benefit plan of Taiwan, the pension fund accrued in accordance with Labor Standards Act is managed by the Labor Fund Application Bureau of the Ministry of Labor (hereinafter referred to as the Labor Fund Bureau). In accordance with the Labor retirement fund Revenue and expenditure custody and application methods, the use of the fund, the minimum Revenue of its annual final settlement, shall not be lower than the Revenue calculated based on the local bank's two-year time deposit rate. The balance of the consolidated company's labor retirement reserve account at Bank of Taiwan on December 31, 2018 NT$ 233,587 thousands. The Labor Pension Fund asset implementation information includes fund returns rate and fund asset allocation. Please refer to the information published on the website of the Ministry of the Bureau of Labor Funds, Ministry of Labor.

The plan assets of Korea's defined benefit plan are fixed-end bank deposits with interest rates ranging from 1.74% to 2.20%.

The plan assets of the defined benefit plan of Italy are allocated to the National Social Security Pension Fund (INPS).

The plan assets of the US defined benefit plan are deposited in a trust fund, and the funds of the trust fund are applied to commodities of different risks and rates of return. The investment portfolio includes cash, marketable securities and Revenue-based funds.

(3) Changes in the impact of the asset cap

The consolidated company in 2018 and 2017 did not have any effect of the changes in the impact of the defined benefit plan assets cap.

(4) Expenses recognized in profit or loss

The fees recognized as profit and loss for the consolidated company in 2018 and 2017 are as follows:

		2018	2017
Current service costs	$	445,871	457,247
Net interest of net liabilities for defined benefit obligation		(127,120)	(124,946)
	$	**318,751**	**332,301**
Operating Costs	$	270,245	274,294
Selling expenses		13,750	38,021
Administrative expenses		19,318	11,305
Research and development expenses		15,438	8,681
	$	**318,751**	**332,301**

(5) Re measurement of net defined benefit liability recognized in other comprehensive income

The remeasurement of the net defined benefit liabilities recognized by the consolidated company in other comprehensive gain or loss is as follows:

		2018	2017
Accumulated balance at January 1	$	368,017	(126,978)
Recognized during the period		(265,423)	506,710
Effect of changes in exchange rates		8,489	(11,715)
Accumulated balance at December 31	**$**	**111,083**	**368,017**

(6) Actuarial assumptions

The significant actuarial assumptions used by the Company to determine the present value of defined benefit obligation on the last day of financial reporting are as follows:

	2018.12.31	2017.12.31
Discount rate	0.26%-4.05%	0.20%-3.73%
Future salary increase rate	1.33%-9.96%	1.37%-6.56%

The consolidated company is expected to make a payment of NT$ 566,951 thousand to the defined benefit plan within one year after the reporting day in 2018.

The weighted average duration of the defined benefit plan is 9.1 to 18.73 years.

(7) Sensitivity analysis

The impact of the changes in the main actuarial assumptions adopted in 2018 and on December 31, 2017 on the present value of the defined benefit obligation is as follows:

	The impact to the defined benefit obligations	
	Increased by 0.25%	Decreased by 0.25%
December 31, 2018		
Discount rate	$ (183,551)	192,481
Future salary increase rate	80,785	(76,787)
December 31, 2017		
Discount rate	$ (203,390)	214,907
Future salary increase rate	81,832	(75,637)

The above sensitivity analysis is to analyze the impact of one single assumption with other assumptions remaining unchanged. In practice the changes of many assumptions may be correlated. The approach used for sensitivity analysis is consistent with the calculation of net pension liabilities recorded in the balance sheet.

The approach and assumptions used to compile the sensitivity analysis is the same with that of the previous period.

2. Defined Contribution Plan

The Company and its domestic subsidiaries contribute monthly an amount based on 6% of the employees' monthly salaries and wages to the employees' individual pension accounts at the Bureau of Labor Insurance. According to the defined contribution plan, the parent company, after appropriating a fixed amount to the Bureau of Labor Insurance, Ministry of Labor is free from any legal or constructive obligations of making extra payments.

The pension expenses under the proposed retirement pension scheme for the consolidated company in 2018 and 2017 were NT$ 99,148 thousands and NT$ 91,988 thousands respectively, which were allocated to the Bureau of Labor Insurance Ministry of Labor.

If a foreign subsidiary adopts a retirement plan that is determined to be raised, the pension shall be paid in accordance with local laws and regulations, and the amount of the pension to be paid in the current period shall be recognized as the current expenses.

The pension expenses recognized by the foreign subsidiaries of the consolidated company in 2018 and 2017 were NT$ 80,721 thousands and NT$ 76,029 thousands respectively.

(23) Income tax

The Presidential Office issued an amendment to the Income Tax Act on February 7, 2018. The Income tax rate for the profit-making business has been raised from 17% to 20% since 2018.

1. Income tax expenses

The details of the Income tax expenses (interests) of the consolidated company in 2018 and 2017 are as follows:

	2018	2017
Income tax expenses current period		
Income tax expenses current period	$ 2,640,682	1,066,239
Deferred Income tax expenses		
Temporary difference	1,908,161	540,874
Income tax rate change	133,910	-
	2,042,071	540,874
Income tax expenses	**$ 4,682,753**	**1,607,113**

The breakdown of Income tax expenses (interests) recognized by the consolidated company in 2018 and 2017 in other comprehensive gain or loss is as follows:

	2018	2017
Items that will not be reclassified subsequently to profit or loss:		
Remeasurement from defined benefit obligations	**$ (68,152)**	**88,347**
Items that may be reclassified subsequently to profit or loss		
Exchange differences on translation of foreign financial statements	**$ 102,154**	**(110,730)**

The relationship between the Income tax expenses of the consolidated company in 2018 and 2017 and the net profit before tax is adjusted as follows:

	2018	2017
Income before income tax	$ 13,318,233	5,125,741
Income tax using the Company's domestic tax rate	2,663,647	871,376
Effect of tax rates in foreign jurisdiction	353,279	424,660
Shares of profit of foreign subsidiaries accounted for using equity method	2,022,449	574,304
Tax effect of permanent differences	391,720	(631,540)
Adjustment in tax rate	133,910	-
Investment tax credits	(198,951)	(76,811)
Changes in unrecognized temporary differences and others	(683,301)	445,124
	$ 4,682,753	**1,607,113**

2. Deferred Income tax assets and liabilities

(1) The items not recognized by the consolidated company as deferred Income tax assets are as follows:

	2018.12.31	2017.12.31
Tax effect of deductible temporary differences	$ 1,444,153	2,619,897
Tax loss	611,452	320,062
	$ 2,055,605	**2,939,959**

According to the Income tax Act, tax losses of the last ten years audited and authorized by the tax authorities can be deducted from the net Revenue of the year before levying the Income tax. These items are not recognized as deferred Income tax assets because it is not likely that Sino-American Silicon Products Inc. will have sufficient taxable Revenue for the temporary difference in the future.

As of December 31, 2018, the consolidated company has not recognized the taxable losses of deferred Income tax assets. The deductions and deductions are as follows:

Annual losses	Loss to be deducted	Deadline for deduction
2012 (verified)	$ 1,403,648	2022
2013 (verified)	9,728	2023
2017 (declared)	682,943	2027
2018(estimated)	960,942	2028
	$ 3,057,261	

(2) The items that the consolidated company did not recognize as deferred Income tax liabilities are as follows:

	2018.12.31	2017.12.31
The aggregate amount of temporary differences related to the investee companies	**$ (673,788)**	**(128,340)**

The temporary differences related to the investment in subsidiaries on December 31, 2018 and 2017 are due to that the Company controls the time point of the temporary differences reversal and confirms the reversal will not happen in the foreseeable future. Therefore, the temporary differences are not recognized as deferred income tax liabilities.

(3) Recognized deferred Income tax assets and liabilities

The breakdown of deferred Income tax assets is as follows:

	2018.1.1	Recognized in the Revenue statement	Recognized in other comprehensive Revenue statement	Effect of changes in exchange rates	2018.12.31
Assets:					
Allowance for inventory valuation	$ 178,021	20,693	-	(160)	198,554
Tax loss	408,709	(369,057)	-	(9,926)	29,726
Defined benefit obligations	294,438	44,631	43,731	12,794	395,594
Equity method investments	427,265	21,813	(339,295)	-	109,783
Expected credit loss of accounts receivable	9,987	100,992	-	1,500	112,479
Depreciation life differences of property, plant and equipment	265,569	(97,796)	-	(1,278)	166,495
Unrealized exchange losses	88,052	24,793	-	1,299	114,144
Other	342,691	38,731	-	6,646	388,068
	$ 2,014,732	**(215,200)**	**(295,564)**	**10,875**	**1,514,843**
Liabilities:					
Investment accounted for using equity method	$ (1,073,051)	(1,676,136)	261,562	-	(2,487,625)
Depreciation life differences of property, plant and equipment	(547,537)	(163,177)	-	(19,102)	(729,816)
Fair value adjustment for the net assets acquired in business combinations	(436,625)	14,842	-	(13,736)	(435,519)
Other	(9,058)	(2,400)	-	(246)	(11,704)
	$ (2,066,271)	**(1,826,871)**	**261,562**	**(33,084)**	**(3,664,664)**

	2017.1.1	Recognized in profit or loss	Recognized in other comprehen sive income	Effect of changes in exchange rates	2017.12.31
Assets:					
Allowance for inventory valuation	$ 188,462	(3,081)	-	(7,360)	178,021
Tax loss	556,473	(173,588)	-	25,824	408,709
Defined benefit obligations	255,217	35,092	3,260	869	294,438
Investment accounted for using equity method	425,283	(118,622)	120,604	-	427,265
Accounts receivable bad debt expenses	8,299	1,316	-	372	9,987
Depreciation life differences of property, plant and equipment	93,339	173,671	-	(1,441)	265,569
Unrealized exchange losses	179,500	(82,529)	-	(8,919)	88,052
Other	305,204	25,383	-	12,104	342,691
	$ 2,011,777	**(142,358)**	**123,864**	**21,449**	**2,014,732**

	2017.1.1	Recognized in profit or loss	Recognized in other comprehen sive income	Effect of changes in exchange rates	2017.12.31
Liabilities:					
Investment accounted for using equity method	$ (526,017)	(445,553)	(101,481)	-	(1,073,051)
Depreciation life differences of property, plant and equipment	(476,819)	(82,794)	-	12,076	(547,537)
Fair value adjustment for the net assets acquired in business combinations	(491,461)	17,274	-	37,562	(436,625)
Other	(128,332)	112,557	-	6,717	(9,058)
	$ (1,622,629)	**(398,516)**	**(101,481)**	**56,355**	**(2,066,271)**

3. Assessment of tax filings

The Income tax settlement declaration for the profit-making business of Sino-American Silicon Products Inc. has been approved by the tax authorities to 2016.

(24) Capital and other interests

On December 31, 2018 and 2017, the total share capital of Sino-American Silicon Products. Inc. were both NT$ 8,000,000 thousand, and the denomination per share was NT$ 10, both with a total of 800,000 thousand shares (all including employee stock option, special stocks with stock option or corporate with stock option, and the amount of shares that can be subscribed is NT$ 200,000 thousands). The legal registration procedure for the authorized capital stock is completed. The paid-up share capital were NT$ 5,863,207 thousands and NT$ 5,920,587 thousand respectively.

The adjustment table for the number of outstanding shares of Sino-American Silicon in 2018 and 2017 is as follows (expressed in thousands of shares):

	Common stock	
	2018	2017
Opening balance at January 1	580,539	574,476
Employees exercising stock options	-	6,063
new shares with restricting employee rights, restriction lifted	2,341	-
Closing balance at December 31	**582,880**	**580,539**

1. Issuance of common stock

The parent company participated in the global depositary receipts for NT$ 610,000 thousand with cash capital increase and with 61,000 thousand shares issued, of which

booked at the Luxembourg Stock Exchange on September 9, 2010 with a total of 61,000 thousand units of GDR issued at an issuance price of US$ 2.9048; also, the GDR amounted to US$ 177,193 thousands and each GDR underlying 1 common stock share of the parent company. Such cash capital increase had already been approved by the Financial Supervisory Commission on August 13, 2010 with the FSC.certificate.far.tzi No. 0990041383 Letter issued. For such cash capital increase, the parent company had sufficient stock shares issued and proceeds from subscription collected on September 9, 2010 amounted to US$ 177,193 thousand and US$ 174,931 thousands net of the underwriting fees of US$ 2,262 thousands, equivalent to NT$ 5,580,288 thousands after translation per the closing exchange rate of the trading day. The amount, after net of the related issuance cost of NT$ 11,531 thousand, the premium of NT$ 4,958,757 thousand was booked in the “capital reserve” item.

On June 27, 2017, Sino-American Silicon Products Inc. issued 6,000 thousand restricted employee shares through resolution of the shareholders' meeting which were approved by the competent authority, and October 13, 2017 was the capital increase base date, and the legal registration process was completed.

As of December 31, 2018 and 2017, due to the resignation of employees, the recovered and written off restricted employee shares were 216 thousand shares and 35 thousand shares respectively. As of December 31, 2018, there were still 33 thousand shares whose legal registration procedures are unfinished.

2. Capital surplus

The Capital surplus balance of the parent company is as follows:

	2018.12.31	2017.12.31
Additional paid in capital	$ 11,862,668	13,970,742
Difference between the disposition price and carrying value of the subsidiary’s equity	2,441,893	2,492,997
Capital reserve of long-term equity investment is recognized under the equity method	6,568,293	6,762,869
Treasury stock transactions	33,314	31,765
New restricted employee shares	244,849	341,422
Employee stock options, etc.	606,275	606,036
	$ 21,757,292	**24,205,831**

According to the Company Act amended in January 2012, capital reserve is for making up losses first before using the capital reserve realized to distribute cash or new shares to shareholders in proportion to their original shareholding ratio. The capital reserve realized referred above includes the stock premium and bestowed Revenue. According to the Regulations Governing the Offering and Issuance of Securities by Securities Issuers, the total amount of capital reserve for capitalization every year may not exceed 10% of the paid-in capital.

Sino-American Silicon Products Inc. resolved through the shareholders' meeting the case of the profit and loss of 2017 on June 26, 2018. After the after-tax net profit of NT$ 1,035,505 thousands made up for the loss, the remaining amount was NT$ 317,629 thousands. And the capital reserve made up for the loss of NT$ 317,629 thousand, the relevant information can be inquired in the public information observatory and other

pipelines.

Sino-American Silicon Products Inc. on June 26, 2018 and June 27, 2017, through resolution of the shareholders' meeting, distributed out of capital reserve cash of NT$ 1,759,511 thousands (NT$ 3 per share) and NT$ 861,714 thousands (NT$ 1.5 per share) in 2018 and 2017 respectively. Relevant information can be found in the public information observatory and other pipelines.

3. Legal reserve

According to the Company Act amended in January 2012, the parent company is to appropriate 10% of net Revenue as legal reserve until it is equivalent to the total capital amount. If there is no net loss, the company may have stock dividends or cash dividends distributed with legal reserve based on the resolution reached in the shareholder's meeting, but limited to the legal reserve amount exceeding 25% of the paid-in capital.

4. Special reserve

When the parent company adopted the international financial reporting standards (IFRSs) approved by the FSC for the first time, the parent company had chosen to apply IFRS 1 "First-time Adoption of the IFRSs" exemptions, retained earnings was increased by NT$ 161,317 thousand due to the accumulated conversion adjustment (profit) under the shareholders' equity, which exceeding the net increase of NT$ 102,349 thousand in retained earnings on the conversion date for the first-time adoption of IFRSs approved by the FSC. According to the FSC Certificate Far.Tzi No. 1010012865 Order of the Financial Supervisory Commission dated April 6, 2012, special reserve is appropriated for the net increase in retained earnings due to the conversion to the IFRSs approved by the FSC; also, it could be reversed for earnings distribution proportionately to the originally appropriated special reserve while using, disposing or reclassifying the related assets. On December 31, 2018 and 2017, the special NT$ reserve was 102,349 thousand.

According to the Order referred to above, while distributing the distributable earnings, the parent company had additional special reserve appropriated from the current gain or loss and unappropriated earnings of the prior period for the difference between the net amount debited to other shareholder's equity and the balance of the special reserve appropriated in the preceding paragraph. For the amount debited to other shareholders' equity attributable to prior period accumulation, the special reserve was appropriated from the unappropriated earnings of the prior period and could not be distributed. The amount debited to the shareholders' equity reversed subsequently can be distributed as earnings.

3. Distribution of surplus earnings and dividend policy

In accordance with the revised articles of association of Sino-American Silicon Products Inc., if there is a earnings in the annual final accounts, after tax paid according to the law and making up for the accumulated losses, 10% will be the legal reserve, but if the legal reserve has reached the paid-in capital, it shall not be accrued and the rest will be accrued according to law and regulations or reversed as the special reserve. If there is a balance, for the balance and the accumulated undistributed earnings, the board of directors proposes an earnings distribution proposal and submits it to the shareholders meeting for resolution of distributing shareholder dividend.

In order to maintain the company's sustainable development and steady growth of earnings per share, the shareholder's dividend is in principle over 50% of the current

year's post-tax earnings deducted by the special reserve in the current year accrued in accordance with the law, and the cash dividend in the distribution ratio shall not be less than 50%.

Sino-American Silicon Products Inc. 's shareholder meeting decided to make a loss provision on June 26, 2018 and June 27 2017 respectively, and the loss provision situation did not differ from the proposed content of the board of directors.. Relevant information can be obtained from the public information observatory and other pipelines.

Sino-American Silicon Products Inc. on March 21, 2019, through the Board of Directors proposed the earnings distribution of 2018. The above-mentioned earnings distribution has yet to be resolved by the shareholders' meeting, the relevant information can be obtained from public information observatory and other pipelines after the relevant meeting resolution.

4. Treasury share

The balance of the treasury shares that have been bought back on December 31, December 31, 2018 and 2017 of Sino-American Silicon Products Inc. were 0 thousand shares and 5,555 thousand shares respectively. The acquisition costs were NT$ 0 thousands and NT$ 169,861 thousand respectively, accounted for in equity deductions.

Unit: Thousand shares

	2018			
Reasons for buy back	**Beginning shareholdings**	**Increase of the year**	**Decrease of the year**	**Ending shareholdings**
Transferred to employee	**5,555**	**-**	**5,555**	**-**

	2017			
Reasons for buy back	**Beginning shareholdings**	**Increase of the year**	**Decrease of the year**	**Ending shareholdings**
Transferred to employee	**5,555**	**-**	**-**	**5,555**

According to the Securities Exchange Act, the repurchased shares and percentage shall not exceed 10% of the outstanding shares; the total amount of treasury stock shall not exceed the lump sum of the retained earnings, stock premium and capital reserve realized. When Sino-American Silicon Products Inc. bought back the treasury shares, it calculated the relevant limit according to the most recent financial statements checked by the accountant.

5. Other interests (net after tax)

	Exchange differences on translation of foreign financial statements	Unrealized gain or loss on financial assets measured at fair value through other comprehensive gain or loss	Unrealized gains (losses) on available for sale financial assets	Remuneration unearned by employees	Other	Total
Balance of January 1, 2018	$(1,973,334)	-	(1,109,281)	(236,020)	(4,302)	(3,322,937)
Effects of retrospective application of new standards	-	(2,338,298)	1,109,281	-	-	(1,229,017)
January 1, 2018 after adjusted	(1,973,334)	(2,338,298)	-	(236,020)	(4,302)	(4,551,954)
Exchange difference arising from conversion of a foreign institution's net assets	391,255	-	-	-	-	391,255
Share of conversion differences by affiliates under equity method	(4,162)	-	-	-	922	(3,240)
Unrealized gain or loss on financial assets measured at fair value through other comprehensive gain or loss	-	(529,832)	-	-	-	(529,832)
Unrealized gain or loss on financial assets measured at fair value through other comprehensive gain or loss under equity method	-	(96,198)	-	-	-	(96,198)
Dispose of equity instruments measured at fair value through other comprehensive gains and losses	-	1,558,196	-	-	-	1,558,196
Remuneration coast of shares with restrictions on employee rights	-	-	-	160,686	-	160,686
Balance of December 31, 2018	**$(1,586,241)**	**(1,406,132)**	**-**	**(75,334)**	**(3,380)**	**(3,071,087)**

	Exchange differences on translation of foreign operations	Unrealized gains (losses) on available for sale financial assets	Remuneration unearned by employees	Other	Total
January 1, 2017	$ (1,617,512)	(1,188,654)	-	(6,354)	(2,812,520)
Exchange difference arising from conversion of a foreign institution's net assets	(63,531)	-	-	-	(63,531)
Exchange difference of the subsidiaries and affiliated companies accounted for under equity method	(292,291)	-	-	-	(292,291)
Available-for-sale financial assets unrealized gains and losses	-	23,914	-	-	23,914
The unrealized gains or loss of the financial assets available-for-sale of the affiliated companies under the equity method	-	55,459	-	-	55,459
The un-earned remuneration of the employees of the affiliated companies under the equity method	-	-	-	2,052	2,052
Shares issued with restrictions on employee rights	-	-	(283,200)	-	(283,200)
Remuneration coast of shares with restrictions on employee rights	-	-	45,752	-	45,752
shares with restrictions on employee rights written-off	-	-	1,428	-	1,428
Balance of December 31, 2017	**$ (1,973,334)**	**(1,109,281)**	**(236,020)**	**(4,302)**	**(3,322,937)**

(25) Share-based payment

1. New Restricted employee shares

On June 27, 2017, Sino-American Silicon Products Inc. resolved through the shareholders' meeting to issue 6,000 thousand new restricted employee shares. The object is limited to manager-level (including) above supervisors and full-time employees with special contributions who have served for more than one year at the company since the granting day. The company has filed a declaration with the Securities and Futures Commission of FSC and all the shares were issued by the board of directors resolution on October 5, 2017. The fair value of the grant was NT$ 67.2.

The employees who have been allocated the above-mentioned new restricted employee shares will be able to subscribe for the shares allocated for NT$20 each. The vested condition is that after receiving the new restricted employee shares, they are still in service according to the following schedule, and their performance reaches A (including) above, then they can obtain the share percentage of the vested condition respectively:

(1) 1 year of service: 40%
(2) 2 year of service: 70%
(3) 3 year of service: 100%

After the employees subscribe for the new shares, they may not sell, pledge, transfer, donate, set or do other disposition of their shares until the vested conditions are fulfilled; new restricted employee shares are subject to the right to participate in the distribution of dividends, and the dividends they receive are not subject to the vested period; the proposal, speech, voting rights and other relevant shareholders' equity of the shareholders meeting of Sino-American Silicon Products. Inc. before the vested conditions are the same as the other ordinary shares of Sino-American Silicon Products. Inc.; after the issuance, the new restricted employee shares should be immediately delivered to the trust or custody and must not be returned to the trustee for any reason or manner until the vested conditions are fulfilled. If the employee is not eligible for the vested condition after the new share is subscribed, the shares will be bought back by the Sino-American Silicon Products Inc. at the issue price.

Relevant information of the new restricted employee shares of Sino-American Silicon Products. Inc. is as follows:

Unit: Thousand shares

	2018	2017
Quantity on January 1	5,965	-
Quantity given in this period	-	6,000
Quantity vested in this period	(2,341)	-
Quantity written off due to resignation in this period	(216)	(35)
Quantity on December 31	**3,408**	**5,965**

The remuneration costs recognized by Sino-American Silicon Products. Inc. in 2018 and 2017 were NT$ 151,199 thousands and NT$ 45,752 thousands respectively, and the operating costs and operating expenses were accounted for. The balance of the unpaid employee remuneration of Sino-American Silicon Products. Inc. On December 31, 2018 and 2017 were NT$ 75,334 thousands and NT$ 236,020 thousands, accounted for in reductions of other equity.

2. Cash delivery share-based payment

The consolidated company issued a cash delivery share-based payment for a period of four years. The assigned employees are entitled to future cash payments when performing the conditions of service. The condition of the plan requires that employees who are entitled to the above share appreciation rights must be in service on each vested date at the consolidated company (February 28, 2019, February 28, 2020, February 28, 2021 and February 28, 2022) On each vested day employee is entitled to a 25% share appreciation right. In addition, the share appreciation rights are determined by the stock price of GlobalWafers on each vested day and individual performance.

On December 31, 2018, the price of GlobalWafers stock was NT$ 280.5, and the number of non-acquired shares was 1,000 thousand. As of December 31, 2018, the consolidated company has recognized the remuneration cost as NT$ 70,125 thousand.

3. Employee stock option certificate

In June 2010, Sino-American Silicon Products. Inc. resolved by the board of directors to issue for the first time 10,000,000 units of employee stock option certificate for 2010. They were declared effective on November 12, 2010 and issued on

August 10, 2011, each unit can subscribe for 1 ordinary share of the consolidated company with the duration of six years. If the employee has two, three, four and five years of service from the date of grant of the stock option, the cumulative ratio of exercising stock option is 40%, 60%, 80% and 100% respectively.

On December 31, 2017, the consolidated company's employee stock option certificates were booked as follows:

Type	The effective date of declaration	Awarded date	Vested period	Vested unit (Thousand units)	Subscription unit price (NT$)	Market price per unit on the measurement date (NT$)	Adjusted performance price (NT$)
The first employee stock options in 2010	2010.11.12	2011.8.10	Service period 2-4 years	10,000	60.50	60.50	48.60

The consolidated company recognized the remuneration cost of the remuneration employee stock option plan for 2017 is NT$ 0 thousand. The fair value of the stock option awarded to employees on August 10, 2011 was estimated in accordance with Black-Scholes stock option valuation model and with the weighted average information of assumptions illustrated as follows:

Dividend rate	3.6%
Expected price volatility	48.065%
Risk-free interest rate	1.2905%
Expected duration	6 years

The information on the quantity and weighted average exercise price of the consolidated company's employee stock option certificate in 2017 is disclosed as follows:

	2017	
Employee stock options	Quantity (thousand shares)	Weighted average exercise price (dollars)
Outstanding at beginning of year	8,338	$ 52.20
Exercised	(6,063)	48.60
Forfeited	(2,275)	48.60
Outstanding at end of year	-	-
Options exercisable at end of year	-	-
Weighted-average fair value per employee stock options (dollars)	$ 23.36	

The above employee stock option certificate was completed on August 9, 2017. From January 1 to December 31, 2017, the employee's stock option certificate has been exercised for 6,063 thousand shares (including the number of shares exercised by employees of subsidiaries) worth a total of NT$ 294,638 thousand. October 5, 2017 is designated as the capital increase base date for the issuance of new shares, and the legal change registration has been completed in this capital increase case.

The weighted average remaining duration of employee stock options outstanding on December 31, 2017 was 0 years.

(26) Earnings per share

1. Basic earnings per share

	2018	2017
Net Revenue attributable to the Shareholders of GlobalWafers Co., Ltd	**$ 1,950,503**	**1,035,505**
Weighted-average number of ordinary shares outstanding during the year (in thousands of shares)	**581,058**	**576,525**
Basic earnings per share (dollars)	**$ 3.36**	**1.80**

2. Diluted earnings per share

	2018	2017
Net income attributable to the Shareholders of GlobalWafers Co., Ltd	**$ 1,950,503**	**1,035,505**
Weighted average number of ordinary shares outstanding during the year (in thousands of shares) (base)	581,058	576,525
Impact of dilution of potential ordinary shares (shares in thousands)	3,672	3,113
Weighted average number of outstanding common stock (shares in thousands)(diluted)	**584,730**	**579,638**
Diluted earnings per share (NT$)	**$ 3.34**	**1.79**

(27) Revenue from contracts with customers

1. Details of revenues

	2018		
	Semiconductor Department	Solar energy Department	Total
Primary geographical markets:			
Taiwan	$ 13,429,594	3,190,990	16,620,584
Korea	9,647,694	218,937	9,866,631
U.S.A.	8,340,541	1,060,459	9,401,000
Japan	7,616,281	1,201,536	8,817,817
Mainland China	6,002,196	1,283,532	7,285,728
Germany	3,038,700	799,484	3,838,184
Other countries	10,969,088	2,439,913	13,409,001
	$ 59,044,094	**10,194,851**	**69,238,945**
Major product categories:			
Semiconductor wafers	$ 58,447,151	-	58,447,151
Solar cell	-	3,141,457	3,141,457
Solar module	-	2,066,427	2,066,427
Solar wafer	-	581,924	581,924
Solar ingot	-	1,608,721	1,608,721
Semiconductor ingot	492,114	-	492,114
Other	104,829	2,796,322	2,901,151
	$ 59,044,094	**10,194,851**	**69,238,945**

For the Revenue of 2017, please refer to Note 6 (28).

2. Contract balance

	2018.12.31	2018.1.1
Contract liabilities	**$ 20,374,971**	**8,591,453**

The change in contractual liabilities is mainly due to the advance payment of customers according to the contract, and the revenue will be recognized when the goods are transferred to customers. The opening balance of the contractual liabilities on January 1, 2018 recognized from January 1, 2018 to December 31, 2018 as Revenue was NT$ 1,676,859 thousand.

(28) Revenue

	2017
Sales of goods	$ 59,148,158
Electricity fee Revenue	208,428
Processing Revenue and labor service supply	14,612
	$ 59,371,198

Please refer to Note 6 (27) for the amount of Revenue in 2018.

(29) Remuneration of employees and directors

In accordance with the articles of association of Sino-American Silicon Products Inc. if there is profit in the year, the company shall accrue 3%- 15% of the profit as employee's remuneration. The board of directors decides to distribute it by stock or cash, and the object of distribution includes employees meeting certain conditions; and the board of directors decides to accrue up to 3% of the above profit as directors' remuneration. The distribution of remuneration of employees and directors should be submitted and reported to the shareholders' meeting. In case the parent company has cumulative losses, it should reserve amount to make up losses before distributing remuneration to the employees and directors in pursuant to the percentage mentioned in the preceding paragraph.

Sino-American Silicon Products Inc.in 2018 accrued employee remuneration NT$ 131,990 thousand, and the director's remuneration, NT$ 44,010 thousand, which is based on the amount of the pre-tax net profit of the period deducted by employee and director remuneration, multiplied by the distribution ratio of employee and director remuneration as set out in the Articles of Association of the company. They are booked as operating costs or operating expenses for the period, in which if employees are paid by stocks, the number of shares allotted is calculated by the closing price of the ordinary share the day before the resolution of the board of directors. If there is a difference between the actual distribution amount and the estimated number of the next year, it will be treated according to the accounting estimates and the difference will be recognized as the profit and loss of the following year.

After the net profit of the Sino-American Silicon Products Inc. in 2017 made up for the loss, there was still a cumulative loss, so the employees and directors were not assessed. The relevant information can be obtained from the public information observatory.

The amount of remuneration of employees and directors distributed by the above-mentioned board of directors resolution is no different from the estimated amount in the consolidated financial statements of 2018 and 2017 of Sino-American Silicon Products Inc.

(30) Other Revenue

		2018	2017
Interest income	$	482,902	131,992
Dividend income		34,994	14,946
	$	**517,896**	**146,938**

(31) Other gains and losses

		2018	2017
Foreign currency exchange loss	$	(39,184)	(597,363)
Impairment loss		(227,392)	(69,501)
Unrealized gains (losses) on financial assets (liabilities) measured at fair value through profit or loss		67,241	37,583
Realized gains (losses) on financial assets (liabilities) measured at fair value through profit or loss		79,466	77,692
Government Grants		26,454	21,242
Other		164,659	(56,640)
	$	**71,244**	**(586,987)**

(32) Financial costs

	2018	2017
Bank loan interest expense, etc.	**$ 212,003**	**506,347**

(33) Recognition of other comprehensive profit and loss shares of affiliated enterprises by equity method

	2018	2017
Exchange differences on translation of foreign operations	$ (4,162)	(5,647)
Unrealized gains or losses on valuation of financial assets available for sales	-	110,843
Financial assets at fair value through other comprehensive income	(169,482)	-
	$ (173,644)	**2016,196**

(34) Financial instruments

1. Credit Risk

(1) Credit risk exposure

The carrying amount of financial assets represents the maximum credit risk exposure amount.

(2) Concentration of credit risk

The Company's material clients are in the silicon wafer industry. The parent company assigns a credit line to each customer in accordance with the credit procedures; therefore, the Company's credit risk is mainly affected by the silicon wafer industry. As of December 31, 2018 and 2017, 0% 43% and 38% of the balance of notes and accounts receivable (including related parties) of the consolidated company were composed of ten customers. In the case of credit risk concentration, the consolidated company has regularly assessed the possibility of receivables recovery and accrued appropriate allowance for losses.

(3) Credit risk of receivables and debt securities

For credit risk exposure information on notes and accounts receivables, please refer to Note 6 (5). Other financial assets measured at amortized cost include other receivables and investments and ordinary corporate bonds. (from January 1 to December 31, 2017 booked in held-to-maturity other financial assets), please refer to Note 6 (4) for details of relevant investments.

The above are all financial assets with low credit risk. Therefore, the allowance loss for the period is measured by the 12-month expected credit loss amount (for details of how the consolidated company determines the low credit risk, please refer to Note 4 (6)).

2. Liquidity Risk

The contract maturities of financial liabilities are illustrated in the following table, including estimated interest but excluding the impact of the agreed net amount.

	Carrying Amount	Contractual cash flows	6 months within	6-12 months	1-2 years	2-5 years or more
December 31, 2018						
Non-derivative financial liabilities						
Short term borrowings	$ 9,334,809	(9,384,817)	(9,083,378)	(301,439)	-	-
Notes and accounts payable (including related parties)	5,236,231	(5,236,231)	(5,236,231)	-	-	-
Long term borrowings (including current portion of long term borrowings payable)	2,040,200	(2,185,438)	(21,056)	(21,056)	(1,178,479)	(964,847)
Finance lease liabilities	28,392	(31,098)	(4,551)	(4,551)	(9,102)	(12,894)
Other forward foreign exchange contracts:						
Inflow	-	(5,559,495)	(5,559,495)	-	-	-
Outflow	81,679	5,638,200	5,638,200	-	-	-
	$ 16,721,311	**(16,758,879)**	**(14,266,511)**	**(327,046)**	**(1,187,581)**	**(977,741)**
December 31, 2017						
Non-derivative financial liabilities						
Short term borrowings	$ 13,753,204	(13,830,599)	(11,921,615)	(1,908,984)	-	-
Notes and accounts payable (including related parties)	5,351,875	(5,351,875)	(5,351,875)	-	-	-
Long term borrowings (including current portion of long term borrowings payable)	5,646,872	(6,059,264)	(329,375)	(361,732)	(2,006,004)	(2,839,763)
Finance lease liabilities	39,649	(44,121)	(7,118)	(5,548)	(9,203)	(22,252)
Other forward foreign exchange contracts:						
Inflow	-	(3,479,287)	(3,479,287)	-	-	-
Outflow	16,394	3,498,202	3,498,202	-	-	-
	$ 24,807,994	**(25,266,944)**	**(17,591,068)**	**(2,276,264)**	**(2,015,207)**	**(2,862,015)**

The Company does not expect the cash flow analysis on maturity dates to occur significantly ahead of the schedule or the actual amount significantly different than expected.

3. Currency risk
   (1) Risk of Currency exposure

The Company's is financial assets and liabilities exposed to significant foreign exchange rate risk are as follows:

	2018.12.31		
	Foreign currency	**Exchange rate**	**NTD**
Financial assets			
Monetary items			
USD	$ 353,183	30.715	10,848,016
JPY	541,424	0.2782	150,624
EUR	23,098	35.200	813,049
Non-monetary items			
USD	24,747	30.715	Note
JPY	17,150,412	0.2782	Note
Financial liabilities			
Monetary items			
USD	45,953	30.715	1,411,446
JPY	1,036,822	0.2782	288,444
EUR	6,732	35.200	236,966
Non-monetary items			
USD	33,000	30.715	Note
EUR	18	35.200	Note

	2017.12.31		
	Foreign currency	Exchange rate	NTD
Financial assets			
Monetary items			
USD	$ 569,871	29.760	16,959,361
JPY	342,244	0.2642	90,421
SGD	65,749	21.710	1,427,411
EUR	6,707	35.570	238,568
RMB	24,481	4.565	111,756
Non-monetary items			
USD	20,700	29.760	Note
KRW	74,506,300	0.0281	Note
Financial liabilities			
Monetary items			
USD	37,989	29.760	1,130,553
JPY	966,843	0.2642	255,440
EUR	2,305	35.570	81,989
Non-monetary items			
JPY	50,000	0.2642	Note

Note: The forward foreign exchange contract held is measured at the fair value of the reporting date. For details, please refer to Note 6 (2).

(2) Sensitivity analysis

The Company's exchange rate risk is mainly from the cash and cash equivalents, accounts receivable, loan and accounts payable, etc. denominated in foreign currency with the resulting foreign currency exchange gains and losses. In the case On December 31, 2018 and 2017, when the NTD depreciated or appreciated by 1% against USD, JPY, RMB, SGD, and EUR, and all other factors remained unchanged, the pre-tax net profit for 2018 and 2017 will increase or decrease by NT$ 98,748 thousands and NT$ 173,595 thousands respectively. The analysis of the two periods was performed with the same basis.

(3) Exchange gains or losses for monetary items

Due to the wide variety of functional currencies of the consolidated company, the consolidation method is used to disclose the exchange gain or loss information of monetary items. The foreign currency exchange profit (loss) (including realized and unrealized) in 2018 and 2017 were respectively NT$(39,184) thousand and NT$(597,363) thousand.

4. Interest Analysis

The Company's interest rate exposure of financial assets and financial liabilities is described in the liquidity risk management of this note.

The following sensitivity analysis is based on the interest rate risk exposure. The

analysis of the floating interest rate liabilities is with the assumption that the amount of liability outstanding on the reporting date was outstanding for the whole year.

If the interest rate increases or decreases by 0.25%, and all other variables remain unchanged, the pre-tax net profit of the consolidated company in 2018 and 2017 will decrease or increase by NT$ 2,219 thousands and NT $22,115 thousands respectively due to consolidated company's bank deposits and borrowings of the changing interest rate.

5. Other price risks

If there is a change in the price of the equity securities on the reporting day (the two phases of the analysis are based on the same basis and the other variables are assumed to be unchanged), the impact on the consolidated profit and loss item is as follows:

	2018		2017	
Price of securities on the reporting day	**Amount after other comprehensive profit and loss**	**After-tax (loss) profit**	**Amount after other comprehensive profit and loss**	**After-tax (loss) profit**
Up by 5%	$ 35,871	8,853	34,260	-
Down by 5%	(35,871)	(8,853)	(34,260)	-

6. Fair value of financial instruments

(1) Categories of financial instruments and fair value

Financial assets and liabilities measured at fair value through gain or loss and financial assets measured at fair value through other comprehensive gain or loss (available for sale financial assets) are measured at fair value on a repetitive basis. The carrying amount and fair value of various financial assets and financial liabilities (including fair value etc. information. However, if the carrying amount of financial instruments not measured at fair value is rationally similar to the fair value, and investment in equity instruments that are not quoted in the active market and whose fair value cannot be reliably measured, there is no need to disclose fair value information as required) booked as follows:

	2018.12.31				
		Fair value			
	Carrying Amount	Level I	Level II	Level III	Total
Financial assets measured at fair value through gain or loss					
Forward exchange contract	$ 81,798	-	81,798	-	81,798
Stock listed on domestic market	177,053	177,053	-	-	177,053
Privately offered fund	64,697	-	-	64,697	64,697
Subtotal	**$ 323,548**	**177,053**	**81,798**	**64,697**	**323,548**
Financial assets at fair value through other comprehensive income					
Stock listed on domestic market	$ 717,420	717,420	-	-	717,420
Non-public offer equity instrument measured at fair value	487,504	-	-	487,504	487,504
	$ 1,204,924	**717,420**	**-**	**487,504**	**1,204,924**
Financial assets measured at amortized cost					
Corporate bonds	$ 281,366	-	285,466	-	285,466
Cash and cash equivalents	36,829,131	-	-	-	-
Notes and accounts receivable (including related parties)	9,881,332	-	-	-	-
Other financial assets - current and non-current	1,095,777	-	-	-	-
Subtotal	**$ 48,087,606**	**-**	**285,466**	**-**	**285,466**
Financial liabilities measured at fair value through other comprehensive gain or loss	**$ 119**	-	**119**	**-**	**119**
Financial liabilities measured with amortized costs					
Short term borrowings	$ 9,334,809	-	-	-	9,334,809
Notes and accounts payable (including related parties)	5,236,231	-	-	-	5,236,231
Long term borrowings (including current portion of long term borrowings payable)	2,040,200	-	-	-	2,040,200
Finance lease payable (current and non-current)	27,868	-	27,868	-	27,868
Subtotal	**$ 16,639,108**	**-**	**27,868**	**-**	**16,639,108**

	2017.12.31				
		Fair value			
	Carrying Amount	Level I	Level II	Level III	Total
Financial assets measured at fair value through profit or loss-current	**$ 21,546**	**-**	**21,546**	**-**	**21,546**
Financial assets in available-for-sale —non-current	**$ 685,194**	**685,194**	**-**	**-**	**685,194**
Held-to-maturity financial assets - non-current	**$ 281,366**	**-**	**289,080**	**-**	**289,080**
Financial assets measured at cost – non-current	**$ 838,181**	**-**	**-**	**-**	**-**
Loans and receivables					
Cash and cash equivalents	$ 20,342,780	-	-	-	-
Notes and accounts receivable (including related party)	8,829,543	-	-	-	-
Other financial assets (current and noncurrent)	577,461	-	-	-	-
Subtotal	**$ 29,749,784**	**-**	**-**	**-**	**-**
Financial liabilities at fair value through profit or loss- current	**$ 5,152**	**-**	**5,152**	**-**	**5,152**
Financial liabilities measured with amortized costs					
Short term borrowings	$ 13,753,204	-	-	-	-
Notes and accounts payable (including related parties)	5,351,875	-	-	-	-
Long-term borrowing (including long-term borrowings due within one year)	5,646,872	-	-	-	-
Finance lease payable (current and non-current)	39,649	-	39,649	-	39,649
Subtotal	**$ 24,791,600**	**-**	**39,649**	**-**	**39,649**

(2) Valuation technique of fair value of financial instruments that are not measured at fair value

The approach and assumption used by the parent company to estimate instrument not measured at fair value.

Financial assets measured at amortized cost (held-to-maturity financial assets)

If there is a public quotation in the active market, the market price is the fair value; if no market price is available for reference, the evaluation method is used to estimate or use the counterparty quotation.

(3) Valuation technique of fair value of financial instruments measured at fair value

A. Non-derivatives financial instruments

If the financial instrument has quoted prices available in the active market, the quote in the active market shall be used as fair value. Both the market prices announced by significant exchanges and those of Central Government bonds determined as popular securities announced by the TPEx are basis of fair value

for equity instruments booked in the Exchange (Taipei Exchange)

If public quoted prices can be timely obtained from the exchanges, brokers, underwriters or the competent authority, and the prices can represent actual and frequent transactions in the market, the financial instruments are consider to have public quoted prices in the active market. If the above condition is not met, the market is considered inactive. Generally speaking, if there is great difference between the sales price and purchase price, or there is significant increase in such difference or the transactions are not frequent, there is indication that the market is not active.

