ORIENT SEMICONDUCTOR ELECTRONICS LIMITED

AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

WITH

REPORT OF INDEPENDENT AUDITORS

FOR THE THREE-MONTH PERIODS ENDED

MARCH 31, 2020 AND 2019

The reader is advised that these financial statements have been prepared originally in Chinese. In the event of a conflict between these financial statements and the original Chinese version or difference in interpretation between the two versions, the Chinese financial statements shall prevail.

安永聯合會計師事務所

80052 高雄市中正三路2號17樓
17F, No. 2, Zhongzheng 3rd Road
Kaohsiung City, Taiwan, R.O.C.

Tel: 886 7 238 0011
Fax: 886 7 237 0198
www.ey.com/taiwan

English Translation of a Report Originally Issued in Chinese

Review Report of Independent Accountants

To Orient Semiconductor Electronics Limited

Introduction

We have reviewed the accompanying consolidated balance sheets of Orient Semiconductor Electronics Limited (the "Company") and its subsidiaries as of March 31, 2020 and 2019, the related consolidated statements of comprehensive income, changes in equity and cash flows for the three-month periods ended March 31, 2020 and 2019, and notes to the consolidated financial statements, including the summary of significant accounting policies (together "the consolidated financial statements"). Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Accounting Standard 34, "Interim Financial Reporting" as endorsed and became effective by Financial Supervisory Commission of the Republic of China. Our responsibility is to express a conclusion on these consolidated financial statements based on our reviews.

Scope of Review

Except as explained in the following paragraph, we conducted our reviews in accordance with Statement of Auditing Standards No. 65, "Review of Financial Information Performed by the Independent Auditor of the Entity" of the Republic of China. A review of consolidated financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with auditing standards generally accepted in the Republic of China and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Basis for Qualified Conclusion

As explained in Note 4.(3), the financial statements of certain insignificant subsidiaries were not reviewed by independent accountants. Those statements reflect total assets of $1,105,073 thousand and $1,134,999 thousand, constituting 7.28% and 6.92% of the consolidated total assets, and total liabilities of $225,775 thousand and $266,925 thousand, constituting 2.48% and 2.46% of the consolidated total liabilities as of March 31, 2020 and 2019, respectively; and total comprehensive income of $765 thousand and $25,993 thousand, constituting 7.39% and 37.68% of the consolidated total comprehensive income for the three-month periods ended March 31, 2020 and 2019, respectively. As explained in Note 6.(6), the financial statements of certain associates and joint ventures accounted for under the equity method were not reviewed by independent accountants. Those associates and joint ventures under equity method amounted to $466,530 thousand and $483,071 thousand as of March 31, 2020 and 2019, respectively. The related shares of profits from the associates and joint ventures under the equity method amounted to $6,179 thousand and $24,808 thousand and the related shares of other comprehensive income from the associates and joint ventures under the equity method were $0 and ($280) for the three-month periods ended March 31, 2020 and 2019, respectively.

EY 安永
Building a better working world

Qualified Conclusion

Based on our reviews, except for the effect of such adjustments, if any, as might have been determined to be necessary had the financial statements of certain insignificant subsidiaries, associates and joint ventures accounted for using equity method and the information been reviewed by independent accountants described in the preceding paragraph, nothing has come to our attention that causes us to believe that the accompanying consolidated financial statements do not present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as at March 31, 2020 and 2019, and their consolidated financial performance and cash flows for the three-month periods ended March 31, 2020 and 2019, in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Accounting Standard 34, "Interim Financial Reporting" as endorsed and became effective by Financial Supervisory Commission of the Republic of China.

Chen, Chih-Chung

Chen, Cheng-Chu

Ernst & Young, Taiwan

May 7, 2020

English Translation of Financial Statements Originally Issued in Chinese

ORIENT SEMICONDUCTOR ELECTRONICS LIMITED AND SUBSIDIARIES

UNAUDITED CONSOLIDATED BALANCE SHEETS

As of March 31, 2020, December 31, 2019 and March 31, 2019

(March 31, 2020 and 2019 are unaudited)

(Amounts expressed in Thousands of New Taiwan Dollars)

Items	Notes	March 31, 2020		December 31, 2019		March 31, 2019	
		Amount	%	Amount	%	Amount	%
Current assets							
Cash and cash equivalents	4, 6.(1)	$984,841	6	$1,701,412	11	$783,523	5
Contract asset-Current	4, 6.(18)	245,772	2	302,982	2	259,800	2
Notes receivable	4, 6.(2)	140	—	1,770	—	2,638	—
Accounts receivable-Non Affiliates	4, 6.(3)	2,439,084	16	2,455,324	16	2,096,050	13
Accounts receivable-Affiliates	4, 6.(3), 7	292,524	2	229,557	1	825,885	5
Other receivable-Non Affiliates	4	25,625	—	31,044	—	29,648	—
Other receivable-Affiliates	4, 7	48,546	—	50,435	—	60,826	—
Inventories	4, 6.(4)	1,466,977	10	1,250,419	8	1,522,991	9
Prepayments	4, 6.(10)	53,049	—	53,122	—	60,364	—
Other current assets		19,214	—	28,179	—	34,599	—
Other financial assets-Current	8	80,890	1	154,226	1	283,282	2
Total current assets		5,656,662	37	6,258,470	39	5,959,606	36
Non-current assets							
Financial assets at fair value through other comprehensive income-Non current	4, 6.(5)	226,860	2	226,860	1	234,878	1
Investments accounted for using the equity method	4, 6.(6), 8	466,530	3	459,383	3	483,071	3
Property, plant, and equipment	4, 6.(7), 8	6,097,685	40	6,264,246	39	6,836,337	42
Right-of use assets	4, 6.(20)	270,597	2	253,847	2	231,739	1
Investment property	4, 6.(8)	436,653	3	440,433	3	476,991	3
Intangible assets	4, 6.(9)	56,622	—	58,445	—	76,121	—
Deferred income tax assets	4	1,545,375	10	1,547,937	10	1,673,041	10
Prepayment for equipment	4, 6.(10)	164,868	1	151,901	1	154,141	1
Refundable deposits	8	157,644	1	157,615	1	182,088	2
Long-term receivables-Affiliates	4, 6.(11), 7	93,781	1	93,315	1	95,580	1
Other non-current assets	4	5,754	—	6,298	—	9,158	—
Total non-current assets		9,522,369	63	9,660,280	61	10,453,145	64
Total assets		$15,179,031	100	$15,918,750	100	$16,412,751	100

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

English Translation of Financial Statements Originally Issued in Chinese

ORIENT SEMICONDUCTOR ELECTRONICS LIMITED AND SUBSIDIARIES

UNAUDITED CONSOLIDATED BALANCE SHEETS

As of March 31, 2020, December 31, 2019 and March 31, 2019

(March 31, 2020 and 2019 are unaudited)

(Amounts expressed in Thousands of New Taiwan Dollars)

Items	Notes	March 31, 2020		December 31, 2019		March 31, 2019	
		Amount	%	Amount	%	Amount	%
Current liabilities							
Short-term loans	6.(12)	$2,319,133	15	$2,373,766	15	$2,408,132	15
Short-term notes payable	6.(13)	249,746	2	379,210	2	348,944	2
Contract liabilities-Current	4, 6.(18)	27,185	—	29,439	—	7,319	—
Notes payable	4	10,848	—	14,197	—	26,980	—
Other notes payable	4	19,287	—	40,306	—	8,219	—
Accounts payable-Non Affiliates	4	3,094,531	21	3,057,906	19	3,080,234	19
Accounts payable-Affiliates	4, 7	17,814	—	38,483	—	31,426	—
Accrued expenses		431,779	3	875,613	6	668,497	4
Payables on equipment		152,650	1	147,286	1	192,619	1
Current income tax liabilities	4	14	—	—	—	175	—
Lease liabilities-Current	4, 6.(20)	27,289	—	25,725	—	24,458	—
Current portion of long-term loans	6.(14)	1,081,455	7	1,190,490	8	1,292,162	8
Other current liabilities		84,232	1	90,967	1	100,141	1
Total current liabilities		7,515,963	50	8,263,388	52	8,189,306	50
Non-current liabilities							
Long-term loans	6.(14)	921,926	6	904,836	6	1,937,206	12
Deferred tax liabilities	4	31,272	—	31,272	—	32,355	—
Lease liabilities-Non current	4, 6.(20)	233,404	1	218,681	1	207,897	1
Net defined benefit liabilities-Non current	4	385,622	3	430,850	3	470,878	3
Other non current liabilities-Others	4	3,567	—	3,568	—	3,524	—
Total non-current liabilities		1,575,791	10	1,589,207	10	2,651,860	16
Total liabilities		9,091,754	60	9,852,595	62	10,841,166	66
Equity attributable to the parent company	4, 6.(16)						
Capital							
Common stock		5,573,285	37	5,573,285	35	5,523,285	34
Additional paid-in capital		45,711	—	45,711	—	20,114	—
Retained earnings							
Undistributed earinings (Retained deficits)		545,608	4	537,191	3	20,206	—
Other Components of Equity		(77,327)	(1)	(90,032)	—	7,980	—
Equity attributable to stockholders of the parent		6,087,277	40	6,066,155	38	5,571,585	34
Total stockholders' equity		6,087,277	40	6,066,155	38	5,571,585	34
Total liabilities and stockholders' equity		$15,179,031	100	$15,918,750	100	$16,412,751	100

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

English Translation of Financial Statements Originally Issued in Chinese

ORIENT SEMICONDUCTOR ELECTRONICS LIMITED AND SUBSIDIARIES

UNAUDITED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the three-month periods ended March 31, 2020 and 2019

(Amounts expressed in Thousands of New Taiwan Dollars)

Items	Notes	For the three-month periods ended March 31, 2020		For the three-month periods ended March 31, 2019	
		Amount	%	Amount	%
Net revenue	4, 6.(18), 7	$3,642,533	100	$3,895,972	100
Cost of goods sold	4, 6.(4), 6.(21)	(3,420,343)	(94)	(3,602,438)	(92)
Gross profit		222,190	6	293,534	8
Operating expenses	4, 6.(21)				
Selling and administration expenses		(155,020)	(4)	(152,516)	(4)
Research and development expenses		(69,056)	(2)	(68,345)	(2)
Expected credit (losses) gains	4, 6.(19)	(5,622)	—	3,118	—
Subtotal		(229,698)	(6)	(217,743)	(6)
Net other operating income and expenses		1,015	—	—	—
Operating (loss) income		(6,493)	—	75,791	2
Non-operating income and expenses	6.(22)				
Other income		16,489	—	12,744	—
Other gains and losses		15,615	—	(2,195)	—
Financial costs		(21,799)	—	(32,968)	(1)
Expected credit gains	6.(19)	517	—	—	—
Share of profit of associates under equity method	4, 6.(6)	6,179	—	24,808	1
Subtotal		17,001	—	2,389	—
Pretax income		10,508	—	78,180	2
Income tax expense	4, 6.(24)	(2,091)	—	(12,862)	—
Consolidated net income		8,417	—	65,318	2
Other comprehensive income (loss)	4, 6.(23)				
Items that may be reclassified subsequently to profit or loss:					
Exchange differences on translation of foreign operations		2,411	—	4,921	—
Share of other comprehensive income (loss) of associates and joint ventures		—	—	(280)	—
Income tax related to items that may be reclassified		(482)	—	(984)	—
Total other comprehensive income (loss), net of tax		1,929	—	3,657	—
Total comprehensive income		$10,346	—	$68,975	2
Consolidated net income attributable to:					
Common stockholders of the parent		$8,417	—	$65,318	2
Non controlling interests		—	—	—	—
		$8,417	—	$65,318	2
Consolidated comprehensive income attributable to:					
Common stockholders of the parent		$10,346	—	$68,975	2
Non-controlling interests		—	—	—	—
		$10,346	—	$68,975	2
Basic earnings per share (Expressed in NTD)	4, 6.(25)	$0.02		$0.12	
Diluted earnings per share (Expressed in NTD)	4, 6.(25)	$0.02		$0.12	

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

English Translation of Financial Statements Originally Issued in Chinese

ORIENT SEMICONDUCTOR ELECTRONICS LIMITED AND SUBSIDIARIES

UNAUDITED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

For the three-month periods ended March 31, 2020 and 2019

(Amounts expressed in Thousands of New Taiwan Dollars)

Items	Equity attributable to stockholders of the parent							Total Equity
	Common stock	Captial surplus	Retained earnings	Other equity			Total	
			Undistributed earnings	Exchange differences on translation of foreign operations	Unrealized gains or losses on financial assets measured at fair value through other comprehensive income	Employee Unearned Benefit		
Balance as of January 1, 2019	$5,523,285	$20,104	($44,832)	($20,095)	$24,138	—	$5,502,600	$5,502,600
Share of changes in net assets of associates and joint ventures accounted for using equity method	—	10	—	—	—	—	10	10
Income for the three-month ended March 31, 2019	—	—	65,318	—	—	—	65,318	65,318
Other comprehensive Income for the three-month ended March 31, 2019	—	—	(280)	3,937	—	—	3,657	3,657
Total comprehensive income (loss)	—	—	65,038	3,937	—	—	68,975	68,975
Balance as of March 31, 2019	$5,523,285	$20,114	$20,206	($16,158)	$24,138	—	$5,571,585	$5,571,585
Balance as of January 1, 2020	$5,573,285	$45,711	$537,191	($35,267)	$16,536	($71,301)	$6,066,155	$6,066,155
Income for the three-month ended March 31, 2020	—	—	8,417	—	—	—	8,417	8,417
Other comprehensive income (loss) for the three-month ended March 31, 2020	—	—	—	1,929	—	—	1,929	1,929
Total comprehensive income (loss)	—	—	8,417	1,929	—	—	10,346	10,346
Share-based payment transaction	—	—	—	—	—	10,776	10,776	$10,776
Balance as of March 31, 2020	$5,573,285	$45,711	$545,608	($33,338)	$16,536	($60,525)	$6,087,277	$6,087,277

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

English Translation of Financial Statements Originally Issued in Chinese

ORIENT SEMICONDUCTOR ELECTRONICS LIMITED AND SUBSIDIARIES

UNAUDITED CONSOLIDATED STATEMENTS OF CASH FLOWS

For the three-month periods ended March 31, 2020 and 2019

(Amount expressed in Thousands of New Taiwan Dollars)

Items	For the three-month periods ended March 31, 2020 Amount	For the three-month periods ended March 31, 2019 Amount
Cash flows from operating activities:		
Pretax income	$10,508	$78,180
Adjustments to reconcile net income (loss) before tax to net		
The profit or loss items which did not affect cash flows:		
Depreciation	373,400	373,291
Amortization	15,489	14,051
Expected credit loss (gains)	5,105	(3,118)
Interest expense	21,799	32,968
Interest revenue	(1,120)	(967)
Compensation costs of share-based payment	10,776	—
Share of (profit) of associates accounted for using the equity method	(6,179)	(24,808)
(Gain) on disposal of property, plant and equipment	(864)	(81)
Loss of impairment of non-financial assets	—	1,170
Others - (Gain) on lease modification	(1,015)	—
Others - (Gain) on inventory valuation	(9,175)	(6,126)
Changes in operating assets and liabilities:		
Decrease in contract assets	57,210	165,884
Decrease in notes receivable-non affiliates	1,630	7,872
Decrease in accounts receivable-non affiliates	10,618	294,486
(Increase) in accounts receivable-affiliates	(62,967)	(134,055)
Decrease in other receivable-non affiliates	5,928	13,209
Decrease (Increase) in other receivable-affiliates	1,889	(6,059)
(Increase) Decrease in inventories	(207,412)	50,556
Decrease (Increase) in prepayments	4,927	(8,102)
Decrease in other current assets	8,979	1,775
Decrease in other non-current assets	166	438
(Decrease) in contract liabilities	(2,254)	(8,502)
(Decrease) in notes payable-non affiliates	(24,368)	(26,999)
Increase (Decrease) in accounts payable-non affiliates	36,625	(215,754)
(Decrease) in accounts payable-affiliates	(20,669)	(17,784)
Increase (Decrease) in other payable	851	(1,660)
(Decrease) in other current liabilities	(450,569)	(98,055)
(Decrease) in accrued pension liabilities	(45,228)	(25,018)
Cash (used in) generated from operations	(265,920)	456,792
Interest received	1,131	960
Income tax (paid)	(31)	(8)
Net cash (used in) provided by operating activities	(264,820)	457,744

Items	For the three-month periods ended March 31, 2020 Amount	For the three-month periods ended March 31, 2019 Amount
Cash flows from investing activities:		
Acqusition of property, plant, and equipment	(210,287)	(153,194)
Disposal of property, plant, and equipment	864	83
(Increase) in refundable deposits	(29)	—
Decrease in refundable deposits	—	19,815
Acqusition of intangible assets	(6,462)	—
(Increase) in long-term receivables	(466)	(280)
Net cash (used in) investing activities	(216,380)	(133,576)
Cash flows from financing activities:		
(Decrease) in short-term loans	(54,700)	(398,612)
Increase in short-term notes payable	249,746	348,944
(Decrease) in short-term notes payable	(379,210)	(349,610)
Increase in long-term loans	420,000	600,000
Repayment of long-term loans	(514,742)	(425,074)
(Decrease) Increase in guarantee deposits received	(1)	2
Repayment of lease liabilites	(6,831)	(9,071)
Interest paid	(22,650)	(31,308)
Other financing activities	73,336	(39,667)
Net cash (used in) financing activities	(235,052)	(304,396)
Effect of exchange rate changes on cash and cash equivalents	(319)	1,440
Net (decrease) increase in cash and cash equivalents	(716,571)	21,212
Cash and cash equivalents at the beginning of period	1,701,412	762,311
Cash and cash equivalents at the end of period	$984,841	$783,523

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

1. ORGANIZATION AND OPERATION

Orient Semiconductor Electronics Limited (the Company) was incorporated as a company limited by shares under the provisions of the Company Law of the Republic of China in June 1971. The Company was registered in Kaohsiung City and the registered address is 9 Central 3Rd St. N.E.P.Z., Kaohsiung, Taiwan, 11, R.O.C. The principal activity of the Company is to engage in the manufacture, assembly, processing and sale of integrated circuits, parts for semiconductors, computer motherboards and related products. The Company's shares commenced trading in the Taiwan stock exchange market in April 1994.

For the three-month periods ended March 31, 2020, the Company and its subsidiaries current liabilities and current assets amounted to $7,515,963 thousand and $5,656,662 thousand, respectively. The current ratio was 75.26%. The Company has devoted to adjusting its product structure. The Company keeps making a profit and improving financial structure.

2. DATE AND PROCEDURES OF AUTHORIZATION OF FINANCIAL STATEMENTS FOR ISSUE

The consolidated financial statements of the Company and its subsidiaries ("the Group") for the three-month periods ended March 31, 2020 and 2019 were authorized for issue by the Board of Directors on May 7, 2020.

3. NEWLY ISSUED OR REVISED STANDARDS AND INTERPRETATIONS

(1) Changes in accounting policies resulting from applying for the first time certain standards and amendments.

The Group applied for the first time International Financial Reporting Standards, International Accounting Standards, and Interpretations issued, revised or amended which are recognized by Financial Supervisory Commission ("FSC") and become effective for annual periods beginning on or after January 1, 2020. The adoption of these new standards and amendments had no material impact on the Group.

(2) Standards or interpretations issued, revised or amended, by International Accounting Standards Board ("IASB") which have not yet endorsed by FSC and have not yet adopted by the Group as at the end of the reporting period are listed below.

Items	New, Revised or Amended Standards and Interpretations	Effective Date issued by IASB
a	IFRS 10 “Consolidated Financial Statements” and IAS 28 “Investments in Associates and Joint Ventures” — Sale or Contribution of Assets between an Investor and its Associate or Joint Ventures	To be determined by IASB
b	IFRS 17 “Insurance Contracts”	January 1, 2021
c	Classification of Liabilities as Current or Non-current Amendments to IAS 1	January 1, 2022

(a) IFRS 10“Consolidated Financial Statements” and IAS 28“Investments in Associates and Joint Ventures” — Sale or Contribution of Assets between an Investor and its Associate or Joint Ventures.

The amendments address the inconsistency between the requirements in IFRS 10 Consolidated Financial Statements and IAS 28 Investments in Associates and Joint Ventures, in dealing with the loss of control of a subsidiary that is contributed to an associate or a joint venture. IAS 28 restricts gains and losses arising from contributions of non-monetary assets to an associate or a joint venture to the extent of the interest attributable to the other equity holders in the associate or joint ventures. IFRS 10 requires full profit or loss recognition on the loss of control of the subsidiary. IAS 28 was amended so that the gain or loss resulting from the sale or contribution of assets that constitute a business as defined in IFRS 3 between an investor and its associate or joint venture is recognized in full.

IFRS 10 was also amended so that the gains or loss resulting from the sale or contribution of a subsidiary that does not constitute a business as defined in IFRS 3 between an investor and its associate or joint venture is recognized only to the extent of the unrelated investors’ interests in the associate or joint venture.

(b) IFRS 17 “Insurance Contracts”

IFRS 17 provides a comprehensive model for insurance contracts, covering all relevant accounting aspects (including recognition, measurement, presentation and disclosure requirements). The core of IFRS 17 is the General (building block) Model, under this model, on initial recognition, an entity shall measure a group of insurance contracts at the total of the fulfilment cash flows and the contractual service margin. The fulfilment cash flows comprise of the following:

(1) estimates of future cash flows;
(2) Discount rate: an adjustment to reflect the time value of money and the financial risks related to the future cash flows, to the extent that the financial risks are not included in the estimates of the future cash flows; and
(3) a risk adjustment for non-financial risk.

The carrying amount of a group of insurance contracts at the end of each reporting period shall be the sum of the liability for remaining coverage and the liability for incurred claims. Other than the General Model, the standard also provides a specific adaptation for contracts with direct participation features (the Variable Fee Approach) and a simplified approach (Premium Allocation Approach) mainly for short-duration contracts.

(c) Classification of Liabilities as Current or Non-current – Amendments to IAS 1

These are the amendments to paragraphs 69-76 of IAS 1 Presentation of Financial statements and the amended paragraphs related to the classification of liabilities as current or non-current.

The abovementioned standards and interpretations issued by IASB have not yet endorsed by FSC at the date when the Group's financial statements were authorized for issue, the local effective dates are to be determined by FSC. All other standards and interpretations have no material impact on the Group.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(1) Statement of compliance

The consolidated financial statements of the Group for the three-month periods ended March 31,2020 and 2019 have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers ("the Regulations") and IAS 34 Interim Financial Reporting as endorsed and became effective by the FSC.

(2) Basis of preparation

The consolidated financial statements have been prepared on a historical cost basis, except for financial instruments that have been measured at fair value. The consolidated financial statements are expressed in thousands of New Taiwan Dollars ("NT$") unless otherwise stated.

(3) Basis of consolidation

Preparation principle of consolidated financial statement

Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if and only if the Group has:

(a) power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee)
(b) exposure, or rights, to variable returns from its involvement with the investee, and
(c) the ability to use its power over the investee to affect its returns

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

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

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control.

Subsidiaries are fully consolidated from the acquisition date, being the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases. The financial statements of the subsidiaries are prepared for the same reporting period as the parent company, using uniform accounting policies. All intra-group balances, income and expenses, unrealized gains and losses and dividends resulting from intra-group transactions are eliminated in full.

A change in the ownership interest of a subsidiary, without a change of control, is accounted for as an equity transaction.

Total comprehensive income of the subsidiaries is attributed to the owners of the parent and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

If the Group loses control of a subsidiary, it:

(a) derecognizes the assets (including goodwill) and liabilities of the subsidiary;
(b) derecognizes the carrying amount of any non-controlling interest;
(c) recognizes the fair value of the consideration received;
(d) recognizes the fair value of any investment retained;
(e) recognizes any surplus or deficit in profit or loss; and
(f) reclassifies the parent's share of components previously recognized in other comprehensive income to profit or loss.

A. <u>The consolidated entities are listed as follows:</u>

Investor	Name of subsidiaries	Main businesses	Percentage of ownership			Remarks
			March 31, 2020	December 31, 2019	March 31, 2019	
The Company	Orient Semiconductor Electronics Philippines, Inc. (OSE PHILIPPINES, INC.；OSEP)	Manufacture and export of integrated circuits and computers	99.99%	99.99%	99.99%	1. As of March 31, 2020, the Company owned 93.67% and OSE B.V.I. owned 6.33% of the shares of OSEP, which represented the aggregate a 99.99% ownership of OSEP. 2. OSEP ceased its operation in fourth quarter of 2011.
The Company	OSE INTERNATIONAL, LTD. (OSE B.V.I.)	Investments of various manufacturing businesses	100.00%	100.00%	100.00%	–
The Company	OSE USA, INC. (OSEU)	Investments of various manufacturing businesses	100.00%	100.00%	100.00%	OSEA merged with OSEU on February 14, 2006 and assumed OSEU’s assets, liabilities and preferred stocks. OSEA changed its name as OSE USA, Inc. after the merger.
The Company	COREPLUS (HK) LIMITED (COREPLUS)	Manufacture of electronics product	100.00%	100.00%	100.00%	–
COREPLUS (HK) LIMITED (COREPLUS)	VALUE–PLUS TECHNOLOGY (SUZHOU) CO. (VALUE–PLUS (SUZHOU))	Manufacture of electronics product	100.00%	100.00%	100.00%	–

B. The consolidated financial statements of part of the subsidiaries listed above had not been reviewed by auditors. As of March 31, 2020, and 2019, the related assets of the subsidiaries which were unaudited by auditors amount to $1,105,073 thousand and $1,134,999 thousand respectively, and the related liabilities amount to $225,775 thousand and $266,925 thousand, respectively. The comprehensive income of these subsidiaries amounts to $765 thousand and $25,993 thousand for the three-month periods ended March 31, 2020 and 2019, respectively.

(4) Foreign currency transactions

The Group's consolidated financial statements are presented in NT$, which is also the Company's functional currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency.

Transactions in foreign currencies are initially recorded by the Group entities at their respective functional currency rates prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency closing rate of exchange ruling at the reporting date. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. Non-monetary items that are measured at historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions.

All exchange differences arising on the settlement of monetary items or on translating monetary items are taken to profit or loss in the period in which they arise except for the following:

(a) Exchange differences arising from foreign currency borrowings for an acquisition of a qualifying asset to the extent that they are regarded as an adjustment to interest costs are included in the borrowing costs that are eligible for capitalization.

(b) Foreign currency items within the scope of IFRS 9 Financial Instruments are accounted for based on the accounting policy for financial instruments.

(c) Exchange differences arising on a monetary item that forms part of a reporting entity's net investment in a foreign operation is recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal of the net investment.

When a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange component of that gain or loss is recognized in other comprehensive income. When a gain or loss on a non-monetary item is recognized in profit or loss, any exchange component of that gain or loss is recognized in profit or loss.

(5) Translation of financial statements in foreign currency

The assets and liabilities of foreign operations are translated into NT$ at the closing rate of exchange prevailing at the reporting date and their income and expenses are translated at an average rate for the period. The exchange differences arising on the translation are recognized in other comprehensive income. On the disposal of a foreign operation, the cumulative amount of the exchange differences relating to that foreign operation, recognized in other comprehensive income and accumulated in the separate component of equity, is reclassified from equity to profit or loss when the gain or loss on disposal is recognized. The following partial disposals are accounted for as disposals:

(a) when the partial disposal involves the loss of control of a subsidiary that includes a foreign operation; and
(b) when the retained interest after the partial disposal of an interest in a joint arrangement or a partial disposal of an interest in an associate that includes a foreign operation is a financial asset that includes a foreign operation.

On the partial disposal of a subsidiary that includes a foreign operation that does not result in a loss of control, the proportionate share of the cumulative amount of the exchange differences recognized in other comprehensive income is re-attributed to the non-controlling interests in that foreign operation. In partial disposal of an associate or joint arrangement that includes a foreign operation that does not result in a loss of significant influence or joint control, only the proportionate share of the cumulative amount of the exchange differences recognized in other comprehensive income is reclassified to profit or loss.

Any goodwill and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and expressed in its functional currency.

(6) Current and non-current distinction

An asset is classified as current when:
(a) The Group expects to realize the asset, or intends to sell or consume it, in its normal operating cycle.
(b) The Group holds the asset primarily for the purpose of trading.
(c) The Group expects to realize the asset within twelve months after the reporting period.
(d) 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.

All other assets are classified as non-current.

A liability is classified as current when:

(a) The Group expects to settle the liability in its normal operating cycle.
(b) The Group holds the liability primarily for the purpose of trading.
(c) The liability is due to be settled within twelve months after the reporting period.
(d) The Group does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

(7) Cash and cash equivalents

Cash and cash equivalents comprises cash on hand, demand deposits and short-term, highly liquid time deposits (including ones that have maturity within three months) or investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

(8) Financial instruments

Financial assets and financial liabilities are recognized when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities within the scope of IFRS 9 Financial Instruments are recognized initially at fair value plus or minus, in the case of investments not at fair value through profit or loss, directly attributable transaction costs.