If the financial instruments held by the consolidated company belong to an active market, the fair value is booked as follows by category and attribute:

For financial assets and financial liabilities of the booked (TaiSDAQ) company's stocks, notes of exchange and corporate bonds, which are subject to standard terms and conditions and are traded in the active market, the fair value is determined by reference to market quotations.

In addition to the above-mentioned financial instruments with active markets, the fair value of the remaining financial instruments is obtained by means of evaluation technologies or reference to counterparty quotes. The fair value obtained through the evaluation technology can be based on the current fair value of other financial instruments with similar characteristics and characteristics, the discounted cash flow method or other evaluation technology, including the calculation with the model and the market information available on the consolidated balance sheet date (such as the reference yield curve of Taiwan Stock Exchange, Reuters commercial promissory interest rate average offer).

If the financial instruments held by the consolidated company are in the non-active market, the fair value is booked as follows by category and attribute:

Equity instruments without public quotation: Estimates of fair value using the market comparable company method, the main assumptions are based on the earnings multiplier derived from the investee's net worth per share and the EV/EBIT comparable booked (TaiSDAQ) companies' quotes. The estimate has adjusted the depreciation impact of the lack of market liquidity of the equity securities.

B. Derivative financial instruments

It is based on evaluation models accepted by most market users, such as discounting methods and option pricing models. Forward foreign exchange contracts are usually evaluated based on the current forward exchange rate.

(4) Reconciliation of Level 3 fair value

The Group's financial instruments that use reconciliation of Level 3 fair value are deemed as financial assets measured at fair value through other comprehensive income. The movement as follows:

	Financial assets measured at fair value through gain or loss	Financial assets at fair value through other comprehensive income
January 1, 2018	$ -	838,181
Effects of retrospective application of new accounting standards	-	(12,254)
Re-edited balance at January 1, 2018	-	825,927
New/returned share payment in this period	-	33,977
Recognized in the Revenue	(481)	-
Recognized in other comprehensive Revenue	-	(320,470)
Reclassification	65,178	(65,178)
Effect of changes in exchange rates	-	13,248
December 31, 2018	**$ 64,697**	**487,504**

(5) Quantitative information on the fair value measurement of significant unobservable inputs (Level 3)

The fair value measurement of the consolidated company classified as Level 3 are mainly equity investment, financial assets measured at fair value through other comprehensive gain or loss.

The significance of the consolidated company's fair value classified as Level 3 has only a single significant unobservable input value, and only an equity instrument investment without an active market has multiple significant unobservable inputs. The significant unobservable inputs of equity instrument investments in an inactive market are independent of each other and therefore are not interrelated.

The list of quantitative information for significant unobservable inputs is as follows:

Item	Evaluation technology	Significant unobservable input value	Relations between significant unobservable input value and fair value
Financial assets measured at fair value through other comprehensive gain or loss -I equity instrument investment without active market	Comparable TWSE/GTSM booked company method	• Equity value multiplier (2018.12.31 is 0.13-2.14) • Lack of market liquidity discount (2018.12.31 is 19.4%-50.57%)	• The higher the multiplier, the higher the fair value • The higher the lack of market liquidity discount, the lower the fair value

(6) The fair value of the Group's financial instruments that use Level 3 inputs to

measure fair value was based on the price of the third party. The Group did not disclose quantified information and sensitivity analysis on significant unobservable inputs because the unobservable inputs used in fair value measurement were not established by the Group.

(35) Financial risk management

1. Overview

The financial instrument that the parent company is using is exposed to the following risks:

(1) Credit Risk
(2) Liquidity Risk
(3) Market Risk

The Company's risk exposure information and the objectives, policies and procedures of the parent company's risk measurement and management are disclosed in the notes. Please refer to the notes to the individual financial statements for the quantitative disclosure in detail.

2. Structure of risk management

The Board has sole responsibility for and oversight of the parent company's risk management framework and risk management policies and procedures. Internal auditors assist the Board of Directors to monitor and to carry out regular and extraordinary review of risk management controls and procedures, and to report the results of the review to the Board.

The Company's risk management policy is established to identify and analyze the risks faced by the parent company, to set appropriate risk limits and controls, and to monitor risk and the compliance with risk limits. Risk management policies and systems are reviewed regularly to reflect the changes in market conditions and the parent company's operations. Also, develop a disciplined and constructive environmental control through training, management standards, and operating procedures in order to help all employees understand their roles and obligations.

Monitor the compliance of the Company's risk management policies and procedures, as well as review the adequacy of the parent company's related risk management framework for the risk faced. Internal auditors assist the Board of Directors of the Company to monitor. Internal auditors carry out the regular and extraordinary review of risk management controls and procedures, and report the results of the review to the audit committee.

3. Credit Risk

Credit risks are the risks of financial loss incurred from customers or the counterparts of financial instruments fail to fulfill contractual obligation. They are mainly from the Company's accounts receivable from customers and securities investment.

(1) Accounts receivables and other receivables

The Company has set up credit policy and analyzes the credit rating of each respective customer before granting standard payment and shipping terms and conditions Purchase limit is set up for each customer. The limit is reviewed periodically. For customers that do not meeting the benchmark credit rating of the Company may only conduct business with the parent company with prepayment term.

(2) Investment

Credit risks of bank deposit, fixed Revenue investment and other financial instruments are monitored by the Company's Financial Department. As the counterparty the Company transacted with and parties to fulfill contractual obligations are banks with good credit standing and financial institutions with investment level ranking or above, corporation and government. As there are no significant for these parties to default, there is no significant credit risk.

(3) Guarantee

Per the Company's policy, it can only provide financial guarantee to companies it has business dealing, the companies of which it holds directly or indirectly for more than 50% shares with voting right, or companies by which it is owned directly or indirectly for more than 50% shares. On December 31, 2018 and 2017, the consolidated company did not provide any endorsement guarantees except to its subsidiaries.

4. Liquidity Risk

The Company's capital and working capital is sufficient enough to fulfill all contractual obligations; therefore, there is no liquidity risk arising from the inability of raising funds for fulfilling contractual obligations.

Loan from bank is an important source of liquidity to the Company. On December 31, 2018 and 2017, the long-term and short-term bank financing quotas unused of the consolidated company were NT$ 23,634,968 thousand and NT$ 15,541,095 thousand respectively.

5. Market Risk

Market risk refers to the changes in market prices, such as exchange rates, interest rates and equity instrument price changes, causing risks to the Company's Revenue or the value of the financial instruments. The purpose of market risk management is to contain market risk exposure within the tolerable range and with the return on investment optimized.

(1) Currency risk

The Company is exposed to exchange rate risk that is arising from the sales, purchases and loans transactions denominated in non-functional currency. The functional currency of the consolidated company is NTD. The main currencies of the transactions are NTD, US Dollar, JPY and Euro.

Loan interest is denominated in the currency of the loan principal. In general, the currency of the borrowings is the same as the currency of the cash flows generated by the operations of the consolidated company, mainly NTD, but also in USD.

For other monetary assets and liabilities denominated in foreign currencies, for any short-term imbalance occurring, the parent company is to maintain the net risk exposure at an acceptable level by buying or selling foreign currency at the spot exchange rate.

(2) Interest rate risk

The Company holds assets and liabilities with floating interest rates, resulting in a cash flow interest rate risk exposure.

(3) Equity instrument price

The Company holds equity securities of booked companies or those trade in TPEx and thus has exposure to the risk of interest incurred. Those equity investments are not held for trading but for strategic investment.

Please refer to Note 6 (35) for the risk of change.

(36) Capital Management

The policy of the Board of Director is to maintain sound capital base in order to uphold the confidence of investor, creditor, and market, and to support future operations and development. Capital includes the share capital, capital reserve, retained earnings and other equity items of the consolidated company. The Board of Directors controls the return on capital and the common stock dividend level.

Debt capital ratio on the reporting date is as follows:

	2018.12.31	2017.12.31
Total Liabilities	$ 56,071,450	45,565,622
Less: Cash and cash equivalent	(36,829,131)	(20,342,780)
Net liabilities	**$ 19,242,319**	**25,222,842**
Total Equity	**$ 47,913,865**	**43,776,911**
Debt capital ratio	**40.16%**	**57.62%**

The decrease in the debt-to-capital ratio as on December 31 2018 was due to the increase in total equity from the increase in cash and cash equivalents.

(37) Financing activities

The adjustment of liabilities from financing activities is as follows:

	Short term borrowings	Long-term debt payable	Guarantee deposits received	Total liabilities from financing activities
Balance of January 1, 2018	$ 13,753,204	5,646,872	910,098	20,310,174
Cash flow				
Cash from borrowing	48,938,400	1,026,000	-	49,964,400
Repayment of borrowings	(53,402,407)	(4,632,672)	-	(58,035,079)
Guarantee deposits received	-	-	17,858	17,858
Non-cash change				
Effect of changes in exchange rates	45,612	-	17,885	63,497
Reclassification to contract liabilities	-	-	(602,980)	(602,980)
Balance of December 31, 2018	**$ 9,334,809**	**2,040,200**	**342,861**	**11,717,870**

7. Related party transactions

(1) Names and relationships of related parties

The parties involved in the transaction of the consolidated company during the period of the consolidated financial report are as follows:

Names of related parties	Relationships between the consolidated company
Actron Technology Corporation (hereinafter referred to as Actron Technology)	The chairman of Sino-American Silicon Products Inc. is the same.
Solartech Energy Corp.	Sino-American Silicon Products Inc. is the main management of Solartech Energy (Note 2)
Sunshine PV. Corporation (hereinafter referred to as Sunshine PV.)	Related enterprise to URE
Ming Yang Corporation (hereinafter referred to as Ming Yang)	Sino-American Silicon Products Inc.'s management is the Chairman of the company (Note 1)
Song Long Electronics Corporation (hereinafter referred to Song Long Eletronics)	Sino-American Silicon Products Inc.'s management is the director of the company
URE	Sino-American Silicon Products Inc. is the main management of URE (Note 2)
Accu Solar Corporation	Affiliated enterprises of the consolidated company
TSCS	Affiliated enterprises of the consolidated company
Crystalwise Technology Inc.	Affiliated enterprises of the consolidated company
Cathy Sunrise	Affiliated enterprises of the consolidated company
Sunrise PV One Co., Ltd.	Subsidiaries of affiliated enterprises of the consolidated company
Cathy Sunrise One Co., Ltd.	Subsidiaries of affiliated enterprises of the consolidated company
Cathy Sunrise Two Co., Ltd.	Subsidiaries of affiliated enterprises of the consolidated company
Cathy Sunrise Electric Power One	Subsidiaries of affiliated enterprises of the consolidated company

Note 1: In July 2017, it was not a related party of the consolidated company.
Note 2: The former Solartech Energy was merged and cancelled in October 2018. The existing company was renamed URE.

(2) Significant transactions with related parties

1. Operating revenue

The amount of significant sales and engineering contract revenue of the consolidated company to the related parties is as follows:

		2018	2017
Affiliated companies	$	956,605	43,752
Other related parties		439,403	1,826,018
	$	**1,396,008**	**1,869,770**

The price of selling goods and engineering price of the consolidated company to the related party are based on the general market price, and adjusted by taking into account factors such as the sales area and the sales volume.

The agreed payment period of the consolidated company in 2018 and 2017 to the general customer is 0-210 days; to main related parties, O/A 30 days and advance payment to O/A 90 days EOM, and O/A 30 days and O/A 30 days EOM to 180 days after shipment.

The project Revenue of the consolidated company and affiliated companies was refunded in 2018 due to the withdrawal of the project. The amount of the project received and returned was NT$ 50,227 thousands yuan. As of December 31, 2018, the project has not yet been paid, booked under the item of related parties.

2. Purchase and outsourced processing

The consolidated company's purchase, outsource processing and engineering costs to the related parties is as follows:

		2018	2017
Affiliated companies	$	12,949	-
Other related parties		25,324	18,221
	$	**38,273**	**18,221**

The Company has used the general market price to purchase goods and outsource processing from the related party.

The consolidated company's payment conditions to general supplier in 2018 and 2017 are from O/A 0 days to O/A 150 days EOM; to related parties, advance payment to O/A 90 days EOM, and O/A 15 days EOM to O/A 60 days EOM.

For the purchase of raw materials, the advance payment of Sino-American Silicon Products. Inc. to other related parties is NT$ 1,179 thousands, which is accounted for under the prepaid materials.

3. Receivables from related parties

Receivables from related parties are as follows:

Account	Classification of related party		2018.12.31	2017.12.31
Receivables from related parties	Affiliated companies	$	42,133	-
Receivables from related parties	Other related parties		64,950	111,806
		$	**107,083**	**111,806**

In addition, in order to maintain a stable supply of raw materials required for production, the related parties successively signed short-term and long-term supply contracts with the consolidated company, and the details of the advance sales receipts

to the related parties (respectively booked in contract liabilities - current / non-current and advance payment received - current/non-current items) are as follows:

	2018.12.31	2017.12.31
Other related party-Solartech Energy	$ -	860,357
Other related party-URE	883,697	-
Other related party-Others	-	1,044
	$ 883,697	**861,401**

4. Receivables from related parties

The receivables from related parties were as follows:

Account	Classification of related party	2018.12.31	2017.12.31
Receivable from related parties	Affiliated companies	$ 319	6,123
Receivable from related parties	Other related parties	-	3,282
		$ 319	**9,405**

5. Transactions of property, plant and equipment

The aggregated purchase price of the property, plant and equipment obtained by the consolidated company from the related parties is as follows:

	2018		2017	
	Amount	Receivable from related parties	Amount	Receivable from related parties
Affiliated companies	$ 5,092	-	-	-
Other related parties	-	-	17,445	-
	$ 5,092	**-**	**17,445**	**-**

6. Corporate bonds

In October 2016, the consolidated company purchased the five-year private placement corporate bonds issued by its affiliated company, Crystalwise Technology, a total of 280 bonds with each face value of NT$ 1,000 totaling $ 280,000 thousand. Ther interest is paid once every six months. Both the interest rate and the coupon rate are 2%. Interest Revenue for 2018 and 2017 were NT$ 1,366 thousands and NT$ 1,366 thousands respectively. As of December 31, 2018 and 2017, the accumulated investment cost and interest receivable were NT$ 281,366 thousand and NT$ 281,366 thousand respectively, booked in financial assets measured at amortized cost - non-current and held to maturity financial assets - non-current items.

In January 2019, the consolidated company purchased the private equity corporate bonds of one year from the related company Crystalwise Technology for NT$ 250,000 thousand. For details, please refer to Note 11.

7. Payment on behalf of others

On December 31, 2018 and 2017, the consolidated company's unsettled accounts receivable (payable) to related parties due to payments paid on behalf of others among related parties for materials purchase, insurance, water and electricity fee etc. were booked in accounts receivable (payable) to related parties as follows:

	2018.12.31	2017.12.31
Affiliated companies	$ 6,832	1,765
Affiliated companies	(796)	(38)
Other related parties	-	36
	$ 6,036	**1,763**

8. Others

The consolidated company and the related parties signed the plant lease contract. The breakdown of the rental expenses and the payables to the related parties are as follows:

	2018	2017
Affiliated companies	$ 2,142	2,096
Other related parties	-	11,340
	$ 2,142	**13,436**

Account	Classification of related party	2018.12.31	2017.12.31
Receivable from related parties	Affiliated companies	**$ -**	**265**

(2) The consolidated company and the related parties have a factory lease contract, and the breakdown of the rental Revenue is as follows:

	2018	2017
Affiliated companies	**$ 225**	**100**

(3) Key management

The remuneration to key management include:

	2018	2017
Short-term employee benefits	$ 314,161	255,419
Post-employment benefits	1,590	1,191
Share-based payment	73,612	25,659
	$ 389,363	**282,269**

In 2018 and 2017, the consolidated company provided 4 vehicles with a total cost of NT$ 4,444 thousands and NT$ 4,845 thousands for key management personnel to use.

8. Pledged Assets

The carrying amount of the assets pledged by the Company as collateral is as follows:

Assets	Pledge or Mortgage underlying subject	2018.12.31	2017.12.31
Property, plant and equipment	Borrowings payable	$ 3,475,408	3,568,042
Time deposits (recognized in other financial assets－current)	Performance bond for Acceptances	22,393	24,495
Time deposits (recognized in other financial assets－non-current)	Providing a guarantee for the bank to open a lease for the Science Park Bureau	40,838	43,437
Time deposits (recognized in other financial assets－non-current)	Guarantee of gas consumption	6,700	6,700
Time deposits (recognized in other financial assets－non-current)	Performance bonds for Government grant provided to technology projects	13,597	11,320
Time deposits (recognized in other financial assets－non-current)	Bank loan reserve account margin	-	78,600
Time deposits (recognized in other financial assets－non-current)	Performance bond for duty paid after customs release	5,000	5,000
Time deposits (recognized in other financial assets－non-current)	Court guarantee	10,748	-
Refundable deposits (recognized in other financial assets－non-current)	Performance bond for purchase of material	167,125	158,715
Refundable deposits (recognized in other financial assets－non-current)	Court litigation	22,440	-
		$ 3,764,249	**3,896,309**

9. Significant commitments and contingencies

Except as stated in Note 6 (21), other significant contingent liabilities of the consolidated company and unrecognized contractual commitments are as follows:

(1) Significant unrecognized contractual commitments

1. The Company has negotiated the amount of future purchase in according to the current effective long-term purchase agreement and the market condition. The details are as follows:

(Expressed in thousands of foreign currency)

	2018.12.31	2017.12.31
USD	$ 1,236,606	1,449,306
EUR	$ 12,157	39,046
JPY	$ 2,145,137	2,075,963

Silicon supplier Hemlock Semiconductor Pte. Ltd. (hereinafter referred to as Hemlock) sent a notice requesting that Sino-American Silicon Products Inc.'s confiscated prepayment, payment for goods not received and the interest related to the late payment in accordance with to the long-term purchase contract be accumulated to 2018 and December 31, 2017 as US$ 615,982 thousands and US$ 502,650 thousand respectively. The aforementioned purchase amount yet to be collected, except for interest, has included the amount requested by the suppliers. As Sino-American Silicon Products Inc. and Hemlock continue to trade, Sino-American Silicon Products Inc. believes that the possibility of the aforementioned interest payment is low and so does not estimate this contingent liability.

Hemlock. The subpoena and the complaint against Sino-American Silicon Products Inc. were delivered to Sino-American Silicon Products Inc. on May 12, 2015. However, the two parties reached an agreement in May 2016. Please refer to the relevant description (2) contingent liabilities.

The consolidated company's prepayments reversal impairment to silicon raw materials suppliers in 2018 and 2017 were NT$ 288,436 thousands and NT$ 35,982 thousands respectively. On December 31, 2018 and 2017, the consolidated company's accumulated impairment of advance payment to the silicon raw materials supplier were NT$ 669,997 thousands and NT$ 1,107,096 thousands respectively, net amount NT$ 695,583 thousand and NT$ 1,619,571 thousand, booked in prepaid materials and long-term prepaid materials.

2. In response to the long-term purchase contract referred above, the Company has silicon wafer long-term sales contracts signed with the customers since the year 2005. These companies agree to pay the non-refundable funds to the Company. The two parties agreed to have silicon wafers sold in accordance with the agreed quantity and price from January 1, 2006 to December 31, 2019. If the delivery has not been made in compliance with the contract signed, a sales discount or an amount equivalent to 1.5-4 times of the advance sales receipts from customers as remuneration should be granted. If the delay of shipment has not been resolved for more than three months, the outstanding pre-payment should be refunded. In addition, in response to the price decline arising from the falling demand, solar energy battery customers and the Company will negotiate the selling price and adjusting the average selling price in accordance with market conditions.

The amount of delivery according to the existing contracts and current market conditions is as follows:

(Expressed in thousands of foreign currency)

	2018.12.31	2017.12.31
USD	$ 91,640	239,996
EUR	$ 68,815	115,316
NTD	$ 54,845	54,845

3. On December 31, 2018 and 2017, the consolidated company has signed or ordered significant construction projects and plant equipment that have not yet been delivered for inspections of NT$ 687,219 thousands and NT$ 1,961,648 thousands respectively.
4. On December 31, 2018 and 2017, the total amount of promissory notes deposited by the consolidated company at the bank for acquiring bank financing were NT$ 11,549,325 thousands and NT$ 6,740,369 thousands respectively.
5. On December 31, 2018 and 2017, the consolidated company requested the bank to open a performance bond for the General Administration of Customs and the R&D plan, which amounted to NT$ 50,400 thousands and NT$ 81,841 thousands respectively.
6. On December 31, 2018 and 2017, the amount of the letter of credit that the consolidated company had opened without making seven years and one use was as follows:

(Expressed in thousands of foreign currency)

	2018.12.31	2017.12.31
USD	$ 3,191	3,353
Danish Krone	$ 3,750	-

7. The consolidated company and the polycrystalline solar cell manufacturer (referred to as the manufacturer) signed a cooperation contract. From July 1, 2015 to March 31, 2021, the manufacturer provided factory and equipment for Sino-American Silicon Products Inc. for operational use. According to the contract, Sino-American Silicon Products Inc. shall allocate part of the operating Revenue of the plant equipment to the manufacturer. During the contract period, the accumulated distribution of operating profit amounted to a certain amount, and the consolidated company has the right to acquire the ownership of the plant equipment for free or for a fee. As of December 31, 2018, the contract was terminated in advance.
8. The consolidated company has a long-term sales contract with certain customers and collects the advance sales receipts. The customer is required to fulfill the minimum order quantity.

(2) Contingent liabilities

The silicon supplier Hemlock and Sino-American Silicon Products. Inc. reached an agreement in May 2016 on the inter-party lawsuit, stipulating that under certain conditions, Hemlock ceased the proceedings against Sino-American Silicon Products. Inc. to April 30, 2019. The two parties signed two documents, STIPULATION OF DISCONTINUANCE and SETTLEMENT AGREEMENT. According to SETTLEMENT AGREEMENT, Sino-American Silicon Products. Inc. must purchase a certain amount of silicon raw materials from Hemlock and its affiliated enterprises. In February 2019, the two parties signed a supplementary Accommodation Letter to agree to amend part of the SETLEMENT AGREEMENT, and extend the period of STIPULATION OF DISCONTINUANCE termination of the proceedings against

Sino-American Silicon Products. Inc. to April 30, 2019. After that, Sino-American Silicon Products. Inc. had negotiated a contract with Hemlock. As of March 21, 2019, Sino-American Silicon Products. Inc. had not received any notice from the other party to restart the proceedings.

10. Losses due to major disaster: None.

11. Subsequent Events

The consolidated company resolved by the board of directors on January 11, 2019 to subscribe for the private equity of 250 million dollars unsecured ordinary corporate bonds issued by Crystalwise Technology. The corporate bond is issued for one year and expires in January 2020. The coupon rate is 2% per annum.

12. Others

The functions of employee benefits, depreciation and amortization expenses are summarized as follows:

By Function / By Nature	2018			2017		
	Classified as operating cost	Classification of operating expenses	Total	Classified as operating cost	Classification of operating expenses	Total
Employee benefits expense						
Salaries	7,693,736	2,404,588	10,098,324	7,311,595	2,487,646	9,799,241
Labor and health insurance	1,215,231	272,420	1,487,651	1,046,643	339,913	1,386,556
Pension expenses	393,155	105,465	498,620	393,768	106,550	500,318
Other employee benefits expense	620,301	141,123	761,424	526,401	121,866	648,267
Depreciation expense	5,396,123	232,110	5,628,233	5,584,664	305,250	5,889,914
Amortizations	351,354	3,425	354,779	332,015	19,101	351,116

13. Other disclosures

(1) Information on significant transactions

In 2018, in accordance with the provisions of the Regulations Governing the Preparation of Financial Reports by Securities Issuers, the relevant significant transactions that should be disclosed by the consolidated company as follows:

1. Loans to other parties: Please refer to Attachment 1 for details.
2. Guarantees and endorsements for other parties: Please refer to Attachment 2 for details.
3. Securities held as of December 31, 2018 (excluding investment in subsidiaries, associates and joint ventures): Please refer to Attachment 3 for details.
4. Individual securities acquired or disposed of with accumulated amounts exceeding the lower of NT$300 million or 20% of the capital stock: Please refer to Attachment 4 for details.
5. Acquisition of individual real estate with amount exceeding the lower of NT$300 million or 20% of the capital stock: Please refer to Attachment 5 for details.
6. Disposal of individual real estate with amount exceeding the lower of NT$300 million or

20% of the capital stock: Please refer to Attachment 6 for details.

7. Related party transactions for purchases and sales with amounts exceeding the lower of NT$300 million or 20% of the capital stock: Please refer to Attachment 7 for details.
8. Receivables from related parties with amounts exceeding the lower of NT$100 million or 20% of the capital stock: Please refer to Attachment 8 for details.
9. Trading in derivative instruments: Please refer to Attachment 6 (2) for details.
10. B Business relationships and significant intercompany transactions: Please refer to Attachment 9 for details.

(2) Information on investees: Please refer to Attachment 10 for details.

(3) Information on investment in Mainland China:

1. Relevant information on the name and main business items of the investee company in Mainland China: Please refer to Attachment 11 (1) for details.
2. Investment quotas for Mainland China: Please refer to Attachment 11 (2) for details.

14. Segment information

(1) Operating segment information

Reconciliation for segment Revenue (loss):

	2018			
	Semiconductor Department	Solar energy Department	Adjustment and elimination	Total
Revenues				
Net external revenue	$ 59,044,094	10,194,851	-	69,238,945
Revenue from internal customers	19,416	677,097	(696,513)	-
Total revenues	**$ 59,063,510**	**10,871,948**	**(696,513)**	**69,238,945**
Interest expenses	**$ 108,013**	**103,990**	**-**	**212,003**
Depreciation and amortization	**$ 4,460,291**	**1,522,721**	**-**	**5,983,012**
Reportable Segment	**$ 13,616,234**	**(4,744,345)**	**-**	8,871,889
Share of the subsidiaries and affiliated companies accounted for under equity method.				(236,409)
				$ 8,635,480
Assets of reportable segments	**$ 89,664,721**	**12,455,852**	**(177,154)**	101,943,419
Investment accounted for using equity method				2,041,896
				$ 103,985,31
Liabilities of the reportable segments	**$ 46,494,941**	**9,753,663**	**(177,154)**	**56,071,450**

	2017			
	Semiconductor Department	Solar energy Department	Adjustment and elimination	Total
Revenues				
Net external revenue	$ 46,106,917	13,264,281	-	59,371,198
Revenue from internal customers	105,684	31,555	(137,239)	-
Total revenues	**$ 46,212,601**	**13,295,836**	**(137,239)**	**59,371,198**
Interest expenses	**$ 398,185**	**108,162**	**-**	**506,347**
Depreciation and amortization	**$ 5,040,036**	**1,200,994**	**-**	**6,241,030**
Reportable Segment	**$ 5,278,207**	**(1,506,731)**	**-**	3,771,476
Share of the subsidiaries and affiliated companies accounted for using equity method.				(252,848)
				$ 3,518,628
Assets of reportable segments	**$ 69,913,715**	**17,829,790**	**(95,689)**	87,647,816
Investment accounted for using equity method				1,694,717
				$ 89,342,533
Liabilities of the reportable segments	**$ 36,177,931**	**9,481,058**	**(93,367)**	**45,565,622**

(2) Information by product:

Revenue from external customers:

	2017
Semiconductor wafer	45,540,327
Solar wafer	2,524,614
Solar cell	5,054,173
solar module	327,950
Solar ingot	1,409,413
Semiconductor ingot	496,690
Other	4,018,031
	59,371,198

For details of the Revenue of the customer contract in 2018, please refer to Note 6 (27).

(3) Geographical information:

Information of geographical area of the Company is as follows. The revenues are classified in term of where the customers are located, while the noncurrent assets are classified in term of where the assets are located.

1. Revenue from external customers

Area	2017
Taiwan	14,231,289
Japan	8,125,958
U.S.A.	7,236,574
Mainland China	5,728,043
Korea	7,022,898
Other countries	17,026,436
	59,371,198

For details of the Revenue of the customer contract in 2018, please refer to Note 6 (27).

2. Non-current assets:

Area	2018.12.31	2017.12.31
U.S.A.	$ 6,548,067	16,877,379
Taiwan	10,331,375	15,187,910
Japan	6,333,308	7,506,185
Philippines	2,307,955	2,435,894
Denmark	1,373,938	1,429,624
Other countries	14,228,420	1,008,221
	$ 41,123,063	**44,445,213**

(4) Major customers information

Key customers with more than 10% of the Company's operating revenues

	2018	2017
C Group company	**$ 9,494,244**	**6,503,622**

Sino-American Silicon Products Inc. and subsidiaries

Loans to other parties

For the year ended December 31, 2018

Attachment 1

Unit: NT$ Thousand

No.	Name of lender	Name of borrower	Account name	Related party	Highest balance of financing to other parties during the period	Ending balance	Actual usage amount during the period	Range of interest rates during the period	Purposes of fund financing for the borrower (Note 1)	Transaction amount for business between two parties	Reasons for short term financing	Loss allowance	Collateral		Individual funding loan limits (Note 2)	Maximum limit of fund financing (Note 3)
													Item	Value		
0	Sino-American Silicon Products Inc.	Sulu	Loan receivable – related party	Yes	928,650 (USD 30,000)	921,450 (USD 30,000)	268,572 (USD 8,744)	4.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Sunrise PV World Co.	Loan receivable – related party	Yes	500,000	500,000	150,000	2.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Sunrise PV Five	Loan receivable – related party	Yes	300,000	300,000	162,000	2.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Sunrise PV Electric	Loan receivable – related party	Yes	200,000	200,000	102,000	2.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Sunrise PV Three	Loan receivable – related party	Yes	500,000	300,000	106,000	2.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Aleo Solar	Loan receivable – related party	Yes	434,880 (EUR 12,000)	281,600 (EUR 8,000)	52,800 (EUR 1,500)	2.0%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Aleo Sunrise	Loan receivable – related party	Yes	434,880 (EUR 12,000)	-	-	2.0%	2	-	Working capital	-		-	10,752,686	10,752,686
1	SSTI	Sulu	Loan receivable – related party	Yes	215,005 (USD 7,000)	215,005 (USD 7,000)	215,005 (USD 7,000)	4.0%	2	-	Working capital	-		-	389,344	389,344
1	SSTI	AMLED	Loan receivable – related party	Yes	329,671 (USD 10,650)	119,789 (USD 3,900)	119,789 (USD 3,900)	4.0%	2	-	Working capital	-		-	389,344	389,344

No.	Name of lender	Name of borrower	Account name	Related party	Highest balance of financing to other parties during the period	Ending balance	Actual usage amount during the period	Range of interest rates during the period	Purposes of fund financing for the borrower (Note 1)	Transaction amount for business between two parties	Reasons for short term financing	Loss allowance	Collateral		Individual funding loan limits (Note 2)	Maximum limit of fund financing (Note 3)
													Item	Value		
2	SAS Sunrise Inc.	Sulu	Loan receivable – related party	Yes	236,840 (USD 8,000)	190,433 (USD 6,200)	187,054 (USD 6,090)	4.0%	2	-	Working capital	-		-	199,313	199,313
3	Sulu	AMLED	Loan receivable – related party	Yes	111,642 (USD 3,824)	-	-	4.0%	2	-	Working capital	-		-	179,181	179,181
4	Aleo Solar	Aleo Sunrise	Loan receivable – related party	Yes	289,920 (EUR 8,000)	281,600 (EUR 8,000)	281,600 (EUR 8,000)	2.0%	2	-	Working capital	-		-	239,786	239,786 Note 4
5	SAS Sunrise Pte. Ltd.	Sulu	Loan receivable – related party	Yes	245,720 (USD 8,000)	-	-	4.0%	2	-	Working capital	-		-	214,059	214,059
5	SAS Sunrise Pte. Ltd.	AMLED	Loan receivable – related party	Yes	213,776 (USD 6,960)	213,776 (USD 6,960)	213,776 (USD 6,960)	4.0%	2	-	Working capital	-		-	214,059	214,059
6	GlobalWafers	Taisil	Loan receivable – related party	Yes	2,500,000	-	-	1.5%	2	-	Working capital	-		-	17,255,782	17,255,782
7	GWJ	GlobalWafers	Loan receivable – related party	Yes	4,173,000	4,173,000	4,173,000	0.47091 %- 0.53091 %	1	6,564,463	Business transactions	-		-	6,564,463	5,430,209
7	GWJ	MEMC Japan	Loan receivable – related party	Yes	278,200	278,200	-	0.56091 %	2	-	Working capital	-		-	2,715,105	5,430,209
8	MEMC SpA	GWS	Loan receivable – related party	Yes	2,826,720	2,745,600	2,145,431	3.559%	2	-	Working capital	-		-	11,348,657	11,348,657
9	Taisil	GlobalWafers	Loan receivable – related party	Yes	5,700,000	5,700,000	5,700,000	1.5%	2	-	Working capital	-		-	6,434,620	6,434,620
10	GTI	Topsil A/S	Loan receivable – related party	Yes	87,585	-	-	6%	2	-	Working capital	-		-	3,492,437	3,492,437

No.	Name of lender	Name of borrower	Account name	Related party	Highest balance of financing to other parties during the period	Ending balance	Actual usage amount during the period	Range of interest rates during the period	Purposes of fund financing for the borrower (Note 1)	Transaction amount for business between two parties	Reasons for short term financing	Loss allowance	Collateral		Individual funding loan limits (Note 2)	Maximum limit of fund financing (Note 3)
													Item	Value		
10	GTI	MEMC LLC	Loan receivable – related party	Yes	671,485	-	-	3.62%	2	-	Working capital	-		-	3,492,437	3,492,437

Note 1: The entry method for the loaning of funds is as follows:

(1) For business transactions, please fill in 1.

(2) Necessary for short-term financing, please fill in 2.

Note 2: (1) For the Company's loan of funds to those having business transactions, the individual loan is limited to the trade amount between the two parties in the most recent year; for the loan of funds to companies necessary for short-term financing, the individual loan is limited to 40% of the net worth of the company that lends loan; for loan of funds among foreign companies that the Company directly and indirectly holds 100% of the voting shares, the individual loan is limited to 40% of the net worthof the company that lends loan.

(2) For GlobalWafers and its subsidiaries' loan of funds to those having business transactions, the individual loan is limited to the trade amount between the two parties in the most recent year; for the loan of funds to companies necessary for short-term financing, the individual loan is limited to 40% of the net worthof GlobalWafers; for loan of funds among foreign companies that GlobalWafers directly and indirectly holds 100% of the voting shares, or between the foreign companies and GlobalWafers, the individual loan is limited to 40% of the net worthof GlobalWafers.

Note 3: (1) For the Company's loan of funds to those having business transactions, the total loan is limited to 40% of the company that lends loan; for the loan of funds to companies necessary for short-term financing, the total loan is limited to 40% of the net worthof the company that lends loan; for loan of funds among foreign companies that the company that lends loan directly and indirectly holds 100% of the voting shares, the total loan is limited to 2 times of the net worthof the company that lends loan.

(2) For GlobalWafers and its subsidiaries' loan of funds to those having business transactions, the total loan is limited to 40% of the company that lends loan; for the loan of funds to companies necessary for short-term financing, the total loan is limited to 40% of the net worthof the company that lends loan; for loan of funds among foreign companies that GlobalWafers directly and indirectly holds 100% of the voting shares, or between the foreign companies and GlobalWafers, the total loan is limited to 2 times of the net worthof GlobalWafers.

(3) For loan of funds of Aleo Solar, the total loan is limited to 100% of the net worthof the company that lends loan.

(4) For loan of funds of SSTI, SAS Sunrise Inc., SAS Sunrise Pte Ltd., Suluto and Sunrise PV World to those having business transactions, the total loan is limited to 40% of the company that lends loan; for the loan of funds to companies necessary for short-term financing, the total loan is limited to 40% of the net worthof the company that lends loan; for loan of funds among foreign companies that the company that lends loan directly and indirectly holds 100% of the voting shares, the total loan is limited to 40% of the net worthof the company that lends loan.

Note 4: Due to the change of the plan, the loan of funds exceeds quota. Improvement plans have been made in accordance with regulations.

Note 5: Transactions with consolidated parties as mentioned above were eliminated when preparing the consolidated reports.

Sino-American Silicon Products Inc. and subsidiaries

Guarantees and endorsements for other parties

For the year ended December 31, 2018

Attachment 2 Unit: NT$ Thousand

No.	Name of guarantor	Counter party of guarantee and endorsement		Limitation on amount of guarantees and endorsements for a specific enterprise	Highest balance for guarantees and endorsements during the period (Notes 3, 9 and 10)	Balance of guarantees and endorsements as of reporting date	Actual usage amount during the period	Property pledged for guarantees and endorsements (Amount)	Ratio of accumulated amounts of guarantees and endorsements to net worth of the latest financial statements	Maximum amount for guarantees and endorsements	Parent company endorsements/ guarantees to third parties on behalf of subsidiary (Notes 3, 9 and 10)	Subsidiary endorsements/ guarantees to third parties on behalf of parent company	Endorsements/ guarantees to third parties on behalf of companies in Mainland China
		Name	Relationship with the Company (Note 2)										
0	Sino-American Silicon Products Inc.	SAS Sunrise Inc.	2	26,881,716	247,640 (USD 8,000) (Note 4)	245,720 (USD 8,000)	162,790 (USD 5,300)	-	0.91%	26,881,716	Y	N	N
0	Sino-American Silicon Products Inc.	SAS Sunrise Pte. Ltd.	2	26,881,716	619,100 (USD 20,000) (Note 5)	-	-	-	- %	26,881,716	Y	N	N
0	Sino-American Silicon Products Inc.	Sulu	2	- (Note 7)	1,423,930 (USD 46,000) (Note 6)	1,412,890 (USD 46,000)	1,412,890 (USD 46,000) (Note 6)	-	5.26%	- (Note 7)	Y (Note 8)	N	N
0	Sino-American Silicon Products Inc.	Sunrise PV World Co.	2	26,881,716	200,000	200,000	1,150	-	0.74%	26,881,716	Y	N	N
0	Sino-American Silicon Products Inc.	Sunrise PV World and its 100% owned subsidiaries	2	26,881,716	1,500,000	500,000	-	-	1.86%	26,881,716	Y	N	N
0	Sino-American Silicon Products Inc.	Sunrise PV World Co.	2	26,881,716	100,000	100,000	-	-	0.37%	26,881,716	Y	N	N
1	GlobalWafers	Topsil A/S	2	43,139,455	120,250	117,500	17,625	-	0.27%	129,418,365	N	N	N
1	GlobalWafers	GWJ	2	43,139,455	275,400	-	-	-	- %	129,418,365	N	N	N
1	GlobalWafers	MEMC LLC	2	43,139,455	464,325	-	-	-	- %	129,418,365	N	N	N
1	GlobalWafers	MEMC Korea	2	43,139,455	773,875	-	-	-	- %	129,418,365	N	N	N

No.	Name of guarantor	Counter party of guarantee and endorsement		Limitation on amount of guarantees and endorsements for a specific enterprise	Highest balance for guarantees and endorsements during the period (Notes 3, 9 and 10)	Balance of guarantees and endorsements as of reporting date	Actual usage amount during the period	Property pledged for guarantees and endorsements (Amount)	Ratio of accumulated amounts of guarantees and endorsements to net worth of the latest financial statements	Maximum amount for guarantees and endorsements	Parent company endorsements/ guarantees to third parties on behalf of subsidiary (Notes 3, 9 and 10)	Subsidiary endorsements/ guarantees to third parties on behalf of parent company	Endorsements/ guarantees to third parties on behalf of companies in Mainland China
		Name	Relationship with the Company (Note 2)										
1	GlobalWafers	GWS	2	43,139,455	1,857,300	1,842,900	614,300	-	4.27%	129,418,365	N	N	N
1	GlobalWafers	Taisil	2	43,139,455	200,000	-	-	-	- %	129,418,365	N	N	N
1	GlobalWafers	Taisil	2	43,139,455	1,857,300	-	-	-	- %	129,418,365	N	N	N
2	GTI	MEMC LLC	2	43,655,460	462,450	460,725	98,013	-	5.28%	43,655,460	N	N	N
3	Sunrise PV World Co.	Sunrise PV Four	2	986,932	170	170	170	-	0.07%	986,932	N	N	N
3	Sunrise PV World Co.	Sunrise PV Three	2	986,932	421	421	421	-	0.17%	986,932	N	N	N

Note 1: The method of filling the nature of endorsement guarantee is as follows:
(1) The issuer fills in 0.
(2) The investee company is numbered sequentially by the company starting from the Arabic number 1.

Note 2: There are the following seven types of relationship between the endorsement guarantor and the endorsed object:
(1) A company with business transactions.
(2) Companies that the Company directly and indirectly holds more than 50% of the voting shares.
(3) Companies that directly and indirectly holds more than 50% of the voting shares of the Company.
(4) Among companies that the Company directly and indirectly holds more than 90% of the voting shares.
(5) Companies in the same industry or joint constrctors that are mutually guaranteed under contractual requirements based on the needs of contracting project.
(6) A company that is endorsed by all the contributing shareholders in accordance with their shareholding ratio due to the joint investment relationship.
(7) The joint performance guarantee of the pre-sale house sales contract among companies in the same industry in accordance with Consumer protection law.

Note 3: The amount of endorsements/guarantees provided by the endorsement guarantor company for a singleenterprise is limited to 10% of the net worthof the company providing the endorsements/guarantees, but for the subsidiary company, limited to one time of the net worthof the company providing the endorsements/guarantees. The total amount of accumulated endorsements/guarantees shall not exceed the net worthof the Company. The total amount of the Company's endorsements/guarantees and that for a single enterprise shall not exceed five times the net worthof the company providing endorsements/guarantees. The aforesaid net worthis based on the financial statements recently audited or reviewed by an accountant. For endorsements/guarantees due to business transactions, except subject to the provisions of the preceding item, the endorsement guarantee amount should be equal to the higher of the purchase or sales amount.

Note 4: This amount is USD 8,000 thousands individual quota for SAS Sunrise Inc..

Note 5: This amount is USD 20,000 thousands joint quota for SAS Sunrise Pte.Ltd. and Sulu.

Note 6: Sulu shares with the company a quota of USD 10,000 thousands and Sulu's individual quota is USD 36,000 thousands. The Company resolved on October 14, 2016 by the board of directors to repay part of the loan, and reduce the endorsements/guarantees quota to USD 46,000 thousands and repay the bank loan on October 19, 2016. The actual disbursement amount was reduced to USD 46,000 thousands.

Note 7: The endorsements/guarantees quota for Sulu is calculated as USD 46,211 thousands, the amount of sales at the time of endorsements/guarantees.

Note 8: The consolidated company controls the financial and operating strategies of the company through effective agreements with other investors of Sulu, so Sulu is considered as a subsidiary.

Note 9: The method of endorsements/guarantees of GlobalWafers and its subsidiaries s are as follows:

(1) The total amount of accumulated endorsements/guarantees of GlobalWafers shall not exceed three times the net worthof the most recent financial statements of GlobalWafers.

(2) The amount of endorsements/guarantees of GlobalWafers for a singleenterprise shall not exceed 10% of the net worthof the most recent financial statements of GlobalWafers. For subsidiaries, 1 time of the net worthof GlobalWafers.

(3) Taisil's performance bond for duty paid after customs release is NT$ 5,000 thousands.