A. Financial instruments: Recognition and Measurement

The Group accounts for regular way purchase or sales of financial assets on the trade date.

The Group classified financial assets as subsequently measured at amortized cost, fair value through other comprehensive income or fair value through profit or loss considering both factors below:

(a) the Group’s business model for managing the financial assets and
(b) the contractual cash flow characteristics of the financial asset.

Financial assets measured at amortized cost

A financial asset is measured at amortized cost if both of the following conditions are met and presented as note receivables, trade receivables financial assets measured at amortized cost and other receivables etc., on balance sheet as at the reporting date:

(a) the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows and
(b) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Such financial assets are subsequently measured at amortized cost (the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between the initial amount and the maturity amount and adjusted for any loss allowance) and is not part of a hedging relationship. A gain or loss is recognized in profit or loss when the financial asset is derecognized, through the amortization process or in order to recognize the impairment gains or losses.

Interest revenue is calculated by using the effective interest method. This is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for:

(a) purchased or originated credit-impaired financial assets. For those financial assets, the Groupapplies the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition.
(b) financial assets that are not purchased or originated credit-impaired financial assets but subsequently have become credit-impaired financial assets. For those financial assets, the Group applies the effective interest rate to the amortized cost of the financial asset in subsequent reporting periods.

Financial asset measured at fair value through other comprehensive income

A financial asset is measured at fair value through other comprehensive income if both of the following conditions are met:

(a) the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and
(b) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Recognition of gain or loss on a financial asset measured at fair value through other comprehensive income are described as below:

(a) A gain or loss on a financial asset measured at fair value through other comprehensive income recognized in other comprehensive income, except for impairment gains or losses and foreign exchange gains and losses, until the financial asset is derecognized or reclassified.
(b) When the financial asset is derecognized the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment.
(c) Interest revenue is calculated by using the effective interest method. This is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for:

  i. Purchased or originated credit-impaired financial assets. For those financial assets, the Group applies the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition.
  ii. Financial assets that are not purchased or originated credit-impaired financial assets but subsequently have become credit-impaired financial assets. For those financial assets, the Group applies the effective interest rate to the amortized cost of the financial asset in subsequent reporting periods.

Besides, at initial recognition, the Company makes an irrevocable election to present in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument within the scope of IFRS 9 that is neither held for trading nor contingent consideration recognized by an acquirer in a business combination to which IFRS 3 applies. Amounts presented in other comprehensive income are not subsequently transferred to profit or loss (when disposal of such equity instrument, its cumulated amount included in other components of equity is transferred directly to the retained earnings) and should be recorded as financial assets measured at fair value through other comprehensive income on balance sheet. Dividends on such investment are recognized in profit or loss unless the dividends clearly represents a recovery of part of the cost of investment.

<u>Financial asset measured at fair value through profit or loss</u>

Financial assets were measured at amortized cost or measured at fair value through other comprehensive income only if they met particular conditions. All other financial assets were measured at fair value through profit or loss and presented on the balance sheet as financial assets measured at fair value through profit or loss and trade receivables.

Financial assets at fair value through profit or loss are measured at fair value with changes in fair value recognized in profit or loss. Dividends or interests on financial assets at fair value through profit or loss are recognized in profit or loss (including those received during the period of initial investment).

B. Impairment of financial assets

The Group recognizes a loss allowance for expected credit losses on debt instrument investments measured at fair value through other comprehensive income and financial asset measured at amortized cost. The loss allowance on debt instrument investments measured at fair value through other comprehensive income is recognized in other comprehensive income and not reduce the carrying amount in the statement of financial position.

The Group measures expected credit losses of a financial instrument in a way that reflects:

(a) an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;
(b) the time value of money; and
(c) reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

The loss allowance is measures as follow:

(a) At an amount equal to 12-month expected credit losses: the credit risk on a financial asset has not increased significantly since initial recognition or the financial asset is determined to have low credit risk at the reporting date. In addition, the Group measures the loss allowance at an amount equal to lifetime expected credit losses in the previous reporting period, but determines at the current reporting date that the credit risk on a financial asset has increased significantly since initial recognition is no longer met.
(b) At an amount equal to the lifetime expected credit losses: the credit risk on a financial asset has increased significantly since initial recognition or financial asset that is purchased or originated credit-impaired financial asset.
(c) For trade receivables or contract assets arising from transactions within the scope of IFRS 15, the Group measures the loss allowance at an amount equal to lifetime expected credit losses.
(d) For lease receivables arising from transactions within the scope of IFRS 16, the Group measures the loss allowance at an amount equal to lifetime expected credit losses.

At each reporting date, the Group needs to assess whether the credit risk on a financial asset has increased significantly since initial recognition by comparing the risk of a default occurring at the reporting date and the risk of default occurring at initial recognition. Please refer to Note 12 for further details on credit risk.

C. Derecognition of financial assets

A financial asset is derecognized when:

(a) The rights to receive cash flows from the asset have expired.
(b) The Group has transferred the asset and substantially all the risks and rewards of the asset have been transferred.
(c) The Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

On derecognition of a financial asset in its entirety, the difference between the carrying amount and the consideration received or receivable including any cumulative gain or loss that had been recognized in other comprehensive income, is recognized in profit or loss.

D. Financial liabilities and equity

<u>Classification between liabilities or equity</u>

The Group classifies the instrument issued as a financial liability or an equity instrument in accordance with the substance of the contractual arrangement and the definitions of a financial liability, and an equity instrument.

<u>Equity instruments</u>

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. The transaction costs of an equity transaction are accounted for as a deduction from equity (net of any related income tax benefit) to the extent they are incremental costs directly attributable to the equity transaction that otherwise would have been avoided.

<u>Financial liabilities</u>

Financial liabilities within the scope of IFRS 9 Financial Instruments are classified as financial liabilities at fair value through profit or loss or financial liabilities measured at amortized cost upon initial recognition.

<u>Financial liabilities at fair value through profit or loss</u>

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. A financial liability is classified as held for trading if:

(a) it is acquired or incurred principally for the purpose of selling or repurchasing it in the near term;
(b) on initial recognition it is part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking; or
(c) it is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

If a contract contains one or more embedded derivatives, the entire hybrid (combined) contract may be designated as a financial liability at fair value through profit or loss; or a financial liability may be designated as at fair value through profit or loss when doing so results in more relevant information, because either:

(a) it eliminates or significantly reduces a measurement or recognition inconsistency; or
(b) group of financial assets, financial liabilities or both is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy, and information about the group is provided internally on that basis to the key management personnel.

Gains or losses on the subsequent measurement of liabilities at fair value through profit or loss including interest paid are recognized in profit or loss.

<u>Financial liabilities at amortized cost</u>

Financial liabilities measured at amortized cost include interest bearing loans and borrowings that are subsequently measured using the effective interest rate method after initial recognition. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the effective interest rate method amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or transaction costs.

<u>Derecognition of financial liabilities</u>

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified (whether or not attributable to the financial difficulty of the debtor), such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

E. Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the balance sheet if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

(9) Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

(a) In the principal market for the asset or liability, or
(b) In the absence of a principal market, in the most advantageous market for the asset or liability

The principal or the most advantageous market must be accessible to by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants in their economic best interest.

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

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

(10) Inventories

Inventories are valued at the lower of cost and net realizable value item by item.

Cost incurred in bringing each product to its present location and condition are accounted for as follows:

Raw materials – Purchase cost on an average basis.

Finished goods and work in progress – Cost of direct materials and labor and a proportion of manufacturing overheads based on normal operating capacity but excluding borrowing costs, on a average basis.

Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

Rendering of services is accounted in accordance with IFRS 15 and not within the scope of inventories.

(11) Non-current assets held for sale and discontinued operations

Non-current assets and disposal groups are classified as held for sale if their carrying amounts will be recovered through a sale transaction that is highly probable within one year from the date of classification and the asset or disposal group is available for immediate sale in its present condition. Non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell.

In the consolidated statement of comprehensive income of the reporting period, and of the comparable period of the previous year, income and expenses from discontinued operations are reported separately from income and expenses from continuing operations, down to the level of profit after taxes, even when the Group retains a non-controlling interest in the subsidiary after the sale. The resulting profit or loss (after taxes) is reported separately in the statement of comprehensive income.

Property, plant and equipment and intangible assets once classified as held for sale are not depreciated or amortized.

(12) Investment accounted for using the equity method

The Group's investment in its associate is accounted for using the equity method other than those that meet the criteria to be classified as held for sale. An associate is an entity over which the Group has significant influence. A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture.

Under the equity method, the investment in the associate or an investment in a joint venture is carried in the balance sheet at cost and adjusted thereafter for the post-acquisition change in the Group's share of net assets of the associate or joint venture. After the interest in the associate or joint venture is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture. Unrealized gains and losses resulting from transactions between the Group and the associate or joint venture are eliminated to the extent of the Group's related interest in the associate or joint venture.

When changes in the net assets of an associate or a joint venture occur and not those that are recognized in profit or loss or other comprehensive income and do not affects the Group's percentage of ownership interests in the associate or joint venture, the Group recognizes such changes in equity based on its percentage of ownership interests. The resulting capital surplus recognized will be reclassified to profit or loss at the time of disposing the associate or joint venture on a prorata basis.

When the associate or joint venture issues new stock, and the Group's interest in an associate or a joint venture is reduced or increased as the Group fails to acquire shares newly issued in the associate or joint venture proportionately to its original ownership interest, the increase or decrease in the interest in the associate or joint venture is recognized in Additional Paid in Capital and Investment accounted for using the equity method. When the interest in the associate or joint venture is reduced, the cumulative amounts previously recognized in other comprehensive income are reclassified to profit or loss or other appropriate items. The aforementioned capital surplus recognized is reclassified to profit or loss on a pro rata basis when the Group disposes the associate or joint venture.

The financial statements of the associate or joint venture are prepared for the same reporting period as the Group. Where necessary, adjustments are made to bring the accounting policies in line with those of the Group.

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate or an investment in a joint venture is impaired in accordance with IAS 28 Investments in Associates and Joint Ventures. If this is the case the Group calculates the amount of impairment as the difference between the recoverable amount of the associate or joint venture and its carrying value and recognizes the amount in the 'share of profit or loss of an associate' in the statement of comprehensive income in accordance with IAS 36 Impairment of Assets. In determining the value in use of the investment, the Group estimates:

(a) Its share of the present value of the estimated future cash flows expected to be generated by the associate or joint venture, including the cash flows from the operations of the associate and the proceeds on the ultimate disposal of the investment; or
(b) The present value of the estimated future cash flows expected to arise from dividends to be received from the investment and from its ultimate disposal.

Because goodwill that forms part of the carrying amount of an investment in an associate or an investment in a joint venture is not separately recognized, it is not tested for impairment separately by applying the requirements for impairment testing goodwill in IAS 36 Impairment of Assets.

Upon loss of significant influence over the associate or joint venture, the Group measures and recognizes any retaining investment at its fair value. Any difference between the carrying amount of the associate or joint venture upon loss of significant influence and the fair value of the retaining investment and proceeds from disposal is recognized in profit or loss. Furthermore, if an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate, the entity continues to apply the equity method and does not remeasure the retained interest.

(13) Property, plant and equipment

Property, plant and equipment is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes the cost of dismantling and removing the item and restoring the site on which it is located and borrowing costs for construction in progress if the recognition criteria are met. 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 is depreciated separately. When significant parts of property, plant and equipment are required to be replaced in intervals, the Group recognized such parts as individual assets with specific useful lives and depreciation, respectively. The carrying amount of those parts that are replaced is derecognized in accordance with the derecognition provisions of IAS 16 Property, plant and equipment. When a major inspection is performed, its cost is recognized in the carrying amount of the plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognized in profit or loss as incurred.

Depreciation is calculated on a straight-line basis over the estimated economic lives of the following assets:

Buildings	10～51 years
Machinery and equipment	3～12 years
Transportation equipment	5 years
Office equipment	5 years
Leasehold improvements	5～15 years
Other equipment	5 years

An item of property, plant and equipment and any significant part initially recognized is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset is recognized in profit or loss.

The assets' residual values, useful lives and methods of depreciation are reviewed at each financial year end and adjusted prospectively, if appropriate.

(14) Investment property

The Group's owned investment properties are measured initially at cost, including transaction costs. The carrying amount includes the cost of replacing part of an existing investment property at the time that cost is incurred if the recognition criteria are met and excludes the costs of day-to-day servicing of an investment property. Subsequent to initial recognition, other than those that meet the criteria to be classified as held for sale (or are included in a disposal group that is classified as held for sale) in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, investment properties are measured using the cost model in accordance with the requirements of IAS 16 Property, plant and equipment for that model. If investment properties are held by a lessee as right-of-use assets and is not held for sale in accordance with IFRS 5, investment properties are measured in accordance with the requirements of IFRS 16.

Depreciation is calculated on a straight-line basis over the estimated economic lives of the following assets:

Buildings	40 years

Investment properties are derecognized when either they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss in the period of derecognition.

The Group transfers properties to or from investment properties according to the actual use of the properties.

Properties are transferred to or from investment properties when the properties meet, or cease to meet, the definition of investment property and there is evidence of the change in use.

(15) Leases

The Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset for a period of time, the Group assesses whether, throughout the period of use, has both of the following:

(a) the right to obtain substantially all of the economic benefits from use of the identified asset; and
(b) the right to direct the use of the identified asset.

For a contract that is, or contains, a lease, the Group accounts for each lease component within the contract as a lease separately from non-lease components of the contract. For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components. The relative stand-alone price of lease and non-lease components shall be determined on the basis of the price the lessor, or a similar supplier, would charge the Group for that component, or a similar component, separately. If an observable stand-alone price is not readily available, the Group estimates the stand-alone price, maximising the use of observable information.

<u>Group as a lessee</u>

Except for leases that meet and elect short-term leases or leases of low-value assets, the Group recognizes right-of-use asset and lease liability for all leases which the Group is the lessee of those lease contracts.

At the commencement date, the Group measures the lease liability at the present value of the lease payments that are not paid at that date. The lease payments are discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the Group uses its incremental borrowing rate. At the commencement date, the lease payments included in the measurement of the lease liability comprise the following payments for the right to use the underlying asset during the lease term that are not paid at the commencement date:

(a) fixed payments (including in-substance fixed payments), less any lease incentives receivable;
(b) variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
(c) amounts expected to be payable by the lessee under residual value guarantees;
(d) the exercise price of a purchase option if the Group is reasonably certain to exercise that option; and
(e) payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

After the commencement date, the Group measures the lease liability on an amortised cost basis, which increases the carrying amount to reflect interest on the lease liability by using an effective interest method; and reduces the carrying amount to reflect the lease payments made.