Note 10: The method of endorsements/guarantees of Sunrise PV World and its subsidiaries s are as follows:

(1) The total amount of accumulated endorsements/guarantees of Sunrise PV World shall not exceed four times the net worthof the most recent financial statements of Sunrise PV World.

(2) The amount of endorsements/guarantees of Sunrise PV World for a singleenterprise shall not exceed 10% of the net worthof the most recent financial statements of GlobalWafers. For subsidiaries, 4 times of the net worthof GlobalWafers.

(3) The total amount of Sunrise PV World's endorsements/guarantees and that for a single enterprise shall not exceed five times the net worthof the most recent financial statements of Sunrise PV World.

(4) For endorsements/guarantees due to business transactions, except subject to the provisions of the preceding item, the endorsement guarantee amount of Sunrise PV World should be equal to the higher of the purchase or sales amount.

Sino-American Silicon Products Inc. and subsidiaries

Securities held as of December 31, 2018 (excluding investment in subsidiaries, associates and joint ventures)

December 31, 2018

Attachment 3 Unit: NT$ thousand / thousand shares / thousand sheets; thousand units

Name of holder	Category and name of security	Relationship with the Company	Account title	Ending balance				% of highest capital contribution in the period	Remarks
				Shares/Units (thousands)	Carrying value	Percentage of ownership (%)	Fair value		
Sino-American Silicon Products Inc.	Corporate bonds of Crystalwise Technology	Affiliated companies	Financial assets measured at amortized cost	280	281,366	- %	285,466	- %	
Sino-American Silicon Products Inc.	Stocks of URE	Sino-American Silicon Products Inc. is the main management of URE	Financial assets at fair value through other comprehensive income	34,492	270,073	1.37%	270,073	1.37%	
Sino-American Silicon Products Inc.	Stock of Actron Technology	Chairman of the parent company is also the Chairman of Sino-American Silicon Products Inc.	Financial assets at fair value through other comprehensive income	3,210	319,427	4.29%	319,427	4.29%	
Sino-American Silicon Products Inc.	Stock of Powertec Energy Corporation	-	Financial assets at fair value through other comprehensive income	30,410	130,764	2.31%	130,764	2.31%	
Sino-American Silicon Products Inc.	Stock of Giga Epitaxy Technology Corp.	-	Financial assets at fair value through other comprehensive income	395	4,458	1.52%	4,458	1.52%	
Sino-American Silicon Products Inc.	Stock of Big Sun	-	Financial assets at fair value through other comprehensive income	7,500	-	0.41%	-	0.41%	
Sino-American Silicon Products Inc.	Stock of Phoenix Silicon International Corporation	-	Financial assets at fair value through other comprehensive income	1,956	76,284	1.48%	76,284	1.48%	
SSTI	Stock of SILFAB SPA	-	Financial assets at fair value through other comprehensive income	300	364,025	15.00%	364,025	15.20%	
GlobalWafers	Stock of Phoenix Silicon International Corporation	-	Financial assets at fair value through other comprehensive income	1,324	51,636	1.00%	51,636	1.00%	
Sino-American Silicon Products Inc.	Stock of SONGLONG ELECTRONICS CO., LTD.	Sino-American Silicon Products Inc.'s management is the director of the company	Financial assets measured at fair value through gain or loss	221	-	13.81%	-	13.81%	

Name of holder	Category and name of security	Relationship with the Company	Account title	Ending balance				% of highest capital contribution in the period	Remarks
				Shares/Units (thousands)	Carrying value	Percentage of ownership (%)	Fair value		
Sino-American Silicon Products Inc.	Stock of Styrene Monomer	-	Financial assets measured at fair value through gain or loss	3,869	87,053	0.73%	87,053	0.73%	
Sino-American Silicon Products Inc.	Stock of 21-Century Silicon Inc.	-	Financial assets measured at fair value through gain or loss	1,000	-	- %	-	- %	
Sino-American Silicon Products Inc.	Stock of Sunshine PV Corp.	Related enterprise to URE	Financial assets measured at fair value through gain or loss	3,399	-	4.98%	-	4.98%	
SSTI	Stock of Clean Venture 21 Corporation	-	Financial assets measured at fair value through gain or loss	10	-	7.20%	-	7.20%	
GlobalWafers	Stock of Styrene Monomer	-	Financial assets measured at fair value through gain or loss	4,000	90,000	0.76%	90,000	0.76%	
GlobalWafers	China Minfa Advantage Venture Capital Limited Partnership	-	Financial assets measured at fair value through gain or loss	-	64,697	3.85%	64,697	3.85%	

Sino-American Silicon Products Inc. and subsidiaries

Accumulatively buy or sell the same marketable securities amounting to NT$ 300 million or 20% of paid-in capital

For the year ended December 31, 2018

Attachment 4

Unit: thousand shares /NT$ thousand

Buying and selling companies	Types and names of securities	Account titles	Counter party	Relationship	Beginning of the period		Buy		Sell				End of the period	
					Number of shares	Amount	Number of shares	Amount	Number of shares	Selling price	Carrying cost	Disposition gain or loss	Number of shares	Amount
Sino-American Silicon Products Inc.	Stock of Taiwan Special Chemicals	Investment accounted for using equity method	Xin Ma Investment Consulting Co., Ltd.	-	-	-	90,000	990,000	-	-	-	-	90,000	918,163 (Note)

Note: Including investment gain or loss recognized this quarter.

Sino-American Silicon Products Inc. and subsidiaries

Acquisition of individual real estate with amount exceeding the lower than NT$300 million or 20% of the capital stock

For the year ended December 31, 2018

Attachment 5 Unit: NT$ Thousand

Name of company	Name of property	Transaction date	Transaction amount	Status of payment	Counter-party	Relationship with the Company	If the counter party is a related party, disclose the previous transfer information				References for determining price	acquisition and current condition	Other
							Owner	Relationship with the Company	Date of transfer	Amount			
GlobalWafers	Property, plant and equipment	January, 2018 and May	625,136	Already paid in full amount	Sino-American Silicon Products Inc.	Parent company and subsidiary	-	-	-	-	Accounted for at fair value	For operational use	None

Sino-American Silicon Products Inc. and subsidiaries

Disposal of individual real estate with amount exceeding the lower than NT$ 300 million or 20% of the capital stock

For the year ended December 31, 2018

Attachment 6

Unit: NT$ Thousand

Name of company	Type of property	Transaction date	Acquisition date	Book value	Transaction amount	Amount actually receivable	Gain from disposal	Counter-party	Nature of relationship	Purpose of disposal	Price reference	Other terms
Sino-American Silicon Products Inc.	Property, plant and equipment	January, 2018 and May	April 2006 – September 2017	597,336	625,594	Has been fully recovered	28,258	GlobalWafers	Parent company and subsidiary	For operational use	Accounted for at fair value	None
MEMC Ipoh	Plant	February 2018	February 2008	158,283	309,009	Has been fully recovered	150,726	Kamaya Electric (M) Sdn. Bhd.	Non-related parties	Capacity configuration	Accounted for at fair value	None

Sino-American Silicon Products Inc. and subsidiaries

Related party transactions for purchases and sales with amounts exceeding the lower than NT$ 300 million or 20% of the capital stock

For the year ended December 31, 2018

Attachment 7

Unit: NT$ Thousand

Name of company	Related party	Nature of relationship	Transaction situation				Transactions with terms different from others		Notes/Accounts receivable (payable)		Remarks
			Purchase /Sale	Amount	Percentage of total purchases/ sales	Payment terms	Unit price	Payment terms	Ending balance	Percentage of total notes/accounts receivable (payable)	
Sino-American Silicon Products Inc.	Solartech Energy Corp.	The parent company is the management of Solartech Energy Corp.	Sales	(194,923)	(2)%	Net 45 days	-		-	- %	
Sino-American Silicon Products Inc.	Aleo Solar	Subsidiaries directly held by the parent company.	Sales	(447,303)	(5)%	Net 90 days	-		110,062	14%	Note
Aleo Solar	Aleo Solar Distribuzion Italia S.r.l	Subsidiaries indirectly held by the parent company.	Sales	(264,258)	(16)%	Net 60 days	-		72,644	51%	Note
Aleo Solar	Aleo Sunrise	Subsidiaries indirectly held by the parent company.	Purchase	145,247	14%	Net 14 days	-		(108,143)	(44)%	Note
Sunrise PV World Co.	Sunrise PV One	Subsidiary and affiliated enterprise of Sino-American Silicon Products Inc.	Sales	(935,265)	(94)%	15 days after the contract is agreed	-		42,849	85%	
GlobalWafers	Sino-American Silicon Products Inc.	Subsidiaries directly held by the parent company.	Purchase	669,431	4%	O/A 30 days EOM	-		(161,758)	(5)%	Note
GlobalWafers	GTI	Subsidiaries indirectly held by the parent company.	Purchase	1,944,060	12%	O/A 60 days	-		(313,206)	(9)%	Note
GlobalWafers	Kunshan Sino	Subsidiaries indirectly held by the parent company.	Purchase	2,661,905	16%	O/A 60 days	-		(547,518)	(16)%	Note
GlobalWafers	GWJ	Subsidiaries indirectly held by the parent company.	Purchase	6,564,463	40%	O/A 60-90 days	-		(1,714,488)	(51)%	Note

Name of company	Related party	Nature of relationship	Transaction situation				Transactions with terms different from others		Notes/Accounts receivable (payable)		Remarks
			Purchase /Sale	Amount	Percentage of total purchases/ sales	Payment terms	Unit price	Payment terms	Ending balance	Percentage of total notes/accounts receivable (payable)	
GlobalWafers	Topsil A/S	Subsidiaries indirectly held by the parent company.	Purchase	528,318	3%	O/A 30-60 days	-		(45,031)	(1)%	Note
GlobalWafers	GWS	Subsidiaries indirectly held by the parent company.	Purchase	372,841	2%	O/A 60 days	-		(70,979)	(2)%	Note
GlobalWafers	Taisil	Subsidiaries indirectly held by the parent company.	Purchase	125,611	1%	O/A 60 days	-		(46,433)	(1)%	Note
Taisil	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	451,866	3%	O/A 45-60 days	-		(72,564)	(2)%	Note
GWS	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	1,456,325	11%	O/A 60 days	-		(215,973)	(6)%	Note
MEMC Korea	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	825,874	6%	O/A 60 days	-		(315,552)	(8)%	Note
MEMC SpA	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	644,521	5%	O/A 60 days	-		(184,188)	(5)%	Note
GTI	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	3,539,263	26%	O/A 45 days	-		(325,569)	(9)%	Note
Kunshan Sino	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	1,197,780	9%	O/A 30-135 days	-		(101,895)	(3)%	Note
GWJ	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	1,610,451	12%	O/A 60-90 days	-		(457,509)	(12)%	Note
Actron Technology Corporation	GlobalWafers	Chairman of the parent company is also the Chairman of Sino-American Silicon Products Inc.	Purchase	244,481	2%	O/A 60 days EOM	-		(64,950)	(2)%	
Topsil A/S	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	348,946	3%	O/A 30-60 days	-		(88,894)	(2)%	Note
GWS	MEMC LLC	Subsidiaries indirectly held by the parent company.	Sales	(754,906)	(3)%	O/A 60 days	-		110,273	3%	Note

Name of company	Related party	Nature of relationship	Transaction situation				Transactions with terms different from others		Notes/Accounts receivable (payable)		Remarks
			Purchase /Sale	Amount	Percentage of total purchases/ sales	Payment terms	Unit price	Payment terms	Ending balance	Percentage of total notes/accounts receivable (payable)	
GWS	MEMC LLC	Subsidiaries indirectly held by the parent company.	Purchase	840,682	4%	O/A 60 days	-		(187,532)	(5)%	Note
GWS	MEMC Sdn Bhd	Subsidiaries indirectly held by the parent company.	Purchase	1,894,541	10%	O/A 60 days	-		(309,702)	(9)%	Note
GWS	MEMC Sdn Bhd	Subsidiaries indirectly held by the parent company.	Sales	(789,994)	(3)%	O/A 60 days	-		120,333	3%	Note
GWS	MEMC SpA	Subsidiaries indirectly held by the parent company.	Purchase	3,344,615	18%	O/A 60 days	-		(861,178)	(25)%	Note
GWS	MEMC SpA	Subsidiaries indirectly held by the parent company.	Sales	(3,211,255)	(14)%	O/A 60 days	-		578,286	16%	Note
GWS	MEMC Korea	Subsidiaries indirectly held by the parent company.	Purchase	1,924,133	10%	O/A 60 days	-		(309,612)	(9)%	Note
GWS	MEMC Korea	Subsidiaries indirectly held by the parent company.	Sales	(148,090)	(1)%	O/A 60 days	-		3,940	- %	Note
GWS	MEMC Japan	Subsidiaries indirectly held by the parent company.	Purchase	4,093,919	22%	O/A 60 days	-		(728,119)	(21)%	Note
GWS	MEMC Japan	Subsidiaries indirectly held by the parent company.	Sales	(1,414,201)	(6)%	O/A 60 days	-		252,803	7%	Note
GWS	Taisil	Subsidiaries indirectly held by the parent company.	Purchase	5,147,816	28%	O/A 60 days	-		(861,178)	(25)%	Note
GWS	Taisil	Subsidiaries indirectly held by the parent company.	Sales	(1,381,626)	(6)%	O/A 60 days	-		228,430	6%	Note

Note: Transactions with consolidated parties as mentioned above were eliminated when preparing the consolidated reports.

Sino-American Silicon Products Inc. and subsidiaries

Receivables from related parties with amounts exceeding the lower than NT$ 100 million or 20% of the capital stock

December 31, 2018

Attachment 8

Unit: NT$ Thousand

Name of company	Counter party	Nature of relationship	Ending balance	Turnover rate	Overdue		Amounts received in subsequent period (Note 1)	Allowance for bad debts
					Amount	Action taken		
Sino-American Silicon Products Inc.	Aleo Solar	Subsidiaries directly held by the parent company.	110,062	3.46%	-		82,429	-
Sino-American Silicon Products Inc.	Sulu	Subsidiaries indirectly held by the parent company.	269,169	Note 2	-		-	-
Sino-American Silicon Products Inc.	GlobalWafers	Subsidiaries directly held by the parent company.	161,758	6.7%	-		105,859	-
Sino-American Silicon Products Inc.	Sunrise PV World Co.	Subsidiaries directly held by the parent company.	150,154	Note 2	-		-	-
Sino-American Silicon Products Inc.	Sunrise PV Five	Subsidiaries indirectly held by the parent company.	162,166	Note 2	-		-	-
Sino-American Silicon Products Inc.	Sunrise PV Three	Subsidiaries indirectly held by the parent company.	106,109	Note 2	-		-	-
Sino-American Silicon Products Inc.	Sunrise PV Electric	Subsidiaries indirectly held by the parent company.	102,105	Note 2	-		-	-
SSTI	AMLED	Subsidiaries indirectly held by the parent company.	123,556	Note 2	-		-	-
SSTI	Sulu	Subsidiaries indirectly held by the parent company.	215,264	Note 2	-		-	-
SAS Sunrise Inc.	Sulu	Subsidiaries indirectly held by the parent company.	191,872	Note 2	-		-	-
Aleo Solar	Aleo Sunrise	Subsidiaries indirectly held by the parent company.	281,600	Note 2	-		-	-
SAS Sunrise Pte. Ltd.	AMLED	Subsidiaries indirectly held by the parent company.	275,211	Note 2	-		-	-
GlobalWafers	GTI	Subsidiaries indirectly held by the parent company.	325,569	10.53%	-		325,569	-

Name of company	Counter party	Nature of relationship	Ending balance	Turnover rate	Overdue		Amounts received in subsequent period (Note 1)	Allowance for bad debts
					Amount	Action taken		
GlobalWafers	GWJ	Subsidiaries indirectly held by the parent company.	457,509	3.86%	-		310,014	-
GlobalWafers	Taisil	Subsidiaries indirectly held by the parent company.	101,895	12.79%	-		101,895	-
GlobalWafers	GWS	Subsidiaries indirectly held by the parent company.	215,973	13.49%	-		215,973	-
GlobalWafers	MEMC Korea	Subsidiaries indirectly held by the parent company.	315,552	5.23%	-		-	-
GlobalWafers	MEMC SpA	Subsidiaries indirectly held by the parent company.	184,188	7.00%	-		167,207	-
Taisil	GlobalWafers	Subsidiaries indirectly held by the parent company.	5,700,000	Note 2	-		-	-
GTI	GlobalWafers	Subsidiaries indirectly held by the parent company.	313,206	7.05%	-		313,206	-
Kunshan Sino	GlobalWafers	Subsidiaries indirectly held by the parent company.	547,518	5.52%	-		316,460	-
GWJ	GlobalWafers	Subsidiaries indirectly held by the parent company.	1,714,488	4.09%	-		972,326	-
GWJ	GlobalWafers	Subsidiaries indirectly held by the parent company.	4,173,000	Note 2	-		-	-
GWS	MEMC Sdn Bhd	Subsidiaries indirectly held by the parent company.	309,612	6.12%	-		309,612	-
GWS	MEMC Japan	Subsidiaries indirectly held by the parent company.	728,119	5.99%	-		726,851	-
GWS	MEMC SpA	Subsidiaries indirectly held by the parent company.	578,286	6.83%	-		578,286	-
GWS	MEMC LLC	Subsidiaries indirectly held by the parent company.	110,273	2.31%	-		110,273	-
GWS	Taisil	Subsidiaries indirectly held by the parent company.	228,430	12.04%	-		228,430	-
MEMC Sdn Bhd	GWS	Subsidiaries indirectly held by the parent company.	120,333	6.16%	-		120,333	-

Name of company	Counter party	Nature of relationship	Ending balance	Turnover rate	Overdue		Amounts received in subsequent period (Note 1)	Allowance for bad debts
					Amount	Action taken		
MEMC SpA	GWS	Subsidiaries indirectly held by the parent company.	2,145,431	Note 2	-		-	-
MEMC SpA	GWS	Subsidiaries indirectly held by the parent company.	861,178	5.72%	-		722,673	-
MEMC Korea	GWS	Subsidiaries indirectly held by the parent company.	309,702	8.74%	-		309,702	-
MEMC Japan	GWS	Subsidiaries indirectly held by the parent company.	252,803	5.96%	-		252,803	-
Taisil	GWS	Subsidiaries indirectly held by the parent company.	861,178	7.26%	-		-	-
MEMC LLC	GWS	Subsidiaries indirectly held by the parent company.	187,532	5.26%	-		187,532	-

Note 1: The amount recovered after February 26, 2019.
Note 2: Receivables from related parties generated by financing.
Note 3: The above transactions related to the consolidated standalone have been written off when preparing the consolidated financial statements.

Sino-American Silicon Products Inc. and subsidiaries

Business relationships and significant intercompany transactions

For the year ended December 31, 2018

Attachment 9 Unit: NT$ Thousand

No. (Note 1)	Name of counterparty	Name of counter party	Nature of relationship (Note 2)	Intercompany transactions			
				Account name	Amount	Trading terms	Percentage of the consolidated net revenue or total assets (Notes 3 and 4)
1	GlobalWafers	GTI	3	Purchase	1,944,060	O/A 60 days	2.81%
1	GlobalWafers	Kunshan Sino	3	Purchase	2,661,905	O/A 60 days	3.84%
1	GlobalWafers	GWJ	3	Purchase	6,564,463	O/A 60-90 days	9.48%
1	GlobalWafers	GWJ	3	Accounts payable	1,714,488	O/A 60-90 days	1.65%
1	GlobalWafers	GTI	3	Sales	3,539,263	O/A 45 days	5.11%
1	GlobalWafers	Kunshan Sino	3	Sales	1,197,780	O/A 30-135 days	1.73%
1	GlobalWafers	GWJ	3	Sales	1,610,451	O/A 60-90 days	2.33%
1	GlobalWafers	GWS	3	Sales	1,456,325	O/A 60 days	2.10%
1	GlobalWafers	MEMC Korea	3	Sales	825,874	O/A 60 days	1.19%
2	GWS	MEMC LLC	3	Sales	754,906	O/A 60 days	1.09%
2	GWS	MEMC LLC	3	Purchase	840,682	O/A 60 days	1.21%
2	GWS	MEMC Sdn Bhd	3	Sales	789,994	O/A 60 days	1.14%
2	GWS	MEMC Sdn Bhd	3	Purchase	1,894,541	O/A 60 days	2.74%
2	GWS	MEMC SpA	3	Purchase	3,344,615	O/A 60 days	4.83%
2	GWS	MEMC SpA	3	Sales	3,211,255	O/A 60 days	4.64%
2	GWS	MEMC Korea	3	Purchase	1,924,133	O/A 60 days	2.78%
2	GWS	MEMC Japan	3	Sales	1,414,201	O/A 60 days	2.04%
2	GWS	MEMC Japan	3	Purchase	4,093,919	O/A 60 days	5.91%
2	GWS	Taisil	3	Purchase	5,147,816	O/A 60 days	7.43%
2	GWS	Taisil	3	Sales	1,381,626	O/A 60 days	2.00%
3	GWJ	GlobalWafers	3	Loan receivable – related party	4,173,000	-	4.01%
4	Taisil	GlobalWafers	3	Loan receivable – related party	5,700,000	-	5.48%
5	MEMC SpA	GWS	3	Loan receivable – related party	2,145,431	-	2.06%

Note 1: The business transactions between the parent company and its subsidiaries should be indicated in the number column respectively. The method of filling in the numbers is as follows:

1. The parent company fills in 0.
2. Subsidiaries are numbered sequentially by the Arabic number 1 according to the company.

Note 2: There are three types of relationship with the counterparty, and the type of mark can be used (if it is the same transaction between the parent company or among subsidiaries, there is no need to repeat the disclosure. Such as: the parent company's transaction to the subsidiary, if the parent company has been exposed, then the part of the subsidiary does not need to be repeatedly disclosed; if a subsidiary's transaction to another subsidiary is disclosed, then another subsidiary does not need to disclose it repeatedly:

1. Parent company to subsidiary
2. Subsidiary to parent company.
3. Subsidiaries to subsidiaries.

Note 3: For calculation of the transaction amount's ratio in the consolidated total revenue or total assets, in the case of assets and liabilities, it is calculated by the closing balance ratio in the consolidated total assets; in the case of gain or loss item, it is calculated by the accumulated amount ratio in the consolidated total operating revenue.

Note 4: Other transactions are not up to 1% of the consolidated total revenue or total assets and will not be disclosed.

Sino-American Silicon Products Inc. and subsidiaries

Information on investees (excluding information on investees in Mainland China)

For the year ended December 31, 2018

Attachment 10

Unit: NT$ Thousand

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Highest Percentage of Ownership during the year	Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value				
Sino-American Silicon Products Inc.	SSTI	British Virgin Islands	Investment and triangular trade center with subsidiaries in China	1,425,603 (USD 45,255)	1,425,603 (USD 45,255)	48,526	100.00%	973,360	100.00%	33,705	33,705	Subsidiary Note 5
Sino-American Silicon Products Inc.	GlobalWafers	Taiwan	Semiconductor silicon wafer materials and components manufacturing and trade	8,955,952	8,864,946	222,727	51.17%	22,074,512	51.17%	13,630,674	6,932,303	Subsidiary
Sino-American Silicon Products Inc.	Crystalwise Technology Inc.	Taiwan	Optical wafer and substrate manufacturing and trade	2,010,843	2,010,843	65,923	40.11%	415,391	40.11%	(451,676)	(183,103)	Affiliated companies Note 2
Sino-American Silicon Products Inc.	Sino-American Materials Co., Ltd.	Taiwan	EVA film for solar modules manufacturing and sale	-	90,000	-	- %	-	- %	(484)	(435)	-
Sino-American Silicon Products Inc.	Accu Solar Corporation	Taiwan	Solar energy system provider	112,193	112,193	7,452	24.70%	65,648	24.70%	(29,981)	(7,528)	Affiliated companies

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Highest Percentage of Ownership during the year	Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value				
Sino-American Silicon Products Inc.	Aleo Solar	Prenzlau	Solar cell manufacturing and sale and wholesale of electronic materials	558,139 (EUR 13,500)	558,139 (EUR 13,500)	Note 1	100.00%	239,786	100.00%	(113,212)	(113,212)	Subsidiary Note 2
Sino-American Silicon Products Inc.	SAS Sunrise Inc.	Cayman	Reinvestments in various businesses	794,373 (USD 24,500)	794,373 (USD 24,500)	24,500	100.00%	498,283	100.00%	(118,642)	(118,642)	Subsidiary
Sino-American Silicon Products Inc.	Sunrise PV World Co.	Taiwan	Power generating business	300,000	300,000	30,000	100.00%	246,733	100.00%	(52,097)	(52,097)	Subsidiary
Sino-American Silicon Products Inc.	Cathy Sunrise	Taiwan	Power generating business	450,000	450,000	45,000	30.00%	464,252	30.00%	47,108	11,616	Affiliated companies
Sino-American Silicon Products Inc.	TSCS	Taiwan	Semiconductor special gas and chemical material manufacturer	990,000	-	90,000	30.93%	918,163	30.93%	(504,689)	(71,833)	Affiliated companies Note 2
Sunrise PV World Co.	Sunrise PV Electric	Taiwan	Power generating business	42,000	30,000	4,200	100.00%	43,875	100.00%	2,264	-	Sub-subsidiary Note 8
Sunrise PV World Co.	Sunrise PV Two	Taiwan	Power generating business	15,000	15,000	1,500	100.00%	14,898	100.00%	(88)	-	Sub-subsidiary Note 8
Sunrise PV World Co.	Sunrise PV Three	Taiwan	Power generating business	15,000	15,000	1,500	100.00%	16,342	100.00%	1,441	-	Sub-subsidiary Note 8
Sunrise PV World Co.	Sunrise PV Four	Taiwan	Power generating business	100,000	100,000	10,000	100.00%	100,403	100.00%	443	-	Sub-subsidiary Note 8
Sunrise PV World Co.	Sunrise PV Five	Taiwan	Power generating business	65,000	65,000	6,500	100.00%	74,871	100.00%	9,746	-	Sub-subsidiary Note 8
SAS Sunrise Inc.	SAS Sunrise Pte.Ltd.	Singapore	Reinvestments in various businesses	719,292 (USD 22,000)	719,292 (USD 22,000)	30,934	100.00%	535,148	100.00%	(104,384)	-	Sub-subsidiary Note 8

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Highest Percentage of Ownership during the year	Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value				
SAS Sunrise Pte.Ltd.	AMLED	Philippines	Reinvestments in various businesses	-	-	-	- %	-	- %	-	-	Sub-subsidiary Note 6 and 8
SAS Sunrise Pte.Ltd.	Sulu	Philippines	Power generating business	440,667 (USD 13,435)	440,667 (USD 13,435)	420,000	40.00%	324,580	40.00%	(109,669)	-	Sub-subsidiary Note 8
AMLED	Sulu	Philippines	Power generating business	297,229 (USD 9,065)	297,229 (USD 9,065)	472,500	45.00%	194,941	45.00%	(109,669)	-	Sub-subsidiary Note 8
Aleo Solar	Aleo Solar Distribuzione Italia S.r.l	Italy	Solar cell manufacturing and sale and wholesale of electronic materials	4,078 (EUR 100)	4,078 (EUR 100)	Note 1	100.00%	1,594	100.00%	(5,207)	-	Sub-subsidiary Note 8
Aleo Solar	Aleo Sunrise	Germany	Manufacturing of solar cell as well as sale and wholesale of electronic materials	91,250 (EUR 2,500)	91,250 (EUR 2,500)	Note 1	100.00%	(55,251)	100.00%	147,324	-	Sub-subsidiary Note 8
GlobalWafers	GWI	Cayman	Reinvestments in various businesses	2,241,668 (USD 73,423)	2,241,668 (USD 73,423)	90,000	100.00%	5,677,436	100.00%	1,903,803	-	Sub-subsidiary Note 8
GlobalWafers	GSI	Cayman	Business investment and triangular trade center with subsidiaries in China	756,809 (USD 26,555)	756,809 (USD 26,555)	25,000	100.00%	1,376,601	100.00%	341,260	-	Sub-subsidiary Note 8
GlobalWafers	GWafers	Japan	Reinvestments in various businesses	Note 4	5,448,015 (JPY 13,827,513)	-	- %	-	100.00%	-	-	Sub-subsidiary Note 1 and 8
GlobalWafers	GWJ	Japan	Semiconductor silicon wafer manufacturing and trading	5,448,015	5,448,015	128	100.00%	13,558,073	100.00%	2,107,707	-	Sub-subsidiary Note 4 and 8
GlobalWafers	GWafers Singapore	Singapore	Reinvestments in various businesses	11,966,930	11,966,930	364,000	67.20%	19,959,635	100.00%	7,395,394	-	Sub-subsidiary Note 8

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Highest Percentage of Ownership during the year	Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value				
GlobalWafers	Topsil A/S	Denmark	Semiconductor silicon wafer manufacturing and trading	Note 3	Note 3	1,000	100.00%	1,687,613	100.00%	(40,596)	-	Sub-subsidiary Note 8
GlobalWafers	Whole Global Investment Corporation	Taiwan	Reinvestments in various businesses	200,000	200,000	312	24.39%	178,442	24.39%	59,258	14,439	Affiliated companies
GlobalWafers	Taisil	Taiwan	Semiconductor silicon wafer manufacturing and sales	14,504,663	14,502,885	9,999	99.99%	16,071,561	99.99%	1,889,479	-	Sub-subsidiary Note 8
GWI	GTI	Texas	Manufacturing of epitaxy, silicon wafer as well as OEM and trading of epitaxy	-	2,241,668	-	- %	-	100.00%	418,874	-	Sub-subsidiary Note 7 and 8
GWI	GWafers Singapore	Singapore	Reinvestments in various businesses	5,411,947	-	177,674	32.80%	5,677,436	32.80%	7,395,394	-	Sub-subsidiary Note 7 and 8
GWafers	GWJ	Japan	Semiconductor silicon wafer manufacturing and trading	Note 4	5,484,300 (JPY 13,142,798)	-	- %	-	100.00%	-	-	Sub-subsidiary Note 7 and 8
GWJ	MEMC Japan	Japan	Semiconductor silicon wafer manufacturing and sales	373,413 (JPY 100,000)	373,413 (JPY 100,000)	-	100.00%	1,448,078	100.00%	157,805	-	Sub-subsidiary Note 7 and 8
Topsil A/S	Topsil PL	Poland	Semiconductor silicon wafer manufacturing and trading	Note 3	Note 3	1	100.00%	(123,976)	100.00%	(70,472)	-	Sub-subsidiary Note 7 and 8

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Highest Percentage of Ownership during the year	Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value				
GWafers Singapore	GWS	Singapore	Investment, marketing and trading business	17,846,803 (USD 540,649)	12,434,855 (USD 362,975)	177,674	100.00%	27,037,489	100.00%	7,362,796	-	Sub-subsidiary Note 7 and 8
GWS	GWBV	The Netherlands	Reinvestments in various businesses	9,589,374 (USD 266,974)	4,177,427 (USD 89,300)	0.1	100.00%	29,179,287	100.00%	3,589,426	-	Sub-subsidiary Note 7 and 8
GWS	SSTPL	Singapore	Reinvestments in various businesses	-	-	0.001	100.00%	-	100.00%	-	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC SpA	Italy	Semiconductor silicon wafer manufacturing and sales	6,732,641 (USD 201,788)	6,732,641 (USD 201,788)	65,000	100.00%	11,348,657	100.00%	1,680,298	-	Sub-subsidiary Note 7 and 8
MEMC SpA	MEMC SarL	France	Trading business	1,316 (USD 40)	1,316 (USD 40)	0.5	100.00%	82	100.00%	689	-	Sub-subsidiary Note 7 and 8
MEMC SpA	MEMC GmbH	Germany	Trading business	4,622 (USD 141)	4,622 (USD 141)	0.002	100.00%	5,677	100.00%	556	-	Sub-subsidiary Note 7 and 8
MEMC SpA	MEMC BV	The Netherlands	Reinvestments in various businesses	2,430,141 (USD 73,918)	2,430,141 (USD 73,918)	0.2	100.00%	3,422,692	100.00%	691,209	-	Sub-subsidiary Note 7 and 8
MEMC BV	MEMC Korea	Korea	Semiconductor silicon wafer manufacturing and sales	2,427,650 (USD 73,842)	2,427,650 (USD 73,842)	6,880	40.00%	3,415,898	40.00%	1,726,189	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC Korea	Korea	Semiconductor silicon wafer manufacturing and sales	3,641,474 (USD 110,763)	3,641,474 (USD 110,763)	10,320	60.00%	5,123,846	60.00%	1,726,189	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC LLC	U.S.A.	Semiconductor silicon wafer R&D, manufacturing and sales	-	5,289,887 (USD 173,839)	-	- %	-	- %	193,960	-	Sub-subsidiary Note 7 and 8

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Highest Percentage of Ownership during the year	Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value				
GWBV	GTI	U.S.A.	Epitaxial silicon wafer production and trade of epitaxy foundry business	8,776,143 (USD 288,120)	-	0.001	100.00%	8,731,092	100.00%	803,066	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC Sdn Bhd	Malaysia	Semiconductor silicon wafer R&D, manufacturing and sales	898,016 (USD 27,315)	898,016 (USD 27,315)	1,036	100.00%	919,602	100.00%	99,469	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC Ipoh	Malaysia	Semiconductor silicon wafer manufacturing and sales	146,624 (USD 3,020)	743,440 (USD 22,613)	669,374	100.00%	55,797	100.00%	143,384	-	Sub-subsidiary Note 7 and 8
GTI	MEMC LLC	U.S.A.	Semiconductor silicon wafer R&D, manufacturing and sales	3,364,196 (USD 110,446)	-	1	100.00%	4,092,008	100.00%	193,960	-	Sub-subsidiary Note 7 and 8

Note: 1 Corporation limited

Note 2: The investment gain or loss recognition includes the investment cost and the amortization of the net equity acquired.

Note 3: The consolidated company acquired Topsil A/S and Topsil PL with a total investment amount of NT$ 1,964,069 thousand (DKK 407,600 thousands).

Note 4: GWafers and GWJ merged in January 2018, and the existing company was GWafers, which was later renamed GWJ.

Note 5: Not including earnings transferred to capital increase.

Note 6: The consolidated company does not hold the interests of the AMLED owners, but the consolidated company can control the financial and operating strategies of the company and obtain all the benefits of its operations and net assets in accordance with the terms of the agreements entered into by the standalone, so AMLED is regarded as a subsidiary.

Note 7: All of them are subsidiaries indirectly held by GlobalWafers. GWafers Singapore was transferred to GlobalWafers and GWJ for 67.2% and 32.8% respectively on July 1, 2018. GTI was transferred to GWBV investment and MEMC LLC was transferred to GTI investment.

Note 8: The profit and loss of the investee company is included in its investment company. To avoid confusion, it will not be expressed here.

Note 9: The above transactions relating to the consolidated standalone have been written off when preparing the consolidated financial statements.

Sino-American Silicon Products Inc. and subsidiaries

Information on investment in mainland China

For the year ended December 31, 2018

Attachment 11 Unit: NT$ Thousand

(I) The names of investees in Mainland China, the main businesses and products, and other information

Name of investee	Main businesses and products	Total amount of paid in capital	Method Of investment	Accumulated outflow of investment from Taiwan as of January 1, 2017	Investment flows		Accumulated outflow of investment from Taiwan as of December 31, 2018	Net income (losses) of the investee	Shareholding ratio of direct or indirect investment of GlobalWafers	Highest percentage of ownership during the year	Investment income (losses) (Note 4)	Book value	Accumulated remittance of earnings in current period
					Outflow	Inflow							
Kunshan Sino	Silicon rods and silicon wafer processing and trade	769,177 (Note 7)	(Note 1)	713,300 (USD 21,729)	-	-	713,300 (USD 21,729)	321,712	100.00%	100.00%	321,712	1,313,144	-
SunEdison Shanghai	Trading business	7,527 (RMB 1,500)	(Note 2)	(Note 2)	-	-	(Note 2)	706	100.00%	100.00%	706	9,849	-
Shanghai GROWFAST Semiconductor Technology Co. Ltd.	Sales and marketing business	9,756 (RMB 2,000)	(Note 3)	-	-	-	-	6,946	60.00%	60.00%	4,168	20,840	-

(II) Limitation on investment in Mainland China

Company Name	Accumulated Investment in Mainland China as of December 31, 2018	Investment Amounts Authorized by Investment Commission, MOEA	Upper Limit on Investment
GlobalWafers	713,300 (USD 21,729)	818,233(USD 25,000)(Note 5)	25,893,667 (Note 6)

Note 1: Investments through GSI registered in mainland China.

Note 2: Investments through GWBV registered in mainland China which is acquired from the acquisition of GWS (SSL).

Note 3: Kunshan Sino was invested by Shanghai GROWFAST in mainland China, without limit on investment, due to not having any investment from Taiwan.

Note 4: The basis for investment income (loss) recognition is from the financial statements audited.

Note 5: Initial investment amounts denominated in foreign currencies are translated into New Taiwan Dollars using the Historical Foreign Exchange Rate.

Note 6: Calculated by 60% of the quota of the "Review Principles of Investment or Technical Cooperation in Mainland China" August 29, 2008, multiplied by the net worthof GlobalWafers on December 31, 2018.

Note 7: Retained earnings Transferred to Capital was included.

Attachment 2

Independent Auditor's Report

To the Board of Directors of Sino-American Silicon Products Inc.

Opinion

We have audited the financial statements of Sino-American Silicon Products Inc., which comprise the balance sheets as of December 31, 2018 and 2017, the statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes to the standalone financial statements, including a summary of significant accounting policies.

In our opinion, based on the audit results of the accountant and the audit report of other accountants the accompanying standalone financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2018 and 2017, 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 and with the International Financial Reporting Standards ("IFRSs"), International Accounting Standards ("IASs"), Interpretations developed by the International Financial Reporting Interpretations Committee ("IFRIC"), and the former Standing Interpretations Committee ("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 Certification of Financial Statements by Certified Public Accountants and the 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 Standalone Financial Statements section of our report. We are independent of Sino-American Silicon Products Inc. in accordance with the Certified Public Accountants Code of Professional Ethics in Republic of China ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. Based on the audit results of the accountant and the audit report of other accountants, we believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis of our opinion.

Other matters

Among the investments included in Sino-American Silicon Products Inc. under equity method, the financial statements of Crystalwise Technology Inc. have not been checked by the accountant and have been checked by other accountants. Therefore, among the opinions expressed by the accountant on the standalone financial statements, the amount booked in the financial statements of is based on the audit report of other accountants. The amount of investment in Crystalwise Technology Inc. under equity method was 0.4% and 1% of the total assets respectively On December 31, 2018 and 2017. The share of gain or loss of related companies under equity method for 2018 and from January 1 to December 31, 2017 accounted for (20)% and (25)% of the net profit before tax respectively.

The consolidated company has prepared standalone financial statements for 2018 and 2017, and the audit report issued by the accountant with unqualified opinions plus other matters is available for reference.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of Sino-American Silicon Products Inc.'s financial statements of the current period. These

matters were addressed in the context of our audits of the standalone financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Based on our judgment, the key audit matters that should be disclosed in this audit report are as follows:

1. Assessment of impairment loss on property, plant and equipment

   For the accounting policy of asset impairment, please refer to Note 4 (13) of the standalone financial statements for impairment of non-financial assets; for accounting hypothesis and estimated uncertainty of assessment of impairment loss on property, plant and equipment, please refer to Note 5 of the standalone financial statements. For notes to the assessment of impairment loss on property, plant and equipment, please refer to Note 6 (12) of the standalone financial statements.

   Description of key audit matters:

   The industry of Sino-American Silicon Products Inc. is subjected to fluctuations due to the market environment and the energy policies of various governments, with fierce market competition and continuous price drop of products. Therefore, the assessment of impairment loss on property, plant and equipment is important; the asset impairment assessment includes Identifying the cash-generating unit, determining the evaluation method, selecting important assumptions, and calculating the recoverable amount that must rely on the subjective judgment of the management. The evaluation process is complicated and contains the subjective judgment of the management. Therefore, the accountant booked it as one of the important audit matters.

   Audit procedure implemented:

   The principal audit procedures for the above key audit matters by the accountant include: assessing the reasonableness whether the cash-generating unit and its related tested assets that Sino-American Silicon Products Inc. management has identified to impair show possible signs of impairment, and further understanding and testing the evaluation models and key assumptions such as future cash flow projections, use period and weighted average cost of capital that the management use in the impairment test, including expected product Revenue, costs and expenses, and assessing the accuracy of previous management forecasts; and carrying out sensitivity analysis of results. Furthermore, the management authority is also consulted on relevant procedures in order to identify whether there will be matters capable of affecting the impairment test result in the future after the financial statements. And assess whether Sino-American Silicon Products Inc. has properly disclosed the policy of long-term non-financial asset impairment and other related information

2. Evaluation of investments under equity method

   For the accounting policies of the assessment of the investment under equity method, please refer to Note 4 (8) Investment-related enterprises and Note 4 (9) Investment in Subsidiaries in the standalone Financial statements; for the assessment of the investment under equity method, please refer to Note 6 of the standalone Financial statements (10) Investment under equity method and Note 6 (11) Changes in the equity of ownership of the subsidiary.

   Description of key audit matters:

   Sino-American Silicon Products Inc. Co., holds a 51.17% stake in the equity-investment subsidiary (GlobalWafers Co., Ltd.). Given that the subsidiary GlobalWafers Co., Ltd. is mainly derived from corporate mergers and acquisitions, plus GlobalWafers' industry is subjected to fluctuations in the market environment and other factors. The recognition of the Revenue of subsidiaries and the assessment of goodwill impairment arising from corporate mergers and acquisitions are important. It is booked as one of the important audit matters by our accountants.

   Audit procedure implemented:

The principal audit procedures performed by the accountant for the recognition of Revenue related to investment under equity method include understanding the accounting policies adopted for the Revenue used; assessing the design of the internal control system of sales revenue; and sampling and testing individual transactions to support the appropriateness of the recognition of Revenue. The principal audit procedures for the goodwill impairment assessment include: assessing the cash-generating unit that the management has identified to impair and signs of impairment; assessing the reasonableness of the management's method of measuring the recoverable amount; assessing the accuracy of management's past forecasts; reviewing management's calculation of the recoverable amount of cash-generating units; evaluating various assumptions that future cash flow projections and calculating recoverable amount use, and the sensitivity analysis of the key assumptions.

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

Management is responsible for the preparation and fair presentation of the standalone financial statements and for such internal control as management determines is necessary to enable the preparation of standalone financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the standalone financial statements, management is responsible for assessing Sino-American Silicon Products Inc. Co. 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 Sino-American Silicon Products Inc. Co. financial reporting process.

Auditors' Responsibilities for the Audit of the Standalone Financial Statement

Our objectives are to obtain reasonable assurance about whether the standalone 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 standalone financial statements.

As part of an audit in accordance with 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 standalone 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 Sino-American Silicon Products Inc. Co. 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 Sino-American Silicon Products Inc. Co. 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 standalone 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 Sino-American Silicon Products Inc. Co. to cease to continue as a going concern.

5. Evaluate the overall presentation, structure and content of the standalone financial statements, including the disclosures, and whether the standalone 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 standalone financial statements. We are responsible for the direction, supervision and performance of Sino-American Silicon Products Inc. Co. 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 standalone financial statements of the current period 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 Cheng-Chien, Chen and An-Chih, Cheng.

KPMG

Taipei, Taiwan (Republic of China)
March 21, 2019

Sino-American Silicon Products Inc.
Standalone Balance Sheets
December 31, 2018 and 2017

Expressed in thousands of New Taiwan Dollars

		2018.12.31		2017.12.31	
	Assets	**Amount**	**%**	**Amount**	**%**
	Current Assets:				
1100	Cash and cash equivalents (Note 6(1))	$ 851,304	3	673,428	2
1110	Financial assets at fair value through profit or loss—current (Note 6(2))	87,053	-	-	-
1170	Notes and accounts receivable, net (Note 6 (5))	471,498	1	728,986	2
1180	Accounts receivable due from related parties, net (Note 7)	1,166,545	3	1,518,914	5
130X	Inventories (Note 6(6))	590,170	2	2,234,785	6
1421	Prepayments for purchase of materials (Notes 7 and 9)	536,783	2	269,441	2
1470	Other current assets	83,492	-	119,977	-
		3,786,845	11	5,545,531	17
	Non-current Assets:				
1523	Available for sale financial assets – non-current (Note 6(7))	-	-	685,194	2
1527	Held-to-maturity financial assets - non-current (Notes 6 (8) and 7)	-	-	281,366	1
1543	Financial assets measured at cost, net - non-current (Note 6 (9))	-	-	298,640	1
1517	Financial assets at fair value through other comprehensive income - non-current (Note 6 (3))	801,006	2	-	-
1535	Financial assets measured at amortized cost - non-current (Notes 6 (4) and 7)	281,366	1	-	-
1550	Investments accounted for using equity method (Note 6 (10) and (11))	25,883,438	75	20,988,678	60
1600	Property, plant and equipment (Note 6 (12) and 8)	3,589,549	11	6,333,415	18
1900	Other non-current assets (Note 6 (17))	117,213	-	178,030	-
1980	Other financial assets – non-current (Note 8)	33,482	-	19,805	-
1995	Long-term prepaid materials (Note 9)	-	-	521,540	1
		30,706,054	89	29,306,668	83
	Total assets	**$ 34,492,899**	**100**	**34,852,199**	**100**

		2018.12.31		2017.12.31	
	Liabilities and Equity	**Amount**	**%**	**Amount**	**%**
	Current Liabilities:				
2100	Short-term borrowings (Note 6 (13))	$ 2,717,125	8	2,364,913	7
2130	Contract liabilities-current (Note 6 (22), 7 and 9)	148,713	-	-	-
2170	Notes and accounts payable	431,425	1	1,043,113	3
2180	Accounts payable to related parties (Notes 7 and 9)	6,464	-	4,740	-
2201	Payroll and bonus payable	284,009	1	323,170	1
2310	Advance sales receipts - curent (Notes 7 and 9)	-	-	287,517	1
2399	Other current liabilities	349,260	1	466,882	1
		3,936,996	11	4,490,335	13
	Non-current Liabilities:				
2527	Contract liabilities-non-current (Note 6 (22), 7 and 9)	1,103,030	3	-	-
2540	Long-term borrowings (Note 6 (14))	1,610,200	5	1,360,000	4
2600	Other non-current liabilities (Note 6 (15), (17) and (18))	960,957	3	443,351	1
2670	Advance sales receipts -Non-current(Note 7 and 9)	-	-	1,417,641	4
		3,674,187	11	3,220,992	9
	Total liabilities	7,611,183	22	7,711,327	22
	Equity (Note 6 (19)):				
3110	Ordinary shares	5,863,207	17	5,920,587	18
3170	Pending share capital	(330)	-	-	-
		5,862,877	17	5,920,587	18
3200	Capital surplus	21,757,292	63	24,205,831	69
	Retained earnings:				
3310	Legal reserve	311,579	1	311,579	1
3320	Special reserve	513,302	1	513,302	1
3350	Undistributed retained earnings (accumulated loss)	1,507,753	5	(317,629)	(1)
		2,332,634	7	507,252	1
3400	Other equity interest	(3,071,087)	(9)	(3,322,937)	(10)
3500	Treasury share	-	-	(169,861)	-
	Total equity	26,881,716	78	27,140,872	78
	Total liabilities and equity	**$ 34,492,899**	**100**	**34,852,199**	**100**

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

Sino-American Silicon Products Inc.
Standalone Statement of Comprehensive Income
For the years ended December 31, 2018 and 2017
Expressed in thousands of New Taiwan dollars

		2018		2017	
		Amount	%	Amount	%
4000	**Operating revenue** (Note 6 (22), (23) and 7)	$ 8,430,747	100	11,282,980	100
5000	**Operating cost**(Note 6(6), (12) and 7)	12,218,087	145	11,959,612	106
	Gross profit from operations	(3,787,340)	(45)	(676,632)	(6)
	Operating expenses (Note 6 (5), (24), (30) and 7):				
6100	Selling expenses	65,558	1	66,787	1
6200	Administrative expenses	186,847	2	143,398	1
6300	Research and development expenses	182,406	2	203,724	2
6450	Impairment loss determined in accordance with IFRS 9 (Note 6 (5) and 7)	48,770	1	-	-
	Total operating expenses	483,581	6	413,909	4
	Net operating income	(4,270,921)	(51)	(1,090,541)	(10)
	Non-operating income and expenses:				
7010	Other Revenue (Note 6 (25) and 7)	53,020	1	50,152	-
7020	Other gains and losses, net (Note 6 (26) and 7)	(147,429)	(2)	(162,855)	(1)
7050	Financial costs (Note 6 (27))	(39,688)	-	(46,537)	-
7060	Shares of profit of subsidiaries, associates and joint ventures accounted for using equity method (Note 6 (10))	6,430,774	76	2,275,232	20
		6,296,677	75	2,115,992	19
7900	**Income before income tax**	2,025,756	24	1,025,451	9
7950	**Income tax expenses** (Note 6 (18))	75,253	1	(10,054)	-
	Net income for the year	1,950,503	23	1,035,505	9
8300	**Other comprehensive income (loss):**				
8310	**Items that may not be reclassified subsequently to profit or loss**				
8311	Gains (losses) on remeasurements of defined benefit plans (Note 6 (17))	(13,994)	-	(153)	-
8316	Unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income (Note 6 (19))	(529,832)	(6)	-	-
8330	Share of other consolidated profit and loss of subsidiaries under equity method (Note 6(17))	(93,347)	(1)	212,773	2
		(637,173)	(7)	212,620	2
8360	**Items that may be reclassified subsequently to profit or loss**				
8361	Exchange differences on translation of foreign operations (Note 6 (19))	385,988	4	(76,543)	(1)
8362	Unrealized gains or losses on valuation of financial assets available for sales (Note 6 (19))	-	-	23,914	-
8380	Share of other comprehensive income of associates and joint ventures accounted for using equity method (Note 6 (28))	(100,360)	(1)	(236,832)	(2)
8399	Income tax related to components of other comprehensive income that will be reclassified to profit or loss (Note 6 (18))	5,267	-	13,012	-
	Total Items that may be reclassified subsequently to profit or loss	290,895	3	(276,449)	(3)
8300	**Other comprehensive income (after tax)**	(346,278)	(4)	(63,829)	(1)
	Total comprehensive income	**$ 1,604,225**	**19**	**971,676**	**8**
	Basic earnings per share (NT dollars) (Note 6 (21))				
9750	Basic earnings per share	**$**	**3.36**		**1.80**
9850	Diluted earnings per share	**$**	**3.34**		**1.79**

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

Sino-American Silicon Products Inc.
Standalone Statement of Changes in Equity
For the years ended December 31, 2018 and 2017

Expressed in thousands of New Taiwan Dollars

				Retained earnings				Other equity interest							
	Ordinary shares	Pending share capital	Capital surplus	Legal reserve	Special reserve	Undistributed retained earnings (Accumulated loss)	Total	Exchange differences on translation of foreign financial statements	Financial assets at fair value through other comprehensive income	Unrealized gains (losses) on available for sale financial assets	Employees' unearned remuneration	Other	Total	Treasury shares	Total Equity
Balance at January 1, 2017	$ 5,800,312	-	18,821,483	311,579	513,302	(1,565,754)	(740,873)	(1,617,512)	-	(1,188,654)	-	(6,354)	(2,812,520)	(169,861)	20,898,541
Net income for the year	-	-	-	-	-	1,035,505	1,035,505	-	-	-	-	-	-	-	1,035,505
Other comprehensive income for the year	-	-	-	-	-	212,620	212,620	(355,822)	-	79,373	-	-	(276,449)	-	(63,829)
Total comprehensive income	-	-	-	-	-	1,248,125	1,248,125	(355,822)	-	79,373	-	-	(276,449)	-	971,676
Cash dividends distribution from capital surplus	-	-	(861,714)	-	-	-	-	-	-	-	-	-	-	-	(861,714)
Employees execute stock options to issue new shares	60,625	-	234,013	-	-	-	-	-	-	-	-	-	-	-	294,638
Share of net worth changes of subsidiaries, associates and joint ventures accounted for using equity method	-	-	5,670,627	-	-	-	-	-	-	-	-	2,052	2,052	-	5,672,679
Shares issued with restrictions on employee rights	60,000	-	343,200	-	-	-	-	-	-	-	(283,200)	-	(283,200)	-	120,000
Remuneration coast of shares with restrictions on employee rights	-	-	-	-	-	-	-	-	-	-	45,752	-	45,752	-	45,752
Shares with restrictions on employee rights written-off	(350)	-	(1,778)	-	-	-	-	-	-	-	1,428	-	1,428	-	(700)
Balance at December 31, 2017	5,920,587	-	24,205,831	311,579	513,302	(317,629)	507,252	(1,973,334)	-	(1,109,281)	(236,020)	(4,302)	(3,322,937)	(169,861)	27,140,872
Effects of retrospective application of new accounting standards	-	-	-	-	-	1,222,787	1,222,787	-	(2,338,298)	1,109,281	-	-	(1,229,017)	-	(6,230)
Balance at January 1, 2018 after adjustments	5,920,587	-	24,205,831	311,579	513,302	905,158	1,730,039	(1,973,334)	(2,338,298)	-	(236,020)	(4,302)	(4,551,954)	(169,861)	27,134,642
Net income for the year	-	-	-	-	-	1,950,503	1,950,503	-	-	-	-	-	-	-	1,950,503
Other comprehensive income for the year	-	-	-	-	-	(107,341)	(107,341)	387,093	(626,030)	-	-	-	(238,937)	-	(346,278)
Total comprehensive income	-	-	-	-	-	1,843,162	1,843,162	387,093	(626,030)	-	-	-	(238,937)	-	1,604,225
Loss made up by capital surplus	-	-	(317,629)	-	-	317,629	317,629	-	-	-	-	-	-	-	-
Cash dividends distribution from capital surplus	-	-	(1,759,511)	-	-	-	-	-	-	-	-	-	-	-	(1,759,511)
Share of net worth changes of subsidiaries, associates and joint ventures accounted for using equity method	-	-	(245,680)	-	-	-	-	-	-	-	-	922	922	-	(244,758)
Treasury share cancellation	(55,550)	-	(114,311)	-	-	-	-	-	-	-	-	-	-	169,861	-
Received by gift	-	-	239	-	-	-	-	-	-	-	-	-	-	-	239
Remuneration coast of shares with restrictions on employee rights	-	-	(9,487)	-	-	-	-	-	-	-	160,686	-	160,686	-	151,199
Restrictions on employee rights invalid, pending for cancellation	(1,830)	(330)	(2,160)	-	-	-	-	-	-	-	-	-	-	-	(4,320)
Dispose of equity instruments measured at fair value through other comprehensive gains and losses	-	-	-	-	-	(1,558,196)	(1,558,196)	-	1,558,196	-	-	-	1,558,196	-	-
Balance at December 31, 2018	**$ 5,863,207**	**(330)**	**21,757,292**	**311,579**	**513,302**	**1,507,753**	**2,332,634**	**(1,586,241)**	**(1,406,132)**	-	**(75,334)**	**(3,380)**	**(3,071,087)**	-	**26,881,716**

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

Sino-American Silicon Products Inc.

Standalone Statement of Cash Flow

For the years ended December 31, 2018 and 2017

Expressed in thousands of New Taiwan dollars

	2018	2017
Cash flows from operating activities:		
Income before income tax	$ 2,025,756	1,025,451
Adjustments:		
Adjustments to reconcile profit (loss)		
Depreciation expense	981,913	1,034,098
Expected credit losses / Provisions for bad debt expense	48,770	-
Net gains on financial assets or liabilities at fair value through profit or loss	11,291	-
Interest expenses	39,688	46,537
Interest income	(38,034)	(35,206)
Dividend income	(14,986)	(14,946)
Share-based payment remuneration cost	151,199	45,752
Share of interests of subsidiaries and affiliates under equity method	(6,430,774)	(2,275,232)
Gains on disposal of property, plant and equipment	41,421	(3,568)
Financial asset impairment loss	-	69,501
Allowance (reversal) for inventory valuation and obsolescence loss	66,125	(130,275)
Non-financial asset impairment loss	1,466,008	-
Other net loss without affecting cash flow	-	(9,837)
Total adjustments	(3,677,379)	(1,273,176)
Changes in operating assets and liabilities:		
Notes and accounts receivable (including related parties)	282,083	86,970
Inventories	1,584,411	(89,732)
Prepayments for purchase of materials	512,843	532,935
Other current assets	37,716	11,799
Notes and accounts payable (including related parties)	(609,964)	(335,349)
Provisions	533,292	-
Contract liabilities/Advance sales receipts	(453,415)	(18,302)
Net defined benefit liabilities	(31,699)	(5,536)
Other operating liabilities	(207,964)	156,808
Total changes in operating assets and liabilities	1,647,303	339,593
Total adjustments	(2,030,076)	(933,583)
Cash inflow generated from operations	(4,320)	91,868
Interest received	37,951	35,206
Dividends received	14,986	14,946
Interest paid	(39,788)	(47,931)
Income taxes paid	(4,660)	(1,071)
Net cash flows from operating activities	4,169	93,018

(Continued on next page)

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

Sino-American Silicon Products Inc.
Standalone Statement of Cash Flow (continued from previous page)
For the years ended December 31, 2018 and 2017
Expressed in thousands of New Taiwan dollars

	2018	2017
Cash flows from investing activities:		
Acquisition of financial assets at fair value through other comprehensive income	(205,059)	-
Acquisition of financial assets at fair value through profit or loss	(98,344)	-
Loan receivable – related party	283,527	(664,114)
Proceeds from disposal of property, plant and equipment	(1,081,006)	(449,000)
Cash dividends from investments accounted for equity method	2,226,116	555,732
Acquisition of property, plant and advance payments received for equipment	(414,734)	(241,189)
Proceeds from disposal of property, plant and equipment	638,064	17,368
Restricted assets and refundable deposits reduced	(13,677)	4,831
Net cash inflow (outflow) from investment activities	1,334,887	(776,372)
Cash flows from financing activities:		
Decrease in short term borrowings	352,212	604,913
Increase in long term borrowings	596,000	5,710,000
Repayments of long term borrowings	(345,800)	(7,090,000)
Cash dividends distribution from capital surplus	(1,759,511)	(861,714)
Shares issued with restrictions on employee rights	-	120,000
Employees execute stock options	-	294,638
Shares with restrictions on employee rights written-off	(4,320)	(700)
Received by gift	239	-
Net cash flows used in financing activities	(1,161,180)	(1,222,863)
Net increase (decrease) in cash and cash equivalents	177,876	(1,906,217)
Cash and cash equivalents at beginning of period	673,428	2,579,645
Cash and cash equivalents at end of period	**$ 851,304**	**673,428**

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

Sino-American Silicon Products Inc.
Notes to standalone financial statements
For the years ended December 31, 2018 and 2017
(Expressed in NT$ Thousand unless otherwise stated)

1. Company history

Sino-American Silicon Products Inc. (hereinafter referred to as "the Company") was incorporated in accordance with the Company Act of the Republic of China in January 1981; also, the Chunan Branch was established in June 2005 at No. 8, Industrial East Road 2, Science Based Industrial Park, Hsinchu, Taiwan (R.O.C.). for the R&D, design, production and sale of semi-conductor silicon materials and components, rheostats, optical and communications wafer materials; and also the related technology, management consulting business, and technical services of the photo-voltaic power system generation and installation.

The Company's stocks have been traded publicly at the Taipei Exchange (TPEx) since March 2001.

For the purpose of reorganization and professional division of work and enhancing competitiveness and business performance, a resolution was reached at the shareholders' meeting on June 17, 2011 to have the semiconductor business and sapphire business (including the related assets, liabilities and business operations), by the way of incorporation and partition, transferred to the Company's 100% owned subsidiaries, GlobalWafers Co., Ltd. (hereinafter referred to as "GlobalWafers") and Sino Sapphire CO., LTD (hereinafter referred to as "Sino Sapphire") with the base date of partition scheduled on October 1, 2011. The Company based on the net book value of the semi-conductor business shall pay a price of NT$ 38.5 per share for acquiring 180,000 thousand shares at NT$ 10 par value of GlobalWafers; also, based on the sapphire business net assets shall pay a price of NT$ 40 per share for acquiring 40,000 thousand shares at NT$ 10 par value of Sino Sapphire.

A resolution merging with Sunrise Global Solar Energy Co., Ltd. (hereinafter referred to as "Sunrise Global") was reached by the Board of Directors on August 12, 2013 with the base date of merger scheduled on August 1, 2014. The Company is the surviving corporation and Sunrise Global will be discontinued after the merger.

The shares of GlobalWafers were approved for trading over the counters through the Taiwan Stock Exchange. They were booked on the counters on September 25, 2015 and were closed for trading over emerging counters the same day.

2. Approval date and procedures of the standalone financial statements

These standalone financial statements were authorized for issuance by the board of directors on March 21, 2019.

3. New standards, amendments and interpretations adopted

(1) The impact of the International Financial Reporting Standards ("IFRSs") endorsed by the Financial Supervisory Commission, R.O.C. ("FSC") which have already been adopted.

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2018:

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Amendment to IFRS 2 "Classification and Measurement of Share-based Payment Transactions"	January 1, 2018
Amendments to IFRS 4 "Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts"	January 1, 2018
IFRS 9 "Financial Instruments"	January 1, 2018
IFRS 15 "Revenue from Contracts with Customers"	January 1, 2018
Amendment to IAS 7 "Statement of Cash Flows -Disclosure Initiative"	January 1, 2017
Amendment to IAS 12 "Income Taxes- Recognition of Deferred Tax Assets for Unrealized Losses"	January 1, 2017
Amendments to IAS 40 "Transfers of Investment Property"	January 1, 2018
Annual Improvements to IFRS Standards 2014–2016 Cycle:	
Amendments to IFRS 12	January 1, 2017
Amendments to IFRS 1 and Amendments to IAS 28	January 1, 2018
IFRIC 22 "Foreign Currency Transactions and Advance Consideration"	January 1, 2018

Except for the following items, the Company believes that the adoption of the above IFRSs would not have any material impact on its standalone financial statements. The extent and impact of signification changes are as follows:

1. IFRS 15 "Revenue from Contracts with Customers"

The standard replaces IAS No. 18 "Revenue" and IAS No.11 "Construction Contracts" and related interpretations. The single analysis model determines the method, time and amount of revenue recognition by the company in five steps. The Company adopts the cumulative impact method for the application of Revenue from Contracts with Customers in IFRS 15. Therefore, the comparative information of previous periods does not need to be rewritten and continues to apply IAS 18, IAS 11 and related interpretations. The cumulative effect of the initial application of IFRS 15 is to adjust the retained earnings on January 1, 2018.

The nature and impact of this accounting policy change are as follows:

(1) Sales of goods

For the sale of products, in the past, there was evidence of persuasiveness (usually a signed customer order) and the significant risks and rewards of ownership

have been transferred to the buyer, and the revenue was recognized at that time. At this point in time, the customer has accepted the product and the significant risks and rewards of the relevant ownership have been transferred to the customer. The revenue and cost can be reliably measured, the consideration is likely to be recovered, and the management of the commodity is no longer continued. Under IFRS No. 15, revenue is recognized when a customer gains control over a product.

(2) Providing labor services

The Company provides labor services to its customers. If the labor service in a single agreement is provided during different reporting periods, in the past, the consideration was paid to different services based on the relative fair value, and the labor service revenue was recognized according to the completion ratio method. Under IFRS No. 15, the consideration for the overall service contract is based on the relative individual selling price of the labor service. The company determines the individual selling price based on the price at which the labor is sold separately.

(3) Impact on standalone financial statements

The impact of the Company's adjustment of retained earnings on January 1, 2018 due to the first application of IFRS15 was NT$ 0, which had no significant impact on the Company's standalone personal financial statements for 2018.

2. IFRS 9 “Financial Instruments”

IFRS 9 replaces IAS 39 “Financial Instruments: Recognition and Measurement” which contains classification and measurement of financial instruments, impairment and hedge accounting.

As a result of the adoption of IFRS 9, the Company adopted the consequential amendments to IAS 1 “Presentation of Financial Statements”, which requires impairment of financial assets to be presented in a separate line item in the statement of profit or loss and OCI. Previously, the Company’s approach was to include the impairment of trade receivables in operating expenses. Additionally, the Company adopted the consequential amendments to IFRS 7 Financial Instruments: Disclosures that are applied to disclosures about 2018 but generally have not been applied to comparative information.

The significant changes in accounting policies resulting from the application of IFRS 9 by the Company are as follows:

(1) Classification of financial assets and financial liabilities

IFRS 9 contains three principal classification categories for financial assets: measured at amortized cost, fair value through other comprehensive income (FVTOCI) and fair value through profit or loss (FVTPL). The classification of financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. The standard eliminates the previous IAS 39 categories of held to maturity, loans and receivables and available for sale. Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification. For an explanation of how the Company classifies and measures financial assets and accounts for related gains and losses under IFRS 9, please see note 4(6).

The adoption of IFRS 9 did not have any a significant impact on the Company’s accounting policies on financial liabilities.

(2) Impairment of financial assets

IFRS 9 replaces the 'incurred loss' model in IAS 39 with the 'expected credit loss' (ECL) model. The new impairment model applies to financial assets measured at amortized cost, contract assets and debt investments at FVTOCI, but not to investments in equity instruments. Under IFRS 9, credit losses are recognized earlier than they are under IAS 39, please see note 4(6).

(3) Transition

The adoption of IFRS 9 have been applied retrospectively, except as described below:

- Differences in the carrying amounts of financial assets resulting from the adoption of IFRS 9 are recognized in retained earnings and other equity interest as on January 1, 2018. Accordingly, the information presented for 2017 does not generally reflect the requirements of IFRS 9, and therefore, is not comparable to the information presented for 2018 under IFRS 9.
- The following assessments have been made on the basis of the facts and circumstances that existed at the date of initial application:
  - The determination of the business model within which a financial asset is held.
  - The designation and revocation of previous designations of certain financial assets and financial liabilities as measured at FVTPL.
  - The designation of certain investments in equity instruments not held for trading as at FVTOCI.
- If an investment in a debt security had low credit risk at the date of initial application of IFRS 9, then the Company assumed that the credit risk on its asset will not increase significantly since its initial recognition.

(4) Classification of financial assets on the date of initial application of IFRS 9

The following table shows the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 for each class of the Company's financial assets as of January 1, 2018:

	IAS 39		IFRS 9	
	Measurement categories	Carrying Amount	Measurement categories	Carrying Amount
Financial Assets				
Cash and cash equivalents	Loans and receivables	$ 673,428	Amortized cost	673,428
Debt instrument investment	Hold to maturity date	281,366	Amortized cost	281,366
Equity instruments	Available-for-sale	685,194	FVTOCI	685,194
Equity instruments	Financial assets measured at cost - non-current (Note)	298,640	FVTOCI	292,410
Account and other receivables, net (including related parties)	Loans and receivables	2,247,900	Amortized cost	2,247,900
Other financial assets - current and non-current	Loans and receivables	20,556	Amortized cost	20,556

Note: These equity instruments represent investments in which the Company intends to hold long-term strategies. In accordance with IFRS 9, the

Company specifies that the investment is classified as measured at fair value through other comprehensive gain or loss on the initial application date. Therefore, on January 1, 2018, the carrying amount of these assets decreased by NT$ 6,230 thousands, and other equity items and retained earnings decreased by NT$ 1,229,017 thousands and increased by NT$ 1,222,787 thousands respectively.

The following table reconciles the carrying amounts of financial assets under IAS 39 to the carrying amounts under IFRS 9 upon transition to IFRS 9 on 1 January, 2018:

	2017.12.31 IAS 39 Carrying Amount	Reclassification	Remeasurement	2018.1.1 IFRS 9 Carrying Amount	2018.1.1 Retained earnings	2018.1.1 Other equity
Investments accounted for using equity method	$ 20,988,678	-	(6,230)	20,982,448	-	-
Fair value through other comprehensive income						
Available for sale (including measured at cost) IAS 39 the amount of the beginning of the period	$ 983,834	-	-	983,834	1,222,787	(1,229,017)
Financial assets measured at amortized cost						
Cash and cash equivalents, holdings to maturities, receivables and other financial assets IAS 39 the amount of the beginning of the period	$ 3,223,250	-	-	3,223,250	-	-

There is no impact on the earnings per share in 2018 and 2017 due to the change.

3. Amendments to IAS 7 “Disclosure Initiative”

The amendments require disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flow and non-cash changes.

To satisfy the new disclosure requirements, the Company presents a reconciliation between the opening and closing balances for liabilities with changes arising from financing activities at note 6(32).

(2) The impact of IFRS endorsed by FSC but not yet effective

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning, or after, January 1, 2019 in accordance with Ruling No. 1070324857 issued by the FSC on July 17, 2018:

New, Revised or Amended Standards and Interpretations	Effective date per IASB
IFRS 16 “Leases”	January 1, 2019
IFRIC 23 “Uncertainty over Income Tax Treatments”	January 1, 2019
Amendments to IFRS 9 “Prepayment features with negative compensation”	January 1, 2019
Amendments to IAS 19 “Plan Amendment, Curtailment or Settlement”	January 1, 2019
Amendments to IAS 28 “Long-term interests in associates and joint ventures”	January 1, 2019
Annual Improvements to IFRS Standards 2015–2017 Cycle	January 1, 2019

Except for the following items, the Company believes that the adoption of the above IFRSs would not have any material impact on its standalone financial statements. The extent and impact of signification changes are as follows:

IFRS 16 Leases

IFRS 16 replaces the existing leases guidance, including IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", SIC 15 "Operating Leases–Incentives" and SIC 27 "Evaluating the Substance of Transactions Involving the Legal Form of a Lease".

IFRS 16 introduces a single and an on balance sheet lease accounting model for lessees. A lessee recognizes a right of use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. In addition, the nature of expenses related to those leases will now be changed since IFRS 16 replaces the straight line operating lease expense with a depreciation charge for right of use assets and interest expense on lease liabilities. There are recognition exemptions for short term leases and leases of low value items. The lessor accounting remains similar to the current standard – i.e. the lessors will continue to classify leases as finance or operating leases.

(1) Determining whether an arrangement contains a lease

On transition to IFRS 16, the Company can choose to apply either of the following:

- IFRS 16 definition of a lease to all its contracts; or
- A practical expedient that does not need any reassessment whether a contract is, or contains, a lease.

The Company plans to apply the practical expedient to grandfather the definition of a lease upon transition. This means that it will apply IFRS 16 to all contracts entered into before January 1, 2019 and identified as leases in accordance with IAS 17 and IFRIC 4.

(2) Transition

As a lessee, the Company can apply the standard using either of the following:

- Retrospective approach; or
- Modified retrospective approach with optional practical expedients.

The Company expects to adopt a revised retrospective transition to the new standard. Therefore, the adoption of the new standard has no effect on the retained earnings on January 1, 2019, without rewriting the comparative period information.

When applying the modified retrospective approach to leases previously classified as operating leases under IAS 17, the lessee can elect, on a lease by lease basis, whether to apply a number of practical expedients on transition. The Company chooses to elect the following practical expedients:

- Apply a single discount rate to a portfolio of leases with similar characteristics;
- Adjust the right of use assets, based on the amount reflected in IAS 37 onerous contract provision, immediately before the date of initial application, as an alternative to an impairment review;
- Apply the exemption not to recognize the right of use assets and liabilities to leases with lease term that ends within 12 months of the date of initial application;
- Use hindsight when determining the lease term if the contract contains

options to extend or terminate the lease.

(3) Up to now, the Company assesses that the most significant impact of the application of the new standards is the right to use assets and lease liabilities for the current operating lease of office, factory buildings and storage locations. It is estimated that the above differences may make the right to use assets and lease liabilities on January 1, 2019 increase by NT$ 180,137 thousands; in addition, the Company expects that the application of the new standard will not affect the compliance capability of the maximum number of financing leverages agreed in its loan contract.

(3) The impact of IFRS issued by IASB but not yet endorsed by the FSC

As of the date, the following IFRSs that have been issued by the International Accounting Standards Board (IASB), but have yet to be endorsed by the FSC.

New, Revised or Amended Standards and Interpretations	The effective date announced by the IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets Between an Investor and Its Associate or Joint Venture"	To be decided by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020

The Company is evaluating the impact of its initial adoption of the abovementioned standards or interpretations on its standalone financial position and standalone financial performance. The results thereof will be disclosed when the Company completes its evaluation.

4. Summary of significant accounting policies

The significant accounting policies presented in the standalone financial statements are summarized below. Except for those specifically indicated, the following accounting policies were applied consistently throughout the periods presented in the standalone financial statements.

(1) Statement of compliance

The standalone financial statements is prepared in accordance with the "Regulations Governing the Preparation of Financial Reports by Securities Issuers."

(2) Basis of preparation

1. Basis of measurement

Expect for the following significant accounts, the standalone financial statements have been prepared on a historical cost basis:

(1) Financial instruments measured at fair value through profit or loss are measured at fair value;

(2) Financial assets at fair value (available for sale) through other comprehensive gains and losses as measured at fair value;

(3) Ensure the defined benefit liability recognized is the net of pension assets less the

present value of defined benefit obligation and limit on a defined benefit in Note 4 (17).

2. Functional and presentation currency

The Company's functional currency in the currency of the main economic environment in which it operates. This standalone financial statements is expressed in the Company's functional currency, New Taiwan Dollar. All financial information presented in NT dollars is expressed in NT$ thousand.

(3) Foreign currencies

1. Foreign currency transactions

Transactions in foreign currencies are translated to the functional currencies at the exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the last date of reporting period (hereinafter referred as “the reporting date”) are retranslated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between amortized cost in the functional currency at the beginning of the period adjusted for the effective interest and payments during the period, and the amortized cost in foreign currency translated at the exchange rate at the reporting date.

Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined. Non-monetary items in a foreign currency that are measured based on historical cost are translated using the exchange rate at the date of transaction.

Except foreign currency exchange differences arising from conversion of monetary (available for sale) equity instruments measured at fair value through other comprehensive gain or loss are recognized in other comprehensive gain or loss, the rest are recognized as profit and loss.

2. Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to New Taiwan Dollars at the exchange rates at the reporting date. The income and expenses of foreign operations are translated to New Taiwan Dollars at the average rate. Foreign currency differences are recognized in other comprehensive income.

(4) Classification of current and non-current assets and liabilities

An asset is classified as current under one of the following criteria, and all other assets are classified as non-current.

1. Expected to be realized during its normal business cycle, or intended to be sold or consumed;
2. It is held primarily for the purpose of trading;
3. It is expected to be realized within twelve months after the reporting period; or
4. Cash or cash equivalents, except for those who are subject to other restrictions on the exchange of assets or liquidation of debts within less than twelve months after the reporting period.

A liability is classified as current under one of the following criteria, and all other liabilities are classified as non-current:

1. It is expected to be settled in the normal operating cycle;
2. It is held primarily for the purpose of trading;

3. It is due to be settled within twelve months after the reporting period; or
4. Liabilities that do not have the right to unconditionally defer the settlement period for at least 12 months. No impact will be on classification of liabilities with terms determined by the counterparties that lead to settlement of the liabilities by issuing of equity instruments.

(5) Cash and cash equivalents

Cash comprises cash and cash in bank. Cash equivalents are short term and highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Time deposits which meet the above definition and held for the purpose of meeting short term cash commitments rather than for investment or other purposes are classified as cash equivalents.

(6) Financial instruments

1. Financial assets (policy applicable from January 1, 2018)

Financial assets are classified into the following categories: measured at amortized cost, fair value through other comprehensive income (FVTOCI), and fair value through profit or loss (FVTPL).

The Company shall reclassify all affected financial assets only when it changes its business model for managing its financial assets.

(1) Financial assets measured at amortized cost

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and.
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A financial asset measured at amortized cost is initially recognized at fair value, plus any directly attributable transaction costs. These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses, and impairment loss, are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

(2) Fair value through other comprehensive income (FVTOCI)

Debt instrument investment meeting the following conditions and not specified to be measured at fair value through gain or loss, are measured at fair value through other comprehensive gain or loss

- Holds the financial asset in a business model for the purpose of collecting contractual cash flows and selling.
- The cash flow of on a specific date of the contractual terms of the financial asset is solely the interest paid on the principal and the amount of the outstanding principal.

The Company may make an irrevocable selection when the original recognition is made, and the subsequent fair value changes of the investment in equity instruments that are not held for trading are presented in other comprehensive gain or loss. The aforementioned selections are made on a case-by-case basis.

The initial recognition is measured at fair value plus directly attributable

transaction costs; subsequently measured at fair value, except for foreign currency exchange gain or loss of debt instrument investment, Interest income calculated by effective interest method, and impairment loss and equity instrument investment Dividend income (except for the recovery of the portion of the investment costs) that are recognized in other comprehensive gain or loss, changes in the remaining carrying amount are recognized as other comprehensive gains and losses, accumulated as unrealized profit and loss of financial assets measured at fair value through other comprehensive gain or loss under the equity item. At the time of derecognition, a debt instrument investor reclassifies the accumulated interest or loss under equity to gain or loss; An equity instrument investor reclassifies the accumulated interest or loss under equity to retained earnings and does not reclassify to gain or loss. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

Dividend income from equity investments is recognized on the date on which the Company has the right to receive dividends (usually the ex-dividend date).

(3) Fair value through profit or loss (FVTPL)

All financial assets not classified as amortized cost or FVTOCI described as above are measured at FVTPL. On initial recognition, the Company may irrevocably designate a financial asset, which meets the requirements to be measured at amortized cost or at FVTOCI, as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

When the initial recognition is measured at fair value, the transaction costs are recognized as gain or loss when incurred; subsequently, measured at fair value, the gain or loss (including related Dividend income and Interest income) generated by remeasurement is recognized as gain or loss. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

(4) Assess whether the contractual cash flow is entirely for the payment of the principal and interest on the outstanding principal amount

For the purpose of assessment, the principal is the fair value of the financial assets at the time of initial recognition. The interest consists of the following considerations: the time value of money, the credit risk associated with the amount of the outstanding principal in a specified period, and other basic loan risks and costs, and margin of profit.

To assess whether the contractual cash flow is entirely for the payment of the principal and interest on the outstanding principal amount, the Company considers the terms of the financial instrument contract, including assessing whether the financial asset contains a contractual term that changes the time point or amount of the contractual cash flow, resulting not meeting this condition. At the time of evaluation, the Company consider:

- Any contingency that would change the point or amount of the contractual cash flow;
- The terms that adjust the contractual coupon rate, including the characteristics of the variable interest rate;
- Early repayment and extension features; and
- The Company's claim is limited to terms derived from the cash flow of a

particular asset (e.g. non-recourse characteristics).

(5) Impairment of financial assets

The Company recognizes the allowance for the expected credit losses of financial assets measured at amortized cost (including cash and cash equivalents, financial assets measured at amortized cost, notes receivable and accounts receivable, refundable deposits and other financial assets, etc.) and contractual assets.

The Company measures loss allowances at an amount equal to lifetime expected credit loss (ECL), except for the following which are measured as 12 month ECL:

- Debt securities that are determined to have low credit risk at the reporting date；and
- The credit risk of other debt securities and bank deposits (i.e., The risk of default on the expected duration of the financial instruments) has not increased significantly since the initial recognition.

The allowance for receivables and contractual assets is measured at the amount of expected credit losses during the lifetime.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12 month ECLs are the portion of ECLs that result from default events that are possible within the 12 month after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

The maximum period considered when estimating ECLs is the maximum contractual period over which the Company is exposed to credit risk.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Company considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis based on the Company’s historical experience and informed credit assessment, as well as forward looking information.

If the credit risk rating of a financial instrument is equivalent to the “investment grade” defined by the world (for S&P's investment grade BBB-, Moody's investment grade Baa3 or Taiwan Ratings investment grade twA, or higher than this grade, the Company considers the debt securities to have a low credit risk.

If the contract amount is overdue for more than 30 days, the Company assumes that the credit risk of the financial assets has increased significantly.

If the contract amount is overdue for more than 180 days, or the borrower is unlikely to perform its credit obligations to pay the full amount to the Company, the Company is deemed to have default on the financial asset.

Expected credit losses are probability-weighted estimates of credit losses for the expected duration of the financial instrument. Credit losses are measured at the present value of all cash shortfalls, which is the difference between the cash flows that the Company can receive based on the contract and the cash flows expected to be received by the Company. Expected credit losses are discounted at the effective interest rate of financial assets.

The Company assesses whether the financial assets measured at amortized cost are credit-deductible on each reporting date. The financial asset has been

credit-deducted when one or more events that have an adverse effect on the estimated future cash flows of the financial asset have occurred. Evidence of credit impairment on financial assets includes observable information on:

- Significant financial difficulties for the borrower or issuer;
- Breach of contract, such as delay or overdue for more than 90 days;
- Due to economic or contractual reasons related to the financial difficulties of the borrower, the Company gives the borrower concessions that would not have been considered;
- The borrower is likely to claim bankruptcy or other financial restructuring; or
- The active market for the financial assets disappeared due to financial difficulties.

The allowance for financial assets measured as amortized cost is deducted from the carrying amount of the asset. The amount of accrual or reversal of allowance for loss is recognized in gain or loss.

When the Company cannot reasonably expect the recovery of financial assets in whole or in part, it will directly reduce the total carrying amount of its financial assets. Usually, the Company determines that the debtor's assets or sources of Revenue cannot generate sufficient cash flow to repay the amount of the write-off. However, the written-off financial assets can still be enforced in order to comply with the procedures for the Company to recover the overdue amount.

(6) Derecognition of financial assets

Financial assets are derecognized when the contractual rights to the cash flows from the assets expire, or when the Company transfers substantially all the risks and rewards of ownership of the financial assets.

2. Financial assets (policy applicable before January 1, 2018)

The Company's financial assets are classified into: receivables, financial assets measured at cost, held-to-maturity financial assets and available for sale financial assets.

(1) Available for sale financial assets.

Such financial assets are designated as financial assets available for sale or non-derivatives financial assets of other category. Financial assets are measured at fair value plus attributed transaction cost at initial recognition; financial assets are subsequently measured at fair value. Except for impairment losses and Dividend income recognized as gains or losses, the change in carrying amount is recognized in other comprehensive Revenue and the unrealized gain or loss of the financial assets available-for sale is accumulated under the equity account. When derecognizing, the cumulative amount of gain or loss under the equity account is reclassified to gain or loss and reported under the “non-operating Revenue and expense” account. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

If such financial assets are equity investments “without quoted market price and reliably measured fair value,” it is measured at cost net of impairment loss and reported at “financial assets measured at cost” account.

Dividend income from equity investment is recognized on the date (usually on the ex-dividend date) when the Company is entitled to collect dividends; also, it is reported in the “non-operating Revenue and expense” account.

(2) Held-to-maturity financial assets

Such financial assets are debt securities that the Company has a positive

intention and ability to hold until maturity. The initial recognition is measured at fair value plus the directly attributable transaction cost; the subsequent evaluation is measured by the effective interest rate method after the amortized cost minus the impairment loss. The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

Interest income is reported in the “non-operating Revenue and expense” account.

(3) Receivables

Receivables are financial assets without a quoted market price and with fixed or determinable payment amount, including notes and accounts receivables and other receivables. It is measured at fair value plus directly attributed transaction cost at initial recognition. In the subsequent period it is measured in accordance with the effective interest rate method and the amortized cost is net of impairment loss, except for short-term receivables with insignificant interest recognized The purchase or sales of financial assets in ordinary course of business is handled in accordance with the accounting treatment of the trading date.

Interest income is included in non-operating income and expenses.

(4) Impairment of financial assets

Except for financial assets measured at fair value through profit or loss, financial assets are assessed for impairment at each reporting date. A financial asset is impaired if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset and that loss event has an impact on the estimated future cash flows of the financial asset that can be estimated reliably.

Objective evidence that financial assets are impaired includes the severe financial difficulties, default or delinquency by debtor (such as interest and payment are delay or unpaid), indications that a debtor or issuer will enter bankruptcy, possibility of restructuring increase and economic conditions that correlate with defaults of issuers and the disappearance of an active market for a security. In addition, for an investment in an equity security, a significant or prolonged decline in its fair value below its cost is accounted for as objective evidence of impairment.

After the individual assessment of the accounts receivable has not been derogated, the impairment is assessed on a Company basis. Evidence of objective impairment of a portfolio of receivables may include the Company's past experience in payment collections, an increase in delayed payments over the average credit period of the Company, and changes in national or regional economic conditions associated with arrears in receivables.

For financial assets measured at amortized cost, the amount of impairment loss recognized is the difference between the carrying amount of the asset and the present value of the estimated future cash.

The recognized impairment loss of financial assets measured at cost is the difference between the carrying amount of the assets and the present value of the estimated future cash flow discounted at the market return rate on similar assets. Such impairment loss cannot be reversed in the subsequent period.

Impairment loss of financial assets is directly deducted from carrying amount of financial asset; however, the carrying amount of accounts receivables is adjusted

down with the allowance account. The account receivable determined to be uncollectible is written off against the allowance account. The amount recovered that was previously written off is credited to the allowance account. Changes in the carrying amount of the allowance account are recognized in the gain or losses.

If there is impairment loss of the available-for-sale financial instruments, the accumulated gain or loss previously recognized as other comprehensive Revenue shall be reclassified as gain or loss.

When a financial asset is measured at amortized cost, if the amount of the impairment loss in the subsequent period decreases and the decrease is objectively linked to the occurrence of the impairment loss, the previously recognized impairment loss is recognized in gain or loss, except that the carrying amount of the investment on the deductible reversal date shall not be greater than the amortized cost if the impairment is not recognized.

The impairment loss of equity investments available-for-sale that was previously recognized in the gain or loss shall not be reversed and recognized in gain or loss. The recovery in fair value of any impairment loss previously recognized is recognized in other comprehensive Revenue and accumulated under the “other equity interest” account.

The loss and recovery of the bad debt of accounts receivable are reported as Selling expenses. The impairment loss and recovery of financial assets other than accounts receivables are reported under the “non-operating Revenue and expense” account.

(5) Derecognition of financial assets

Financial assets are derecognized when the contractual rights of the cash inflow from the asset are terminated, or when the Company transfers substantially all the risks and rewards of ownership of the financial assets.