At the commencement date, the Group measures the right-of-use asset at cost. The cost of the right-of-use asset comprises:

(a) the amount of the initial measurement of the lease liability;
(b) any lease payments made at or before the commencement date, less any lease incentives received;
(c) any initial direct costs incurred by the lessee; and
(d) an estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

For subsequent measurement of the right-of-use asset, the Group measures the right-of-use asset at cost less any accumulated depreciation and any accumulated impairment losses. That is, the Group measures the right-of-use applying a cost model.

If the lease transfers ownership of the underlying asset to the Group by the end of the lease term or if the cost of the right-of-use asset reflects that the Group will exercise a purchase option, the Group depreciates the right-of-use asset from the commencement date to the end of the useful life of the underlying asset. Otherwise, the Group depreciates the right-of-use asset from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

The Group applies IAS 36 “Impairment of Assets” to determine whether the right-of-use asset is impaired and to account for any impairment loss identified.

Except for those leases that the Group accounted for as short-term leases or leases of low-value assets, the Group presents right-of-use assets and lease liabilities in the balance sheet and separately presents lease-related interest expense and depreciation charge in the statements comprehensive income.

For short-term leases or leases of low-value assets, the Group elects to recognize the lease payments associated with those leases as an expense on either a straight-line basis over the lease term or another systematic basis.

Group as a lessor

At inception of a contract, the Group classifies each of its leases as either an operating lease or a finance lease. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership of an underlying asset. At the commencement date, the Group recognizes assets held under a finance lease in its balance sheet and present them as a receivable at an amount equal to the net investment in the lease.

For a contract that contains lease components and non-lease components, the Group allocates the consideration in the contract applying IFRS 15.

The Group recognizes lease payments from operating leases as rental income on either a straight-line basis or another systematic basis. Variable lease payments for operating leases that do not depend on an index or a rate are recognized as rental income when incurred.

(16) Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is its fair value as at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and accumulated impairment losses, if any. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and expenditure is reflected in profit or loss for the year in which the expenditure is incurred.

The useful lives of intangible assets are assessed as either finite or indefinite.

Intangible assets with finite lives are amortized over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at the end of each financial year. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset is accounted for by changing the amortization period or method, as appropriate, and are treated as changes in accounting estimates.

Intangible assets with indefinite useful lives are not amortized, but are tested for impairment annually, either individually or at the cash-generating unit level. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable. If not, the change in useful life from indefinite to finite is made on a prospective basis.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in profit or loss when the asset is derecognized.

Research and development costs

Research costs are expensed as incurred. Development expenditures on an individual project are recognisedas an intangible asset when the Group can demonstrate:

(a) The technical feasibility of completing the intangible asset so that it will be available for use or sale
(b) Its intention to complete and its ability to use or sell the asset
(c) How the asset will generate future economic benefits
(d) The availability of resources to complete the asset
(e) The ability to measure reliably the expenditure during development.

Following initial recognition of the development expenditure as an asset, the cost model is applied requiring the asset to be carried at cost less any accumulated amortization and accumulated impairment losses. Amortization of the asset begins when development is complete and the asset is available for use. It is amortized over the period of expected future benefit.

A summary of the policies applied to the Group's intangible assets is as follows:

	Cost of computer software
Useful lives	1～3 years
Amortization method used	Amortized on a straight-line basis
Internally generated or acquired	Acquired

(17) Impairment of non-financial assets

The Group assesses at the end of each reporting period whether there is any indication that an asset in the scope of IAS 36 Impairment of Assets may be impaired. If any such indication exists, or when annual impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's ("CGU") fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

For assets excluding goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the Group estimates the asset's or cash-generating unit's recoverable amount. A previously recognized impairment loss is reversed only if there has been an increase in the estimated service potential of an asset which in turn increases the recoverable amount. However, the reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years.

An impairment loss of continuing operations or a reversal of such impairment loss is recognized in profit or loss.

(18) Revenue recognition

The Group's revenue arising from contracts with customers are primarily related to sale of goods and rendering of services. The accounting policies are explained as follow:

<u>Sale of goods</u>

The Group manufactures and sells machinery. Sales are recognized when control of the goods is transferred to the customer and the goods are delivered to the customers. The main products of the Group are integrated circuits, semiconductor devices and computer motherboards, etc and revenue is recognized based on the consideration stated in the contract. For certain sales of goods transactions, they are usually accompanied by volume discounts (based on the accumulated total sales amount for a specified period). Therefore, revenue from these sales is recognized based on the price specified in the contract, net of the estimated volume discounts.

Products manufactured according to customer's agreed specifications if the customer controls the product at the time of creation or enhancement of the product, the Group will gradually recognize revenue over time.

The Group provides its customer with a warranty with the purchase of the products. The warranty provides assurance that the product will operate as expected by the customers. And the warranty is accounted in accordance with IAS 37.

The credit period of the Group 's sale of goods is from 30 to 150 days. For most of the contracts, when the Group transfers the goods to customers and has a right to an amount of consideration that is unconditional, these contracts are recognized as trade receivables. The Group usually collects the payments shortly after transfer of goods to customers; therefore, there is no significant financing component to the contract. For some of the contracts, the Group has transferred the goods to customers but does not has a right to an amount of consideration that is unconditional, these contacts should be presented as contract assets. Besides, in accordance with IFRS 9, the Group measures the loss allowance for a contract asset at an amount equal to the lifetime expected credit losses. However, for some contracts, part of the consideration was received from customers upon signing the contract, then the Group has the obligation to transfer the goods to customers subsequently; accordingly, these amounts are recognized as contract liabilities.

Rendering of services

Revenue is recognized when the Group finishes the processing services.

(19) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the respective assets. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

(20) Post-employment benefits

All regular employees of the Company and its domestic subsidiaries are entitled to a pension plan that is managed by an independently administered pension fund committee. Fund assets are deposited under the committee's name in the specific bank account and hence, not associated with the Company and its domestic subsidiaries. Therefore fund assets are not included in the Group's consolidated financial statements. Pension benefits for employees of the overseas subsidiaries and the branches are provided in accordance with the respective local regulations.

For the defined contribution plan, the Company and its domestic subsidiaries will make a monthly contribution of no less than 6% of the monthly wages of the employees subject to the plan. The Company recognizes expenses for the defined contribution plan in the period in which the contribution becomes due. Overseas subsidiaries and branches make contribution to the plan based on the requirements of local regulations.

Post-employment benefit plan that is classified as a defined benefit plan uses the Projected Unit Credit Method to measure its obligations and costs based on actuarial assumptions. Re-measurements, comprising of the effect of the actuarial gains and losses, the effect of the asset ceiling (excluding net interest) and the return on plan assets, excluding net interest, are recognized as other comprehensive income with a corresponding debit or credit to retained earnings in the period in which they occur. Past service costs are recognized in profit or loss on the earlier of:

(a) the date of the plan amendment or curtailment, and
(b) the date that the Group recognizes restructuring-related costs

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset, both as determined at the start of the annual reporting period, taking account of any changes in the net defined benefit liability (asset) during the period as a result of contribution and benefit payment.

Pension cost for an interim period is calculated on a year-to-date basis by using the actuarially determined pension cost rate at the end of the prior financial year, adjusted and disclosed for significant market fluctuations since that time and for significant curtailments, settlements, or other significant one-off events.

(21) Share-Based Payment Transactions

The cost of equity-settled transactions between the Group and its subsidiaries is recognized based on the fair value of the equity instruments granted. The fair value of the equity instruments is determined by using an appropriate pricing model.

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

No expense is recognized for awards that do not ultimately vest, except for equity-settled transactions where vesting is conditional upon a market or non-vesting condition, which are treated as vesting irrespective of whether or not the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

Where the terms of an equity-settled transaction award are modified, the minimum expense recognized is the expense as if the terms had not been modified, if the original terms of the award are met. An additional expense is recognized for any modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification.

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

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

The cost of restricted stocks issued is recognized as salary expense based on the fair value of the equity instruments on the grant date, together with a corresponding increase in other capital reserves in equity, over the vesting period. The Group recognized unearned employee salary which is a transitional contra equity account; the balance in the account will be recognized as salary expense over the passage of vesting period.

(22) Income taxes

Income tax expense (income) is the aggregate amount included in the determination of profit or loss for the period in respect of current tax and deferred tax.

Current income tax

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities, using the tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period. Current income tax relating to items recognized in other comprehensive income or directly in equity is recognized in other comprehensive income or equity and not in profit or loss.

The income tax for undistributed earnings is recognized as income tax expense in the subsequent year when the distribution proposal is approved by the Shareholders' meeting.

Deferred tax

Deferred tax is provided on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

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

(a) Where the deferred tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss
(b) In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint arrangements, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognized for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized, except:

(a) Where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.
(b) In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint arrangements, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the reporting date. The measurement of deferred tax assets and deferred tax liabilities reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity. Deferred tax assets are reassessed at each reporting date and are recognized accordingly.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current income tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Interim period income tax expense is accrued using the tax rate that would be applicable to expected total annual earnings, that is, the estimated average annual effective income tax rate applied to the pre-tax income of the interim period. The estimated average annual effective income tax rate only includes current income tax. The recognition and measurement of deferred tax follows annual financial reporting requirements in accordance with IAS 12. The Group recognizes the effect of change in tax rate for deferred taxes in full if the new tax rate is enacted by the end of the interim reporting period, by charging to profit or loss, other comprehensive income, or directly to equity.

(23) Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The consideration transferred, the identifiable assets acquired and liabilities assumed are measured at acquisition date fair value. For each business combination, the acquirer measures any non-controlling interest in the acquiree either at fair value or at the non-controlling interest’s proportionate share of the acquiree’s identifiable net assets. Acquisition-related costs are accounted for as expenses in the periods in which the costs are incurred and are classified under administrative expenses.

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

If the business combination is achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss.

Any contingent consideration to be transferred by the acquirer will be recognized at the acquisition-date fair value. Subsequent changes to the fair value of the contingent consideration which is deemed to be an asset or liability, will be recognized in accordance with IFRS 9 Financial Instruments either in profit or loss or as a change to other comprehensive income. However, if the contingent consideration is classified as equity, it should not be remeasured until it is finally settled within equity.

Goodwill is initially measured as the amount of the excess of the aggregate of the consideration transferred and the non-controlling interest over the net fair value of the identifiable assets acquired and the liabilities assumed. If this aggregate is lower than the fair value of the net assets acquired, the difference is recognized in profit or loss.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units. Each unit or group of units to which the goodwill is so allocated represents the lowest level within the Group at which the goodwill is monitored for internal management purpose and is not larger than an operating segment before aggregation.

Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation. Goodwill disposed of in this circumstance is measured based on the relative recoverable amounts of the operation disposed of and the portion of the cash-generating unit retained.

5. SIGNIFICANT ACCOUNTING JUDGEMENTS, ESTMATES AND ASSUMPTIONS

The preparation of the Group's consolidated financial statements require management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumption and estimate could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Judgement

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

Revenue recognition

The Group based on trading patterns and whether the economic substance were expose to the sale of goods or services related to the significant risks and rewards, to determine whether the Group should be classified as the principal of the transaction or agent. When expose to the sale of goods or services related to the significant risks and rewards, the principal of the transaction should recognize the total receivables or received economic benefit as revenue; if determine as the agent, recognize the net transaction as revenue.

The Group provides electronic manufacturing services and integrated circuit packaging and testing manufacturing services, determined as to conform to the following indicators; it is recognized as total revenue collected:

(a) has the primary responsibility to the provision of goods or services provided
(b) assumed inventory risk
(c) assumed customer's credit risk

Estimates and assumptions

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

(1) Fair value of financial instruments

Where the fair value of financial assets and financial liabilities recorded in the balance sheet cannot be derived from active markets, they are determined using valuation techniques including income approach (for example the discounted cash flows model) or market approach. Changes in assumptions about these factors could affect the reported fair value of the financial instruments. Please refer to Note 12 for more details.

(2) Pension benefits

The cost of post-employment benefit and the present value of the pension obligation under defined benefit pension plans are determined using actuarial valuations. An actuarial valuation involves making various assumptions. These include the determination of the discount rate and changes of the future salary, etc.

(3) Income tax

Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate future adjustments to tax income and expense already recorded. The Group establishes provisions, based on reasonable estimates, for possible consequences of audits by the tax authorities of the respective counties in which it operates. The amount of such provisions is based on various factors, such as experience of previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective Group company's domicile.

Deferred tax assets are recognized for all carryforward of unused tax losses and unused tax credits and deductible temporary differences to the extent that it is probable that taxable profit will be available or there are sufficient taxable temporary differences against which the unused tax losses, unused tax credits or deductible temporary differences can be utilized. The amount of deferred tax assets determined to be recognized is based upon the likely timing and the level of future taxable profits and taxable temporary differences together with future tax planning strategies.

(4) Accounts receivables—estimation of impairment loss

The Group estimates the impairment loss of accounts receivables at an amount equal to lifetime expected credit losses. The credit loss is the present value of the difference between the contractual cash flows that are due under the contract (carrying amount) and the cash flows that expects to receive (evaluate forward looking information). However, as the impact from the discounting of short-term receivables is not material, the credit loss is measured by the undiscounted cash flows. Where the actual future cash flows are lower than expected, a material impairment loss may arise. Please refer to Note 6 for more details.

(5) Inventories

Estimates of net realisable value of inventories take into consideration that inventories may be damaged, become wholly or partially obsolete, or their selling prices have declined. The estimates are based on the most reliable evidence available at the time the estimates are made. Please refer to Note 6 for more details.

6. CONTENTS OF SIGNIFICANT ACCOUNTS

(1) CASH AND CASH EQUIVALENTS

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Cash on hand	$317	$207	$308
Demand deposits	984,524	1,701,205	783,215
Total	$984,841	$1,701,412	$783,523

(2) NOTES RECEIVABLES

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Notes receivables	$140	$1,770	$2,638
Less: loss allowance	(−)	(−)	(−)
Total	$140	$1,770	$2,638

Notes receivables were not pledged.

The Group follows the requirement of IFRS 9 to assess the impairment. Please refer to Note 6. (19) for more details on loss allowance and Note 12 for details on credit risk.