On derecognition of a financial asset in its entirety, the difference between the carrying amount and the sum of the consideration received or receivable and any cumulative gain or loss that had been recognized in other comprehensive income and presented in “other equity–unrealized gains or losses from available for sale financial assets” is recognized in profit or loss, and recognized in non-operating income and expenses.

The Company separates the part that continues to be recognized and the part that is derecognized based on the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part derecognized, and the sum of the consideration received for the part derecognized and any cumulative gain or loss allocated to it that had been recognized in other comprehensive income, shall be recognized in profit or loss, under non-operating income and expenses.

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 derecognized based on the relative fair values of those parts.

3. Financial liabilities and equity instruments

(1) Classification of debt or equity

Debt or equity instruments issued by the Company are classified as financial liabilities or equity in accordance with the substance of the contractual agreement.

An equity instrument is any contract that evidences residual interest in the

assets of an entity after deducting all of its liabilities. Equity instruments issued are recognized as the amount of consideration received, less the direct cost of issuing.

Interest related to the financial liability is recognized in profit or loss, and included in non-operating income and expenses.

(2) Other financial liabilities

Financial liabilities not held for trading and are not designated as measured at fair value through gain or loss include long-term and short-term borrowings, accounts payable and other payables. Initial recognition is measured at fair value plus directly attributable transaction costs; the evaluation then uses the effective interest rate method measured at amortized cost. Interest expense not capitalized as an cost of asset is reported under the "non-operating Revenue and expense" account.

(3) Derecognition of financial liabilities

The Company derecognizes a financial liability when its contractual obligation has been discharged or cancelled, or has expired.

The difference between the carrying amount of a financial liability removed and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss, under non-operating income and expenses.

(4) Offsetting of financial assets and liabilities

The Company presents its financial assets and liabilities on a net basis when the Company has the legally enforceable right to offset and intends to settle such financial assets and liabilities on a net basis or to realize the assets and settle the liabilities simultaneously.

(7) Inventories

Inventories are measured at the lower of cost or net realizable value. The cost of inventories is based on the weighted average cost method and includes expenditure incurred in acquiring the inventories, production or conversion cost, and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on operating capacity.

Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses necessary to make the sale.

(8) Investment in associates

Associates are those entities in which the Company has significant influence, but not control or joint control, over their financial and operating policies.

Investments in associates are accounted for using the equity method and are recognized initially at cost. The cost of the investment includes transaction costs. The carrying amount of the investment in associates includes goodwill arising from the acquisition, less any accumulated impairment losses.

The standalone financial statements include the Company's share of the profit or loss and other comprehensive income of equity accounted investees, after adjustments to align their accounting policies with those of the Company, from the date that significant influence commences until the date that significant influence ceases. The Company recognizes any changes, proportionately with the shareholding ratio under additional paid in capital, when an associate's equity changes due to reasons other than profit and loss or comprehensive income, which did not result in changes in actual controlling power.

Unrealized profits resulting from transactions between the Company and an associate

are eliminated to the extent of the Company's interest in the associate. Unrealized losses on transactions with associates are eliminated in the same way, except to the extent that the underlying asset is impaired.

When the Company's share of losses or exceeds its interests in an associate, the carrying amount of the investment, including any long term interests that form part thereof, is reduced to zero, and the recognition of further losses is discontinued except to the extent the Company has an obligation or has made payments on behalf of the investee.

When the Company subscribes to additional shares in an associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment will differ from the amount of the Company's proportionate interest in the net assets of the associate. The Company records such a difference as an adjustment to investments, with the corresponding amount charged or credited to capital surplus. The aforesaid adjustment should first be adjusted under additional paid in capital. If the additional paid in capital resulting from changes in ownership interest is not sufficient, the remaining difference is debited to retained earnings. If the Company's ownership interest is reduced due to the additional subscription to the shares of the associate by other investors, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate shall be reclassified to profit or loss on the same basis as would be required if the associate had directly disposed of the related assets or liabilities.

(9) Investment in subsidiaries

The Company has the wholly-owned investee company valued under equity method when preparing the standalone financial statements. Under the equity method, the amortization amount attributable to the shareholders of the parent company from the gains or losses and other comprehensive Revenue of the standalone financial statements and the consolidated financial statements is the same. Moreover, the equity attributable to the shareholders of the parent company from the shareholder's equity of the standalone financial statements and the consolidated financial statements is the same.

If the change in the Company's ownership of the subsidiary does not lead to loss of control over the subsidiary, it is treated as an equity transaction conducted within the shareholders.

(10) Property, plant and equipment

1. Recognition and measurement

Items of property, plant and equipment are recognized and measured at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditure that is directly attributed to the acquisition of the asset. The cost of a self-constructed asset comprises material, labor, any cost directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, and any borrowing cost that is eligible for capitalization. The cost of software is capitalized as part of the equipment if the purchase of the software is necessary for the equipment to be capable of operating.

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately unless its useful life and depreciation method are the same as the useful life and depreciation method of another significant part of that same item.

The profit and loss from disposition of property, plant and equipment is determined according to the difference between the carrying amount and the disposition amount of the property, plant and equipment; the difference is recognized under the "non-operating Revenue and expense" account at a net amount.

2. Subsequent cost

Subsequent expenditure is capitalized only when it is probable that the future economic benefits associated with the expenditure will flow to the Company and the amount can be reliably measured. The carrying amount of those parts that are replaced is derecognized. Ongoing repairs and maintenance are expensed as incurred.

3. Depreciation

Depreciation is calculated on the cost of an asset less its residual value and is recognized in profit or loss on a straight line basis over the estimated useful life of each component of an item of property, plant and equipment. Items of property, plant and equipment with the same useful life may be companied in determining the depreciation charge. The remainder of the items may be depreciated separately. The depreciation charge for each period is recognized in profit or loss.

Land has an unlimited useful life and therefore is not depreciated.

The estimated useful lives for the current and comparative years of significant items of property, plant and equipment are as follows:

(1) Buildings: 2-50 years
(2) Machinery and equipment: 2-20 years
(3) Other equipment and leased assets: 2-25 years

The significant components of the building and construction mainly include the main building of the plant, electromechanical power engineering and wastewater treatment system, and are depreciated according to their durability years of 25 to 50 years, 25 years and 4 to 25 years respectively.

Depreciation methods, useful lives, and residual values are reviewed at each annual reporting date. If expectations differ from the previous estimates, the changes are accounted for as changes in an accounting estimate.

(11) Lessee

Leases are classified as finance lease whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. Assets held under finance lease are initially recognized as assets of the Company at the fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. Subsequently they are treated in a way pursuant to accounting policy relating to these assets.

The minimum finance lease payments should be apportioned between the finance charge and the reduction of the outstanding liability. The finance charge should be allocated so as to produce a constant periodic rate of interest on the remaining balance of the liability.

All other leases are classified as operating leases. The assets under such leases are not recognized in the Company's balance sheet.

For operating leases (not including service charges such as insurance and maintenance fees), the lease payments are recognized as expenses in the Revenue statement over the lease term on a straight-line basis.

(12) Intangible assets

1. Research and development

During the research phase, activities are carried out to obtain and understand new

scientific or technical knowledge. Expenditures during this phase are recognized in profit or loss as incurred.

Expenditures arising from the development phase shall be recognized as an intangible asset if all the conditions described below can be demonstrated; otherwise, they are recognized in profit or loss as incurred:

(1) The technical feasibility of completing the intangible asset so that it will be available for use or sale.
(2) The intention to complete the intangible asset and use or sell it.
(3) The ability to use or sell the intangible asset.
(4) How the intangible asset will generate probable future economic benefits.
(5) The availability of adequate technical, financial, and other resources to complete the development and to use or sell the intangible asset.
(6) The ability to measure reliably the expenditure attributable to the intangible asset during its development.

2. Other intangible assets

Other intangible assets that are acquired by the Company are measured at cost less accumulated amortization and any accumulated impairment losses.

3. Subsequent expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure is recognized in profit or loss as incurred.

4. Amortization

The amortizable amount is the cost of an asset less its residual value.

Except for goodwill, amortization is recognized in profit or loss on a straight line basis over the estimated useful lives from the date that they are available for use.

The residual value, amortization period, and amortization method of intangible assets are reviewed at least annually at each fiscal year end. Any change shall be accounted for as a changes in accounting estimates.

(13) Impairment of non-financial assets

The Company measures whether impairment has occurred in non-financial assets (except for inventories and deferred income tax assets) on every reporting date, and when there is an indication of impairment, the Company estimates its recoverable amount. If it is not possible to determine the recoverable amount of an individual asset, then the Company will have to determine the recoverable amount of the cash generating unit ("CGU") to which the asset has been allocated to.

The recoverable amount is the fair value of an individual asset or the cash-generating unit net of the sale cost or value in use, whichever is higher. In assessing value in use, the estimated future cash flows are translated using the pre-tax discount rate to the present value. The discount rate should reflect the current market's assessment of the time value of money and the specific risks to the asset or cash-generating unit.

If the recoverable amount of an individual asset or cash-generating unit is lower than the carrying amount, the carrying amount of the individual asset or cash-generating unit is adjusted down to the recoverable amount with the impairment loss recognized. Impairment loss is recognized immediately in gain or loss of the current period.

For the purposes of impairment testing, goodwill acquired through business mergers shall be amortized to the Company's cash-generating units (or cash generating Company) that are expecting to be benefited from the synergy of the merger. If the recoverable

amount of the cash-generating unit is less than its book value, the impairment loss is applied to offset the carrying amount of the goodwill amortized to the cash-generating unit and then to the book value of the assets within the unit proportionately. The goodwill impairment loss recognized cannot be reversed in the subsequent period.

The Company reevaluates on each reporting day whether there are indications that the impairment loss of non-financial assets other than goodwill recognized previously have been eliminated or reduced. If the estimates used to determine the recoverable amount are changed, the impairment loss should be reversed in order to increase the carrying amount of the individual asset or cash-generating unit to the recoverable amount; however, it shall not exceed the carrying amount of the individual assets or cash-generating unit in the prior period before recognizing the impairment loss but after appropriating the depreciation or amortization.

(14) Provisions

The recognition of provision is due to the present obligations of the Company resulting from a past event that may require the outflow of economic resources in the future to settle the obligation and the amount of the obligation can be estimated reliably. Provision is discounted at the pre-tax discount rate that reflects the monetary time value and debt specific risk assessed by the market. The amortization of the discount is recognized as an interest expense.

Onerous contracts: When the Company expects to fulfill a contractual obligation that is inevitably with a cost exceeding the expected economic benefits from the contract, the liability reserve for the onerous contract should be recognized Such provision is measured at lower than the estimated cost of the terminated contract and the present value of the estimated net cost of the continued contract; also, recognize all impairment losses related to such assets before recognizing the liability reserve of the onerous contract.

(15) Treasury stock

Repurchased shares are recognized under treasury shares (a contra equity account) based on their repurchase price (including all directly accountable costs), net of tax. Gains on disposal of treasury shares should be recognized under “capital reserve–treasury share transactions”. Losses on disposal of treasury shares should be offset against existing capital reserves arising from similar types of treasury shares. If there are insufficient capital reserves to be offset against, then such losses should be accounted for under retained earnings. The carrying amount of treasury shares should be calculated using the weighted average of different types of repurchase.

When the treasury stock is cancelled, the “capital reserve – Treasury stock” is debited proportionately to the equity shares, the difference is applied to write off the capital reserve - treasury stock in the same category or debited to retained earnings, if there is an insufficient amount. If the carrying amount is lower than the sum of par value and the premium from issuing stocks, it shall be debited to the additional paid in capital from transactions of the treasury stock in the same category

(16) Recognition of revenue

1. Revenue from contracts with customers (policy applicable from January 1, 2018)

   Revenue is measured by the amount of consideration that is expected to be obtained based on the transfer of goods or services. The Company recognizes Revenue when the control of goods or services is transferred to the customer and the performance obligation is fulfilled. The Company's main Revenue items are as follows:

   (1) Sale of goods

The company researches, develops, designs, manufactures and markets semiconductor silicon wafers and their components, varistors, optoelectronics and communication wafer materials. The Company recognizes revenue when it transfers control of the product. Control transfer of the product means that the product has been delivered to the customer, and the customer can completely determine the sales channel and price of the product, and has no impact on the customer's unfulfilled obligation to accept the product. The delivery occurs when the product is shipped to a specific location, its obsolescence and loss risk has been transferred to the customer, and the customer has accepted the product under the sales contract, the acceptance terms have lapsed, or the company has objective evidence that all acceptance conditions have been met.

(2) Product processing services

The Company provides processing of enterprise products and recognizes relevant Revenue during the financial reporting of the provision of labor services. Fixed price contracts are based on the proportion of services actually provided as a percentage of total services as of the reporting date. If the circumstances change, the estimates of Revenue, cost and degree of completion will be revised and the changes will be reflected in gain or loss when the management is informed of the change in circumstances and the amendment is made.

Under the fixed price contract, the customer pays a fixed amount in accordance with the agreed time schedule. When the services provided exceed the payment, the contract assets are recognized; if the payment exceeds the services provided, the contract liabilities are recognized.

If the contract is valued based on the number of hours of service provision, the Revenue is recognized by the amount for which the Company has the right to open an invoice. The Company asks customers for payment monthly, and can receive the consideration after opening the invoice.

The Company recognizes the accounts receivable when the goods are delivered, because the Company has the right to charge the consideration unconditionally at that time.

2. Revenue (policy applicable before January 1, 2018)

(1) Sales of goods

Revenue from the sale of goods in the course of ordinary activities is measured at the fair value of the consideration received or receivable, net of returns, trade discounts, and volume rebates. Revenue is recognized when persuasive evidence exists, usually in the form of an executed sales agreement that the significant risks and rewards of ownership have been transferred to the customer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods, and the amount of revenue can be measured reliably. If it is probable that discounts will be granted and the amount can be measured reliably, then the discount is recognized as a reduction of revenue as the sales are recognized.

The timing of the transfers of risks and rewards varies depending on the individual terms of the sales agreement. For international shipments, transfer of risks and rewards occurs upon loading the goods onto the relevant carrier. Generally for such products, the customer has no right of return. For domestic shipments, risks and rewards are normally transferred when goods are delivered and accepted

by customers at the client's designated location.

(2) Services

The Company provides labor services to its customers. Labor service Revenue is recognized in accordance with the percentage of completion on the reporting date.

(3) Government grants

Income from government grants for research and development is recognized as revenue under non-operating income and expenses, based on actual costs incurred as a percentage of the expected total costs. Income from government grants for equipment spending is recognized as the deduction of the equipment's carrying amount, which is also allocated on a straight line basis over the useful life of the equipment as a reduction of depreciation expense.

(17) Employee Benefits

1. Defined contribution plans

Obligations for contributions to defined contribution pension plans are recognized as an employee benefit expense in profit or loss in the periods during which services are rendered by employees.

2. Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Company's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. Any fair value of any plan asset is deducted. The discount rate used in calculating the present value is the market yield at the reporting date of government bonds that have maturity dates approximating the terms of the Company's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

Enterprise's net obligation is calculated annually by a qualified actuary in accordance with the project unit credit method. When the calculation results are beneficial to the Company, it is limited to the amount of the present value of the economic benefits that can be obtained from the funds returned from the plan or the accrual decrease of the plan in the future. The minimum fund appropriation needed for any plan of the Company should be considered when calculating the present value of the economic benefits. If a benefit can be realized in the plan period or upon the liquidation of the plan liability, it is with economic benefit to the Company.

For the plan benefit that is improved due to the service provided by the employees, the relevant expenses are recognized as gain or loss immediately.

The remeasurement of net defined benefit liabilities (assets) includes (1) actuarial gain or loss; (2) plan asset remuneration, excluding the amount of net interest included in net defined benefit liabilities (assets); and (3) any change in asset cap impact, but does not include the amount of net interest included in the net defined benefit liabilities. The remeasurement of net defined benefit liabilities (assets) are recognized in other comprehensive Revenue. The Company had chosen to have amounts recognized in other comprehensive Revenue to be transferred to the retained earnings.

The Company, when experiencing curtailment or settlement, should recognize the curtailment or settlement gain or loss of the defined benefit plan. Curtailment or settlement gains and losses include any changes in the fair value of any plan assets and changes in the present value of defined benefit obligations.

3. Short term employee benefits

Short term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid under short term cash bonus or profit sharing plans if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

(18) Share based payment

The grant date fair value of share based payment awards granted to employees is recognized as employee expenses, with a corresponding increase in equity, over the period that the employees become unconditionally entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards whose related services are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that meet the related services at the vesting date.

The non-vested conditions relating to the share-based payment incentives are reflected in the measurement of the fair value of the share-based payment and the difference between the expected and actual results is not subject to verification adjustment.

(19) Income tax

Income tax expenses include both current taxes and deferred taxes. Except for expenses related to business combinations, recognized directly in equity or other comprehensive income, all current and deferred taxes are recognized in profit or loss.

Current taxes include tax payables and tax deduction receivables on taxable gains (losses) for the year calculated using the statutory tax rate on the reporting date or the actual legislative tax rate, as well as tax adjustments related to prior years.

Deferred taxes arise due to temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases. However, deferred taxes are not recognized for the following:

1. Assets and liabilities that are initially recognized but are not related to the business combination and have no effect on net income or taxable gains (losses) arising from the transaction.
2. Temporary differences arising from equity investments in subsidiaries or joint ventures where there is a high probability that such temporary differences will not reverse.
3. Initial recognition of goodwill.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, which are normally tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities may be offset against each other if the following criteria are met:

1. The entity has the legal right to settle tax assets and liabilities on a net basis; and
2. The taxing of deferred tax assets and liabilities fulfills one of the scenarios below:
   (1) Levied by the same taxing authority; or
   (2) Levied by different taxing authorities, but where each such authority intends to settle tax assets and liabilities (where such amounts are significant) on a net basis every year of the period of expected asset realization or debt liquidation, or where the timing of asset realization and debt liquidation is matched.

A deferred tax asset is recognized for the carry forward of unused tax losses, unused tax credits, and deductible temporary differences to the extent that it is probable that future taxable profit will be available against which the unused tax losses, unused tax credits, and deductible temporary differences can be utilized. Such unused tax losses, unused tax credits, and deductible temporary differences are also be reevaluated every year on the financial reporting date, and adjusted based on the probability that future taxable profit will be available against which the unused tax losses, unused tax credits, and deductible temporary differences can be utilized.

(20) Earnings per share

The Company illustrated the basic and diluted earnings per share attributable to the common stock shareholders. Basic earnings per share is calculated by having the gain or loss attributable to the Company's common stock shareholders divided by the weighted average number of the outstanding common stock shares during the period. Diluted earnings per share is calculated by having the gain or loss attributable to the Company's common stock shareholders and the weighted average number of common stock shares outstanding adjusted for the effects of all potential diluted common stock shares, respectively. The Company's potential diluted ordinary share includes non-vested shares of restricted employee right and employee remuneration that has not been resolved by the board of directors and has been issued in the form of shares.

(21) Operating segment

The Company has the segment information disclosed in the consolidated financial statements; therefore, it will not be disclosed in the standalone financial statements.

5. Significant accounting assumptions and judgments, and major sources of estimation uncertainty

The management, when preparing the standalone financial statements in accordance with the "Regulations Governing the Preparation of Financial Reports by Securities Issuers", must make judgments, estimates and assumptions which will affect the adopted accounting policies and the assets, liabilities, revenues and expense amounts. The actual results could differ from those estimates.

The management continues to review the estimates and underlying assumptions, and changes in accounting estimates are recognized in the period in the period of change and affected future period

The accounting policy involves significant judgement and the information that has a significant impact on the amount recognized in the standalone financial statements is as follows:
Impairment assessment of property, plant and equipment

The Company needs to rely on subjective judgment and base them on assets usage patterns and industrial characteristics throughout the asset impairment evaluation process to determine the independent cash flow of a specific Company of assets, service life of assets and potential profit and loss; also, the changes in estimates arising from any changes in the economic situation or the Company's strategies that are likely to cause significant impairments or have the recognized impairment loss reversed. Please refer to Note 6 (12) for the key assumptions used in the recoverable amount.

The Company's accounting policies and disclosure has adopted the fair value to measure its financial, non-financial assets and liabilities. The Company's financial and accounting departments are responsible for the independent verification of fair value with independent information source on the valuation result to match the market status, as well as to ensure that

the sources are independent, reliable, and consistent with other resources and represent executable prices. The Company also regularly calibrates the valuation model and conducts retroactive test updating input values desired by the valuation model and making necessary adjustments to fair value to ensure the results of the valuation are reasonable.

While measuring its assets and liabilities, the Company uses the observable market input values as much as possible. The definition of each fair value category is pursuant to the input values used by valuation techniques summarized as follows:

(1) Level I: Quoted prices (unadjusted) in active markets for identified assets or liabilities.

(2) Level II: Inputs other than quoted prices included within Level 1 that are observable for the assets or liabilities, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

(3) Level III: Inputs for the assets or liabilities that are not based on observable market data (unobservable inputs).

For any transfer within the fair value hierarchy, the Company recognizes the transfer on the reporting date. For the assumption used in fair value measurement, please refer to note 6(29) of the financial instruments.

6. Explanation of significant accounts

(1) Cash and cash equivalents

	2018.12.31	2017.12.31
Cash on hand	$ 146	246
Demand deposits	759,013	673,182
Time deposits	92,145	-
Cash and cash equivalents in the consolidated statement of cash flows	**$ 851,304**	**673,428**

Please disclose Note 6 (29) for the disclosure of interest rate risk and sensitivity analysis of the Company's financial assets and liabilities.

(2) Financial assets at fair value through gain or loss

	2018.12.31	2017.12.31
Domestic booked (OTC) company share-TAIWANSTYRENE MONOMER CORPORATION (hereinafter referred to as Taiwan Styrene)	**$ 87,053**	-

Please refer to Note 6 (30) for market risk information.

The above financial assets are not guaranteed as long-term loans and financing guarantees

(3) Financial assets at fair value through other comprehensive income

	2018.12.31
Equity instruments measured at fair value through other comprehensive gain or loss:	
Domestic booked (OTC) company stock - Actron Technology Corporation	$ 319,427
Domestic booked (counter) company stock – United Renewable Energy Co., Ltd.	270,073
Domestic non-booked (OTC) company stock – Powertech Energy Corp.	130,764
Domestic booked (OTC) company stock – Phoenix Silicon International Corporation	76,284
Domestic non-booked (OTC) company stock - GIGA Electronic Technology Corporation	4,458
Total	**$ 801,006**

The Company's investments in these equity instruments are long-term strategic investments and are not held for trading purposes and have been designated to be measured at fair value through other comprehensive gain or loss. For the financial assets available for sale and the financial assets measured at cost recognized on December 31, 2017, please refer to Note 6 (7) and 6 (9).

Solartech Energy Corp. (hereinafter referred to as Solartech Energy) and Gintech Energy Corporation (hereinafter referred to as Gintech Energy Corporation) and Neo Solar Power Corporation (hereinafter referred to as Neo Solar Power) jointly signed the merger contract on January 29, 2018. The Neo Solar Power was the existing company (the name of the company after the merger was changed to United Renewable Energy Co., Ltd., hereinafter referred to as URE), and Gintech Energy and Solartech Energy were cancelled. The base date for the merger is October 1, 2018. Solartech Energy's shareholders, in accordance with the issued ordinary shares (including private placement of shares and restrictions on employee rights shares, if issued) they hold, renewed 1.17 shares of Neo Solar Power's shares per share.

On October 1, 2018, the Company was deemed to have sold Solartech Energy stocks at fair value through other comprehensive gain or loss. The fair value at the time of disposition was NT$ 348,370 thousands, and the accumulated disposition losses were NT$ 1,558,196 thousands. The aforementioned cumulative disposition losses have been transferred from other equity to retained earnings.

Apart from the above, the Company did not dispose of strategic investment in 2018. During the period, accumulated gain or loss were not transferred within the equity.

The Dividend income recognized by the Company in 2018 was NT$ 12,776 thousands due to equity instrument investment measured at fair value through other comprehensive gain or loss.

For credit risk and market risk information, please refer to Note 6 (30).

The above financial assets are not guaranteed as long-term loans and financing guarantees

(4) Financial assets measured at amortized cost

	2018.12.31
Corporate debt - Crystalwise Technology	**$ 281,366**

The Company's assessment is the holding of these assets to the maturity date to collect contractual cash flows, and the cash flows of these financial assets are solely for the payment of the principal and interest on the outstanding principal amount. Therefore, since January 1, 2018 it was presented as financial assets measured at amortized cost.

In October 2016, the Company purchased the private equity corporate bonds of Crystalwise Technology Corporation for a five-year period at a nominal amount of NT$ 280,000 thousands. The coupon rate and effective interest rate were 2.00%. For investment classified as held to maturity date on December 31, 2017, please refer to Note 6 (8).

Please refer to Note 6 (30) for credit risk information.

The above financial assets are not guaranteed as long-term loans and financing guarantees

(5) Net accounts receivable

	2018.12.31	2017.12.31
Accounts receivable	$ 506,161	779,227
Less: Allowance for doubtful accounts	(34,663)	(48,679)
Allowance for sales discounts and returns	-	(1,562)
	$ 471,498	**728,986**

The Company adopted a simplified approach to the estimation of expected credit losses for all notes receivables and accounts receivables on 31 December 2018, that is, the use of expected credit losses for the duration for the measurement, for the purpose of this measure, the notes receivable and the accounts receivables are companied by the common credit risk characteristics that represent the ability of the customer to pay all of the maturity amounts in accordance with the terms of the contract and have been incorporated into forward-looking information. The expected credit losses of notes and accounts receivable of the Company as of December 31, 2018 are as follows:

	Gross carrying amount	Weighted average loss rate	Loss allowance provision
Current	$ 468,479	0%	-
1 to 30 days past due	3,019	0%-0.2%	-
More than 91 days past due	34,663	100%	34,663
Total	**$ 506,161**		**34,663**

On December 31, 2017, use the credit loss model that has occurred to consider the allowance for bad debts of notes and accounts receivable. The ageing analysis of the Company's overdue but not deductible receivables (including related parties) on December 31, 2017 is as follows:

	2017.12.31
1 to 30 days past due	$ 45,673
31 to 60 days past due	1,027
61 to 90 days past due	6,825
	$ 53,525

On December 31, 2017, the accounts receivable that were overdue but not deducted were booked. After assessment that the credit quality has not changed significantly, there is no worry for impairment. In addition, the Company did not take any collateral for these notes and accounts receivable.

The changes in allowances for notes receivable and accounts receivable of the Company are as follows:

		2017	
	2018	Individual assessment of impairment losses	Company assessment of impairment losses
Balance on January 1, 2018 and 2017 per IAS39	$ 48,679	48,679	-
Adjustment on initial application of IFRS 9	-		
Balance on January 1, 2018 per IFRS 9	48,679		
Impairment losses recognized	34,663	-	-
Amounts written off	(48,679)	-	-
Balance on December 31, 2018 and 2017	**$ 34,663**	**48,679**	**-**

The Company's notes and accounts receivables have not been provided as collateral guarantees.

(6) Inventories

	2018.12.31	2017.12.31
Finished goods and products	$ 272,690	803,819
Work in progress	49,846	236,839
Raw materials	267,634	1,194,127
	$ 590,170	**2,234,785**

Component of operating cost were as follows:

	2018	2017
Cost of sales	9,613,968	11,720,137
Impairment loss of property, plant and equipment (Note 6 (12))	1,497,261	-
Appropriate (reverse) inventory loss in valuation	66,125	(130,275)
Unallocated fixed manufacturing expense	507,441	369,750
New debt provision (Note 6 (15))	533,292	-
	12,218,087	**11,959,612**

None of the Company's inventories has been provided as a collateral guarantee.

(7) Available for sale financial assets –non-current

	2017.12.31
Booked shares- Solartech Energy	$ 439,258
OTC Stocks – Actron Technology Corporation	245,936
	$ 685,194

The above investment targets are booked in the series of financial assets measured at fair value through other comprehensive gain or loss on December 31, 2018. Please refer to Note 6 (3).

For credit risk and market risk information, please refer to Note 6 (30).

None of the above financial assets of the Company has been provided as a pledge guarantee.

(8) Held-to-maturity financial assets - non-current

	2017.12.31
Corporate debt - Crystalwise Technology	**$ 281,366**

The above corporate bonds booked in the series of financial assets measured at amortized cost on December 31, 2018. Please refer to Note 6 (4).

Please refer to Note 6 (30) for credit risk information.

The Company's held-to-maturity financial assets have not been provided as collateral guarantees.

(9) Financial assets measured at cost - non-current

	2017.12.31
Equity investment	$ 900,138
The cumulative amount of impairment loss recognized	(601,498)
	$ 298,640

Cumulative impairments changes are as follows:

	2017
Cumulative impairments – beginning	$ 531,997
Impairment loss appropriated this period	69,501
Cumulative impairments - ending	**$ 601,498**

The Company's stock investment referred to above is measured at cost, net of impairment loss on the reporting date. As the fair value is with a broad range of reasonable estimation and the probability of estimations cannot be reasonably assessed the management of the Company believes that the fair value cannot be reliably measured.

Financial assets presented at fair value through other comprehensive gain or loss on December 31, 2018 are detailed in Note 6 (3).

For credit risk and market risk information, please refer to Note 6 (30).

None of the above financial assets of the Company has been provided as a pledge guarantee.

(10) Investments accounted for using equity method

The Company's investment under equity method on the reporting date is as follows:

	2018.12.31	2017.12.31
Subsidiary	$ 24,019,984	19,612,583
Associates	1,863,454	1,376,095
	$ 25,883,438	**20,988,678**

1. Subsidiaries

Please refer to the 2018 consolidated financial statements.

2. Affiliated companies

Names of affiliated companies	Relationship with the Company	Main location/ country registered in	Percentage of equity ownership interests and voting rights	
			2018.12.31	2017.12.31
Crystalwise Technology Inc.	Mainly engages in the manufacturing and trading of optoelectronic wafers and substrate material.	Taiwan	40.11%	40.11%
Accu Solar Corporation (Hereinafter referred to as TSCS)	The main business is providing solar modules.	Taiwan	24.70%	24.70%
Cathy Sunrise Corporation (hereinafter referred to as Cathy Sunrise)	The main business is manufacturing of power generation, transmission and distribution machinery.	Taiwan	30.00%	30.00%
Taiwan Special Chemicals Corporation (hereinafter referred to as Taiwan Special Chemicals)	The main business is manufacturing of semiconductor special gas and chemical materials.	Taiwan	30.93%	-

1. For the affiliated enterprises that are significant to the Company that have been OTC, the fair value is as follows:

	2018.12.31	2017.12.31
Crystalwise Technology Inc.	**$ 791,079**	**1,179,391**

Below is financial information of affiliated companies that are material to the Company, with adjustments made to include amounts reported by the affiliated companies in their standalone financial statements prepared in a way pursuant to IFRSs so as to reflect adjustment on the fair value when acquiring shares of the affiliated companies and the adjustment of difference in accounting policy.
Financial Summary of Crystalwise Technology:

	2018.12.31	2017.12.31
Current Assets	$ 1,055,915	1,370,465
Non-Current Assets	2,134,030	2,627,539
Current Liabilities	(1,225,269)	(1,392,433)
Non-Current Liabilities	(872,017)	(1,013,279)
Net assets attributed to owner of the investee parent company	**$ 1,092,659**	**1,592,292**

	2018	2017
Operating Revenues	**$ 1,317,193**	**1,496,642**
Operating net loss from continuing operations	$ (449,780)	(527,910)
Revenue and loss from discontinued operations	-	(93,711)
Other comprehensive income (loss)	(59,599)	(19,047)
Total comprehensive Revenue attributed to owner of the investee company	**$ (509,379)**	**(640,668)**
The Company's share on net assets of the subsidiaries and affiliated companies accounted for under equity method – beginning of the period.	$ 849,211	1,112,819
Recognized change in equity net worth of affiliated companies under equity method this period	124	102
Total operating profit and loss and the impairment loss accrued attributable to the consolidated company	(410,495)	(258,295)
Other comprehensive profit and loss and other attributable to the consolidated company	(23,449)	(5,415)
The Company's share on net assets of the subsidiaries and affiliated companies accounted for under equity method – end of the period.	**$ 415,391**	**849,211**

2. For the Company's affiliated companies under equity method and individually insignificant, the aggregated financial information is as follows. The financial information is the amount included in the financial statements of the Company:

	2018.12.31	2017.12.31
Total carrying amount of the closing balance of the interests of individual insignificant affiliated companies	**$ 1,448,063**	**526,884**

	2018	2017
Share attributable to the Company:		
Net loss this period	$ (67,745)	(367)
Other comprehensive income (loss)	(4)	-
Total comprehensive Revenue	**$ (67,749)**	**(367)**

3. The difference in the investment cost of the newly added investment and the fair value of the identifiable net assets of the investee is mainly attributable to the intangible assets.
4. Guarantee

   None of the Company's investment in equity method has been provided as a collateral guarantee.

(11) Changes in ownership equity of subsidiaries

1. Additional shares obtained of the subsidiary

In October 2018, the Company increased its shareholding in GlobalWafers by cash of NT$ 91,006 thousands, increasing its equity from 50.84% to 50.94%. The Company did not trade with non-controlling interests in 2017.

The impact of the Company's changes in the ownership interest of the above subsidiaries on the equity attributable to the owners of the parent company is as follows:

	2018
Carrying amount of non-controlling interests purchased	$ 41,341
Consideration paid to non-controlling interests and the adjustment of other equity	(92,445)
The capital reserve - the difference between the equity price of the company actually acquired or disposed of and the carrying amount	**$ (51,104)**

2. The subsidiary bought back the treasury shares without causing loss of control

GlobalWafers implemented the treasury stock system in 2018 and bought back the company's shares at Taiwan Stock Exchange, which increased the company's interest in GlobalWafers by 0.23%.

The impact of the changes of the Company's equity of GlobalWafers on the equity attributable to the parent company is as follows:

	2018
Reduction in equity after a subsidiary buys back treasury shares	**$ 194,600**
Capital reserve - long-term equity investment recognized by equity method	**$ (194,600)**

3. Subsidiary cash increase was not subscribed according to the shareholding ratio and did not result in loss of control.

In April 2017, GlobalWafers handled the cash increase and issued new shares to participate in the issuance of overseas depositary receipts to the non-controlling interests of NT$ 14,035,424 thousands. The Company did not subscribe in accordance with the shareholding ratio. The impact of the Company's changes in the ownership interest of GlobalWafers on the equity attributable to the owners of the parent company is as follows:

	2017
The increase in interests the parent company is entitled to after the issuance of new shares by the subsidiary.	**$ 5,670,467**
Capital reserve - long-term equity investment recognized by equity method	**$ 5,670,467**

(12) Property, property, plant and equipment

1. Changes in the cost, depreciation and impairment loss of the Company's property, property, plant and equipment are as follows:

	Land	Building	Machinery equipment	Other equipment	Construction in progress and quarantined equipment	Total
Cost:						
Balance of January 1, 2018	$ 405,890	3,026,866	8,396,815	1,508,241	366,730	13,704,542
Additions	-	9,909	172,298	64,556	183,523	430,286
Disposition	-	(1,184,500)	(1,178,587)	(222,594)	-	(2,585,681)
Reclassification	-	16,300	190,715	220,158	(410,395)	16,778
Balance of December 31, 2018	**$ 405,890**	**1,868,575**	**7,581,241**	**1,570,361**	**139,858**	**11,565,925**
Balance of January 1, 2017	$ 405,890	2,964,484	9,772,803	1,332,926	693,053	15,169,156
Additions	-	23,259	60,171	50,914	143,270	277,614
Disposition	-	(30,909)	(1,645,600)	(65,719)	-	(1,742,228)
Reclassification	-	70,032	209,441	190,120	(469,593)	-
Balance of December 31, 2017	**$ 405,890**	**3,026,866**	**8,396,815**	**1,508,241**	**366,730**	**13,704,542**
Depreciation and impairment loss:						
Balance of January 1, 2018	$ -	1,316,005	5,488,946	566,176	-	7,371,127
Depreciation for the year	-	84,061	774,171	123,681	-	981,913
Impairment loss		328,088	1,128,814	38,654	1,705	1,497,261
Disposition	-	(668,024)	(1,116,129)	(146,534)	-	(1,930,687)
Reclassification	-	1,808	(33,792)	88,746	-	56,762
Balance of December 31, 2018	**$ -**	**1,061,938**	**6,242,010**	**670,723**	**1,705**	**7,976,376**
Balance of January 1, 2017	$ -	1,203,190	6,331,841	519,344	-	8,054,375
Depreciation for the year	-	143,724	786,206	104,168	-	1,034,098
Disposition	-	(30,909)	(1,631,215)	(55,222)	-	(1,717,346)
Reclassification	-	-	2,114	(2,114)	-	-
Balance of December 31, 2017	**$ -**	**1,316,005**	**5,488,946**	**566,176**	**-**	**7,371,127**
Carrying amount:						
December 31, 2018	**$ 405,890**	**806,637**	**1,339,231**	**899,638**	**138,153**	**3,589,549**
January 1, 2017	**$ 405,890**	**1,761,294**	**3,440,962**	**813,582**	**693,053**	**7,114,781**
December 31, 2017	**$ 405,890**	**1,710,861**	**2,907,869**	**942,065**	**366,730**	**6,333,415**

2. Impairment loss

In the fourth quarter of 2018, the Company assessed that the production line of the Solar Energy Division was affected by the global economy, resulting in a decline in production. Therefore, it is necessary to assess the recoverable amount of the production line.

The Company's solar product production line is a cash-generating unit whose recoverable amount is based on its value in use. In accordance with the assessment on December 31, 2018, the carrying amount of the property, plant and equipment is

higher than its recoverable amount, so the impairment loss is recognized as NT$ 1,497,261 thousands, which is included in the operating cost of the consolidated Revenue statement.

The estimated value of use in 2018 is calculated at a pre-tax discount rate of 8.94%.

3. Disposition of property, property, plant and equipment

   The Company sold its plants and equipment to GlobalWafers in January and May, 2018. Please refer to Note 7 for details.

4. Guarantee

   For details of long-term and short-term borrowings and financing quota guarantees as of December 31, 2018 and 2017, please refer to Note 8.

(13) Short-term borrowings

	2018.12.31	2017.12.31
Unsecured bank loans	$ 2,600,000	2,364,913
Purchase of materials loan	117,125	-
	$ 2,717,125	**2,364,913**
Unused loan amount	**$ 4,612,625**	**1,664,252**
Loan interest rate collars at end of period	**0.9% -0.98%**	**0.2%-1.1%**

(14) Long term borrowings

Details, terms and conditions of the Company's long-term loan are as follows:

	2018.12.31			
	Currency	Interest rate interval at end of period	Expiry date	Amount
Unsecured bank loans	NTD	1.04%-1.18%	2020.06-2020.11	$ 1,159,000
Secured bank Loan	NTD	1.28%	2022.01-2032.01	451,200
Total				**$ 1,610,200**
Unused loan amount				**$ 301,000**

	2017.12.31			
	Currency	Interest rate collars	Expiry date	Amount
Unsecured bank loans	NTD	1.1%-1.17%	2019.06-2020.10	$ 900,000
Secured bank Loan	NTD	1.28%	2022.01-2032.01	460,000
Total				**$ 1,360,000**
Unused loan amount				**$ 1,800,000**

Please refer to Note 8 for the Company's assets pledged as collateral for bank loans.

(15) Provision

The Company's liability reserve is as follows:

	Onerous contracts
Balance of January 1, 2018	$ 427,000
Provisions made during the year	533,292
Balance of December 31, 2018	**$ 960,292**
Balance of December 31, 2017 (Balance of January 1, 2017)	**$ 427,000**

The Company's provision for loss-making contract liabilities was due to the signing of a long-term purchase contract with the silicon raw material supplier. The parties agreed that from January 1, 2006 to December 31, 2019, the delivery quantity and price agreed upon in the contract are delivered. The Company is to pre-pay the supplier for the materials purchased with payment by installments that are non-refundable; also, the transaction is irrevocable. The materials supplier guarantees to have the agreed quantities of silicon materials supplied to the Company. In response to fluctuations in the spot market price, the Company has prepared the relevant liabilities reserve and recognized them under operating costs. Please refer to Note 9 for a description of the agreement with the raw material supplier.

(16) Operating lease

Lease of lessee

The rent payment of the irrevocable operating leases is as follows:

	2018.12.31	2017.12.31
Within 1 year	$ 37,326	31,792
1-5 years	108,533	122,015
Over 5 years	50,662	81,499
	$ 196,521	**235,306**

The operating expenses for 2018 and 2017 are stated in the profit and loss of NT$ 40,018 thousands and NT$ 35,803 thousands respectively.

The Company leases the factory to the subsidiary. After the lease expires, it can be automatically extended for half a year with the agreement of both parties. The annual rent is about NT$ 9,499 thousands.

The base of the Company's plant located in Chunan Science Park is the rental from the Administration of the Science Park for a period from March 17, 2005 to December 31, 2027. The rent for the contract should be adjusted according to the adjustment of the land price set by the government. The annual rent is about NT$ 4,161 thousands.

The Company leased land and building materials for use in the expansion of production capacity to Mingsheng Corporation f. The lease period was from July 2015 to July 2025 for a total of ten years. Pursuant to the lease term, the rent is reviewed every two years. The rent payment is around NT$ 1,890 thousands per month.

Please refer to Note 7 for the disclosure of the Company's related parties.

(17) Employee Benefits

1. Defined benefit plan

The present value of the defined benefit obligation of the Company and the fair value of the plan assets are adjusted as follows:

	2018.12.31	2017.12.31
Total present value of obligations	$ (27,141)	(47,043)
Fair value of plan assets	30,374	32,571
Net defined benefit (liabilities) assets	**$ 3,233**	**(14,472)**

The Company's defined benefit plans are appropriated to the labor pension reserve account at the Bank of Taiwan. The pension payment to each employee under the Labor Standards Act is calculated in accordance with the service points received for the years of service and the average salary six months prior to retirement.

(1) Plan assets composition

The pension fund accrued in accordance with Labor Standards Act is managed by the Labor Fund Application Bureau of the Ministry of Labor (hereinafter referred to as the Labor Fund Bureau). In accordance with the Labor retirement fund Revenue and expenditure custody and application methods, the use of the fund, the minimum Revenue of its annual final settlement, shall not be lower than the Revenue calculated based on the local bank's two-year time deposit rate.

The balance of the Company's labor retirement reserve account at Bank of Taiwan on the reporting day was NT$ 30,374 thousands. The Labor Pension Fund asset implementation information includes fund returns rate and fund asset allocation. Please refer to the information published on the website of the Ministry of the Bureau of Labor Funds, Ministry of Labor.