(3) ACCOUNTS RECEIVABLES AND ACCOUNTS RECEIVABLES－AFFILIATES

(a) Details are as follows:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Accounts receivables	$2,470,973	$2,481,591	$2,107,943
Less: loss allowance	(31,889)	(26,267)	(11,893)
Subtotal	2,439,084	2,455,324	2,096,050
Accounts receivables - affiliates	292,524	229,557	829,403
Less: loss allowance	(−)	(−)	(3,518)
Subtotal	292,524	229,557	825,885
Total	$2,731,608	$2,684,881	$2,921,935

Accounts receivables were not pledged.

(b) Accounts receivables are generally on 30-150 day terms. The total carrying amount as of March 31, 2020, December 31, 2019 and March 31, 2019 were $2,763,637 thousand, $2,712,918 thousand and $2,939,984 thousand, respectively. Please refer to Note 6. (19) for more details on loss allowance of accounts receivables for the three-month periods ended March 31, 2020 and 2019. Please refer to Note 12 for more details on credit risk management.

(4) INVENTORIES, NET

(a) Details are as follows:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Raw materials	$1,074,250	$921,885	$1,246,694
Supplies	76,710	76,261	89,028
Work in progress	289,513	230,407	164,714
Finished goods	26,504	21,866	22,555
Total	$1,466,977	$1,250,419	$1,522,991

(b)

	For the three-month periods ended March 31	
	2020	2019
Cost of inventories sold	$3,429,518	$3,608,564
(Gain) Loss in inventory write-off	(9,175)	(6,126)
Cost of Goods Sold	$3,420,343	$3,602,438

(c) As of March 31, 2020, and 2019, inventories were insured for $13,128,838 thousand and $12,305,612 thousand, respectively.

(d) No inventories were pledged.

(5) FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME-NON-CURRENT

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Equity instrument investments measured at fair value through other comprehensive income-Non-current：			
Unlisted companies stocks	$226,860	$226,860	$234,878

The Group classified certain of its financial assets as financial assets at fair value through other comprehensive income. Financial assets at fair value through other comprehensive income were not pledged.

(6) INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

(a) The group investments accounted for using the equity method are as follows:

		Mar. 31, 2020		Dec. 31, 2019		Mar. 31, 2019	
Investee Company	Type of stock	Amount	Ownership	Amount	Ownership	Amount	Ownership
Investments in associates:							
OSE PROPERTIES, INC.	Common stock	–	39.99%	–	39.99%	–	39.99%
ATP ELECTRONICS, TAIWAN INC.	Common stock	$457,268	18.31%	$448,503	18.31%	$475,502	18.31%
INFOFAB, INC.	Common stock	9,262	13.32%	10,880	13.32%	7,569	13.52%
SCS HIGHTECH INC.	Common stock	–	18.17%	–	18.17%	–	18.17%
Total		$466,530		$459,383		$483,071	

(b) Owing to the continue loss of OSE PROPERTIES, INC., the accumulated investment loss has made the book value of long-term investment declining to zero, the company will no longer recognize the investment loss.

(c) In September 2006, shares of the investee company ATP were exchanged with ATP TAIWAN so that the Company would hold 15.13% ownership of ATP TAIWAN after the exchange. The Group had purchased 1,929 thousand shares of treasury stocks in February 2008. So, the Group held 18.31% ownership of ATP TAIWAN.

(d) Part of the shares in long-term equity investments has been pledged to the banks as securities for bank loans granted to the Group. Please refer to Note 8 for the more details.

(e) For the three-month periods ended March 31, 2020 and 2019, the related shares of investment income from the associates were $6,179 thousand and $24,808 thousand, respectively. For the three-month periods ended March 31, 2020 and 2019, the related shares of other comprehensive income from the associates were $0 and ($280) thousand, respectively, which the financial reports were not reviewed by independent accountants.

(f) The Group's investments by using the equity method are not published price quotations, which are not individually material. The aggregate financial information of the Group's investments is as follows:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Total assets	$602,655	$599,688	$704,155
Total liabilities	205,482	209,478	291,155

	For the three-month periods ended March 31	
	2020	2019
Revenue	$186,887	$289,999
Profit	6,179	24,808
Other Comprehensive income (loss)	783	342
Total Comprehensive Income	6,962	25,150

(7) PROPERTY, PLANT AND EQUIPMENT

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Owner occupied property, plant and equipment	$5,958, 902	$6,123,791	$6,690,869
Property, plant and equipment leased out under operating leases	138, 783	140,455	145,468
Total	$6,097,685	$6,264,246	$6,836,337

(a) Owner occupied property, plant and equipment

	Land and land Improvements	Buildings	Machinery and equipment	Transportation equipment	Office equipment	Other equipment	Construction in progress and equipment awaiting examination	Total
Cost:								
As of Jan. 1, 2020	—	$7,058,550	$14,439,967	$4,325	$66,912	$385,547	$93,692	$22,048,993
Additions	—	—	18	—	59	—	121,461	121,538
Disposals	—	—	(236,792)	—	—	(965)	—	(237,757)
Transfers	—	1,912	159,250	—	—	1,377	(90,593)	71,946
Exchange differences	—	—	(468)	(31)	(5)	(174)	—	(678)
As of Mar. 31, 2020	—	$7,060,462	$14,361,975	$4,294	$66,966	$385,785	$124,560	$22,004,042
Depreciation and impairment:								
As of Jan. 1, 2020	—	$4,550,028	$10,961,245	$3,805	$65,519	$344,605	—	$15,925,202
Depreciation	—	59,494	292,733	60	237	5,385	—	357,909
Impairment loss	—	—	—	—	—	—	—	—
Disposals	—	—	(236,792)	—	—	(965)	—	(237,757)
Exchange differences	—	—	(70)	(26)	(1)	(117)	—	(214)
As of Mar. 31, 2020	—	$4,609,522	$11,017,116	$3,839	$65,755	$348,908	—	$16,045,140

	Land and land Improvements	Buildings	Machinery and equipment	Transportation equipment	Office equipment	Other equipment	Construction in progress and equipment awaiting examination	Total
Cost:								
As of Jan. 1, 2019	—	$6,989,653	$16,323,320	$4,446	$67,158	$381,544	$144,197	$23,910,318
Additions	—	—	4,491	—	—	—	58,503	62,994
Disposals	—	—	—	—	(15)	(10)	—	(25)
Transfers	—	18,871	232,336	—	—	1,610	(150,626)	102,191
Exchange differences	—	—	4,782	71	121	385	14	5,373
As of Mar. 31, 2019	—	$7,008,524	$16,564,929	$4,517	$67,264	$383,529	$52,088	$24,080,851
Depreciation and impairment:								
As of Jan. 1, 2019	—	$4,327,874	$12,302,527	$3,659	$64,932	$320,402	—	$17,019,394
Depreciation	—	55,279	294,682	63	244	6,708	—	356,976
Impairment loss	—	—	1,170	—	—	—	—	1,170
Disposals	—	—	—	—	(14)	(9)	—	(23)
Transfers	—	—	8,349	—	—	—	—	8,349
Exchange differences	—	—	3,746	55	99	216	—	4,116
As of Mar. 31, 2019	—	$4,383,153	$12,610,474	$3,777	$65,261	$327,317	—	$17,389,982
Net carrying amount:								
As of Mar. 31, 2020	—	$2,450,940	$3,344,859	$455	$1,211	$36,877	$124,560	$5,958,902
As of Dec. 31, 2019	—	$2,508,522	$3,478,722	$520	$1,393	$40,942	$93,692	$6,123,791
As of Mar. 31, 2019	—	$2,625,371	$3,954,455	$740	$2,003	$56,212	$52,088	$6,690,869

(b) Property, plant and equipment leased out under operating leases

	Buildings
Cost:	
As of Jan. 1, 2020	$279,342
Additions	—
Disposals	—
As of Mar. 31, 2020	$279,342
Depreciation and impairment:	
As of Jan. 1, 2020	$138,887
Depreciation	1,672
Disposals	—
As of Mar. 31, 2020	$140,559
Cost:	
As of Jan. 1, 2019	$279,342
Additions	—
Disposals	—
As of Mar. 31, 2019	$279,342
Depreciation and impairment:	
As of Jan. 1, 2019	$132,203
Depreciation	1,671
Disposals	—
As of Mar. 31, 2019	$133,874
Net carrying amounts:	
As of Mar. 31, 2020	$138,783
As of Dec. 31, 2019	$140,455
As of Mar. 31, 2019	$145,468

(c) Affects both the cash and non-cash items of investing activities：

Item	For the three-month periods end March 31 2020	2019
Acquisition of property, plant, and equipment expenditure:		
Increase of property, plant and equipment	$193,484	$131,744
Increase (Decrease) of prepayment for equipment	22,167	(25,679)
(Increase) Decrease of payables on equipment	(5,364)	47,129
Cash expenditure	$210,287	$153,194

(d) Details of capitalized borrowing costs are as follows:

Item	For the three-month periods end March 31 2020	2019
Prepayments for equipment	$1,145	$2,200
Capitalisation rate of borrowing costs	2.81%～3.02%	3.79%～3.95%

(e) As of March 31, 2020, and 2019, fixed assets were insured for $10,377,033 thousand and $11,615,944 thousand, respectively.

(f) Please refer to Note 8 for more details on property, plant and equipment under pledge.

(8) INVESTMENT PROPERTY

	Buildings
Cost：	
As of Jan. 1, 2020	$616,569
Additions	—
Exchange difference	3,075
As of Mar. 31, 2020	$619,644
As of Jan. 1, 2019	$670,447
Additions	—
Exchange difference	1,964
As of Mar. 31, 2019	$672,411

	Buildings
Depreciation and impairment:	
As of Jan. 1, 2020	$176,136
Depreciation	5,979
Exchange difference	876
As of Mar. 31, 2020	$182,991
As of Jan. 1, 2019	$188,828
Depreciation	6,081
Exchange difference	511
As of Mar. 31, 2019	$195,420
Net carrying amount：	
As of Mar. 31, 2020	$436,653
As of Dec. 31, 2019	$440,433
As of Mar. 31, 2019	$476,991

No investment properties were pledged.

The fair value of investment property is $489,247 thousand, $486,819 thousand and $504,945 thousand as of March 31, 2020, December 31, 2019 and March 31, 2019, respectively. The fair value has been determined based on valuations performed by an independent appraiser and on transactions observable in the market. The investment property has no rent revenue.

(9) INTANGIBLE ASSETS

(a) As of March 31, 2020, December 31, 2019 and March 31, 2019, the cost of the computer software, original cost, accumulated amortization and amount of amortization in the book of the Group is listed as below:

	Computer software
Cost:	
As of Jan. 1, 2020	$377,535
Addition	6,462
Transfer	7,210
Other changes	(3)
Exchange differences	—
As of Mar. 31, 2020	$391,204
As of Jan. 1, 2019	$343,374
Addition	—
Transfer	534
Other changes	(3)
Exchange differences	—
As of Mar. 31, 2019	$343,905

	Computer software
Amortization and impairment:	
As of Jan. 1, 2020	$319,090
Amortization	15,489
Exchange differences	3
As of Mar. 31, 2020	$334,582
As of Jan. 1, 2019	$253,741
Amortization	14,051
Exchange differences	(8)
As of Mar. 31, 2019	$267,784
Net carrying amount as of:	
Mar. 31, 2020	$56,622
Dec. 31, 2019	$58,445
Mar. 31, 2019	$76,121

(b) Amortization expense of intangible assets under the statement of comprehensive income:

	For the three-month periods ended March 31	
	2020	2019
Operating costs	$7,723	$7,940
Operating expenses	$7,766	$6,111

(10) PREPAYMENTS

Details are as follows:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Current assets－prepayments :			
Prepaid expenses	$45,724	$46,696	$53,964
Other prepayments	7,325	6,426	6,400
Total	$53,049	$53,122	$60,364
Non-current assets－prepayments for equipment :			
Prepayment for equipment	$164,868	$151,901	$154,141

(11) LONG-TERM RECEIVABLES-AFFILIATES

(a) Details are as follows:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Loan receivables -PROPERTIES	$93,781	$93,315	$95,580
Less: loss allowance	(－)	(－)	(－)
Net	$93,781	$93,315	$95,580

(b) OSE PHILIPPINES, INC. lent USD 4,387 thousand to OSE PROPERTIES Inc. in July 31, 1996. OSE PROPERTIES Inc. disposed of part of the land and returned USD 1,285 thousand in the first quarter of 2015. The principal was USD 3,102 thousand as of March 31, 2020. The interest rates for the three-month periods ended March 31, 2020 and 2019 were both 2.50%. The contract periods were 10 years and may be extended to another 10 years, if necessary.

(12) SHORT-TERM LOANS

(a) Details are as follows:

Items	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
L/C	$359,386	$315,900	$656,505
Unsecured bank loans	1,959,747	2,057,866	1,672,690
Mortgage loans on machine and equipment	－	－	78,937
Total	$2,319,133	$2,373,766	$2,408,132

(b) The ranges of interest rates and the due dates:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Ranges of interest rates	1.54％～3.26％	1.55％～3.17％	1.06％～4.18％
Due dates	May 9, 2020～ January 17, 2021	January 9, 2020～ December 17, 2020	April 24, 2019～ January 30, 2020

(c) As of March 31, 2020, December 31, 2019 and March 31, 2019, the Group’s unused short-term lines of credit amount to $1,535,781 thousand, $1,394,036 thousand and $916,263 thousand, respectively.

(d) Part of property, plant and equipment, stocks, time deposits, and deposits reserved for repayment are pledged as security for the Group’s short-term borrowings. Please refer to Note 8 for more details.

(13) SHORT-TERM NOTES PAYABLE

(a) Details are as follows:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Par value of commercial papers	$250,000	$380,000	$350,000
Less: Discount for short-term notes payable	(254)	(790)	(1,056)
Net	$249,746	$379,210	$348,944

(b) The ranges of interest rates and the due dates:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Range of interest rates	1.780%	1.788%～1.858%	1.988%～2.118%
Due dates	April 17, 2020～ May 11, 2020	January 9, 2020～ February 27, 2020	April 22, 2019 ～ June 17, 2019

(14) LONG-TERM LOANS

(a) Details are as follows:

Items	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Mortgage loans	$2,003,381	$2,095,326	$3,229,368
Less: Due within one year	(1,081,455)	(1,190,490)	(1,292,162)
Net	$921,926	$904,836	$1,937,206

(b) The ranges of interest rates and the due dates:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Range of interest rates	1.49%～1.99%	1.80%～3.30%	1.80%～4.60%
Due dates	October 31, 2020～ August 15, 2023	October 31, 2020～ August 15, 2023	June 28, 2019～ August 15, 2023

(c) Part of property, plant and equipment, and deposits reserved for repayment are pledged as security for the Group’s long-term borrowings. Please refer to Note 8 for more details.