(2) Movements in present value of the defined benefit obligations

The movements in present value of the defined benefit obligations of the Group were as follows:

	2018	2017
Defined benefit obligations at January 1	$ 47,043	48,472
Current service costs and interest cost	1,086	1,046
Re measurements for defined benefit obligations		
- Actuarial gains and losses arising from experience adjustments	(14,299)	(1,087)
- Actuarial gains and losses resulting from changes in demographic assumptions	873	1,008
- Actuarial gains and losses resulting from changes in financial assumptions	315	-
Benefits paid	(7,877)	(2,396)
Defined benefit obligations at December 31	**$ 27,141**	**47,043**

(3) Movements in fair value of defined benefit plan assets

The movements in fair value of the defined benefit plan assets of the Group were as follows:

		2018	2017
Fair value of plan assets at January 1	$	32,571	28,617
Interest income		394	512
Re measurements for defined benefit obligations			
- Return on plan asset (excluding interest revenue)		883	(230)
Contributions made		4,403	6,069
Benefits paid		(7,877)	(2,397)
Fair value of plan assets at December 31	**$**	**30,374**	**32,571**

(4) Change of limit on a defined benefit assets

In 2018 and 2017, the Company did not have any effect on the changes of limit on a defined benefit plan assets

(5) Expenses recognized in profit or loss

The expenses recognized in the gain or loss of the Company in 2018 and 2017 are as follows:

		2018	2017
Current service costs	$	557	500
Net interest of net liabilities for defined benefit obligation		135	34
	$	**692**	**534**
Operating Costs	$	356	266
Selling expenses		129	38
Administrative expenses		109	158
Research and development expenses		98	72
	$	**692**	**534**

(6) Re measurement of net defined benefit liability recognized in other comprehensive income

The Company's accumulated remeasurement of net liabilities under defined benefit plan recognized as other comprehensive Revenue is as follows:

		2018	2017
Accumulated amount at January 1	$	138,122	(74,498)
Recognized during the period		(13,994)	(153)
In this period, the recognition of other consolidated profit and loss shares of subsidiaries and affiliated enterprises recognized under equity method		(93,347)	212,773
Accumulated amount at December 31	**$**	**30,781**	**138,122**

(7) Actuarial assumptions

The significant actuarial assumptions used for the present value of the defined benefit obligation by the Company at the end of the financial reporting day are as follows:

	2018.12.31	2017.12.31
Discount rate	1.000%	1.125%
Future salary increase rate	2.000%	2.000%

The Company expects to pay NT$ 363 thousands for the accrual of the defined benefit plan within one year after the reporting of the day in 2018.

The weighted average duration of the defined benefit plan is 10 years.

(8) Sensitivity analysis

The impact of the changes in the main actuarial assumptions adopted in 2018 and on December 31, 2017 on the present value of the defined benefit obligation is as follows:

	The impact to the defined benefit obligations	
	Increased by 0.25%	Decreased by 0.25%
December 31, 2018		
Discount rate	$ (668)	691
Future salary increase rate	671	(652)
December 31, 2017		
Discount rate	$ (1,196)	1,240
Future salary increase rate	1,203	(1,167)

The above sensitivity analysis is to analyze the impact of one single assumption with other assumptions remaining unchanged. In practice the changes of many assumptions may be correlated. The approach used for sensitivity analysis is consistent with the calculation of net pension liabilities recorded in the balance sheet.

The approach and assumptions used to compile the sensitivity analysis is the same with that of the previous period.

2. Defined Contribution Plan

The Company's defined contribution plan complies with the Labor Pension Act. An amount equivalent to 6% of the employee's monthly wage is appropriated to the respective labor pension account with the Bureau of Labor Insurance, Ministry of Labor. According to the defined contribution plan, the Company, after appropriating a fixed amount to the Bureau of Labor Insurance, Ministry of Labor, is free from any legal or constructive obligations to make extra payments.

The pension expenses under the pension scheme of the Company in 2018 and 2017 were NT$ 39,710 thousands and NT$ 39,492 thousands respectively, which were allocated to the Bureau of Labor Insurance, Ministry of Labor.

(18) Income tax

The Presidential Office issued an amendment to the Income Tax Act on February 7, 2018. The Income tax rate for the profit-making business has been raised from 17% to 20% since 2018.

1. Income tax expenses

The details of Income tax expenses (interests) of the Company in 2018 and 2017 are as follows:

	2018	2017
Current tax expense (profit)		
Current tax expense	$ 3,935	-
Adjustment of the Income tax-current of prior period	1,646	(10,054)
	5,581	(10,054)
Deferred tax expense (profit)		
Temporary difference	93,445	-
Income tax rate change	(23,773)	-
	69,672	-
Income tax expense (profit)	**$ 75,253**	**(10,054)**

The Income tax benefits recognized by the Company in 2018 and 2017 in other comprehensive profit and loss are as follows:

	2018	2017
Items that will not be reclassified subsequently to profit or loss:		
Items that may be reclassified subsequently to profit or loss		
Exchange differences on translation of foreign financial statements	$ (5,267)	(13,012)
	$ (5,267)	**(13,012)**

The relationship between the Income tax expenses (interests) and the pre-tax net profit of the Company in 2018 and 2017 is adjusted as follows:

	2018	2017
Income before income tax	$ 2,025,756	1,025,451
Income tax using the Company's domestic tax rate	405,151	174,327
Permanent differences adjustment	(922,909)	(268,393)
Adjustment in tax rate	(23,773)	-
Early high and low estimate	1,646	(10,054)
Deferred Income tax assets and other	615,138	94,066
	$ 75,253	**(10,054)**

2. Deferred Income tax assets and liabilities

(1) The items that have not been recognized as deferred Income tax assets by the Company are as follows:

	2018.12.31	2017.12.31
Tax effect of deductible temporary differences	$ 737,644	355,026
Tax loss	611,432	320,062
	$ 1,349,076	**675,088**

According to the Income tax Act, tax losses of the last ten years audited and authorized by the tax authorities can be deducted from the net Revenue of the year before levying the Income tax. Such items are not recognized as deferred tax assets since the Company is not likely to have sufficient taxable Revenue in the future for the use of temporary differences.

As on December 31, 2018, the Company has not recognized the taxable losses of deferred Income tax assets. The deductions of loss and deduction period are as follows:

Annual losses	Loss to be deducted	Deadline for deduction
2012 (verified)	$ 1,403,648	2022
2013 (verified)	9,728	2023
2017 (declared)	682,943	2027
2018 (estimated)	960,839	2028
	$ 3,057,158	

(2) Recognized deferred Income tax assets and liabilities

The breakdown of deferred Income tax assets is as follows:

	2017.1.1	Recognized in profit or loss	Recognized in other comprehensive income	2017.12.31	Recognized in profit or loss	Recognized in other comprehensive income	2018.12.31
Allowance for inventory valuation	$ 63,870	(22,147)	-	41,723	20,589	-	62,312
Tax loss	69,196	18,129	-	87,325	(87,325)	-	-
Other	31,526	4,018	13,012	48,556	(3,586)	5,267	50,237
	$ 164,592	**-**	**13,012**	**177,604**	**(70,322)**	**5,267**	**112,549**

The breakdown of deferred Income tax liabilities is as follows:

	2017.1.1	Recognized in profit or loss	Recognized in other comprehensive income	2017.12.31	Recognized in profit or loss	Recognized in other comprehensive income	2018.12.31
Other	**$ -**	**-**	**-**	**-**	**650**	**-**	**(650)**

3. Assessment of tax filings

The Income tax settlement report of the Company's profit-making business has been approved by the tax authorities to 2016.

(19) Capital and other interests

On December 31, 2018 and 2017, the total share capital of the Company were both NT$ 8,000,000 thousand, and the denomination per share was NT$ 10, both with a total of 800,000 thousand shares (all including employee stock option, special stocks with stock

option or corporate with stock option, and the amount of shares that can be subscribed is NT$ 200,000 thousands). The legal registration procedure for the authorized capital stock is completed. The paid-up share capital were NT$ 5,863,207 thousands and NT$ 5,920,587 thousands respectively.

The number of shares outstanding of the Company in 2018 and 2017 is as follows (expressed in thousands of shares):

	Common stock	
	2018 January to December	2017 January to December
Opening balance at January 1	580,539	574,476
Employees exercising stock options	-	6,063
New restricted employee shares	2,341	-
Closing balance at December 31	**582,880**	**580,539**

1. Issuance of common stock

The Company participated in the global depositary receipts for NT$ 610,000 thousand with cash capital increase and with 61,000 thousand shares issued, which was booked at the Luxembourg Stock Exchange on September 9, 2010 with a total of 61,000 thousand units of GDR issued at an issuance price of US$ 2.9048; also, the GDR amounted to US$ 177,193 thousand and each GDR underlying 1 common stock share of the Company. Such cash capital increase had already been approved by the Financial Supervisory Commission on August 13, 2010 with the FSC.Certificate Far.Tzi No. 0990041383 Letter issued. For such a cash capital increase, the Company had sufficient stock shares issued and proceeds collected on September 9, 2010 for a grand total of US$ 177,193 thousand and a net total of US$ 174,931 thousand after deducting the underwriting fees of US$ 2,262 thousand, which was equivalent to NT$ 5,580,288 thousand after being translated in accordance with the closing exchange rate of the day. In addition, after deducting the related issuance cost of NT$ 11,531 thousand, the premium amount of NT$ 4,958,757 thousand was booked in the “additional paid-in capital” account.

On June 27, 2017, the Company issued 6,000 thousand restricted employee shares through resolution of the shareholders' meeting which were approved by the competent authority, and October 13, 2017 was the capital increase base date, and the legal registration process was completed.

As of December 31, 2018 and 2017, due to the resignation of employees, the recovered and written off restricted employee shares were 216 thousand shares and 35 thousand shares respectively. As of December 31, 2018, there were still 33 thousand shares whose legal registration procedures are unfinished.

2. Capital surplus

The Capital surplus balance of the Company is as follows:

	2018.12.31	2017.12.31
Additional paid in capital	$ 11,862,668	13,970,742
Difference between the disposition price and carrying value of the subsidiary's equity	2,441,893	2,492,997
Capital reserve of long-term equity investment is recognized under the equity method	6,568,293	6,762,869
Treasury stock transactions	33,314	31,765
New restricted employee shares	244,849	341,422
Employee stock options, etc.	606,275	606,036
	$ 21,757,292	**24,205,831**

According to the Company Act amended in January 2012, capital reserve is for making up losses first before using the capital reserve realized to distribute cash or new shares to shareholders in proportion to their original shareholding ratio. The capital reserve realized referred above includes the stock premium and bestowed Revenue. According to the Regulations Governing the Offering and Issuance of Securities by Securities Issuers, the total amount of capital reserve for capitalization every year may not exceed 10% of the paid-in capital.

On June 26, 2018, the Company resolved through the shareholders' meeting the case of the profit and loss of 2017. After the after-tax net profit of NT$ 1,035,505 thousands made up for the loss, the remaining amount was NT$ 317,629 thousands. And the capital reserve made up for the loss of NT$ 317,629 thousands, the relevant information can be inquired in the public information observatory and other pipelines.

The Company on June 26, 2018 and June 27, 2017, through resolution of the shareholders' meeting, made the capital accumulation of NT$ 1,759,511 thousands (NT$ 3 per share) and NT$ 861,714 thousands (NT$ 1.5 per share) in 2018 and 2017 respectively. Relevant information can be found in the public information observatory and other pipelines.

3. Legal reserve

According to the Company Act amended in January 2012, the parent company is to appropriate 10% of net Revenue as legal reserve until it is equivalent to the total capital amount. If there is no net loss, the company may have stock dividends or cash dividends distributed with legal reserve based on the resolution reached in the shareholder's meeting, but limited to the legal reserve amount exceeding 25% of the paid-in capital.

4. Special reserve

When the Company adopted the international financial reporting standards (IFRSs) approved by the FSC for the first time, the Company had chosen to apply IFRS 1 "First-time Adoption of the IFRSs" exemptions, retained earnings was increased by NT$ 161,317 thousand due to the accumulated conversion adjustment (profit) under the shareholders' equity, which exceeding the net increase of NT$ 102,349 thousand in retained earnings on the conversion date for the first-time adoption of IFRSs approved by the FSC. According to the FSC.Certificate Far.Tzi No. 1010012865 Order of the

Financial Supervisory Commission dated April 6, 2012, special reserve is appropriated for the net increase in retained earnings due to the conversion to the IFRSs approved by the FSC; also, it could be reversed for earnings distribution proportionately to the originally appropriated special reserve while using, disposing or reclassifying the related assets. On December 31, 2018 and 2017, the special NT$ reserve was 102,349 thousand.

According to the Order referred to above, while distributing the distributable earnings, the Company had additional special reserve appropriated from the current gain or loss and unappropriated earnings of the prior period for the difference between the net amount debited to other shareholder's equity and the balance of the special reserve appropriated in the preceding paragraph. For the amount debited to other shareholders' equity attributable to prior period accumulation, the special reserve was appropriated from the unappropriated earnings of the prior period and it could not be distributed. The amount debited to the shareholders' equity reversed subsequently can be distributed as earnings.

3. Distribution of surplus earnings and dividend policy

   In accordance with the revised articles of association of the Company, if there is a earnings in the annual final accounts, after tax paid according to the law and making up for the accumulated losses, 10% will be the legal reserve, but if the legal reserve has reached the paid-in capital, it shall not be accrued and the rest will be accrued according to law and regulations or reversed as the special reserve. If there is a balance, for the balance and the accumulated undistributed earnings, the board of directors proposes an earnings distribution proposal and submits it to the shareholders meeting for resolution of distributing shareholder dividend.

   To maintain the sustainable business development and the stable growth of earnings per share of the Company, the shareholders' dividends shall be the earnings after tax of the current fiscal year with the deduction of more than 50% of the special reserve according to the law in principle, and the cash dividend in the distribution shall not be less than 50%.

   The Company's shareholder meeting decided to make a loss provision on June 26, 2018 and June 27, 2017 respectively, and the loss provision situation did not differ from the proposed content of the board of directors.. Relevant information can be obtained from the public information observatory and other pipelines.

   The Company on March 21, 2019, through the Board of Directors proposed the earnings distribution of 2018. The above-mentioned earnings distribution has yet to be resolved by the shareholders' meeting, the relevant information can be obtained from public information observatory and other pipelines after the relevant meeting resolution.

4. Treasury share

   The balance of the treasury shares that have been bought back on December 31, December 31, 2018 and 2017 by the Company were 0 thousand shares and 5,555 thousand shares respectively. The acquisition costs were NT$ 0 thousands and NT$ 169,861 thousand respectively, accounted for in equity deductions.

Unit: Thousand shares

	2018			
Reasons for buy back	**Beginning shareholdings**	**Increase of the year**	**Decrease of the year**	**Ending shareholdings**
Transferred to employee	**5,555**	**-**	**5,555**	**-**

	2017			
Reasons for buy back	**Beginning shareholdings**	**Increase of the year**	**Decrease of the year**	**Ending shareholdings**
Transferred to employee	**5,555**	**-**	**-**	**5,555**

According to the Securities Exchange Act, the repurchased shares and percentage shall not exceed 10% of the outstanding shares; the total amount of treasury stock shall not exceed the lump sum of the retained earnings, stock premium and capital reserve realized. When the Company bought back the treasury shares, it calculated the relevant limit according to the most recent financial statements checked by the accountant.

5. Other interests (net after tax)

	Exchange differences on translation of foreign financial statements	Unrealized gain or loss on financial assets measured at fair value through other comprehensive gain or loss	Unrealized gains (losses) on available for sale financial assets	Remuneration unearned by employees	Other	Total
Balance of January 1, 2018	$(1,973,334)	-	(1,109,281)	(236,020)	(4,302)	(3,322,937)
Effects of retrospective application of new accounting standards	-	(2,338,298)	1,109,281	-	-	(1,229,017)
Re-edited balance at January 1, 2018	(1,973,334)	(2,338,298)	-	(236,020)	(4,302)	(4,551,954)
Exchange difference arising from conversion of a foreign institution's net assets	391,255	-	-	-	-	391,255
Share of conversion differences by affiliates under equity method	(4,162)	-	-	-	922	(3,240)
Unrealized gain or loss on financial assets measured at fair value through other comprehensive gain or loss	-	(529,832)	-	-	-	(529,832)
Unrealized gain or loss on financial assets measured at fair value through other comprehensive gain or loss under equity method	-	(96,198)	-	-	-	(96,198)
Dispose of equity instruments measured at fair value through other comprehensive gains and losses	-	1,558,196	-	-	-	1,558,196
Remuneration coast of shares with restrictions on employee rights	-	-	-	160,686	-	160,686
Balance of December 31, 2018	**$(1,586,241)**	**(1,406,132)**	**-**	**(75,334)**	**(3,380)**	**(3,071,087)**

	Exchange differences on translation of foreign financial statements	Unrealized gains (losses) on available for sale financial assets	Remuneration unearned by employees	Other	Total
January 1, 2017	$ (1,617,512)	(1,188,654)	-	(6,354)	(2,812,520)
Exchange difference arising from conversion of a foreign institution's net assets	(63,531)	-	-	-	(63,531)
Exchange difference of the subsidiaries and affiliated companies accounted for under equity method	(292,291)	-	-	-	(292,291)
Available-for-sale financial assets unrealized gains and losses	-	23,914	-	-	23,914
The unrealized gains or loss of the financial assets available-for-sale of the affiliated companies under the equity method	-	55,459	-	-	55,459
The un-earned remuneration of the employees of the affiliated companies under the equity method	-	-	-	2,052	2,052
Shares issued with restrictions on employee rights	-	-	(283,200)	-	(283,200)
Remuneration coast of shares with restrictions on employee rights	-	-	45,752	-	45,752
Shares with restrictions on employee rights written-off	-	-	1,428	-	1,428
Balance of December 31, 2017	**$ (1,973,334)**	**(1,109,281)**	**(236,020)**	**(4,302)**	**(3,322,937)**

(20) Share-based payment

1. New Restricted employee shares

On June 27, 2017, the Company resolved through the shareholders' meeting to issue 6,000 thousand new restricted employee shares. The object is limited to manager-level (including) above supervisors and full-time employees with special contributions who have served for more than one year at the company since the granting day. The company has filed a declaration with the Securities and Futures Commission of FSC and all the shares were issued by the board of directors resolution on October 5, 2017. The fair value of the grant was NT$ 67.2.

The employees who have been allocated the above-mentioned new restricted employee shares will be able to subscribe for the shares allocated for NT$ 20 each. The vested condition is that after receiving the new restricted employee shares, they are still in service according to the following schedule, and their performance reaches A (including) above, then they can obtain the share percentage of the vested condition respectively:

(1) 1 year of service: 40%
(2) 2 year of service: 70%
(3) 3 year of service: 100%

After the employees subscribe for the new shares, they may not sell, pledge,

transfer, donate, set or do other disposition of their shares until the vested conditions are fulfilled; new restricted employee shares are subject to the right to participate in the distribution of dividends, and the dividends they receive are not subject to the vested period; the proposal, speech, voting rights and other relevant shareholders' equity of the shareholders meeting of the Company before the vested conditions are the same as the other ordinary shares of Sino-American Silicon Products. Inc.; after the issuance, the new restricted employee shares should be immediately delivered to the trust or custody and must not be returned to the trustee for any reason or manner until the vested conditions are fulfilled. If the employee is not eligible for the vested condition after the new share is subscribed, the shares will be bought back by the Company at the issue price.

Relevant information of the new restricted employee shares of the Company is as follows:

Unit: Thousand shares

	2018	2017
Quantity on January 1	5,965	-
Quantity given in this period	-	6,000
Quantity vested in this period	(2,341)	-
Quantity written off due to resignation in this period	(216)	(35)
Quantity on December 31	**3,408**	**5,965**

The remuneration costs recognized by the Company in 2018 and 2017 were NT$ 151,199 thousands and NT$ 45,752 thousands respectively, and the operating costs and operating expenses were accounted for. The balance of the unpaid employee remuneration of the Company on December 31, 2018 and 2017 were NT$ 75,334 thousands and NT$ 236,020 thousands, accounted for in reductions of other equity.

2. Employee stock option

It was resolved in the Board meeting in June 2010 to have the 1st employee stock option issued for 10,000,000 units in 2010, which was declared and became effective on November 12, 2010 and issued on August 10, 2011. One unit of stock option can subscribe to one common stock share of the Company for a 6-year duration. Employees may exercise the stock option for the cumulative ratio of 40%, 60%, 80% and 100% after 2-year, 3-year, 4-year, and 5-year, respectively, from the date the stock option was awarded.

On December 31, 2017, the Company's employee stock option certificates were booked as follows:

Type	The effective date of declaration	Awarded date	Vested period	Vested unit (Thousand units)	Subscription unit price (NT$)	Market price per unit on the measurement date (NT$)	Adjusted performance price (NT$)
The first employee stock options in 2010	2010.11.12	2011.8.10	Service period 2-4 years	10,000	60.50	60.50	48.60

The Company recognized the remuneration cost of the remuneration employee stock option plan for 2017 is NT$ 0 thousand (including the remuneration cost recognized by subsidiaries) The fair value of the stock option awarded to employees on August 10, 2011 was estimated in accordance with Black-Scholes stock option valuation model and with the weighted average information of assumptions illustrated as follows:

Dividend rate	3.6%
Expected price volatility	48.065%
Risk-free interest rate	1.2905%
Expected duration	6 years

The information on the quantity and weighted average exercise price of the Company's employee stock option certificate in 2017 is disclosed as follows:

	2017	
Employee stock options	**Quantity (thousand shares)**	**Adjusted weighted average price (NT$)**
Outstanding at beginning of year	4,435	$ 50.20
Exercised	(2,458)	48.60
Forfeited	(1,944)	48.60
The number of shares transferred in the current period of employees assigned to subsidiaries	(33)	48.60
Outstanding at end of year	-	-
Options exercisable at end of year	-	-
Weighted average fair value per employee stock options (dollars)	**$ 23.36**	

The above employee stock option certificate was completed on August 9, 2017. From January 1 to December 31, 2017, the employee's stock option certificate has been exercised for 6,063 thousand shares (including the number of shares exercised by employees of subsidiaries) worth a total of NT$ 294,638 thousand. October 5, 2017 is designated as the capital increase base date for the issuance of new shares, and the legal change registration has been completed in this capital increase case.

The weighted average remaining duration of employee stock options outstanding on December 31, 2017 was 0 years.

(21) Earnings per share

1. Basic earnings per share

	2018	2017
Net Revenue attributable to the owner of the parent company	**$ 1,950,503**	**1,035,505**
Weighted-average number of ordinary shares outstanding during the year (in thousands of shares)	**581,058**	**576,525**
Basic earnings per share (dollars)	**$ 3.36**	**1.80**

2. Diluted earnings per share

	2018	2017
Net Revenue attributable to the owner of the parent company	**$ 1,950,503**	**1,035,505**
Weighted average number of ordinary shares outstanding during the year (in thousands of shares) (base)	581,058	576,525
Impact of dilution of potential ordinary shares (shares in thousands)	3,672	3,113
Weighted average number of ordinary shares outstanding during the year (in thousands of shares) (diluted)	**584,730**	**579,638**
Diluted earnings per share (NT$)	**$ 3.34**	**1.79**

(22) Revenue from contracts with customers

1. Details of revenues

		2018
Primary geographical markets:		
Taiwan	$	2,753,913
Mainland China		1,283,532
Japan		1,201,536
U.S.A.		1,060,459
Germany		574,270
Korea		218,937
Other countries		1,338,100
	$	**8,430,747**
Significant products:		
Solar cell		3,635,804
Solar module		350,710
Solar wafer		581,924
Solar ingot		1,608,721
Other		2,253,588
	$	**8,430,747**

For the Revenue of 2017, please refer to Note 6 (23).

2. Contract balance

	2018.12.31	2018.1.1
Contract liabilities	**$ 1,251,743**	**1,705,158**

The change in contractual liabilities is mainly due to the advance payment of customers according to the contract, and the revenue will be recognized when the goods are transferred to customers. The opening balance of the contractual liabilities on January 1, 2018 and those from January 1, 2018 to December 31, 2018 recognized as revenue was NT$ 312,266 thousands.

(23) Operating revenue

		2017
Sales of goods	$	11,267,778
Electricity fee Revenue		11,080
Processing Revenue and labor service supply		4,122
	$	**11,282,980**

Please refer to Note 6 (22) for the amount of Revenue in 2018.

(24) Remuneration of employees and directors

In accordance with the articles of association of the Company if there is profit in the year, the company shall accrue 3% - 15% of the profit as employee's remuneration. The board of directors decides to distribute it by stock or cash, and the object of distribution includes employees meeting certain conditions; and the board of directors decides to accrue up to 3% of the above profit as directors' remuneration. The distribution of remuneration of employees and directors should be submitted and reported to the shareholders' meeting. In case the parent company has cumulative losses, it should reserve amount to make up losses before distributing remuneration to the employees and directors in pursuant to the percentage mentioned in the preceding paragraph.

The Company in 2018 accrued employee remuneration NT$ 131,990 thousands, and the director's remuneration, NT$ 44,010 thousands, which is based on the amount of the pre-tax net profit of the period deducted by employee and director remuneration, multiplied by the distribution ratio of employee and director remuneration as set out in the Articles of Association of the company. They are booked as operating costs or operating expenses for the period, in which if employees are paid by stocks, the number of shares allotted is calculated by the closing price of the ordinary share the day before the resolution of the board of directors. If there is a difference between the actual distribution amount and the estimated number of the next year, it will be treated according to the accounting estimates and the difference will be recognized as the profit and loss of the following year.

After the net profit of the Company in 2017 made up for the loss, there was still a cumulative loss, so the employees and directors were not assessed. The relevant information can be obtained from the public information observatory.

The amount of remuneration of employees and directors distributed by the above-mentioned board of directors resolution is no different from the estimated amount of 2018. The relevant information can be obtained from the public information observatory.

(25) Other Revenue

	2018	2017
Interest income	$ 38,034	35,206
Dividend income	14,986	14,946
	$ 53,020	**50,152**

(26) Other gains and losses

	2018	2017
Foreign currency exchange loss	$ (42,922)	(139,814)
Impairment loss under equity method	(227,392)	(69,501)
Realized gains (losses) on financial assets (liabilities) measured at fair value through profit or loss	11,900	(1,250)
Other	110,985	47,710
	$ (147,429)	**(162,855)**

(27) Financial costs

	2018	2017

Bank loan interest expense, etc.	**$ 39,688**	**46,537**

(28) Recognition of other comprehensive profit and loss shares of affiliated enterprises by equity method

	2018	2017
Exchange differences resulting from translating the financial statements of a foreign operation	$ (4,162)	(292,291)
Unrealized gains or losses on valuation of financial assets available for sales	-	55,459
Financial assets at fair value through other comprehensive income	(96,198)	-
	$ (100,360)	**(236,832)**

(29) Financial Instrument

1. Credit Risk
   (1) Credit risk exposure

   The carrying amount of financial assets represents the maximum credit risk exposure amount.

   (2) Concentration of credit risk

   The Company's material clients are in the silicon wafer industry. The Company assigns a credit line to each customer in accordance with the credit procedures; therefore, the Company's credit risk is mainly affected by the silicon wafer industry. On December 31, 2018 and 2017, 0%, 91% and 87% of the balance of notes and accounts receivable (including related parties) of the consolidated company were composed of ten customers. In the case of credit risk concentration, the consolidated company has regularly assessed the possibility of receivables recovery and accrued appropriate allowance for losses.

   (3) Credit risk of receivables and debt securities

   For credit risk exposure information on notes and accounts receivables, please refer to Note 6 (5). Other financial assets measured at amortized cost include other receivables and investments and ordinary corporate bonds. (from January 1 to December 31, 2017 booked in held-to-maturity other financial assets), please refer to Note 6 (4) for details of relevant investments.

   The above are all financial assets with low credit risk. Therefore, the allowance loss for the period is measured by the 12-month expected credit loss amount (for details of how the Company determines the low credit risk, please refer to Note 4 (6)).

2. Liquidity Risk

   The contract maturities of financial liabilities are illustrated in the following table, including estimated interest but excluding the impact of the agreed net amount.

	Carrying Amount	Contractual cash flows	6 months or less	6-12 months	1-2 years	2-5 years or more
December 31, 2018						
Non-derivative financial liabilities						
Short term borrowings	$ 2,717,125	(2,724,434)	(2,422,995)	(301,439)	-	-
Notes and accounts payable (including related parties)	437,889	(437,889)	(437,889)	-	-	-
Long term borrowings	1,610,200	(1,710,260)	(18,304)	(18,304)	(1,172,975)	(500,677)
	$ 4,765,214	**(4,872,583)**	**(2,879,188)**	**(319,743)**	**(1,172,975)**	**(500,677)**
December 31, 2017						
Non-derivative financial liabilities						
Short term borrowings	$ 2,364,913	(2,380,350)	(674,361)	(1,705,989)	-	-
Notes and accounts payable (including related parties)	1,047,853	(1,047,853)	(1,047,853)	-	-	-
Long term borrowings	1,360,000	(1,496,214)	(8,105)	(8,105)	(732,614)	(747,390)
	$ 4,772,766	**(4,924,417)**	**(1,730,319)**	**(1,714,094)**	**(732,614)**	**(747,390)**

The Company does not expect the cash flow analysis on the maturity date to occur significantly ahead of the schedule or the actual amount will be significantly different.

3. Currency risk

(1) Risk of Currency exposure

The Company's is financial assets and liabilities exposed to significant foreign Currency risk are as follows:

	2018.12.31		
	Foreign currency	Exchange rate	NTD
Financial assets			
Monetary items			
USD	$ 51,287	30.715	1,575,280
JPY	2,810	0.2782	782
EUR	6,943	35.200	244,394
Investment accounted for under equity method			
USD	46,628	30.715	1,471,643
EUR	6,817	35.200	239,786
Financial liabilities			
Monetary items			
USD	10,856	30.715	333,442
JPY	9,260	0.2782	2,576
EUR	3,344	35.20	117,709

	2017.12.31		
	Foreign currency	Exchange rate	NTD
Financial assets			
Monetary items			
USD	$ 77,237	29.760	2,298,573
JPY	331	0.2642	87
EUR	14,084	35.570	500,968
Investment accounted for under equity method			
USD	57,009	29.760	1,696,583
EUR	9,991	35.570	355,393
Financial liabilities			
Monetary items			
USD	22,864	29.760	680,433
JPY	44,124	0.2642	11,658
EUR	5,200	35.570	184,964

(2) Sensitivity analysis

The Company's exchange rate risk primarily comes from the cash and cash equivalents, accounts receivable, loan and accounts payable, etc. denominated in foreign currency with the resulting foreign currency exchange gains and losses. In the case On December 31, 2018 and 2017, when the NTD depreciated or appreciated by 1% against USD, JPY and EUR, and all other factors remained unchanged, the pre-tax net profit for 2018 and 2017 will increase or decrease by NT$ 13,667 thousands and NT$ 19,226 thousands respectively. The analysis of the two periods was performed with the same basis.

(3) Exchange gains or losses for monetary items

The exchange rate information of the exchange gain or loss (including realized and unrealized) of the Company's monetary items converted into functional currency (i.e. the Company's expression currency) is as follows:

	2018		2017	
	Exchange profit and loss	The average exchange rate	Exchange profit and loss	The average exchange rate
USD	$ 6,903	30.149	(116,996)	30.432
EUR	(48,566)	35.60	(23,252)	34.350
JPY	(503)	0.2730	164	0.2713
Franc	4	30.81	276	30.89
RMB	(760)	4.562	(6)	4.507
	$ (42,922)		**(139,814)**	

4. Interest Analysis

The Company's interest rate exposure of financial assets and financial liabilities is described in the liquidity risk management of this note.

The following sensitivity analysis is based on the interest rate risk exposure. The analysis of the floating interest rate liabilities is with the assumption that the amount of liability outstanding on the reporting date was outstanding for the whole year.

If the interest rate increases or decreases by 0.25%, and all other variables remain unchanged, the pre-tax net profit of the consolidated company in 2018 and 2017 will decrease or increase by NT$ 8,921 thousands and NT$ 7,629 thousands respectively due to the Company's bank deposits and borrowings of the changing interest rate.

5. Other price risks

If there is a change in the price of the equity securities on the reporting day (the two phases of the analysis are based on the same basis and the other variables are assumed to be unchanged), the impact on the consolidated profit and loss item is as follows:

	2018		2017	
Price of securities on the reporting day	**Amount after other comprehensive profit and loss**	**After-tax (loss) profit**	**Amount after other comprehensive profit and loss**	**After-tax (loss) profit**
Up by 5%	$ 33,289	4,353	34,260	-
Down by 5%	(33,289)	(4,353)	(34,260)	-

6. Fair value of financial instruments

(1) Categories of financial instruments and fair value

Financial assets and liabilities measured at fair value through gain or loss and financial assets measured at fair value through other comprehensive gain or loss (available for sale financial assets) are measured at fair value on a repetitive basis. The carrying amount and fair value of various financial assets and financial liabilities (including fair value etc. information. However, if the carrying amount of financial instruments not measured at fair value is rationally similar to the fair value, and investment in equity instruments that are not quoted in the active market and whose fair value cannot be reliably measured, there is no need to disclose fair value information as required) booked as follows:

	2018.12.31				
		Fair value			
	Carrying Amount	Level I	Level II	Level III	Total
Financial assets at fair value through profit or loss	**$ 87,053**	**87,053**	**-**	**-**	**87,053**
Financial assets at fair value through other comprehensive income					
Stock listed on domestic market	$ 665,784	665,784	-	-	665,784
Non-public offer equity instrument measured at fair value	135,222	-	-	135,222	135,222
	$ 801,006	**665,784**	**-**	**135,222**	**801,006**
Financial assets measured at amortized cost					
Cash and cash equivalents	851,304	-	-	-	-
Notes and accounts receivable (including related parties)	1,638,043	-	-	-	-
Other financial assets - current and non-current	33,564	-	-	-	-
Corporate bonds	281,366	-	285,466	-	285,466
Subtotal	**$ 3,085,643**	**-**	**566,832**	**-**	**566,832**
Financial liabilities measured with amortized costs					
Short term borrowings	$ 2,717,125	-	-	-	-
Notes and accounts payable (including related parties)	437,889	-	-	-	-
Long term borrowings	1,610,200	-	-	-	-
Subtotal	**$ 4,765,214**	**-**	**-**	**-**	**-**

	2017.12.31				
		Fair value			
	Carrying Amount	Level I	Level II	Level III	Total
Financial assets in available-for-sale —non-current	**$ 685,194**	**685,194**	**-**	**-**	**685,194**
Held-to-maturity financial assets - non-current	**$ 281,366**	**-**	**289,080**	**-**	**289,080**
Financial assets measured at cost – non-current	**$ 298,640**	**-**	**-**	**-**	**-**
Loans and receivables					
Cash and cash equivalents	$ 673,428	-	-	-	-
Notes and accounts receivable (including related parties)	2,247,900	-	-	-	-
Other financial assets (current and noncurrent)	20,556	-	-	-	-
Subtotal	**$ 2,941,884**	**-**	**-**	**-**	**-**
Financial liabilities measured with amortized costs					
Short term borrowings	$ 2,364,913	-	-	-	-
Long term borrowings	1,360,000	-	-	-	-
Notes and accounts payable (including related parties)	1,047,853	-	-	-	-
Subtotal	**$ 4,772,766**	**-**	**-**	**-**	

(2) Valuation technique of fair value of financial instruments that are not measured at fair value

The methods and assumptions the Company adopts to estimate fair value of instruments that are not measured at fair value are as follows:

Financial assets measured at amortized cost (held-to-maturity financial assets); if there is a public quotation in the active market, the market price is the fair value; if no market price is available for reference, the evaluation method is used to estimate or use the counterparty quotation.

(3) Valuation technique of fair value of financial instruments measured at fair value

Non-derivatives financial instruments

If the financial instrument has quoted prices available in the active market, the quote in the active market shall be used as fair value. Both the market prices announced by significant exchanges and those of Central Government bonds determined as popular securities announced by the TPEx are basis of fair value for equity instruments booked in the Exchange (Taipei Exchange)

If public quoted prices can be timely obtained from the exchanges, brokers, underwriters or the competent authority, and the prices can represent actual and frequent transactions in the market, the financial instruments are consider to have public quoted prices in the active market. If the above condition is not met, the market is consider inactive. Generally speaking, if there is great difference between the sales price and purchase price, or there is significant increase in such difference or the transaction are not frequent, there is indication that the market is not active.

If the financial instruments held by the Company belong to an active market,

the fair value is booked as follows by category and attribute:

For financial assets and financial liabilities of the booked (TaiSDAQ) company's stocks, notes of exchange and corporate bonds, which are subject to standard terms and conditions and are traded in the active market, the fair value is determined by reference to market quotations.

In addition to the above-mentioned financial instruments with active markets, the fair value of the remaining financial instruments is obtained by means of evaluation technologies or reference to counterparty quotes. The fair value obtained through the evaluation technology can be based on the current fair value of other financial instruments with similar characteristics and characteristics, the discounted cash flow method or other evaluation technologies, including the market information utilization model available on the balance sheet date (such as the reference yield curve of Taiwan Stock Exchange, Reuters commercial promissory interest rate average offer).

If the financial instruments held by the Company are in the non-active market, the fair value is booked as follows by category and attribute:

Equity instruments without public quotation: Estimates of fair value using the market comparable company method, the main assumptions are based on the earnings multiplier derived from the investee's net worth per share and the EV/EBIT comparable booked (TaiSDAQ) companies' quotes. The estimate has adjusted the depreciation impact of the lack of market liquidity of the equity securities.

(4) Reconciliation of Level 3 fair value

Financial assets at fair value through other comprehensive income

	2018
January 1, 2018	$ 298,640
Effects of retrospective application of new accounting standards	-
Re-edited balance at January 1, 2018	298,640
Newly-added this period	37,500
Recognized in other comprehensive Revenue	(200,918)
December 31, 2018	**$ 135,222**

(5) Quantitative information on the fair value measurement of significant unobservable inputs (Level 3)

The fair value measurement of the Company classified as Level 3 are mainly equity investment, financial assets measured at fair value through other comprehensive gain or loss.

The significantity of the Company's fair value classified as Level 3 has only a single significant unobservable input value, and only an equity instrument investment without an active market has multiple significant unobservable inputs. The significant unobservable inputs of equity instrument investments in an inactive market are independent of each other and therefore are not interrelated.

The list of quantitative information for significant unobservable inputs is as follows:

Item	Evaluation technology	Significant unobservable input value	Relations between significant unobservable input value and fair value
Financial assets measured at fair value through other comprehensive gain or loss -I equity instrument investment without active market	Comparable TWSE/GTSM booked company method	• Equity value multiplier (2018.12.31 is 0.13-0.97) • Lack of market liquidity discount (28%-50.57% for 2018.12.31)	• The higher the multiplier, the higher the fair value • The higher the lack of market liquidity discount, the lower the fair value

(6) The fair value of the Company's financial instruments that use Level 3 inputs to measure fair value was based on the price of the third party. The Company did not disclose quantified information and sensitivity analysis on significant unobservable inputs because the unobservable inputs used in fair value measurement were not established by the Company.

(30) Financial risk management

1. Overview

The financial instrument that the Company is using is exposed to the following risks:

(1) Credit Risk
(2) Liquidity Risk
(3) Market Risk

The Company's risk exposure information and the objectives, policies and procedures of the Company's risk measurement and management are disclosed in this note. Please refer to the notes to the standalone financial statements for the quantitative disclosure in detail.

2. Structure of risk management

The Board has sole responsibility for and oversight of the Company's risk management framework and risk management policies and procedures. Internal auditors assist the Board of Directors to monitor and to carry out the regular and extraordinary review of risk management controls and procedures, and to report the results of the review to the Board.

The Company's risk management policy is established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risk and the compliance with risk limits. Risk management policies and systems are reviewed regularly to reflect the changes in market conditions and the Company's operations. Also, develop a disciplined and constructive environmental control through training, management standards, and operating procedures in order to help all employees understand their roles and obligations.

Supervising and management personnel of the audit committee of the Company monitor the compliance of the Company's risk management policies and procedures, as well as review the adequacy of the parent company's related risk management framework for the risk faced. The internal auditor assists the audit committee the Company to play the role of auditors. Internal auditors carry out the regular and extraordinary review of risk management controls and procedures, and report the results of the review to the audit committee.

3. Credit Risk

The primary potential credit risk of the Company mainly comes from the financial instruments of cash and accounts receivable. The Company's cash is deposited in different financial institutions

(1) Accounts receivables and other receivables

The Company has established a credit policy. Before granting the standard payment and shipping terms as well as any other clauses, the Company shall analyze the credit rating of each new customer respectively. Purchase limit is set up for each customer. The limit is reviewed periodically. For customers not meeting the standard credit ratings as required, they can only make purchases from the Company on the basis of pre-payment.

(2) Investment

Credit risk on bank deposits, fixed-Revenue investments and other financial instruments are measure and monitored by the Company's finance department. As the Company's trading partners and its counterparties fulfill their obligations either as banks with good credit standing or financial institutions, corporations, and government agencies of investment-grade and above, there should be no significant credit risk of them defaulting on their payment obligations, and this shall not be a concern.

(3) Guarantee

Per the Company's policy, it can only provide financial guarantee to companies it has business dealing, the companies of which it holds directly or indirectly for more than 50% shares with voting right, or companies by which it is owned directly or indirectly for more than 50% shares. On December 31, 2018 and 2017, the Company did not provide any endorsement guarantees except to its subsidiaries.

4. Liquidity Risk

The Company's capital and working capital is sufficient enough to fulfill all contractual obligations; therefore, there is no liquidity risk arising from the inability of raising funds for fulfilling contractual obligations.

The bank loan is an importance source of liquidity. On December 31, 2018 and 2017, the long-term and short-term bank financing quotas unused of the Company were NT$ 4,913,625 thousands and NT$ 3,464,252 thousands respectively.

5. Market Risk

Market risk refers to the changes in market prices, such as exchange rates, interest rates and equity instrument price changes, causing risks to the Company's Revenue or the value of the financial instruments. The purpose of market risk management is to contain market risk exposure within the tolerable range and with the return on investment optimized.

(1) Currency risk

The Company is exposed to exchange rate risk that arises from sales, purchases and loans transactions denominated in non-functional currency. The Company's functional currency is NT Dollars. The main currencies of the transactions are NTD, US Dollar, JPY and Euro.

Loan interest is denominated in the currency of the loan principal. In general, a loan is in the same currency as the cash flow generated from an operating activity, which is mainly in NT Dollars.

For other monetary assets and liabilities denominated in foreign currencies, for

any short-term imbalance occurring, the Company is to maintain the net risk exposure at an acceptable level by buying or selling foreign currency at the spot exchange rate.

(2) Interest rate risk

The Company holds assets and liabilities with floating interest rates, resulting in a cash flow interest rate risk exposure.

(3) Equity instrument price

The Company has equity price exposures due to investments in stocks booked on the Taipei Exchange (TPEx). Those equity investments are not held for trading but for strategic investment.

Please refer to Note 6 (29) for the risk of change.

(31) Capital Management

The policy of the Board of Director is to maintain sound capital base in order to uphold the confidence of investor, creditor, and market, and to support future operations and development. Capital includes the share capital, capital reserve, retained earnings and other equity items of the Company. The Board of Directors controls the return on capital and the common stock dividend level.

Debt capital ratio on the reporting date is as follows:

	2018.12.31	2017.12.31
Total Liabilities	$ 7,611,183	7,711,327
Less: Cash and cash equivalent	(851,304)	(673,428)
Net liabilities	**$ 6,759,879**	**7,037,899**
Total Equity	**$ 26,881,716**	**27,140,872**
Debt capital ratio	**25.15%**	**25.93%**

The net liabilities and total equity on December 31, 2018 decreased from the previous period, but the ratio of debt to capital decreased due to the large decline in net liabilities.