(15) POST-EMPLOYMENT BENEFITS

(a) Defined contribution plan

Expenses under the defined contribution plan for the three-month periods ended March 31, 2020 and 2019 are $28,677 thousand and $27,553 thousand, respectively.

(b) Defined benefits plan

Expenses under the defined benefits plan for the three-month periods ended March 31, 2020 and 2019 are $15,259 thousand and $14,987 thousand, respectively.

(16) EQUITY

(a) Common stock

i. The Company had increased capital by cash by $1,800,000 thousand with par value $10 per share and issued price $9.2 on May 30, 2007. The rights and obligations of new shares by private placement are the same as those of common shares. Ownership of shares by private placement cannot be transferred to others within three years since issuance per Security and Exchange regulations.

ii. The board of directors of the Company agreed on June 21, 2011 to increase capital by issuing common stocks for cash in order to repay loan and improve the Company financial structure. A total of 200,000 thousand shares of common stocks, with face value of $10 per share, will be issued for a total of $2,000,000 thousand. Approval has been granted by Financial Supervisory Commission on July 22, 2011 by Doc No. 1000030977. In the event of existing shareholders or employees forfeiting purchasing rights or the event of shortage of subscription of share, the board of directors will authorize the chair of directors to contact a designated person for purchases. As of August 2, 2011, the board of directors agreed stocks will be issued with the issuance price of NTD 6.4 per share with the official issuance date of September 5, 2011. As of September 19, 2011, registration for the issuance of new stocks is complete.

iii. The Board of shareholders' meeting of the Company agreed on June 29, 2018 to reduce capital $2,536,873 thousand for cover accumulated deficits in order to improve the Company's financial structure. The ratio of reduction capital was 31.4742285%, and it was declared effective by Financial Supervisory Commission on August 8, 2018. The record date for reverse split was at September 30, 2018, and the amendment of registration was completed at October 8, 2018.

iv. To reward employees, the Board of shareholders' meeting of the Company agreed on June 29 ,2018 to issue restricted stocks for employees by $50,000 thousand of common stock with par value $10 per share, and it was declared effective by Financial Supervisory Commission on June 10, 2019. The record date for capital increase was at November 25, 2019, and the amendment of registration was completed at December 10, 2019.

v. As of March 31, 2020, December 31, 2019 and March 31, 2019, the authorized capitals were $20,000,000 thousand. Issued capital were $5,573,285 thousand, $5,573,285 thousand, and $5,523,285 thousand, with 557,328,533 shares, 557,328,533 shares and 552,328,533 shares respectively. Each share is at a par value of NT$10.

(b) Additional paid-in capital

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Form shares of changes in equities of subsidiaries	$5,717	$5,717	$5,833
The differences between the fair value of consideration paid or received from acquiring or disposing subsidiaries and the carrying amounts of the subsidiaries	16,940	16,940	16,940
Share of changes in net assets of associates and joint ventures accounted for using the equity method	(2,675)	(2,675)	(2,659)
Restricted stocks for employees	25,729	25,729	—
Total	$45,711	$45,711	$20,114

i. According to the Company Act, the capital reserve shall not be used except for making good the deficit of the company. When a company incurs no loss, it may distribute the capital reserves related to the income derived from the issuance of new shares at a premium or income from endowments received by the company. The distribution could be made in cash or in the form of dividend shares to its shareholders in proportion to the number of shares being held by each of them. Additional paid-in capital arising from long-term equity investment cannot be used for any purpose.

ii. According to the prevailing laws and regulations, each year, the amount of capital increase transferred from capital reserve arising from premiums on issuance of capital stock and donations cannot exceed 10% of the Company's total issued capital.

(c) Retained earnings and dividend policies

According to the Company's original Articles of Incorporation, current year's earnings, if any, shall be distributed in the following order:

i. Payment of all taxes and dues;
ii. Offset prior years' operation losses;
iii. Set aside 10% of the remaining amount as legal reserve;
iv. Set aside or reverse special reserve in accordance with the requirements for operating and law and regulations;
v. The remaining balance combined with the undistributed earnings accumulated during previous years shall be distributed to the shareholders as dividends.

The Company shall take into account the changing environment of the industry and development stage of the Company in meeting the needs of capital in the future and in establishing long-term financial planning together with satisfying the shareholders' demand for cash. The earnings distributed for the current year shall not be lower than 10% of accumulated distributable earnings and shall not be distributed if the accumulated distributable earnings is lower than 1% of contributed capital. Cash dividends distributed shall not be lower than 10% of the dividends distributed.

According to the Company Act, the Company needs to set aside amount to legal reserve unless where such legal reserve amounts to the total authorized capital. The legal reserve can be used to make good the deficit of the Company. When the Company incurs no loss, it may distribute the portion of legal serve which exceeds 25% of the paid-in capital by issuing new shares or by cash in proportion to the number of shares being held by each of the shareholders.

Following the adoption of TIFRS, the FSC on April 6, 2012 issued Order No. Financial-Supervisory-Securities-Corporate-1010012865, which sets out the following provisions for compliance:
On a public company's first-time adoption of the TIFRS, for any unrealized revaluation gains and cumulative translation adjustments (gains) recorded to shareholders' equity that the company elects to transfer to retained earnings by application of the exemption under IFRS 1, the company shall set aside an equal amount of special reserve. Following a company's adoption of the TIFRS for the preparation of its financial reports, when distributing distributable earnings, it shall set aside to special reserve, from the profit/loss of the current period and the undistributed earnings from the previous period, an amount equal to "other net deductions from shareholders' equity for the current fiscal year, provided that if the company has already set aside special reserve according to the requirements in the preceding point, it shall set aside supplemental special reserve based on the difference between the amount already set aside and other net deductions from shareholders' equity. For any subsequent reversal of other net deductions from shareholders' equity, the amount reversed may be distributed.

Details of 2019 and 2018 earnings distribution and dividends per share as approved and resolved by the board of directors' meeting and shareholders' meeting on March 27, 2020 and June 18, 2019, respectively, are as follows:

	Appropriation of earnings		Dividend per share (NT $)	
	2019	2018(Note)	2019	2018(Note)
Legal reserve	$53,719	－		
Special reserve	18,729	－		
Cash dividends	82,849	－	$0.15	－

(Note)：The Company still had accumulated deficit in 2018. As a result, the Company did not distribute earnings.

Please refer to Note 6. (21) for further details on employees' compensation and remuneration to directors.

(17) SHARE-BASED PAYMENT PLANS

Restricted stocks plan for employees

The Company issued restricted stocks for employees on November 25, 2019 at $0 per share in the amount of $50,000 thousand, totaling 5,000 thousand shares. The share price at grant date was $15.8 per share.

Restriction on the rights and vesting conditions of restricted stocks for employees is as follows:

a. The restricted stock awards the employees will obtain was kept by the designated trust institution as trustee, which the employee cannot request to return the restricted stock awards for any reasons or ways.
b. Before accomplishing the vesting conditions, the employee cannot sell, pledge, transfer, gift, set or dispose in other ways, and they have no right to be allotted or obtaining dividends. Other rights are similar with the capital that has been issued.
c. Before the employee accomplish the vesting conditions, the attendance, proposal, speaking, right of voting, and other matters associated with shareholders meeting were executed based on the trust custody contracts.
d. From the book closure date of issuance of bonus shares, cash dividends, issuance of common stock for cash, shareholders meeting regulated by Article 165-3 of company law, or other facts that has occurred to the date of rights allocation. The unrestricted stocks of the employees that have accomplished the vesting conditions during the aforementioned period still have no rights to obtain dividends or allotment.

For the three-month periods ended March 31, 2020, the Company incurred expenses of $10,776 thousand for the share-based payment transactions.

(18) OPERATING REVENUE

The detail are as follow:

	For the three-month periods ended March 31	
	2020	2019
Revenue from contracts with customers		
Sales of IC packaging and testing service	$2,051,517	$2,312,746
Sales of electronics manufacturing service	1,473,446	1,492,555
Other operating revenue	117,570	90,671
Total	$3,642,533	$3,895,972

(a) Disaggregation of revenue

For the three-month periods ended March 31, 2020	Semiconductor Group	EMS Group	Total
Sales of IC packaging and testing service	$2,051,517	－	$2,051,517
Sales of electronics manufacturing service	－	$1,473,446	1,473,446
Other operating revenue	76,375	41,195	117,570
Total	$2,127,892	$1,514,641	$3,642,533
Timing of revenue recognition:			
Over time	$2,051,517	－	$2,051,517
At a point in time	76,375	$1,514,641	1,591,016
Total	$2,127,892	$1,514,641	$3,642,533

For the three-month periods ended March 31, 2019	Semiconductor Group	EMS Group	Total
Sales of IC packaging and testing service	$2,312,746	－	$2,312,746
Sales of electronics manufacturing service	－	$1,492,555	1,492,555
Other operating revenue	70,837	19,834	90,671
Total	$2,383,583	$1,512,389	$3,895,972
Timing of revenue recognition:			
Over time	$2,312,746	－	$2,312,746
At a point in time	70,837	$1,512,389	1,583,226
Total	$2,383,583	$1,512,389	$3,895,972

(b) Contract balances

i. Contract assets-current

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Sales of IC packaging and testing service	$245,772	$302,982	$259,800

As of March 31, 2020, and 2019, the Group does not have an unconditional right to receive the consideration in the contract and transferred to accounts receivables at the reporting date were $245,772 thousand and $259,800 thousand, respectively.

ii. Contract liabilities-current

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Sales of goods	$27,185	$29,439	$7,319

As of March 31, 2020 and 2019, the Group recognized $3,200 thousand and $4,070 thousand, respectively, in revenues from the contract liabilities balance at the beginning of the period.

iii. Transaction price allocated to unsatisfied performance obligations

None.

iv. Assets recognized from costs to fulfil a contract

None.

(19) EXPECTED CREDIT LOSSES / (GAINS)

	For the three-month periods ended March 31	
	2020	2019
Operating expenses-expected credit losses / (gains)		
Accounts receivable and contract assets	$5,622	($3,118)
Non-operating income and expenses -expected credit (gains)		
Other receivable	(517)	—
Total	$5,105	($3,118)

Please refer to Note 12 for more details on credit risk.

The Group measures the loss allowance of its contract assets and accounts receivables at an amount equal to lifetime expected credit losses. The assessment of the Group's loss allowance as of March 31, 2020 and 2019 are as follow:

The Group considers the grouping of contract assets and accounts receivables by counterparties' credit rating, by geographical region and by industry sector and its loss allowance is measured by using a provision matrix, details are as follow:

As of March 31, 2020

Semiconductor Group

		Overdue					
	Not yet due (Note)	Within 30 days	31-60 days	61-90 days	91-180 days	After 181 days	Total
Gross carrying amount	$1,699,708	$183,687	$3,642	$13,183	$1,870	$10,021	$1,912,111
Loss ratio	0%~0.35%	0%~2.13%	0%~19.86%	50.03%	75.14%	100%	
Lifetime expected credit losses	3,331	3,739	988	6,633	1,405	10,021	26,117
Carrying amount of trade receivables	$1,696,377	$179,948	$2,654	$6,550	$465	—	$1,885,994

EMS Group

		Overdue					
	Not yet due (Note)	Within 30 days	31-60 days	61-90 days	91-180 days	After 181 days	Total
Gross carrying amount	$1,019,824	$65,121	$4,029	$3,241	$2,134	$2,949	$1,097,298
Loss ratio	0%~0.06%	0.03%~2.06%	6.36%~7.34%	9.20%~11.09%	24.06%~40.62%	100%	
Lifetime expected credit losses	597	1,129	256	302	539	2,949	5,772
Carrying amount of trade receivables	$1,019,227	$63,992	$3,773	$2,939	$1,595	—	$1,091,526

As of December 31, 2019

Semiconductor Group

		Overdue					
	Not yet due (Note)	Within 30 days	31-60 days	61-90 days	91-180 days	After 181 days	Total
Gross carrying amount	$1,613,762	$131,993	$11,053	$11,059	$5,995	$4,139	$1,778,001
Loss ratio	0%~0.35%	0%~2.13%	0%~19.86%	0%~50.03%	0%~69.01%	100%	
Lifetime expected credit losses	3,121	2,608	2,160	5,533	4,137	4,139	21,698
Carrying amount of trade receivables	$1,610,641	$129,385	$8,893	$5,526	$1,858	—	$1,756,303

EMS Group

	Not yet due (Note)	Overdue Within 30 days	31-60 days	61-90 days	91-180 days	After 181 days	Total
Gross carrying amount	$1,151,163	$50,356	$24,111	$8,818	$2,009	$1,442	$1,237,899
Loss ratio	0%~0.04%	0%~1.55%	0%~4.01%	0%~14.05%	0%~25%	100%	
Lifetime expected credit losses	458	714	769	804	382	1,442	4,569
Carrying amount of trade receivables	$1,150,705	$49,642	$23,342	$8,014	$1,627	—	$1,233,330

As of March 31, 2019

Semiconductor Group

	Not yet due (Note)	Overdue Within 30 days	31-60 days	61-90 days	91-180 days	After 181 days	Total
Gross carrying amount	$1,940,254	$167,781	$47,464	$114	$6,861	$3,785	$2,166,259
Loss ratio	0%~0.22%	0%~2.89%	0%~16.14%	0%~58.26%	0.01%~80.53%	100%	
Lifetime expected credit losses	1,855	1,189	6,216	—	1,317	3,785	14,362
Carrying amount of trade receivables	$1,938,399	$166,592	$41,248	$114	$5,544	—	$2,151,897

EMS Group

	Not yet due (Note)	Overdue Within 30 days	31-60 days	61-90 days	91-180 days	After 181 days	Total
Gross carrying amount	$1,000,766	$26,853	$4,969	$375	$406	$156	$1,033,525
Loss ratio	0%~0.01%	0%~0.17%	0%~10.03%	0%~23.40%	0%~49.75%	100%	
Lifetime expected credit losses	98	31	498	88	178	156	1,049
Carrying amount of trade receivables	$1,000,668	$26,822	$4,471	$287	$228	—	$1,032,476

(Note): The Group’s note receivables are not overdue.

The movement in the provision for impairment of contract assets, note receivables and trade receivables during the three-month periods ended March 31, 2020 and 2019 is as follows:

	Contract assets	Notes receivables	Accounts receivables
Bal. as of Jan. 1, 2020	–	–	$26,267
Addition/(reversal) for the current period	–	–	5,622
Exchange differences	–	–	–
Bal. as of Mar. 31, 2020	–	–	$31,889
Bal. as of Jan. 1, 2019	–	–	$18,529
Addition/(reversal) for the current period	–	–	(3,118)
Exchange differences	–	–	–
Bal. as of Mar. 31, 2019	–	–	$15,411

(20) LEASES

A. Group as a lessee

The Group leases various properties, including real estate such as land and buildings, transportation equipment and other equipment. The lease terms range from 3 to 51 years.

The Group's leases effect on the financial position, financial performance and cash flows are as follow:

(a) Amounts recognized in the balance sheet

I. Right-of-use assets

The carrying amount of right-of-use assets

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Land	$238,152	$217,504	$206,382
Buildings	24,813	27,550	15,504
Transportation equipment	7,632	8,793	9,758
Other equipment	–	–	95
Total	$270,597	$253,847	$231,739

During the three-month period ended March 31, 2020 and 2019, the Group's additions to right-of-use assets amounting to $24,008 thousand and $0, respectively.

II. Lease liabilities

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Current	$27,289	$25,725	$24,458
Non-current	233,404	218,681	207,897
Lease liabilities	$260,693	$244,406	$232,355

Please refer to Note (6).22(c) for the interest on lease liabilities recognized during the three-month period ended March 31, 2020 and 2019 and refer to Note (12).5 Liquidity Risk Management for the maturity analysis for lease liabilities as of March 31, 2020 and 2019.

(b) Amounts recognized in the statement of profit or loss

Depreciation charge for right-of-use assets

	For the three-month periods ended March 31	
	2020	2019
Land	$3,694	$3,804
Buildings	2,607	2,627
Transportation equipment	1,161	1,098
Other equipment	—	657
Total	$7,462	$8,186

(c) Income and costs relating to leasing activities

	For the three-month periods ended March 31	
	2020	2019
The expenses relating to short-term leases	$2,447	$3,030
The expenses relating to leases of low-value assets (Not including the expenses relating to short-term leases of low-value assets)	865	771

(d) Cash outflow relating to leasing activities

During the three-month period ended March 31, 2020 and 2019, the Group’s total cash outflows for leases amounting to $10,143 thousand and $9,071 thousand, respectively.

B. Group as a lessor

Leases of owned investment properties are classified as operating leases as they do not transfer substantially all the risks and rewards incidental to ownership of underlying assets.

	For the three-month periods ended March 31	
	2020	2019
Lease income for operating leases		
Income relating to fixed lease payments and variable lease payments that depend on an index or a rate	$6,262	$6,278

Please refer to Note 6. (7) for relevant disclosure of property, plant and equipment for operating leases under IFRS 16. For operating leases entered by the Group, the undiscounted lease payments to be received and a total of the amounts for the remaining years as of March 31, 2020 and 2019 are as follow:

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Not later than one year	$23,346	$24,092	$24,557
Later than one year but not later than two years	21,470	21,610	23,311
Later than two years but not later than three years	9,993	14,296	21,470
Later than three years but not later than four years	4,254	4,254	9,993
Later than four years but not later than five years	2,127	3,191	4,254
Later than five years	—	—	2,127
Total	$61,190	$67,443	$85,712

(21) SUMMARY STATEMENTS OF EMPLOYEE BENEFITS, DEPRECIATION AND AMORTIZATION EXPENSES BY FUNCTION

	For the three-month periods ended March 31					
	2020			2019		
	Operating costs	Operating expenses	Total amount	Operating costs	Operating expenses	Total amount
Employee benefits expense						
Salaries	$600,402	$113,016	$713,418	$645,133	$104,272	$749,405
Pension	36,537	7,399	43,936	35,800	6,740	42,540
Labor and health insurance	72,037	12,812	84,849	73,036	11,348	84,384
Other employee benefits expense	41,089	12,818	53,907	41,382	13,859	55,241
Depreciation	348,753	24,647	373,400	351,402	21,889	373,291
Amortization	7,723	7,766	15,489	7,940	6,111	14,051

According to the resolution, the employee’s compensation and remuneration to directors is based on the current year’s earnings, which should be used first to cover accumulated deficit, if any, and then the remaining balance shall be distributed: 8%~12% as employees’ compensation, and no more than 3% as remuneration to directors.

The distribution ratio of employee's compensation and remuneration to directors and employee's compensation may be made in the form of stocks or cash, which shall be determined by a resolution adopted by a majority vote at a board of directors meeting attended by two-thirds or more of the directors and be reported at a shareholders' meeting. Cash or stock dividends as bonus to employees shall only be given to employees who satisfy certain conditions.

Based on the profit of the three-month periods ended March 31, 2020, the Company estimated the employees' compensation and remuneration to directors amounts to $953 thousand and $179 thousand, respectively, recognized as salary expense. Based on the profit of the three-month periods ended 31, 2019, the Company estimated the employees' compensation and remuneration to directors amounts to $2,900 thousand and $0, respectively, recognized as salary expense.

A resolution was passed at a Board of Directors meeting held on March 27, 2020 to distribute $60,921 thousand and $11,423 thousand in cash as employees' compensation and remuneration to directors of 2019, respectively. No material differences exist between the estimated amount and the actual distribution of the employee compensation and remuneration to directors for the year ended December 31,2019.

As of March 31, 2020 and 2019, the total number of employees of the Group were 6,521 and 7,292, respectively.

Information on the Board of Directors' resolution regarding the employees' compensation and remuneration to directors can be obtained from the "Market Observation Post System" on the website of the TWSE.

(22) NON-OPERATING INCOME AND EXPENSES

(a) Other income

	For the three-month periods ended March 31	
	2020	2019
Rental income	$6,262	$6,278
Interest income	1,120	967
Other income	9,107	5,499
Total	$16,489	$12,744

(b) Other gains and losses

	For the three-month periods ended March 31	
	2020	2019
Gains on disposal of property, plant and equipment	$864	$81
Foreign exchange gains (losses), net	14,965	(1,067)
Losses on impairment of property, plant and equipment	–	(1,170)
Other losses	(214)	(39)
Total	$15,615	($2,195)

(c) Finance costs

	For the three-month periods ended March 31	
	2020	2019
Interest on borrowings from bank	($20,267)	($31,626)
Interest on lease liabilities	(1,362)	(1,333)
Interest on borrowings from others	(170)	(9)
Total	($21,799)	($32,968)

(23) COMPONENTS OF OTHER COMPREHENSIVE INCOME

For the three-month periods ended Mar. 31, 2020

	Arising during the period	Reclassification adjustments during the period	Other comprehensive income, before tax	Income tax relating to components of other comprehensive income	Other comprehensive income, net of tax
Items that may be reclassified subsequently to profit or loss:					
Exchange differences arising on translating of foreign operation	$2,411	—	$2,411	($482)	$1,929

For the three-month periods ended Mar. 31, 2019

	Arising during the period	Reclassification adjustments during the period	Other comprehensive income, before tax	Income tax relating to components of other comprehensive income	Other comprehensive income, net of tax
Items that may be reclassified subsequently to profit or loss:					
Exchange differences arising on translating of foreign operation	$4,921	—	$4,921	($984)	$3,937
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	(280)	—	(280)	—	(280)
Total of other comprehensive income	$4,641	—	$4,641	($984)	$3,657

(24) INCOME TAX

A. The major components of income tax (expense) are as follows:

(a) Income tax (expense) income recognized in profit or loss

	For the three-month periods ended March 31	
	2020	2019
Current income tax (expense):		
Current income tax charge	($31)	($8)
Deferred tax (expense):		
Deferred tax (expense) relating to origination and reversal of temporary differences	(5,643)	(6,985)
Deferred tax income (expense) relating to origination and reversal of tax loss and tax credit	3,583	(5,869)
Total income tax (expense)	($2,091)	($12,862)

(b) Income tax relating to components of other comprehensive income

	For the three-month periods ended March 31	
	2020	2019
Deferred tax (expense):		
Exchange differences on translation of foreign operations	($482)	($984)

B. The assessment of income tax returns

As of March 31, 2020, the assessment of the income tax returns of the Company is as follows:

	The assessment of income tax returns
The Company	Assessed and approved up to 2017

(25) EARNINGS PER SHARE

Basic earnings per share amounts are calculated by dividing net profit for the year attributable to ordinary equity holders of the parent entity by the weighted average number of ordinary shares outstanding during the year.

Diluted earnings per share amounts are calculated by dividing the net profit attributable to ordinary equity holders of the parent (after adjusting for interest on the convertible bonds payable) by the weighted average number of ordinary shares outstanding during the period plus the weighted average number of ordinary shares that would be issued on conversion of all the dilutive potential ordinary shares into ordinary shares.

	For the three-month periods ended March 31	
	2020	2019
(a) Basic earnings per share		
Profit attributable to ordinary equity holders of the Company (in thousand NT$)	$8,417	$65,318
Weighted average number of ordinary shares outstanding for basic earnings per share (in thousands)	552,329	552,329
Basic earnings per share (NT$)	$0.02	$0.12

	For the three-month periods ended March 31	
	2020	2019
(b) Diluted earnings per share		
Profit attributable to ordinary equity holders of the Company (in thousand NT$)	$8,417	$65,318
Weighted average number of ordinary shares outstanding for basic earnings per share (in thousands)	552,329	552,329
Effect of dilution:		
Employee compensation－stock (in thousands)	98	182
Weighted average number of ordinary shares outstanding after dilution (in thousands)	552,427	552,511
Diluted earnings per share (NT$)	$0.02	$0.12

There have been no other transactions involving ordinary shares or potential ordinary shares between the reporting date and the date of completion of the financial statements.

7. RELATED PARTY TRANSACTIONS

Information of the related parties that had transactions with the Group during the financial reporting period is as follows:

Name of the related parties	Nature of relationship of the related parties
ATP Electronics Taiwan Inc. (ATP)	Associate
INFOFAB, INC.(INFOFAB)	Associate
OSE PROPERTIES, INC.(PROPERTIES)	Associate
ACTIONTEC ELECTRONICS, INC.(ACTIONTEC)	Other related party
SCREENBEAM, INC.(SCREENBEAM)	Other related party
InfoAction Technology, Inc. (INFOACTION)	Other related party
GOLFWARE INC.(GOLFWARE)	Other related party
Phison Electronics Corporation (PHISON)	Legal Director of the Company
Longsys Electronics (TAIWAN) Co., Ltd. (LONGSYS)	Legal Director of the Company (No longer listed as a related party in the third quarter in 2019)
Longsys Electronics (HK) Co., Ltd. (LONGSYS)	Associate of Legal Director of the Company (No longer listed as a related party in the third quarter in 2019)

(1) Significant transactions with related parties:

(a) Sales

	For the three-month periods ended March 31	
	2020	2019
ATP	$62,987	$56,020
PHISON	495,670	575,629
LONGSYS	—	314,791
Other related party	2,472	3,341
Total	$561,129	$949,781

The sales price to the above related parties was determined through mutual agreement based on the market rates. The details of credit period are 30～60 days. The outstanding balance at March 31, 2020 and 2019 was unsecured, non-interest bearing and must be settled in cash. The receivables from the related parties were not guaranteed.

(b) Purchase

	For the three-month periods ended March 31	
	2020	2019
PHISON	—	$74
INFOACTION	$1,450	416
Total	$1,450	$490

The purchase price to the above related parties was determined through mutual agreement based on the market rates. The payment terms from the related party suppliers are comparable with third party suppliers.

(c) Accounts Receivable

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
ATP	$49,004	$32,904	$39,126
PHISON	241,048	194,116	432,477
LONGSYS	—	—	354,459
Other related parties	2,472	2,537	3,341
Less: loss allowance	(—)	(—)	(3,518)
Total	$292,524	$229,557	$825,885

(d) Other Receivable

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Associates	$1,303	$2,778	$1,099
PHISON	6	—	10,375
LONGSYS	—	—	2,331
PROPERTIES	47,237	47,657	47,021
Total	$48,546	$50,435	$60,826

(e) Accounts Payable

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
INFOFAB (Note)	$15,705	$36,587	$30,972
Key management personnel of the Group	815	70	32
Other related parties	1,294	1,826	422
Total	$17,814	$38,483	$31,426

(Note): The payments are the purchase of computer software.

(f) Lease - related parties

Rental income

	For the three-month periods ended March 31	
	2020	2019
ATP	$1,065	$1,065
INFOFAB	735	735
Other related parties	11	11
Total	$1,811	$1,811

(g) Transaction of properties

For the three-month periods ended March 31, 2020:

Counterparty	Property	Amount	Gain (loss) on sales of assets	The basis of transaction price
Purchase				
INFOFAB	Computer software	$7,023	Not applicable	Negotiate

For the three-month periods ended March 31, 2019

Counterparty	Property	Amount	Gain (loss) on sales of assets	The basis of transaction price
Purchase				
INFOFAB	Other equipment	$1,450	Not applicable	Negotiate
INFOFAB	Computer software	534	Not applicable	Negotiate
	Total	$1,984		

(h) Intercompany borrowing

Related parties	Mar. 31, 2020 Maximum amount	Amount	Interest rates	Interest income (expense)
Amount lent to: (included in long-term receivables-affiliates accounts)				
PROPERTIES	$93,781 (USD 3,102 thousand)	$93,781 (USD 3,102 thousand)	2.50%	$2,346

Related parties	Dec. 31, 2019 Maximum amount	Amount	Interest rates	Interest income (expense)
Amount lent to: (included in long-term receivables-affiliates accounts)				
PROPERTIES	$93,315 (USD 3,102 thousand)	$93,315 (USD 3,102 thousand)	2.50%	$2,384

Related parties	Mar. 31, 2019 Maximum amount	Amount	Interest rates	Interest income (expense)
Amount lent to: (included in long-term receivables-affiliates accounts)				
PROPERTIES	$95,580 (USD 3,102 thousand)	$95,580 (USD 3,102 thousand)	2.50%	$2,386

(i) Compensation of key management personnel

	For the three-month periods ended March 31	
	2020	2019
Short-term employee benefits	$10,030	$8,940
Post-employment benefits	243	197
Share-Based Payment	1,065	—
Total	$11,338	$9,137

For details of total compensation paid to the Company’s key management personnel, please refer to the annual report for the Company.