(32) Financing activities

The adjustment of liabilities from financing activities is as follows:

	Short term borrowings	Long term borrowings	Total liabilities from financing activities
Balance of January 1, 2018	$ 2,364,913	1,360,000	3,724,913
Cash flow			
Cash from borrowing	1,617,125	596,000	2,213,125
Repayment of borrowings	(1,264,913)	(345,800)	(1,610,713)
Balance of December 31, 2018	**$ 2,717,125**	**1,610,200**	**4,327,325**

7. Related party transactions

(1) Names and relationships of related parties

The parties involved in the transaction of the consolidated company during the period of the standalone financial statements are as follows:

Names of related parties	Relationship with the Company
Sino Silicon Technology Inc. (hereinafter referred to as "SSTI")	Subsidiaries directly held by the Company
GlobalWafers	Subsidiaries directly held by the Company
Aleo Solar GmbH(hereinafter referred to as Aleo Solar)	Subsidiaries directly held by the Company
Aleo Solar Distribuzione Italia S.r.l	Subsidiary indirectly owned by the Company
Aleo Sunrise GmbH(hereinafter referred to as Aleo Sunrise)	Subsidiary indirectly owned by the Company
SAS Sunrise Inc.	Subsidiaries directly held by the Company
Sulu Electric Power and Light Inc.(hereinafter referred to as Sulu)	Subsidiary indirectly owned by the Company (Note 1)
AMLED International Systems Inc. (hereinafter referred to as AMLED)	(Note 2)
Sino-American Materials Co., Ltd. (hereinafter referred to as Sino-American Materials)	Subsidiary indirectly owned by the Company (Note 4)
Sunrise PV World Co. (hereinafter referred to as "Sunrise PV World")	Subsidiaries directly held by the Company
Sunrise PV Five Co., Ltd. (hereinafter referred to as Sunrise PV Five)	Subsidiary indirectly owned by the Company
Sunrise PV Two Co., Ltd. (hereinafter referred to as Sunrise PV Two)	Subsidiary indirectly owned by the Company
Sunrise PV Electric Power Two (hereinafter referred to as Sunrise PV Electric)	Subsidiary indirectly owned by the Company
Sunrise PV Three Co., Ltd. (hereinafter referred to as Sunrise PV Three)	Subsidiary indirectly owned by the Company
Sunrise PV Four Co., Ltd. (hereinafter referred to as Sunrise PV Four)	Subsidiary indirectly owned by the Company
Global Semiconductor Inc. (hereinafter referred to as GSI)	Subsidiary indirectly owned by the Company
GWafers Singapore Pte.Ltd.(hereinafter referred to as GWafers Singapore)	Subsidiary indirectly owned by the Company
Topsil GlobalWafers A/S (hereinafter referred to as Topsil A/S)	Subsidiary indirectly owned by the Company
Taisil Electronic Materials Corp. (hereinafter referred to as Taisil)	Subsidiary indirectly owned by the Company
Kunshan Sino Silicon Technology Co., Ltd. (hereinafter referred to as "Kunshan Sino")	Subsidiary indirectly owned by the Company
GlobiTech Incorporated.(hereinafter referred to as GTI)	Subsidiary indirectly owned by the Company

Names of related parties	Relationship with the Company
GlobalWafers Japan Co., Ltd. (hereinafter referred to as "GWJ")	Subsidiary indirectly owned by the Company
Shanghai Growfast Semiconductor Technology Co.,Ltd. (hereinafter referred to as Shanghai GrowFast)	Subsidiary indirectly owned by the Company
Topsil Semiconductor sp z o.o.(hereinafter referred to as Topsil PL)	Subsidiary indirectly owned by the Company
GlobalWafers Singapore Pte. Ltd. (hereinafter referred to as GWS)	Subsidiary indirectly owned by the Company
GlobalWafers B.V. (hereinafter referred to as GWBV)	Subsidiary indirectly owned by the Company
MEMC Japan Ltd.(hereinafter referred to as MEMC Japan)	Subsidiary indirectly owned by the Company
MEMC Electronic Materials SpA (hereinafter referred to as MEMC SpA)	Subsidiary indirectly owned by the Company
MEMC Electronic Materials France SarL(hereinafter referred to as MEMC SarL)	Subsidiary indirectly owned by the Company
MEMC Electronic Materials GmbH(hereinafter referred to as MEMC GmbH)	Subsidiary indirectly owned by the Company
MEMC Holding B.V.(hereinafter referred to as MEMC BV)	Subsidiary indirectly owned by the Company
MEMC Korea Company (hereinafter referred to as MEMC Korea)	Subsidiary indirectly owned by the Company
MEMC LLC (hereinafter referred to as MEMC LLC)	Subsidiary indirectly owned by the Company
MEMC Electronic Materials, Sdn Bhd (hereinafter referred to as MEMC Sdn Bhd)	Subsidiary indirectly owned by the Company
SunEdison Semiconductor Technology (Shanghai) Ltd. (hereinafter referred to as SunEdison Shanghai)	Subsidiary indirectly owned by the Company
MEMC Ipoh Sdn Bhd (hereinafter referred to as MEMC Ipoh)	Subsidiary indirectly owned by the Company
Actron Technology Corporation (hereinafter referred to as Actron Technology)	The chairman of the Company is the same.
Solartech Energy Corp.	The Company is the main management of Solartech Energy (Note 5)
URE	The Company is the main management of URE (Note 5)
Sunshine PV. Corporation (hereinafter referred to as Sunshine PV.)	Related enterprise to URE
Ming Yang Corporation (hereinafter referred to as Ming Yang)	The Company's management is the chairman of the company (note 3)
Song Long Electronics Corporation (hereinafter referred to as Song Long Eletronics)	The Company's management is the chairman of the director of the company
Accu Solar Corporation	Affiliated enterprises of the Company
Crystalwise Technology Inc.	Affiliated enterprises of the Company
Cathy Sunrise	Affiliated enterprises of the Company

Names of related parties	Relationship with the Company
TSCS	Affiliated enterprises of the Company
Sunrise PV One Co., Ltd. (hereinafter referred to as Sunrise PV One)	Subsidiaries of affiliated enterprises of the Company
Cathy Sunrise One Co., Ltd. (hereinafter referred to as Cathy Sunrise One)	Subsidiaries of affiliated enterprises of the Company
Cathy Sunrise Two Co., Ltd. (hereinafter referred to as Cathy Sunrise Two)	Subsidiaries of affiliated enterprises of the Company
Cathy Sunrise Electric Power One (hereinafter referred to as CSEPO)	Subsidiaries of affiliated enterprises of the Company

Note 1: The Company can control the financial and operating strategies of Sulu through valid agreements with other investors of Sulu, so Sulu is considered as a subsidiary.

Note 2: The Company does not hold the ownership interests of AMLED, but the Company can control the financial and operating strategies of AMLED and obtain all the benefits of its operations and net assets in accordance with the terms of the agreements with such standalone, so AMLED is considered as a subsidiary.

Note 3: In July 2017, it was not a related party of the Company.

Note 4: Sino-American Materials Co., Ltd. has been settled by the shareholders' meeting resolution.

Note 5: The former Solartech Energy was merged and cancelled in October 2018, the existing company is renamed URE.

(2) Significant transactions with related parties

1. Operating revenue

The Company’s material sales amount to the related party are as follows:

	2018	2017
Subsidiary	$ 1,123,826	1,342,322
Affiliated companies	20	36,626
Other related party - Solartech Energy	194,922	927,897
Other related parties	-	34,598
	$ 1,318,768	**2,341,443**

In 2018 and 2017, the Company's processing Revenue to related parties was NT$ 70,124 thousands and NT$ 174,066 thousands, respectively, booked in operating cost reduction.

The Company offers selling price to the related party in accordance with the general market price and has the price adjusted with the considerations of sales area, sales volume, etc.

The Company's payment conditions to general customers in 2018 and 2017 are both from 0 days to O/A 120 days; to significant related parties, advance payment to O/A 90 days EOM, and 30 days after shipment to 180 days after shipment.

2. Purchase and outsourced processing

The amount of purchase and outsourced processing from the related party by the

Company is as follows:

	2018	2017
Subsidiary	$ 30,367	95,915
Affiliated companies	304	-
Other related parties	25,324	18,221
	$ 55,995	**114,136**

The Company has used the general market price to purchase goods and outsource processing from the related party.

The Company's payment conditions to general suppliers in 2018 and 2017 are from O/A 0 days to O/A 150 days EOM, and O/A 0 days to O/A 120 days EOM respectively; from significant related parties as suppliers, advance payment to O/A 90 days EOM, and 7 days after shipment to O/A 60 days.

For the purchase of raw materials, the advance payment of the Company to other related parties is NT$ 1,179 thousands, accounted for under the prepaid materials.

3. Receivables from related parties

The Company’s receivables from related parties are as follows:

Account	Classification of related party	2018.12.31	2017.12.31
Receivables from related parties	Subsidiary-GlobalWafers	$ 157,482	20,553
Receivables from related parties	Subsidiary-Aleo Solar	110,062	148,200
Receivables from related parties	Subsidiary-Other	15,368	127,243
Receivables from related parties	Other related parties	8	40,329
		$ 282,920	**336,325**

The Company's sales of raw materials of subsidiaries were assessed as not recoverable. In 2018, the allowance for loss accrued was NT$ 14,107 thousands, accounted for in expected credit impairment loss.

In addition, in order to maintain the stable supply of raw materials required for production, the related parties successively signed short-term and long-term supply contracts with the Company, then the details of the advance sales receipts from related parties (respectively booked in contract liabilities - current / non-current and advance payment received - current / non-current) are as follows:

	2018.12.31	2017.12.31
Other related party-Solartech Energy	$ -	860,357
Other related party-URE	883,697	-
	$ 883,697	**860,357**

4. Accounts payable to related parties

The Company's payables to related parties are as follows:

Account	Classification of related party	2018.12.31	2017.12.31
Payable to related parties	Subsidiary	$ 712	750
Payable to related parties	Other related parties	319	3,282
		$ 1,031	**4,032**

5. Transactions of property, plant and equipment

(1) Disposition of property, plant and equipment

The details of the sales of property, plant and equipment by the Company to related parties are as follows:

	2018		2017	
	Sale price	Receivables from related parties	Sale price	Receivables from related parties
Subsidiary	**$ 627,131**	**-**	**34,513**	**-**

The benefits realized in 2018 and 2017 were NT$ 964 thousands and NT$ 3,567 thousands respectively. On December 31, 2018 and 2017, the interests of deferred disposition of fixed assets arising from the sale of fixed assets to related parties was NT$ 27,334 thousands and NT$ 2,843 thousands, respectively.

(2) Acquisition of property, plant and equipment

The price for the Company's acquisition of property, plant and equipment from related parties is as follows:

	2018		2017	
	Amount	Payable to related parties	Amount	Payable to related parties
Subsidiary	**$ 114,713**	**-**	**33,290**	**-**

6. Revenue of management fee

Information regarding the Company's collecting the management fees Revenue from related parties and having them debited to the management expense is as follows:

	2018	2017
Subsidiary	**$ 25,685**	**15,310**

As of December 31, 2018 and 2017, the unrecovered management fees receivable were NT$ 7,293 thousands and NT$ 33 thousands respectively, booked in receivables from related parties.

7. Technical service Revenue

The Company collected technical service Revenue from the related parties and recorded them in the account of "Other gain or loss". Please see detail as follows:

	2018	2017
Subsidiary	**$ 24,823**	**7,300**

As of December 31, 2018 and 2017, the unrecovered technical service Revenue booked in receivables from related parties were NT$ 6,328 thousands and NT$ 1,432 thousands respectively.

8. Loan to related parties

The actual disbursement of loan to the related parties is as follows:

	2018.12.31	2017.12.31
Subsidiary—Sulu	$ 268,572	652,339
Subsidiary—Sunrise PV Five	162,000	-
Subsidiary—Sunrise PV World	150,000	-
Subsidiary—Aleo Solar	52,800	284,560
Subsidiary—Other	208,000	188,000
	$ 841,372	**1,124,899**

For the borrowings of the subsidiaries from the Company, the interest is based on the average interest rate of the related parties borrowing from financial institutions in the year when they receive the loan, and all of above borrowings are unsecured loans. The Interest income of 2018 and 2017 were NT$ 24,096 thousands and NT$ 12,592 thousands respectively. On December 31, 2018 and 2017, interest receivable at the end of the period were NT$ 1,160 thousands and NT$ 11,859 thousands respectively, booked in receivables from related parties.

On December 31, 2018 and 2017, as the subsidiaries involved in the aforementioned transaction capitalize the interest expenses, and their unrealized interests were NT$ 4,138 thousands and NT$ 4,376 thousands respectively, booked in investment under equity method.

9. Endorsements/guarantees

The Company's endorsements and guarantees for the related party is summarized as follows:

	2018.12.31	2017.12.31
Subsidiary	**$ 2,458,610**	**3,902,240**

10. Corporate bonds

In October 2016, the Company purchased the five-year private placement corporate bonds issued by its affiliated company, Crystalwise Technology, a total of 280 bonds with each face value of NT$ 1,000 totaling $ 280,000 thousands. Ther interest is paid once every six months. Both the interest rate and the coupon rate are 2%. Interest income for 2018 and 2017 were both NT$ 1,366 thousands. As December 31, 2018 and 2017, the accumulated investment cost and interest receivable were both NT$ 281,366 thousands, booked in financial assets measured at amortized cost - non-current and held to maturity financial assets - non-current items.

In January 2019, the Company purchased the private equity corporate bonds of one year from the affiliated enterprise Crystalwise Technology for NT$ 250,000 thousands. For details, please refer to Note 11.

11. Payment on behalf of others

On December 31, 2018 and 2017, the Company's unsettled accounts receivable (payable) to related parties due to payments paid on behalf of others among related parties for materials purchase, insurance, water and electricity fee etc. were booked in accounts receivable (payable) to related parties as follows:

	2018.12.31	2017.12.31
Subsidiary	$ 26,371	37,433
Subsidiary	(4,530)	(332)
Affiliated companies	8	1,711
Affiliated companies	(62)	(40)
Other related parties	(10)	-
	$ 21,777	**38,772**

12. Others

(1) The Company's direct sales to the related parties is regarded as the transfer of inventories. Therefore, the sales revenue and related costs are written off when the standalone financial statements is expressed, not regarded as the sales and cost of the Company. On December 31, 2018 and 2017, the deferred Revenue arising from the above transactions were NT$ 35,500 thousands and NT$ 48,913 thousands respectively, booked in the investment under equity method.

In addition, the sales of raw materials to the subsidiaries is regarded as the transfer of inventories, and the gross loss of the sale of NT$ 54,282 thousands is deferred and booked in the investment under equity method.

(2) The Company and the related parties have a factory lease contract, and the breakdown of the rental Revenue and payables to related parties are as follows:

	2018	2017
Subsidiary	$ 8,775	1,301
Affiliated companies	2,142	2,096
Other related parties	-	11,340
	$ 10,917	**14,737**

Account	Classification of related party	2018.12.31	2017.12.31
Payable to related parties	Subsidiary	$ 831	71
Payable to related parties	Affiliated companies	-	265
		$ 831	**336**

(3) The Company and the related parties have a factory lease contract, and the breakdown of the rental Revenue and receivables from related parties are as follows:

	2018	2017
Subsidiary	$ 7,308	22,244
Affiliated companies	225	100
Other related parties	165	-
	$ 7,698	**22,344**

Account	Classification of related party	2018.12.31	2017.12.31
Receivables from related parties	Subsidiary	**$ 1,093**	**3,722**

(4) The Company collects from the subsidiaries entrustment fee for legal work, the related labor service Revenue is NT$ 1,500 thousands booked in receivables from related parties as follows:

Account	Classification of related party	2018.12.31	2017.12.31
Receivables from related parties	Subsidiary	**$ -**	**1,500**

(3) Key management

The remuneration to key management include:

	2018	2017
Short-term employee benefits	$ 76,792	75,727
Post-employment benefits	819	459
Share-based payment	73,612	25,659
	$ 151,223	**101,845**

In 2018 and 2017, the Company provided 2 vehicles with the cost of NT$ 2,204 thousands and 3 vehicles with the cost of NT$ 3,345 thousands respectively for key management personnel to use.

8. Pledged Assets

The book value of the assets mortgaged/pledged by the Company as collateral is as follows:

Asset name	Pledge or Mortgage underlying subject	2018.12.31	2017.12.31
Property, plant and equipment	Long term borrowings	$ 552,000	552,000
Time deposits (recognized in other financial assets—non-current)	Providing a guarantee for the bank to open a lease for the Science Park Bureau	7,900	7,750
Time deposits (recognized in other financial assets—non-current)	Performance bonds for Government grant provided to technology projects	13,597	1,020
		$ 573,497	**560,770**

9. Significant commitments and contingencies

Except as stated in Note 6 (16), other significant contingent liabilities of the Company and unrecognized contractual commitments are as follows:

(1) Significant unrecognized contractual commitments

1. The Company has negotiated the amount of future purchase in according to the current effective long-term purchase agreement and the market condition. The details are as follows:

(Expressed in thousands of foreign currency)

	2018.12.31	2017.12.31
USD	**$ 1,205,750**	**1,406,246**
EUR	**$ 3,189**	**18,000**

Silicon supplier Hemlock Semiconductor Pte. Ltd. (hereinafter referred to as Hemlock) sent a notice requesting that Company's confiscated prepayment, payment for goods not received and the interest related to the late payment in accordance with to the long-term purchase contract be accumulated to December 31, 2018 and 2017 as US$ 615,982 thousands and US$ 502,650 thousand respectively. The aforementioned purchase amount yet to be collected, except for interest, has included the amount requested by the suppliers. As the Company and Hemlock continue to trade, the Company believes that the possibility of the aforementioned interest payment is low and so does not estimate this contingent liability.

Hemlock. The subpoena and the complaint against the Company were delivered to the Company on May 12, 2015. However, the two parties reached an agreement in May 2016. Please refer to the relevant description (2) contingent liabilities.

The Company's prepayments reversal impairment to silicon raw materials suppliers in 2018 and 2017 were NT$ 258,645 thousands and NT$ 11,826 thousands respectively. On December 31, 2018 and 2017, the Company's accumulated impairment

of prepayment to the silicon raw materials supplier were NT$ 669,997 thousands and NT$ 928,642 thousands respectively, net amount NT$ 536,783 thousands and NT$ 1,022,802 thousands, booked in prepaid materials and long-term prepaid materials.

2. In response to the long-term purchase contract referred above, the Company has signed silicon wafer long-term sales contracts successively with the customers since 2005. These companies agree to pay the non-refundable funds to the Company. The two parties agreed to have silicon wafers sold in accordance with the agreed quantity and price from January 1, 2006 to December 31, 2019. If the delivery has not been made in compliance with the contract signed, a sales discount or an amount equivalent to 1.5-4 times of the advance sales receipts from customers as remuneration should be granted. If the delay of shipment has not been resolved for more than three months, the outstanding pre-payment should be refunded. In addition, in response to the price decline arising from the falling demand, solar energy battery customers and the Company will negotiate the selling price and adjusting the average selling price in accordance with market conditions.

   The amount of delivery according to the existing contracts and current market conditions is as follows:

(Expressed in thousands of foreign currency)

	2018.12.31	2017.12.31
USD	$ 91,640	239,996
EUR	$ 68,815	115,316
NTD	$ 54,845	54,845

3. On December 31, 2018 and 2017, the Company has signed or ordered significant construction projects and plant equipment that have not yet been delivered for inspections of NT$ 108,560 thousands and NT$ 114,856 thousands respectively.
4. On December 31, 2018 and 2017, the total amount of promissory notes deposited by the consolidated company at the bank for acquiring bank financing were NT$ 10,630,605 thousands and NT$ 6,728,990 thousands respectively.
5. On December 31, 2018 and 2017, the Company requested the bank to open a performance bond for the General Administration of Customs and the R&D plan, which amounted to NT$ 49,250 thousands and NT$ 53,250 thousands respectively.
6. The Company and the polycrystalline solar cell manufacturer (referred to as the manufacturer) signed a cooperation contract. From July 1, 2015 to March 31, 2021, the manufacturer provided factory and equipment for the Company for operational use. According to the contract, the Company shall allocate part of the operating profit arising from the plant and equipment to the manufacturer. During the contract period, if the accumulated distribution of operating profit amounted to a certain amount, and the Company has the right to acquire the ownership of the plant equipment for free or for a fee. As of December 31, 2018, the contract was terminated in advance.

(2) Contingent liabilities

The silicon supplier Hemlock and the Company reached an agreement in May 2016 on the inter-party lawsuit, stipulating that under certain conditions, Hemlock ceased the proceedings against the Company to April 30, 2019. The two parties signed two documents, STIPULATION OF DISCONTINUANCE and SETTLEMENT AGREEMENT. According to SETTLEMENT AGREEMENT, the Company must purchase a certain amount of silicon raw

materials from Hemlock and its affiliated enterprises. In February 2019, the two parties signed a supplementary Accommodation Letter to agree to amend part of the SETLEMENT AGREEMENT, and extend the period of STIPULATION OF DISCONTINUANCE termination of the proceedings against Sino-American Silicon Products. Inc. to April 30, 2019. After that, the Company had negotiated a contract with Hemlock. As of March 21, 2019, the Company had not received any notice from the other party to restart the proceedings.

10. Losses due to major disaster: None.

11. Subsequent Events

The Company resolved by the board of directors on January 11, 2019 to subscribe for the private equity of 250 million dollars unsecured ordinary corporate bonds issued by Crystalwise Technology. The corporate bond is issued for one year and expires in January 2020. The coupon rate is 2% per annum.

12. Others

The functions of employee benefits, depreciation and amortization expenses are summarized as follows:

By Function / By item	2018			2017		
	Cost of goods sold	Operating expenses	Total	Cost of goods sold	Operating expenses	Total
Employee benefits						
Salary	651,338	170,896	822,234	797,113	178,218	975,331
Labor and health insurance	69,949	11,417	81,366	42,688	10,926	53,614
Pension	30,460	9,942	40,402	34,309	5,717	40,026
Directors' remuneration	-	69,115	69,115	-	22,640	22,640
Other Employee benefits	38,322	3,597	41,919	43,338	4,330	47,668
Depreciation	929,936	51,977	981,913	981,394	52,704	1,034,098

The number of employees of the Company on December 31, 2018 and 2017 were 1,026 and 1,612 respectively, of which 9 were directors (not acting as employees).

13. Other disclosures

(1) Information on significant transactions

In 2018, in accordance with the provisions of the Regulations Governing the Preparation of Financial Reports by Securities Issuers, the relevant significant transactions that should be disclosed by the Company as follows:

1. Loans to other parties: Please refer to Attachment 1 for details.
2. Guarantees and endorsements for other parties: Please refer to Attachment 2 for details.
3. Securities held as of December 31, 2018 (excluding investment in subsidiaries, associates and joint ventures): Please refer to Attachment 3 for details.
4. Individual securities acquired or disposed of with accumulated amounts exceeding the lower of NT$300 million or 20% of the capital stock: Please refer to Attachment 4 for

details.

5. Acquisition of individual real estate with amount exceeding the lower of NT$ 300 million or 20% of the capital stock: Please refer to Attachment 5 for details.
6. Disposal of individual real estate with amount exceeding the lower of NT$ 300 million or 20% of the capital stock: Please refer to Attachment 6 for details.
7. Related party transactions for purchases and sales with amounts exceeding the lower of NT$ 300 million or 20% of the capital stock: Please refer to Attachment 7 for details.
8. Receivables from related parties with amounts exceeding the lower of NT$ 100 million or 20% of the capital stock: Please refer to Attachment 8 for details.
9. Trading in derivative instruments: None.

(2) Information on investees: Please refer to Attachment 9 for details.

(3) Information on investment in mainland China:

1. Relevant information on the name and main business items of the investee company in Mainland China: Please refer to Attachment 10 (1) for details.
2. Investment quotas for Mainland China: Please refer to Attachment 10 (2) for details.

14. Segment information

For details of segment Revenue (loss), please refer to the consolidated financial statements of 2018.

Sino-American Silicon Products Inc.

Loans to other parties

For the year ended December 31, 2018

Attachment 1

Unit: NT$ Thousand

No.	Name of lender	Name of borrower	Account name	Related party	Highest balance of financing to other parties during the period	Ending balance	Actual usage amount during the period	Range of interest rates during the period	Purposes of fund financing for the borrower (Note 1)	Transaction amount for business between two parties	Reasons for short term financing	Loss allowance	Collateral		Individual funding loan limits (Note 2)	Maximum limit of fund financing (Note 3)
													Item	Value		
0	Sino-American Silicon Products Inc.	Sulu	Loan receivable – related party	Yes	928,650 (USD 30,000)	921,450 (USD 30,000)	268,572 (USD 8,744)	4.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Sunrise PV World Co.	Loan receivable – related party	Yes	500,000	500,000	150,000	2.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Sunrise PV Five	Loan receivable – related party	Yes	300,000	300,000	162,000	2.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Sunrise PV Electric	Loan receivable – related party	Yes	200,000	200,000	102,000	2.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Sunrise PV Three Energy	Loan receivable – related party	Yes	500,000	300,000	106,000	2.5%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Aleo Solar	Loan receivable – related party	Yes	434,880 (EUR 12,000)	281,600 (EUR 8,000)	52,800 (EUR 1,500)	2.0%	2	-	Working capital	-		-	10,752,686	10,752,686
0	Sino-American Silicon Products Inc.	Aleo Sunrise	Loan receivable – related party	Yes	434,880 (EUR 12,000)	-	-	2.0%	2	-	Working capital	-		-	10,752,686	10,752,686

No.	Name of lender	Name of borrower	Account name	Related party	Highest balance of financing to other parties during the period	Ending balance	Actual usage amount during the period	Range of interest rates during the period	Purposes of fund financing for the borrower (Note 1)	Transaction amount for business between two parties	Reasons for short term financing	Loss allowance	Collateral		Individual funding loan limits (Note 2)	Maximum limit of fund financing (Note 3)
													Item	Value		
1	SSTI	Sulu	Loan receivable – related party	Yes	215,005 (USD 7,000)	215,005 (USD 7,000)	215,005 (USD 7,000)	4.0%	2	-	Working capital	-		-	389,344	389,344
1	SSTI	AMLED	Loan receivable – related party	Yes	329,671 (USD 10,650)	119,789 (USD 3,900)	119,789 (USD 3,900)	4.0%	2	-	Working capital	-		-	389,344	389,344
2	SAS Sunrise Inc.	Sulu	Loan receivable – related party	Yes	236,840 (USD 8,000)	190,433 (USD 6,200)	187,054 (USD 6,090)	4.0%	2	-	Working capital	-		-	199,313	199,313
3	Sulu	AMLED	Loan receivable – related party	Yes	111,642 (USD 3,824)	-	-	4.0%	2	-	Working capital	-		-	179,181	179,181
4	Aleo Solar	Aleo Sunrise	Loan receivable – related party	Yes	289,920 (EUR 8,000)	281,600 (EUR 8,000)	281,600 (EUR 8,000)	2.0%	2	-	Working capital	-		-	239,786	239,786 Note 4
5	SAS Sunrise Pte. Ltd.	Sulu	Loan receivable – related party	Yes	245,720 (USD 8,000)	-	-	4.0%	2	-	Working capital	-		-	214,059	214,059
5	SAS Sunrise Pte. Ltd.	AMLED	Loan receivable – related party	Yes	213,776 (USD 6,960)	213,776 (USD 6,960)	213,776 (USD 6,960)	4.0%	2	-	Working capital	-		-	214,059	214,059
6	GlobalWafers	Taisil	Loan receivable – related party	Yes	2,500,000	-	-	1.5%	2	-	Working capital	-		-	17,255,782	17,255,782
7	GWJ	GlobalWafers	Loan receivable – related party	Yes	4,173,000	4,173,000	4,173,000	0.47091% - 0.53091%	1	6,564,463	Business transactions	-		-	6,564,463	5,430,209
7	GWJ	MEMC Japan	Loan receivable – related party	Yes	278,200	278,200	-	0.56091%	2	-	Working capital	-		-	2,715,105	5,430,209
8	MEMC SpA	GWS	Loan receivable – related party	Yes	2,826,720	2,745,600	2,145,431	3.559%	2	-	Working capital	-		-	11,348,657	11,348,657
9	Taisil	GlobalWafers	Loan receivable – related party	Yes	5,700,000	5,700,000	5,700,000	1.5%	2	-	Working capital	-		-	6,434,620	6,434,620

No.	Name of lender	Name of borrower	Account name	Related party	Highest balance of financing to other parties during the period	Ending balance	Actual usage amount during the period	Range of interest rates during the period	Purposes of fund financing for the borrower (Note 1)	Transaction amount for business between two parties	Reasons for short term financing	Loss allowance	Collateral		Individual funding loan limits (Note 2)	Maximum limit of fund financing (Note 3)
													Item	Value		
10	GTI	Topsil A/S	Loan receivable – related party	Yes	87,585	-	-	6%	2	-	Working capital	-		-	3,492,437	3,492,437
10	GTI	MEMC LLC	Loan receivable – related party	Yes	671,485	-	-	3.62%	2	-	Working capital	-		-	3,492,437	3,492,437

Note 1: The entry method for the loaning of funds is as follows:

(1) For business transactions, please fill in 1.

(2) Necessary for short-term financing, please fill in 2.

Note 2: (1) For the Company's loan of funds to those having business transactions, the individual loan is limited to the trade amount between the two parties in the most recent year; for the loan of funds to companies necessary for short-term financing, the individual loan is limited to 40% of the net worth of the company that lends loan; for loan of funds among foreign companies that the Company directly and indirectly holds 100% of the voting shares, the individual loan is limited to 40% of the net worth of the company that lends loan.

(2) For GlobalWafers and its subsidiaries' loan of funds to those having business transactions, the individual loan is limited to the trade amount between the two parties in the most recent year; for the loan of funds to companies necessary for short-term financing, the individual loan is limited to 40% of the net worth of GlobalWafers; for loan of funds among foreign companies that GlobalWafers directly and indirectly holds 100% of the voting shares, or between the foreign companies and GlobalWafers, the individual loan is limited to 40% of the net worthof GlobalWafers.

Note 3: (1) For the Company's loan of funds to those having business transactions, the total loan is limited to 40% of the company that lends loan; for the loan of funds to companies necessary for short-term financing, the total loan is limited to 40% of the net worth of the company that lends loan; for loan of funds among foreign companies that the company that lends loan directly and indirectly holds 100% of the voting shares, the total loan is limited to 2 times of the net worth of the company that lends loan.

(2) For GlobalWafers and its subsidiaries' loan of funds to those having business transactions, the total loan is limited to 40% of the company that lends loan; for the loan of funds to companies necessary for short-term financing, the total loan is limited to 40% of the net worth of the company that lends loan; for loan of funds among foreign companies that GlobalWafers directly and indirectly holds 100% of the voting shares, or between the foreign companies and GlobalWafers, the total loan is limited to 2 times of the net worthof GlobalWafers.

(3) For loan of funds of Aleo Solar, the total loan is limited to 100% of the net worth of the company that lends loan.

(4) For loan of funds of SSTI, SAS Sunrise Inc., SAS Sunrise Pte Ltd., Suluto and Sunrise PV World to those having business transactions, the total loan is limited to 40% of the company that lends loan; for the loan of funds to companies necessary for short-term financing, the total loan is limited to 40% of the net worth of the company that lends loan; for loan of funds among foreign companies that the company that lends loan directly and indirectly holds 100% of the voting shares, the total loan is limited to 40% of the net worth of the company that lends loan.

Note 4: Due to the change of the plan, the loan of funds exceeds quota. Improvement plans have been made in accordance with regulations.

Note 5: Transactions with consolidated parties as mentioned above were eliminated when preparing the consolidated reports.

Sino-American Silicon Products Inc.

Guarantees and endorsements for other parties

For the year ended December 31, 2018

Attachment 2 Unit: NT$ Thousand

No.	Name of guarantor	Counter party of guarantee and endorsement		Limitation on amount of guarantees and endorsements for a specific enterprise	Highest balance for guarantees and endorsements during the period (Notes 3, 9 and 10)	Balance of guarantees and endorsements as of reporting date	Actual usage amount during the period	Property pledged for guarantees and endorsements (Amount)	Ratio of accumulated amounts of guarantees and endorsements to net worth of the latest financial statements	Maximum amount for guarantees and endorsements	Parent company endorsements/ guarantees to third parties on behalf of subsidiary (Notes 3, 9 and 10)	Subsidiary endorsements/ guarantees to third parties on behalf of parent company	Endorsements/ guarantees to third parties on behalf of companies in Mainland China
		Name	Relationship with the Company (Note 2)										
0	Sino-American Silicon Products Inc.	SAS Sunrise Inc.	2	26,881,716	247,640 (USD 8,000) (Note 4)	245,720 (USD8,000)	162,790 (USD 5,300)	-	0.91%	26,881,716	Y	N	N
0	Sino-American Silicon Products Inc.	SAS Sunrise Pte. Ltd.	2	26,881,716	619,100 (USD 20,000) (Note 5)	-	-	-	- %	26,881,716	Y	N	N
0	Sino-American Silicon Products Inc.	Sulu	2	- (Note 7)	1,423,930 (USD 46,000) (Note 6)	1,412,890 (USD 46,000)	1,412,890 (USD 46,000) (Note 6)	-	5.26%	- (Note 7)	Y (Note 8)	N	N
0	Sino-American Silicon Products Inc.	Sunrise PV World Co.	2	26,881,716	200,000	200,000	1,150	-	0.74%	26,881,716	Y	N	N
0	Sino-American Silicon Products Inc.	Sunrise PV World and its 100% owned subsidiaries	2	26,881,716	1,500,000	500,000	-	-	1.86%	26,881,716	Y	N	N
0	Sino-American Silicon Products Inc.	Sunrise PV World Co.	2	26,881,716	100,000	100,000	-	-	0.37%	26,881,716	Y	N	N

No.	Name of guarantor	Counter party of guarantee and endorsement		Limitation on amount of guarantees and endorsements for a specific enterprise	Highest balance for guarantees and endorsements during the period (Notes 3, 9 and 10)	Balance of guarantees and endorsements as of reporting date	Actual usage amount during the period	Property pledged for guarantees and endorsements (Amount)	Ratio of accumulated amounts of guarantees and endorsements to net worth of the latest financial statements	Maximum amount for guarantees and endorsements	Parent company endorsements/ guarantees to third parties on behalf of subsidiary (Notes 3, 9 and 10)	Subsidiary endorsements/ guarantees to third parties on behalf of parent company	Endorsements/ guarantees to third parties on behalf of companies in Mainland China
		Name	Relationship with the Company (Note 2)										
1	GlobalWafers	Topsil A/S	2	43,139,455	120,250	117,500	17,625	-	0.27%	129,418,365	N	N	N
1	GlobalWafers	GWJ	2	43,139,455	275,400	-	-	-	- %	129,418,365	N	N	N
1	GlobalWafers	MEMC LLC	2	43,139,455	464,325	-	-	-	- %	129,418,365	N	N	N
1	GlobalWafers	MEMC Korea	2	43,139,455	773,875	-	-	-	- %	129,418,365	N	N	N
1	GlobalWafers	GWS	2	43,139,455	1,857,300	1,842,900	614,300	-	4.27%	129,418,365	N	N	N
1	GlobalWafers	Taisil	2	43,139,455	200,000	-	-	-	- %	129,418,365	N	N	N
1	GlobalWafers	Taisil	2	43,139,455	1,857,300	-	-	-	- %	129,418,365	N	N	N
2	GTI	MEMC	2	43,655,460	462,450	460,725	98,013	-	5.28%	43,655,460	N	N	N
3	Sunrise PV World Co.	Sunrise PV Four	2	986,932	170	170	170	-	0.07%	986,932	N	N	N
3	Sunrise PV World Co.	Sunrise PV Three Energy	2	986,932	421	421	421	-	0.17%	986,932	N	N	N

Note 1: The method of filling the nature of endorsement guarantee is as follows:

(1) The issuer fills in 0.

(2) The investee company is numbered sequentially by the company starting from the Arabic number 1.

Note 2: There are the following seven types of relationship between the endorsement guarantor and the endorsed object:

(1) A company with business transactions.

(2) Companies that the Company directly and indirectly holds more than 50% of the voting shares.

(3) Companies that directly and indirectly holds more than 50% of the voting shares of the Company.

(4) Among companies that the Company directly and indirectly holds more than 90% of the voting shares.

(5) Companies in the same industry or joint constrctors that are mutually guaranteed under contractual requirements based on the needs of contracting project.

(6) A company that is endorsed by all the contributing shareholders in accordance with their shareholding ratio due to the joint investment relationship.

(7) The joint performance guarantee of the pre-sale house sales contract among companies in the same industry in accordance with Consumer protection law.

Note 3: The amount of endorsements/guarantees provided by the endorsement guarantor company for a single enterprise is limited to 10% of the net worth of the company providing the endorsements/guarantees, but for the subsidiary company, limited to one time of the net worth of the company providing the endorsements/guarantees. The total amount of accumulated endorsements/guarantees shall not exceed the net worth of the Company. The total amount of the Company's endorsements/guarantees and that for a single enterprise shall not exceed five times the net worth of the company providing endorsements/guarantees. The aforesaid net worth is based on the financial statements recently audited or reviewed by an accountant. For endorsements/guarantees due to business transactions, except subject to the provisions of the preceding item, the endorsement guarantee amount should be equal to the higher of the purchase or sales amount.

Note 4: This amount is USD 8,000 thousands individual quota for SAS Sunrise Inc..

Note 5: This amount is USD 20,000 thousands joint quota for SAS Sunrise Pte. Ltd. and Sulu.

Note 6: Sulu shares with the company a quota of USD 10,000 thousands and Sulu's individual quota is USD 36,000 thousands. The Company resolved on October 14, 2016 by the board of directors to repay part of the loan, and reduce the endorsements/guarantees quota to USD 46,000 thousands and repay the bank loan on October 19, 2016. The actual disbursement amount was reduced to USD 46,000 thousands.

Note 7: The endorsements/guarantees quota for Sulu is calculated as US$ 46,211 thousands, the amount of sales at the time of endorsements/guarantees.

Note 8: The Company controls the financial and operating strategies of Sulu through effective agreements with other investors of Sulu, so Sulu is considered as a subsidiary.

Note 9: The method of endorsements/guarantees of GlobalWafers and its subsidiaries s are as follows:

(1) The total amount of accumulated endorsements/guarantees of GlobalWafers shall not exceed three times the net worth of the most recent financial statements of GlobalWafers.

(2) The amount of endorsements/guarantees of GlobalWafers for a single enterprise shall not exceed 10% of the net worth of the most recent financial statements of GlobalWafers. For subsidiaries, 1 time of the net worth of GlobalWafers.

(3) Taisil's performance bond for duty paid after customs release is NT$ 5,000 thousands.

Note 10: The method of endorsements/guarantees of Sunrise PV World and its subsidiaries s are as follows:

(1) The total amount of accumulated endorsements/guarantees of Sunrise PV World shall not exceed four times the net worth of the most recent financial statements of Sunrise PV World.

(2) The amount of endorsements/guarantees of Sunrise PV World for a single enterprise shall not exceed 10% of the net worth of the most recent financial statements of GlobalWafers. For subsidiaries, 4 times of the net worth of GlobalWafers.

(3) The total amount of Sunrise PV World's endorsements/guarantees and that for a single enterprise shall not exceed five times the net worth of the most recent financial statements of Sunrise PV World.

(4) For endorsements/guarantees due to business transactions, except subject to the provisions of the preceding item, the endorsement guarantee amount of Sunrise PV World should be equal to the higher of the purchase or sales amount.

Sino-American Silicon Products Inc.

Securities held as of December 31, 2018 (excluding investment in subsidiaries, associates and joint ventures)

December 31, 2018

Attachment 3 Unit: NT$ thousand / thousand shares / thousand sheets; thousand units

Name of holder	Category and name of security	Relationship with the Company	Account title	Ending balance				% of highest capital contribution in the period	Remarks
				Shares/Units (thousands)	Carrying value	Percentage of ownership (%)	Fair value		
Sino-American Silicon Products Inc.	Corporate bonds of Crystalwise Technology	Affiliated companies	Financial assets measured at amortized cost	280	281,366	- %	285,466	- %	
Sino-American Silicon Products Inc.	Stocks of URE	Sino-American Silicon Products Inc. is the main management of URE	Financial assets at fair value through other comprehensive income	34,492	270,073	1.37%	270,073	1.37%	
Sino-American Silicon Products Inc.	Stock of Actron Technology	Chairman of the parent company is also the Chairman of Sino-American Silicon Products Inc.	Financial assets at fair value through other comprehensive income	3,210	319,427	4.29%	319,427	4.29%	
Sino-American Silicon Products Inc.	Stock of Powertec Energy Corporation	-	Financial assets at fair value through other comprehensive income	30,410	130,764	2.31%	130,764	2.31%	
Sino-American Silicon Products Inc.	Stock of Giga Epitaxy Technology Corp.	-	Financial assets at fair value through other comprehensive income	395	4,458	1.52%	4,458	1.52%	
Sino-American Silicon Products Inc.	Stock of Big Sun	-	Financial assets at fair value through other comprehensive income	7,500	-	0.41%	-	0.41%	
Sino-American Silicon Products Inc.	Stock of Phoenix Silicon International Corporation	-	Financial assets at fair value through other comprehensive income	1,956	76,284	1.48%	76,284	1.48%	
SSTI	Stock of SILFAB SPA	-	Financial assets at fair value through other comprehensive income	300	364,025	15.00%	364,025	15.20%	
GlobalWafers	Stock of Phoenix Silicon International Corporation	-	Financial assets at fair value through other comprehensive income	1,324	51,636	1.00%	51,636	1.00%	
Sino-American Silicon Products Inc.	Stock of SONGLONG ELECTRONICS CO., LTD.	Sino-American Silicon Products Inc.'s management is the director of the company	Financial assets at fair value through profit or loss	221	-	13.81%	-	13.81%	
Sino-American Silicon Products Inc.	Stock of Styrene Monomer	-	Financial assets at fair value through profit or loss	3,869	87,053	0.73%	87,053	0.73%	

Name of holder	Category and name of security	Relationship with the Company	Account title	Ending balance				% of highest capital contribution in the period	Remarks
				Shares/Units (thousands)	Carrying value	Percentage of ownership (%)	Fair value		
Sino-American Silicon Products Inc.	Stock of 21-Century Silicon Inc.	-	Financial assets at fair value through profit or loss	1,000	-	- %	-	- %	
Sino-American Silicon Products Inc.	Stock of Sunshine PV Corp.	Related enterprise to URE	Financial assets at fair value through profit or loss	3,399	-	4.98%	-	4.98%	
SSTI	Stock of Clean Venture 21 Corporation	-	Financial assets at fair value through profit or loss	10	-	7.20%	-	7.20%	
GlobalWafers	Stock of Styrene Monomer	-	Financial assets at fair value through profit or loss	4,000	90,000	0.76%	90,000	0.76%	
GlobalWafers	China Minfa Advantage Venture Capital Limited Partnership	-	Financial assets at fair value through profit or loss	-	64,697	3.85%	64,697	3.85%	

Sino-American Silicon Products Inc.

Accumulatively buy or sell the same marketable securities amounting to NT$ 300 million or 20% of paid-in capital

For the year ended December 31, 2018

Attachment 4 Unit: thousand shares /NT$ thousand

Buying and selling companies	Types and names of securities	Account titles	Counter party	Relationship	Beginning of the period		Buy		Sell				End of the period	
					Number of shares	Amount	Number of shares	Amount	Number of shares	Selling price	Carrying cost	Disposition gain or loss	Number of shares	Amount
Sino-American Silicon Products Inc.	Stock of Taiwan Special Chemicals	Investment accounted for under equity method	Xin Ma Investment Consulting Co., Ltd.	-	-	-	90,000	990,000	-	-	-	-	90,000	918,163 (Note)

Note: including investment gain or loss recognized this quarter.

Sino-American Silicon Products Inc.

Acquisition of individual real estate with amount exceeding the lower than NT$300 million or 20% of the capital stock

For the year ended December 31, 2018

Attachment 5

Unit: NT$ Thousand

Name of company	Name of property	Transaction date	Transaction amount	Status of payment	Counter-party	Relationship with the Company	If the counter party is a related party, disclose the previous transfer information				References for determining price	acquisition and current condition	Other
							Owner	Relationship with the Company	Date of transfer	Amount			
GlobalWafers	Property, plant and equipment	January and May 2018	625,136	Already paid in full amount	The Company	Parent company and subsidiary	-	-	-	-	Accounted for at fair value	For operational use	None

Sino-American Silicon Products Inc.

Disposal of individual real estate with amount exceeding the lower than NT$ 300 million or 20% of the capital stock

For the year ended December 31, 2018

Attachment 6 Unit: NT$ Thousand

Name of company	Type of property	Transaction date	Acquisition date	Book value	Transaction amount	Amount actually receivable	Gain from disposal	Counter-party	Nature of relationship	Purpose of disposal	Price reference	Other terms
Sino-American Silicon Products Inc.	Property, plant and equipment	January and May 2018	April 2006 - September 2017	597,336	625,594	Has been fully recovered	28,258	GlobalWafers	Parent company and subsidiary	For operational use	Accounted for at fair value	None
MEMC Ipoh	Plant	February 2018	February 2008	158,283	309,009	Has been fully recovered	150,726	Kamaya Electric (M) Sdn. Bhd.	Non-related parties	Capacity configuration	Accounted for at fair value	None

Sino-American Silicon Products Inc.

Related party transactions for purchases and sales with amounts exceeding the lower than NT$ 300 million or 20% of the capital stock

For the year ended December 31, 2018

Attachment 7

Unit: NT$ Thousand

Name of company	Related party	Nature of relationship	Transaction situation				Transactions with terms different from others		Notes/Accounts receivable (payable)		Remarks
			Purchase/Sale	Amount	Percentage of total purchases/sales	Payment terms	Unit price	Payment terms	Ending balance	Percentage of total notes/accounts receivable (payable)	
Sino-American Silicon Products Inc.	Solartech Energy Corp.	The parent company is the management of Solartech Energy Corp.	Sales	(194,923)	(2)%	Net 45 days	-		-	- %	
Sino-American Silicon Products Inc.	Aleo Solar	Subsidiaries directly held by the parent company.	Sales	(447,303)	(5)%	Net 90 days	-		110,062	14%	Note
Aleo Solar	Aleo Solar Distribuzion Italia S.r.l	Subsidiaries indirectly held by the parent company.	Sales	(264,258)	(16)%	Net 60 days	-		72,644	51%	Note
Aleo Solar	Aleo Sunrise	Subsidiaries indirectly held by the parent company.	Purchase	145,247	14%	Net 14 days	-		(108,143)	(44)%	Note
Sunrise PV World Co.	Sunrise PV One	Subsidiary and affiliated enterprise of Sino-American Silicon Products Inc.	Sales	(935,265)	(94)%	15 days after the contract is agreed	-		42,849	85%	
GlobalWafers	Sino-American Silicon Products Inc.	Subsidiaries directly held by the parent company.	Purchase	669,431	4%	O/A 30 days EOM	-		(161,758)	(5)%	Note
GlobalWafers	GTI	Subsidiaries indirectly held by the parent company.	Purchase	1,944,060	12%	O/A 60 days	-		(313,206)	(9)%	Note
GlobalWafers	Kunshan Sino	Subsidiaries indirectly held by the parent company.	Purchase	2,661,905	16%	O/A 60 days	-		(547,518)	(16)%	Note

Name of company	Related party	Nature of relationship	Transaction situation				Transactions with terms different from others		Notes/Accounts receivable (payable)		Remarks
			Purchase/Sale	Amount	Percentage of total purchases/sales	Payment terms	Unit price	Payment terms	Ending balance	Percentage of total notes/accounts receivable (payable)	
GlobalWafers	GWJ	Subsidiaries indirectly held by the parent company.	Purchase	6,564,463	40%	O/A 60-90 days	-		(1,714,488)	(51)%	Note
GlobalWafers	Topsil A/S	Subsidiaries indirectly held by the parent company.	Purchase	528,318	3%	O/A 30-60 days	-		(45,031)	(1)%	Note
GlobalWafers	GWS	Subsidiaries indirectly held by the parent company.	Purchase	372,841	2%	O/A 60 days	-		(70,979)	(2)%	Note
GlobalWafers	Taisil	Subsidiaries indirectly held by the parent company.	Purchase	125,611	1%	O/A 60 days	-		(46,433)	(1)%	Note
Taisil	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	451,866	3%	O/A 45-60 days	-		(72,564)	(2)%	Note
GWS	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	1,456,325	11%	O/A 60 days	-		(215,973)	(6)%	Note
MEMC Korea	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	825,874	6%	O/A 60 days	-		(315,552)	(8)%	Note
MEMC SpA	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	644,521	5%	O/A 60 days	-		(184,188)	(5)%	Note
GTI	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	3,539,263	26%	O/A 45 days	-		(325,569)	(9)%	Note
Kunshan Sino	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	1,197,780	9%	O/A 30-135 days	-		(101,895)	(3)%	Note
GWJ	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	1,610,451	12%	O/A 60-90 days	-		(457,509)	(12)%	Note
Actron Technology Corporation	GlobalWafers	Chairman of the parent company is also the Chairman of Sino-American Silicon Products Inc.	Purchase	244,481	2%	O/A 60 days EOM	-		(64,950)	(2)%	
Topsil A/S	GlobalWafers	Subsidiaries indirectly held by the parent company.	Purchase	348,946	3%	O/A 30-60 days	-		(88,894)	(2)%	Note

Name of company	Related party	Nature of relationship	Transaction situation				Transactions with terms different from others		Notes/Accounts receivable (payable)		Remarks
			Purchase/Sale	Amount	Percentage of total purchases/sales	Payment terms	Unit price	Payment terms	Ending balance	Percentage of total notes/accounts receivable (payable)	
GWS	MEMC LLC	Subsidiaries indirectly held by the parent company.	Sales	(754,906)	(3)%	O/A 60 days	-		110,273	3%	Note
GWS	MEMC LLC	Subsidiaries indirectly held by the parent company.	Purchase	840,682	4%	O/A 60 days	-		(187,532)	(5)%	Note
GWS	MEMC Sdn Bhd	Subsidiaries indirectly held by the parent company.	Purchase	1,894,541	10%	O/A 60 days	-		(309,702)	(9)%	Note
GWS	MEMC Sdn Bhd	Subsidiaries indirectly held by the parent company.	Sales	(789,994)	(3)%	O/A 60 days	-		120,333	3%	Note
GWS	MEMC SpA	Subsidiaries indirectly held by the parent company.	Purchase	3,344,615	18%	O/A 60 days	-		(861,178)	(25)%	Note
GWS	MEMC SpA	Subsidiaries indirectly held by the parent company.	Sales	(3,211,255)	(14)%	O/A 60 days	-		578,286	16%	Note
GWS	MEMC Korea	Subsidiaries indirectly held by the parent company.	Purchase	1,924,133	10%	O/A 60 days	-		(309,702)	(9)%	Note
GWS	MEMC Korea	Subsidiaries indirectly held by the parent company.	Sales	(148,090)	(1)%	O/A 60 days	-		3,940	- %	Note
GWS	MEMC Japan	Subsidiaries indirectly held by the parent company.	Purchase	4,093,919	22%	O/A 60 days	-		(728,119)	(21)%	Note
GWS	MEMC Japan	Subsidiaries indirectly held by the parent company.	Sales	(1,414,201)	(6)%	O/A 60 days	-		252,803	7%	Note
GWS	Taisil	Subsidiaries indirectly held by the parent company.	Purchase	5,147,816	28%	O/A 60 days	-		(861,178)	(25)%	Note
GWS	Taisil	Subsidiaries indirectly held by the parent company.	Sales	(1,381,626)	(6)%	O/A 60 days	-		228,430	6%	Note

Note: Transactions with consolidated parties as mentioned above were eliminated when preparing the consolidated reports.

Sino-American Silicon Products Inc.

Receivables from related parties with amounts exceeding the lower than NT$ 100 million or 20% of the capital stock

December 31, 2018

Attachment 8 Unit: NT$ Thousand

Name of company	Counter party	Nature of relationship	Ending balance	Turnover rate	Overdue		Amounts received in subsequent period (Note 1)	Allowance for bad debts
					Amount	Action taken		
Sino-American Silicon Products Inc.	Aleo Solar	Subsidiaries directly held by the parent company.	110,062	3.46%	-		82,429	-
Sino-American Silicon Products Inc.	Sulu	Subsidiaries indirectly held by the parent company.	269,169	Note 2	-		-	-
Sino-American Silicon Products Inc.	GlobalWafers	Subsidiaries directly held by the parent company.	161,758	6.7%	-		105,859	-
Sino-American Silicon Products Inc.	Sunrise PV World Co.	Subsidiaries directly held by the parent company.	150,154	Note 2	-		-	-
Sino-American Silicon Products Inc.	Sunrise PV Five	Subsidiaries indirectly held by the parent company.	162,166	Note 2	-		-	-
Sino-American Silicon Products Inc.	Sunrise PV Three Energy	Subsidiaries indirectly held by the parent company.	106,109	Note 2	-		-	-
Sino-American Silicon Products Inc.	Sunrise PV Electric	Subsidiaries indirectly held by the parent company.	102,105	Note 2	-		-	-
SSTI	AMLED	Subsidiaries indirectly held by the parent company.	123,556	Note 2	-		-	-
SSTI	Sulu	Subsidiaries indirectly held by the parent company.	215,264	Note 2	-		-	-
SAS Sunrise Inc.	Sulu	Subsidiaries indirectly held by the parent company.	191,872	Note 2	-		-	-

Name of company	Counter party	Nature of relationship	Ending balance	Turnover rate	Overdue		Amounts received in subsequent period (Note 1)	Allowance for bad debts
					Amount	Action taken		
Aleo Solar	Aleo Sunrise	Subsidiaries indirectly held by the parent company.	281,600	Note 2	-		-	-
SAS Sunrise Pte. Ltd.	AMLED	Subsidiaries indirectly held by the parent company.	275,211	Note 2	-		-	-
GlobalWafers	GTI	Subsidiaries indirectly held by the parent company.	325,569	10.53%	-		325,569	-
GlobalWafers	GWJ	Subsidiaries indirectly held by the parent company.	457,509	3.86%	-		310,014	-
GlobalWafers	Taisil	Subsidiaries indirectly held by the parent company.	101,895	12.79%	-		101,895	-
GlobalWafers	GWS	Subsidiaries indirectly held by the parent company.	215,973	13.49%	-		215,973	-
GlobalWafers	MEMC Korea	Subsidiaries indirectly held by the parent company.	315,552	5.23%	-		-	-
GlobalWafers	MEMC SpA	Subsidiaries indirectly held by the parent company.	184,188	7.00%	-		167,207	-
Taisil	GlobalWafers	Subsidiaries indirectly held by the parent company.	5,700,000	Note 2	-		-	-
GTI	GlobalWafers	Subsidiaries indirectly held by the parent company.	313,206	7.05%	-		313,206	-
Kunshan Sino	GlobalWafers	Subsidiaries indirectly held by the parent company.	547,518	5.52%	-		316,460	-
GWJ	GlobalWafers	Subsidiaries indirectly held by the parent company.	1,714,488	4.09%	-		972,326	-
GWJ	GlobalWafers	Subsidiaries indirectly held by the parent company.	4,173,000	Note 2	-		-	-
GWS	MEMC Sdn Bhd	Subsidiaries indirectly held by the parent company.	309,612	6.12%	-		309,612	-
GWS	MEMC Japan	Subsidiaries indirectly held by the parent company.	728,119	5.99%	-		726,851	-
GWS	MEMC SpA	Subsidiaries indirectly held by the parent company.	578,286	6.83%	-		578,286	-

Name of company	Counter party	Nature of relationship	Ending balance	Turnover rate	Overdue		Amounts received in subsequent period (Note 1)	Allowance for bad debts
					Amount	Action taken		
GWS	MEMC LLC	Subsidiaries indirectly held by the parent company.	110,273	2.31%	-		110,273	-
GWS	Taisil	Subsidiaries indirectly held by the parent company.	228,430	12.04%	-		228,430	-
MEMC Sdn Bhd	GWS	Subsidiaries indirectly held by the parent company.	120,333	6.16%	-		120,333	-
MEMC SpA	GWS	Subsidiaries indirectly held by the parent company.	2,145,431	Note 2	-		-	-
MEMC SpA	GWS	Subsidiaries indirectly held by the parent company.	861,178	5.72%	-		722,673	-
MEMC Korea	GWS	Subsidiaries indirectly held by the parent company.	309,702	8.74%	-		309,702	-
MEMC Japan	GWS	Subsidiaries indirectly held by the parent company.	252,803	5.96%	-		252,803	-
Taisil	GWS	Subsidiaries indirectly held by the parent company.	861,178	7.26%	-		-	-
MEMC LLC	GWS	Subsidiaries indirectly held by the parent company.	187,532	5.26%	-		187,532	-

Note 1: The amount recovered after February 26, 2019.
Note 2: Receivables from related parties generated by financing.
Note 3: The above transactions related to the consolidated standalone have been written off when preparing the consolidated financial statements.

Sino-American Silicon Products Inc.

Information on investees (excluding information on investees in Mainland China)

For the year ended December 31, 2018

Attachment 9

Unit: NT$ Thousand

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value			
Sino-American Silicon Products Inc.	SSTI	British Virgin Islands	Investment and triangular trade center with subsidiaries in China	1,425,603 (USD 45,255)	1,425,603 (USD 45,255)	48,526	100.00%	973,360	33,705	33,705	Subsidiary Note 5
Sino-American Silicon Products Inc.	GlobalWafers	Taiwan	Semiconductor silicon wafer materials and components manufacturing and trade	8,955,952	8,864,946	222,727	51.17%	22,074,512	13,630,674	6,932,303	Subsidiary
Sino-American Silicon Products Inc.	Crystalwise Technology Inc.	Taiwan	Optical wafer and substrate manufacturing and trade	2,010,843	2,010,843	65,923	40.11%	415,391	(451,676)	(183,103)	Affiliated companies Note 2
Sino-American Silicon Products Inc.	Sino-American Materials Co., Ltd.	Taiwan	EVA film for solar modules manufacturing and sale	-	90,000	-	- %	-	(484)	(435)	-
Sino-American Silicon Products Inc.	Accu Solar Corporation	Taiwan	Solar energy system provider	112,193	112,193	7,452	24.70%	65,648	(29,981)	(7,528)	Affiliated companies
Sino-American Silicon Products Inc.	Aleo Solar	Prenzlau	Solar cell manufacturing and sale and wholesale of electronic materials	558,139 (EUR 13,500)	558,139 (EUR 13,500)	Note 1	100.00%	239,786	(113,212)	(113,212)	Subsidiary Note 2
Sino-American Silicon Products Inc.	SAS Sunrise Inc.	Cayman	Reinvestments in various businesses	794,373 (USD 24,500)	794,373 (USD 24,500)	24,500	100.00%	498,283	(118,642)	(118,642)	Subsidiary
Sino-American Silicon Products Inc.	Sunrise PV World Co.	Taiwan	Power generating business	300,000	300,000	30,000	100.00%	246,733	(52,097)	(52,097)	Subsidiary

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value			
Sino-American Silicon Products Inc.	Cathy Sunrise	Taiwan	Power generating business	450,000	450,000	45,000	30.00%	464,252	47,108	11,616	Affiliated companies
Sino-American Silicon Products Inc.	TSCS	Taiwan	Semiconductor special gas and chemical material manufacturer	990,000	-	90,000	30.93%	918,163	(504,689)	(71,833)	Affiliated companies Note 2
Sunrise PV World Co.	Sunrise PV Electric	Taiwan	Power generating business	42,000	30,000	4,200	100.00%	43,875	2,264	-	Sub-subsidiary Note 8
Sunrise PV World Co.	Sunrise PV Two	Taiwan	Power generating business	15,000	15,000	1,500	100.00%	14,898	(88)	-	Sub-subsidiary Note 8
Sunrise PV World Co.	Sunrise PV Three Energy	Taiwan	Power generating business	15,000	15,000	1,500	100.00%	16,342	1,441	-	Sub-subsidiary Note 8
Sunrise PV World Co.	Sunrise PV Four	Taiwan	Power generating business	100,000	100,000	10,000	100.00%	100,403	443	-	Sub-subsidiary Note 8
Sunrise PV World Co.	Sunrise PV Five	Taiwan	Power generating business	65,000	65,000	6,500	100.00%	74,871	9,746	-	Sub-subsidiary Note 8
SAS Sunrise Inc.	SAS Sunrise Pte.Ltd.	Singapore	Reinvestments in various businesses	719,292 (USD 22,000)	719,292 (USD 22,000)	30,934	100.00%	535,148	(104,384)	-	Sub-subsidiary Note 8
SAS Sunrise Pte.Ltd.	AMLED	Philippines	Reinvestments in various businesses	-	-	-	- %	-	-	-	Sub-subsidiary Note 6 and 8
SAS Sunrise Pte.Ltd.	Sulu	Philippines	Power generating business	440,667 (USD 13,435)	440,667 (USD 13,435)	420,000	40.00%	324,580	(109,669)	-	Sub-subsidiary Note 8
AMLED	Sulu	Philippines	Power generating business	297,229 (USD 9,065)	297,229 (USD 9,065)	472,500	45.00%	194,941	(109,669)	-	Sub-subsidiary Note 8
Aleo Solar	Aleo Solar Distribuzione Italia S.r.l	Italy	Solar cell manufacturing and sale and wholesale of electronic materials	4,078 (EUR 100)	4,078 (EUR 100)	Note 1	100.00%	1,594	(5,207)	-	Sub-subsidiary Note 8
Aleo Solar	Aleo Sunrise	Germany	Manufacturing of solar cell as well as sale and wholesale of electronic materials	91,250	91,250	Note 1	100.00%	(55,251)	147,324	-	Sub-subsidiary Note 8

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value			
GlobalWafers	GWI	Cayman	Reinvestments in various businesses	2,241,668 (USD 73,423)	2,241,668 (USD 73,423)	90,000	100.00%	5,677,436	1,903,803	-	Sub-subsidiary Note 8
GlobalWafers	GSI	Cayman	Business investment and triangular trade center with subsidiaries in China	756,809 (USD 26,555)	756,809 (USD 26,555)	25,000	100.00%	1,376,601	341,260	-	Sub-subsidiary Note 8
GlobalWafers	GWafers	Japan	Reinvestments in various businesses	Note4	5,448,015 (JPY 13,827,513)	-	- %	-	-	-	Sub-subsidiary Note 1 and 8
GlobalWafers	GWJ	Japan	Semiconductor silicon wafer manufacturing and trading	5,448,015	5,448,015	128	100.00%	13,558,073	2,107,707	-	Sub-subsidiary Note 4 and 8
GlobalWafers	GWafers Singapore	Singapore	Reinvestments in various businesses	11,966,930	11,966,930	364,000	67.20%	19,959,635	7,395,394	-	Sub-subsidiary Note 8
GlobalWafers	Topsil A/S	Denmark	Semiconductor silicon wafer manufacturing and trading	Note 3	Note 3	1,000	100.00%	1,687,613	(40,596)	-	Sub-subsidiary Note 8
GlobalWafers	Whole Global Investment Corporation	Taiwan	Reinvestments in various businesses	200,000	200,000	312	24.39%	178,442	59,258	14,439	Affiliated companies
GlobalWafers	Taisil	Taiwan	Semiconductor silicon wafer manufacturing and sales	14,504,663	14,502,885	9,999	99.99%	16,071,561	1,889,479	-	Sub-subsidiary Note 8
GWI	GTI	Texas	Manufacturing of epitaxy, silicon wafer as well as OEM and trading of epitaxy	-	2,241,668	-	- %	-	418,874	-	Sub-subsidiary Note 7 and 8
GWI	GWafers Singapore	Singapore	Reinvestments in various businesses	5,411,947	-	177,674	32.80%	5,677,436	7,395,394	-	Sub-subsidiary Note 7 and 8
GWafers	GWJ	Japan	Semiconductor silicon wafer manufacturing and trading	Note 4	5,484,300 (JPY 13,142,798)	-	- %	-	-	-	Sub-subsidiary Note 7 and 8

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value			
GWJ	MEMC Japan	Japan	Semiconductor silicon wafer manufacturing and sales	373,413 (JPY 100,000)	373,413 (JPY 100,000)	-	100.00%	1,448,078	157,805	-	Sub-subsidiary Note 7 and 8
Topsil A/S	Topsil PL	Poland	Semiconductor silicon wafer manufacturing and trading	Note 3	Note 3	1	100.00%	(123,976)	(70,472)	-	Sub-subsidiary Note 7 and 8
GWafers Singapore	GWS	Singapore	Investment, marketing and trading business	17,846,803 (USD 540,649)	12,434,855 (USD 362,975)	177,674	100.00%	27,037,489	7,362,796	-	Sub-subsidiary Note 7 and 8
GWS	GWBV	The Netherlands	Reinvestments in various businesses	9,589,374 (USD 266,974)	4,177,427 (USD 89,300)	0.1	100.00%	29,179,287	3,589,426	-	Sub-subsidiary Note 7 and 8
GWS	SSTPL	Singapore	Reinvestments in various businesses	-	-	0.001	100.00%	-	-	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC SpA	Italy	Semiconductor silicon wafer manufacturing and sales	6,732,641 (USD 201,788)	6,732,641 (USD 201,788)	65,000	100.00%	11,348,657	1,680,298	-	Sub-subsidiary Note 7 and 8
MEMC SpA	MEMC SarL	France	Trading business	1,316 (USD 40)	1,316 (USD 40)	0.5	100.00%	82	689	-	Sub-subsidiary Note 7 and 8
MEMC SpA	MEMC GmbH	Germany	Trading business	4,622 (USD 141)	4,622 (USD 141)	0.002	100.00%	5,677	556	-	Sub-subsidiary Note 7 and 8
MEMC SpA	MEMC BV	The Netherlands	Reinvestments in various businesses	2,430,141 (USD 73,918)	2,430,141 (USD 73,918)	0.2	100.00%	3,422,692	691,209	-	Sub-subsidiary Note 7 and 8
MEMC BV	MEMC Korea	Korea	Semiconductor silicon wafer manufacturing and sales	2,427,650 (USD 73,842)	2,427,650 (USD 73,842)	6,880	40.00%	3,415,898	1,726,189	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC Korea	Korea	Semiconductor silicon wafer manufacturing and sales	3,641,474 (USD 110,763)	3,641,474 (USD 110,763)	10,320	60.00%	5,123,846	1,726,189	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC LLC	U.S.A.	Semiconductor silicon wafer R&D, manufacturing and sales	-	5,289,887 (USD 173,839)	-	- %	-	193,960	-	Sub-subsidiary Note 7 and 8

Name of investor	Name of investee	Location	Main businesses and products	Original investment amount		Balance as of December 31, 2018			Net income (losses) of investee	Share of profits/losses of investee	Remarks
				December 31, 2018	December 31, 2017	Shares (thousands)	Percentage of Ownership	Carrying value			
GWBV	GTI	U.S.A.	Epitaxial silicon wafer production and trade of epitaxy foundry business	8,776,143 (USD 288,120)	-	0.001	100.00%	8,731,092	803,066	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC Sdn Bhd	Malaysia	Semiconductor silicon wafer R&D, manufacturing and sales	898,016 (USD 27,315)	898,016 (USD 27,315)	1,036	100.00%	919,602	99,469	-	Sub-subsidiary Note 7 and 8
GWBV	MEMC Ipoh	Malaysia	Semiconductor silicon wafer manufacturing and sales	146,624 (USD 3,020)	743,440 (USD 22,613)	669,374	100.00%	55,797	143,384	-	Sub-subsidiary Note 7 and 8
GTI	MEMC LLC	U.S.A.	Semiconductor silicon wafer R&D, manufacturing and sales	3,364,196 (USD 110,446)	-	1	100.00%	4,092,008	193,960	-	Sub-subsidiary Note 7 and 8

Note:1 Corporation limited

Note 2: The investment gain or loss recognition includes the investment cost and the amortization of the net equity acquired.

Note 3: GlobalWafers acquired Topsil A/S and Topsil PL with a total investment amount of NT$ 1,964,069 thousands (DKK 407,600 thousands).

Note 4: GWafers and GWJ merged in January 2018, and the existing company was GWafers, which was later renamed GWJ.

Note 5: Not including earnings transferred to capital increase.

Note 6: The Company does not hold the ownership interests of AMLED, but the Company can control the financial and operating strategies of AMLED and obtain all the benefits of its operations and net assets in accordance with the terms of the agreements with such standalone, so AMLED is considered as a subsidiary.

Note 7: All of them are subsidiaries indirectly held by GlobalWafers. GWafers Singapore was transferred to GlobalWafers and GWJ for 67.2% and 32.8% respectively on July 1, 2018. GTI was transferred to GWBV investment and MEMC LLC was transferred to GTI investment.

Note 8: The profit and loss of the investee company is included in its investment company. To avoid confusion, it will not be expressed here.

Note 9: The above transactions relating to the consolidated standalone have been written off when preparing the consolidated financial statements.

Sino-American Silicon Products Inc.

Information on investment in mainland China

For the year ended December 31, 2018

Attachment 10 Unit: NT$ Thousand

(I) The names of investees in Mainland China, the main businesses and products, and other information

Name of investee	Main businesses and products	Total amount of paid in capital	Method Of investment	Accumulated outflow of investment from Taiwan as of January 1, 2017	Investment flows		Accumulated outflow of investment from Taiwan as of December 31, 2018	Net income (losses) of the investee	Shareholding ratio of direct or indirect investment of GlobalWafers	Investment income (losses) (Note 4)	Book value	Accumulated remittance of earnings in current period
					Outflow	Inflow						
Kunshan Sino	Silicon rods and silicon wafer processing and trade	769,177 (Note 7)	(Note 1)	713,300 (USD 21,729)	-	-	713,300 (USD21,729)	321,712	100.00%	321,712	1,313,144	-
SunEdison Shanghai	Trading business	7,527 (RMB 1,500)	(Note 2)	(Note 2)	-	-	(Note 2)	706	100.00%	706	9,849	-
Shanghai GROWFAST Semiconductor Technology Co. Ltd.	Sales and marketing business	9,756 (RMB 2,000)	(Note 3)	-	-	-	-	6,946	60.00%	4,168	20,840	-

(II) Limitation on investment in Mainland China

Company Name	Accumulated Investment in Mainland China as of December 31, 2018	Investment Amounts Authorized by Investment Commission, MOEA	Upper Limit on Investment
GlobalWafers	713,300 (USD 21,729)	818,233 (USD 25,000)(Note 5)	25,893,667 (Note 6)

Note 1: Investments through GSI registered in mainland China.

Note 2: Investments through GWBV registered in mainland China which is acquired from the acquisition of GWS (SSL).

Note 3: Kunshan Sino was invested by Shanghai GROWFAST in mainland China, without limit on investment, due to not having any investment from Taiwan.

Note 4: The basis for investment income (loss) recognition is from the financial statements audited.

Note 5: Initial investment amounts denominated in foreign currencies are translated into New Taiwan Dollars using the Historical Foreign Exchange Rate.

Note 6: Calculated by 60% of the quota of the "Review Principles of Investment or Technical Cooperation in Mainland China" August 29, 2008, multiplied by the net worth of GlobalWafers on December 31, 2018.

Note 7: Retained earnings Transferred to Capital was included.

Sino-American Silicon Products Inc.

List of cash and cash equivalents

December 31, 2018

Expressed in thousands of New Taiwan Dollars
(Foreign currency in $ / JPY)

Items	Summary	Amount
Cash	Petty cash and cash on hand	$ 146
Bank deposits	Check deposits	5,145
	Time deposit (USD: 3,000,000)	92,145
	Demand deposits	137,606
	Foreign currency deposit (USD: 17,825,572.44 ; CHF: 5,840.62 ; JPY: 2,809,843 ; EUR: 1,924,235.53; RMB: 11,747.08 yuan)	616,262
	Subtotal	851,158
	Total	**$ 851,304**

Note: Foreign currency exchange rates at the balance sheet date are as follows:

USD exchange rate: 30.715

CHT exchange rate: 31.185

JPY exchange rate: 0.2782

EUR exchange rate: 35.20

RMB exchange rate: 4.472

Sino-American Silicon Products Inc.

Financial assets at fair value through profit or loss - current statement

For the year ended December 31, 2018

Expressed in thousands of New Taiwan Dollars

Names of financial instruments	Summary	Number of shares	Face value	Total	Acquisition cost	Fair value		Changes in fair value attributable to changes in credit risk	Remarks
						Unit price	Total		
Taiwan Styrene Monomer	Stock of domestic booked (OTC) companies	3,869	$ 10	98,344	98,344	22.5	87,053	(11,291)	None

Sino-American Silicon Products Inc.

Statement of Notes and Accounts Receivable

December 31, 2018

Expressed in thousands of New Taiwan Dollars

Customer Name	Amount
Company F	$ 204,815
Company D	74,418
Company G	57,775
Company A	40,788
Others (individual amount does not exceed 5%)	128,365
	506,161
Less: Allowance for bad debt	(34,663)
	$ 471,498

Note: 1. Notes and accounts receivable resulting from business activities.

2. Accounts receivable – related party is not included in the accounts receivable referred to above. Please refer to Note VII to the financial statements for details.

Sino-American Silicon Products Inc.

Statement of Inventories

December 31, 2018

Expressed in thousands of New Taiwan Dollars

Items	Amount		Remark
	Costs	Net realizable value	
Finished goods and products	$ 374,957	321,477	Please refer to Note 4 (7) to the standalone financial statements for the reference of net realizable value of inventory, in detail.
Work in progress	61,709	58,336	
Raw materials	372,968	236,702	
Supplies	92,094	82,703	
Subtotal	901,728	**699,218**	
Less: Allowance for reduction of inventory to market	(311,558)		
Total	**$ 590,170**		

Statement of pre-payment for materials

Supplier Name	Amount
Supplier B	$ 381,891
Supplier C	73,621
Supplier A	51,675
Other suppliers (Individual amount does not exceed 5%)	29,596
Total	**$ 536,783**

Sino-American Silicon Products Inc.

Statement of other current assets

December 31, 2018

Expressed in thousands of New Taiwan Dollars

Items	Amount
Income tax refund receivable	$ 48,928
Tax credits	20,405
Other prepaid expenses	5,887
Others (individual amount does not exceed 5%)	8,272
	$ 83,492

Sino-American Silicon Products Inc.

Financial assets measured at fair value through other comprehensive gain or loss — Non-current change statement

For the year ended December 31, 2018

Expressed in thousands of New Taiwan Dollars

Name	Beginning balance		Increase (decrease) for the period		Gain or loss on evaluation	End of the period		Accumulated impairment loss	Guarantee or collateral provided	Remarks
	Shares	Fair value	Shares	Amount	Amount	Shares	Fair value			
Solartech Energy Corp.	29,480	$ 439,258	(29,480)	(348,370)	(90,888)	-	-	-	None	
Actron Technology Corporation	2,129	245,936	1,081	101,385	(27,894)	3,210	319,427	-	None	
Giga Electronic Technology Corp.	1,100	4,458	(705) (Note)	-	-	395	4,458	-	None	
Powertech Energy Corp.	87,895	294,182	(57,485) (Note)	-	(163,418)	30,410	130,764	-	None	
Bigsun Technology Corporation	-	-	7,500	37,500	(37,500)	7,500	-	-	None	
Phoenix Silicon International Corporation	-	-	1,956	66,174	10,110	1,956	76,284	-	None	
URE	-	-	34,492	348,370	(78,297)	34,492	270,073	-	None	
Total		**$ 983,834**		**205,059**	**(387,887)**		**801,006**			

Note: Capital reduction to make up for losses

Sino-American Silicon Products Inc.

Financial assets measured at amortized cost - non-current changes statement

For the year ended December 31, 2018 **Unit: thousand sheets / NT$ thousands**

Name	Beginning balance		Increase (decrease) for the period		Decrease of the year		End of the period		Accumulated impairment loss	Guarantee or collateral provided	Remarks
	Number of sheets	Carrying Amount	Number of sheets	Amount	Number of sheets	Amount	Number of sheets	Carrying Amount			
Crystalwise Technology - Corporate bonds	280	$ 281,366	-	1,366	-	(1,366)	280	281,366	-	None	

Sino-American Silicon Products Inc.

Statement of changes in investments under equity method

For the year ended December 31, 2018

Unit: NT$ thousands /thousand shares

Investee company name	Beginning balance		Increase (decrease) for the period		Current reclassification		Net change in net equity value of subsidiaries and related enterprises recognized by equity method (Note 2)	Investment profits and losses	Exchange differences on translation of foreign financial statements	Remeasurement of defined benefit plan of subsidiaries	Other adjustment items (Note 3)	Ending balance			Market price or net equity value		Guarantee or collateral provided
	Shares	Amount	Shares	Amount	Shares	Amount						Shares	Amount	Shareholding ratio (%)	Unit price	Total price	
Subsidiary:																	
SSTI	48,526	$ 1,058,142	-	-	-	-	-	33,705	31,768	-	(150,255)	48,526	973,360	100.00	-	973,360	None
GlobalWafers	222,293	17,308,960	434	(2,181,589) (Note 1)	-	-	(194,700)	6,932,303	376,738	(93,347)	(73,853)	222,727	22,074,512	51.17	280.50	62,474,924	None
Aleo Solar	-	355,393	-	-	-	-	-	(113,212)	(2,395)	-	-	-	239,786	100.00	-	239,786	None
Sunrise PV World Co.	30,000	300,944	-	(2,114) (Note 1)	-	-	-	(52,097)	-	-	-	30,000	246,733	100.00	-	246,733	None
SAS Sunrise Inc.	24,500	638,441	-	-	-	-	-	(118,642)	(21,516)	-	-	24,500	498,283	100.00	-	498,283	None
Sino-American Materials Co., Ltd.	9,000	4,958	(9,000)	(4,523)	-	-	-	(435)	-	-	-	-	-	90.00	-	-	None
	-	19,666,838		(2,188,226)		-	(194,700)	6,681,622	384,595	(93,347)	(224,108)		24,032,674			64,433,086	None
Affiliated enterprises:																	
Crystalwise Technology Inc.	84,848	849,211	(18,925)	-	-	-	124	(183,103)	(4,162)	-	(246,679)	65,923	415,391	40.11	12.00	791,079	None
Cathy Sunrise	45,000	453,708	-	(1,072) (Note 1)	-	-	-	11,616	-	-	-	45,000	464,252	30.00	-	464,252	None
Accu Solar Corporation	7,452	73,176	-	-	-	-	-	(7,528)	-	-	-	7,452	65,648	24.70	-	65,648	None
TSCS	-	-	90,000	990,000	-	-	-	(71,833)	(4)	-	-	90,000	918,163	30.93	-	918,163	None
		1,376,095		988,928		-	124	(250,848)	(4,166)	-	(246,679)		1,863,454		-	2,239,142	
Unrealized gain from inter-affiliate accounts		(54,255)		41,565	-	-	-	-	-	-	-	-	(12,690)				
Total		**$ 20,988,678**		**(1,157,733)**	-	**-**	**(194,576)**	**6,430,774**	**380,429**	**(93,347)**	**(470,787)**	-	**25,883,438**				

Note 1: The cash dividend of NT$ 2,226,116 thousand and the increase of investment of NT$ 91,006 thousand for the subsidiary.
Note 2: Including the changes due to the subsidiary’s buying back the treasury shares and the subsidiaries’ not subscribing in accordance with the shareholding ratio.
Note 3: Including unrealized gain or loss of the financial assets of affiliated enterprises, the employees' unearned renumeration and impairment loss.

Sino-American Silicon Products Inc.

Statement of changes of property, plant and equipment

For the year ended December 31, 2018

Expressed in thousands of New Taiwan Dollars

Please refer to Note 6 (12) for relevant information of property, plant and equipment.

Statement of other non-current assets

Items	Amount
Deferred Income tax assets – non-current	$ 112,549
Others (individual amount does not exceed 5%)	4,664
	$ 117,213

Statement of Accounts payable

Supplier Name	Amount
Supplier G	$ 119,535
Supplier E	49,161
Supplier C	36,489
Supplier I	24,482
Others (individual amount does not exceed 5%)	201,758
Total	**$ 431,425**

Note: 1. Accounts payable resulting from business activities.
2. Accounts payable – related parties were not included in the above accounts. Please refer to Note 7 to the standalone financial statements for details.

Sino-American Silicon Products Inc.
Statement of Short term borrowings
December 31, 2018

Expressed in thousands of New Taiwan Dollars

Lending bank	Explanation	Ending balance	Contract duration	Range of Interest Rate	The unutilized credit amount	Mortgage or guarantee
Bank of Taiwan	Working capital	$ 150,000	Note 1	Note 3	-	None.
Taipei Fubon Bank	Working capital and purchase loan	1,027,744	Note 1	Note 3	921,763	None.
First Bank	Working capital	200,000	Note 1	Note 3	-	None.
Export-Import Bank of the Republic of China	Working capital	300,000	Note 1	Note 3	-	None.
Land Bank	Working capital	200,000	Note 1	Note 3	-	None.
Shin Kong Bank	Working capital	200,000	Note 1	Note 3	-	None.
Mega Bank	Working capital and purchase loan	239,381	Note 1	Note 3	140,212	None.
Bank SinoPac	Working capital	400,000	Note 1	Note 3	100,000	None.
		$ 2,717,125				

Note 1: The loan period is based on the actual practice and it is usually repaid in one month. The operation turnover is for one year.

Note 2: In addition to the above booked, the Company still has undisbursed financing amount of NT$ 3,450,650 thousands.

Note 3: The interest rate colalr is 0.9%-0.98%.

Statement of other current liabilities

Items	Summary	Amount
Equipment payable		$ 59,314
Others (individual amount does not exceed 5%)	Labor service, water and electricity, and interest payable	289,946
Total		**$ 349,260**

Sino-American Silicon Products Inc.
Statement of Long term borrowings
December 31, 2018
Expressed in thousands of New Taiwan Dollars

Debtor	Summary	Loan amount	Contract duration	Range of Interest Rate	Mortgage or guarantee
Bank of Taiwan		$ 751,200	106.01-121.01	Note 2	Yes (Note 1)
JihSun Bank		199,000	107.11-109.11	Note 2	None.
O-bank		160,000	105.08-109.10	Note 2	None.
KGI Bank		500,000	107.06-109.06	Note 2	None.
		$ 1,610,200			

Note 1: The amount of long-term secured borrowing is NT$ 451,200 thousands. For the collateral, please refer to Note 8.
Note 2: The interest rate collar is 1.04%-1.28%.

Statement of contract liabilities

Customer Name	Amount
United Renewable Energy Co., Ltd.	$ 883,697
Company G	211,801
Company I	71,181
Others (individual amount does not exceed 5%)	85,064
	1,251,743
Less: contract liability - current	(148,713)
Total	**$ 1,103,030**

Sino-American Silicon Products Inc.

Operating revenues statement

For the year ended December 31, 2018

Expressed in thousands of New Taiwan Dollars

Items	Sales volume	Amount
Sales revenue:		
Solar energy - silicon wafer	41,943 thousand	$ 581,924
Solar energy - rod	2,218 thousand	1,608,721
Solar energy - battery	102,783 thousand	3,635,804
Solar energy - modules	83 thousand	350,710
Revenues from sale of goods and raw materials		2,041,686
		8,218,845
Processing revenue		15,162
Electricity Revenue and others		196,740
Net operating revenues		**$ 8,430,747**

Sino-American Silicon Products Inc.

Statement of Operating Cost

For the year ended December 31, 2018

Expressed in thousands of New Taiwan Dollars

Items	Amount
Beginning inventory - Finished goods	$ 40,634
Add: Purchase in this period	379,517
Transfer of expenses	189,186
Less: Inventories at the end of the period	22,495
Realized sale gain from inter-affiliate accounts	1,820
Cost of goods purchased and sold	585,022
Raw material consumption	
Beginning raw materials	1,233,797
Add: Material purchased in this period	6,279,566
Less: Ending raw materials	465,062
Reclassify as fixed assets	26,492
Realized sale gain from inter-affiliate accounts	33,606
Reclassified as expenses	1,055,714
Sale in this period	2,345,577
Consumption of raw materials in this period	3,586,912
Direct labor	445,773
Manufacturing expenses	2,619,818
Manufacturing cost	6,652,503
Add: Beginning WIP goods	290,034
Transfer in of finished goods	1,272,505
Less: Ending WIP goods	61,709
Costs of finished goods	8,153,333
Add: Beginning finished goods	915,753
Less: Finished goods at end of period	352,462
Other	46,427
Transfer out of finished goods	1,272,505
Cost of finished goods sold	7,397,692
Cost of goods sold	7,982,714
Add: Cost of raw materials sold	2,345,577
Unamortized fixed manufacturing expense	507,441
Appropriation for inventory loss in valuation	66,125
Appropriation for fixed asset impairment loss	1,497,261
Net loss of purchase contract	274,647
Less: Processing on order	444,736
Realized profit and offset from sales to affiliated companies	10,942
Total operating cost	**$ 12,218,087**

Sino-American Silicon Products Inc.

Statement of operating expense

For the year ended December 31, 2018

Expressed in thousands of New Taiwan Dollars

Items	Selling expenses	Administrative expenses	Research and development expensess
Salary expenses	$ 29,895	124,450	85,666
Import/export expenses	21,848	-	143
Depreciation	405	19,356	32,216
Indirect materials	-	-	38,457
Labor service fees	-	29,492	1,449
Others (summary of individual amount not exceeding 5%)	13,410	13,549	24,475
Total	**$ 65,558**	**186,847**	**182,406**

Statement of other gains and losses, net

Please refer to Note 6 (26) of the standalone financial statements for relevant information of other gains and losses, net.

Sino-American Silicon Products Inc.
Statement of finance cost

Please refer to Note 6 (27) of the standalone financial statements for relevant information of finance cost.

Employee benefits, depreciation, depletion, and amortization expenses summarized by functions.

Please refer to Note 12 of the standalone financial statements for relevant information of employee benefits, depreciation, depletion, and amortization expenses.