(j) Other disclosures

i. As of March 31, 2020, and 2019, interest receivables from PROPERTIES amounted to $47,237 thousand and $47,021 thousand, respectively, which were included in other receivable-affiliates accounts.

ii. PROPERTIES had borrowed USD$3,102 thousand from subsidiary and provided all of real estates to trust as the mortgage for financing bank.

iii. For the three-month periods ended March 31, 2020 and 2019, the Group paid $0 and $2 thousand, $7,290 thousand and $318 thousand service fees to maintain information system of INFOFAB, respectively, which are accounted for as maintenance expenses and computer operating expenses.

8. ASSETS PLEDGED AS SECURITY

The following table lists assets of the Group pledged as security:

	Carrying amount			
Assets pledged as security	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019	Secured liabilities details
Other financial assets–current–time deposits	$3,628	$46,214	$108,047	Short & Long-term borrowings
Other financial assets–current–deposits reserved for repayment	77,262	108,012	175,236	Short & Long-term borrowings
Investments accounted for using the equity method –ATP	395,949	388,360	411,738	Short-term borrowings
Property, plant and equipment–Buildings	852,800	860,389	883,168	Short & Long-term borrowings
Property, plant and equipment–Machinery and equipment	1,906,771	2,096,755	3,159,888	Short & Long-term borrowings
Property, plant and equipment–Leased assets	–	–	95	Short & Long-term borrowings
Property, plant and equipment–Assets leased to others–Buildings	137,587	139,225	144,139	Long-term borrowings
Refundable deposits-time deposits	131,500	131,500	155,500	Customs Guarantee or others
Total	$3,505,497	$3,770,455	$5,037,811	

9. COMMITMENTS AND CONTINGENCIES

(1) Guarantee given by the bank for the payment of input tax imposed for sales from a tax free zone to non-tax free zone amounted to $400,000 thousand.
(2) The Company issued promissory notes of $6,831,578 thousand as guarantees for bank loans.
(3) The Company issued promissory notes of $6,460 thousand as guarantees for payments of raw materials and machineries purchased.

(4) The Company issued promissory notes of $1,428 thousand as guarantee for project.

(5) The Company has acted as a subcontractor for processing electronic products and provided storage services for outsiders. As of March 31, 2020, the Company kept the processed electronic products of $15,060,624 thousand and raw materials of $756,180 thousand on custodian.

(6) As of March 31, 2020, the Company had opened an unused letter of credit amounting to USD 480 thousand.

10. LOSSES DUE TO MAJOR DISASTERS

None.

11. SIGNIFICANT SUBSEQUENT EVENTS

None.

12. FINANCIAL INSTRUMENTS

(1) Categories of financial instruments

Financial assets

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Financial assets at fair value through other comprehensive income	$226,860	$226,860	$234,878
Financial assets measured at amortized cost:			
Cash and cash equivalents (exclude cash on hand)	984,524	1,701,205	783,215
Notes, accounts and other receivables	2,805,919	2,768,130	3,015,047
Other financial asset	80,890	154,226	283,282
Long-term receivables-Affiliates	93,781	93,315	95,580
Subtotal	3,965,114	4,716,876	4,177,124
Total	$4,191,974	$4,943,736	$4,412,002

Financial liabilities

	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Financial liabilities at amortized cost:			
Short-term borrowings	$2,319,133	$2,373,766	$2,408,132
Short-term notes payable	249,746	379,210	348,944
Notes, accounts and other payable	3,726,909	4,173,791	4,007,975
Long-term loans (including current portion)	2,003,381	2,095,326	3,229,368
Lease liabilities	260,693	244,406	232,355
Total	$8,559,862	$9,266,499	$10,226,774

(2) Financial risk management objectives and policies

The Group's principal financial risk management objective is to manage the market risk, credit risk and liquidity risk related to its operating activates. The Group identifies measures and manages the aforementioned risks based on the Group's policy and risk appetite.

The Group has established appropriate policies, procedures and internal controls for financial risk management. Before entering into significant transactions, due approval process by the Board of Directors and Audit Committee must be carried out based on related protocols and internal control procedures. The Group complies with its financial risk management policies at all times.

(3) Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of the changes in market prices. Market prices comprise currency risk, interest rate risk and other price risk (such as equity risk).

In practice, it is rarely the case that a single risk variable will change independently from other risk variable, there is usually interdependencies between risk variables. However, the sensitivity analysis disclosed below does not take into account the interdependencies between risk variables.

(a) Foreign currency risk

The Group's exposure to the risk of changes in foreign exchange rates relates primarily to the Group's operating activities (when revenue or expense are denominated in a different currency from the Group's functional currency) and the Group's net investments in foreign subsidiaries.

The Group has certain foreign currency receivables to be denominated in the same foreign currency with certain foreign currency payables, therefore natural hedge is received. The Group also uses forward contracts to hedge the foreign currency risk on certain items denominated in foreign currencies. Hedge accounting is not applied as they did not qualify for hedge accounting criteria. Furthermore, as net investments in foreign subsidiaries are for strategic purposes, they are not hedged by the Group.

The foreign currency sensitivity analysis of the possible change in foreign exchange rates on the Group's profit is performed on significant monetary items denominated in foreign currencies as at the end of the reporting period. The Group's foreign currency risk is mainly related to the volatility in the exchange rates for foreign currency USD and foreign currency JPY.

(b) Interest rate risk

Interest rate risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's debt instrument investments at variable interest rates, bank borrowings with fixed interest rates and variable interest rates.

The Group manages its interest rate risk by having a balanced portfolio of fixed and variable loans and borrowings and entering into interest rate swaps. Hedge accounting does not apply to these swaps as they do not qualify for it.

(c) Equity price risk

The Group's listed and unlisted equity securities are susceptible to market price risk arising from uncertainties about future values of the investment securities. The Group's listed equity securities are classified under held for trading financial assets or available-for-sale financial assets, while unlisted equity securities are classified as available-for-sale. The Group manages the equity price risk through diversification and placing limits on individual and total equity instruments. Reports on the equity portfolio are submitted to the Group's senior management on a regular basis. The Group's Board of Directors reviews and approves all equity investment decisions.

(d) Risks of pre-tax Sensitivity analysis are as follows:

For the three-month periods ended March 31, 2020

Key risk	Variation	Sensitivity of profit and loss	Sensitivity of equity
Foreign currency risk	NTD/USD Foreign currency ＋/－ 1%	＋/－ 9,735 thousand	－
	NTD/JPY Foreign currency ＋/－ 1%	＋/－ 144 thousand	－
Interest rate risk	Market rate ＋/－ 10 fundamental proposition	＋/－ 4,323 thousand	－
Equity price risk	Market price ＋/－ 10 fundamental proposition	－	＋/－ 2,269 thousand

For the three-month periods ended March 31, 2019

Key risk	Variation	Sensitivity of profit and loss	Sensitivity of equity
Foreign currency risk	NTD/USD Foreign currency +/− 1%	+/− 8,106 thousand	−
	NTD/JPY Foreign currency +/− 1%	+/− 74 thousand	−
Interest rate risk	Market rate +/− 10 fundamental proposition	+/− 5,638 thousand	−
Equity price risk	Market price +/− 10 fundamental proposition	−	+/− 2,349 thousand

Please refer to Note 12.(7) for sensitivity analysis information of other equity instruments or derivatives that are linked to such equity instruments whose fair value measurement is categorized under Level 3.

(4) Credit risk management

Credit risk is the risk that a counterparty will not meet its obligations under a contract, leading to a financial loss. The Group is exposed to credit risk from operating activities (primarily for accounts receivables and notes receivables) and from its financing activities, including bank deposits and other financial instruments.

Customer credit risk is managed by each business unit subject to the Group's established policy, procedures and control relating to customer credit risk management. Credit limits are established for all customers based on their financial position, rating from credit rating agencies, historical experience, prevailing economic condition and the Group's internal rating criteria etc. Certain customer's credit risk will also be managed by taking credit enhancing procedures, such as requesting for prepayment or insurance.

As of March 31, 2020, December 31, 2019 and March 31, 2019, amounts receivables from top ten customers represent 83.44%, 83.69% and 83.79% of the total accounts receivables of the Group, respectively. The credit concentration risk of other accounts receivables is insignificant.

Credit risk from balances with banks, fixed income securities and other financial instruments is managed by the Group's treasury in accordance with the Group's policy. The Group only transacts with counterparties approved by the internal control procedures, which are banks and financial institutions, companies and government entities with good credit rating and with no significant default risk. Consequently, there is no significant credit risk for these counter parties.

(5) Liquidity risk management

The Group’s objective is to maintain a balance between continuity of funding and flexibility through the use of cash and cash equivalents, highly liquid equity investments, bank borrowings, convertible bonds and finance leases. The table below summarizes the maturity profile of the Group’s financial liabilities based on the contractual undiscounted payments and contractual maturity. The payment amount includes the contractual interest. The undiscounted payment relating to borrowings with variable interest rates is extrapolated based on the estimated interest rate yield curve as of the end of the reporting period.

Non-derivative financial instruments

	Less than 1 year	2 to 3 years	4 to 5 years	> 5 years	Total
As of Mar. 31, 2020					
Borrowings	$3,403,396	$921,926	—	—	$4,325,322
Short-term notes payable	249,746	—	—	—	249,746
Lease liabilities	32,504	54,743	$35,682	$194,468	317,397
As of Dec. 31, 2019					
Borrowings	$3,567,916	$867,994	$36,842	—	$4,472,752
Short-term notes payable	379,210	—	—	—	379,210
Lease liabilities	31,050	53,997	31,299	$189,011	305,357
As of Mar. 31, 2019					
Borrowings	$3,708,308	$1,883,522	$53,684	—	$5,645,514
Short-term notes payable	348,944	—	—	—	348,944
Lease liabilities	24,458	35,189	24,625	$148,083	232,355

(6) Reconciliation of liabilities arising from financing activities

Reconciliation of liabilities for the three-month periods ended March 31, 2020:

	As of Jan. 1, 2020	Cash flows	Foreign exchange movement	Others	As of Mar. 31, 2020
Short-term borrowings	$2,373,766	($54,700)	—	$67	$2,319,133
Long-term borrowings	2,095,326	(94,742)	—	2,797	2,003,381
Lease liabilities	244,406	(6,831)	$125	22,993	260,693
Refundable deposits	3,568	(1)	—	—	3,567
Short-term notes payable	379,210	(129,464)	—	—	249,746

Reconciliation of liabilities for the three-month periods ended March 31, 2019:

	As of Jan. 1, 2019	Cash flows	Foreign exchange movement	Others	As of Mar. 31, 2019
Short-term borrowings	$2,806,857	($398,612)	—	($113)	$2,408,132
Long-term borrowings	3,053,515	174,926	—	927	3,229,368
Lease liabilities	241,426	(9,071)	—	—	232,355
Refundable deposits	3,522	2	—	—	3,524
Short-term notes payable	349,610	(666)	—	—	348,944

(7) Fair values of financial instruments

(a) The methods and assumptions applied in determining the fair value of financial instruments:

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The following methods and assumptions were used by the Group to measure or disclose the fair values of financial assets and financial liabilities:

i. The carrying amount of cash and cash equivalents, accounts receivables, accounts payable and other current liabilities approximate their fair value due to their short maturities.

ii. For financial assets and liabilities traded in an active market with standard terms and conditions, their fair value is determined based on market quotation price (including listed equity securities, beneficiary certificates, bonds and futures etc.) at the reporting date.

iii. Fair value of equity instruments without market quotations (including private placement of listed equity securities, unquoted public company and private company equity securities) are estimated using the market method valuation techniques based on parameters such as prices based on market transactions of equity instruments of identical or comparable entities and other relevant information (for example, inputs such as discount for lack of marketability, P/E ratio of similar entities and Price-Book ratio of similar entities).

iv. Fair value of debt instruments without market quotations, bank loans, bonds payable and other non-current liabilities are determined based on the counterparty prices or valuation method. The valuation method uses DCF method as a basis, and the assumptions such as the interest rate and discount rate are primarily based on relevant information of similar instrument (such as yield curves published by the GreTai Securities Market, average prices for Fixed Rate Commercial Paper published by Reuters and credit risk, etc.)

v. The fair value of derivatives which are not options and without market quotations, is determined based on the counterparty prices or discounted cash flow analysis using interest rate yield curve for the contract period. Fair value of option-based derivative financial instruments is obtained using on the counterparty prices or appropriate option pricing model (for example, Black-Scholes model) or other valuation method (for example, Monte Carlo Simulation).

(b) Fair value of financial instruments measured at amortized cost

Other than cash and cash equivalents, accounts receivables, accounts payable and other current liabilities whose carrying amount approximate their fair value, the fair value of the Group's financial assets and financial liabilities measured at amortized cost is listed in the table below:

	Carrying amount		
	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Financial assets			
Long-term receivables-affiliates	$93,781	$93,315	$95,580
Financial liabilities			
Long-term borrowings	$2,003,381	$2,095,326	$3,229,368
Lease liabilities	$260,693	$244,406	$232,355

	Fair Value		
	Mar. 31, 2020	Dec. 31, 2019	Mar. 31, 2019
Financial assets			
Long-term receivables-affiliates	$93,781	$93,315	$95,580
Financial liabilities			
Long-term borrowings	$2,003,381	$2,095,326	$3,229,368
Lease liabilities	$260,693	$244,406	$232,355

(c) Fair value measurement hierarchy for financial instruments

Please refer to Note 12.(8) for fair value measurement hierarchy for financial instruments of the Group.

(8) Fair value measurement hierarchy

(a) Fair value measurement hierarchy:

All asset and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, based on the lowest level input that is significant to the fair value measurement as a whole. Level 1, 2 and 3 inputs are described as follows:

Level 1: Quoted (unadjusted) market prices in active markets for identical assets or liabilities that the entity can access at the measurement date

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly

Level 3: Unobservable inputs for the asset or liability

For assets and liabilities that are recognized in the financial statements on a recurring basis, the Company determines whether transfers have occurred between Levels in the hierarchy by re-assessing categorization at the end of each reporting period.

(b) Fair value measurement hierarchy of the Group's assets and liabilities:

The Group does not have assets that are measured at fair value on a non-recurring basis. Fair value measurement hierarchy of the Group's assets and liabilities measured at fair value on a recurring basis is as follows:

March 31, 2020

	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at fair value through other comprehensive income				
Equity instrument	－	－	$226,860	$226,860

December 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at fair value through other comprehensive income				
Equity instrument	－	－	$226,860	$226,860

March 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at fair value through other comprehensive income				
Equity instrument	－	－	$234,878	$234,878

Transfers between Level 1 and Level 2 during the period

During the three-month periods ended March 31, 2020 and 2019, there were no transfers between Level 1 and Level 2 fair value measurements.

Reconciliation for fair value measurements in Level 3 of the fair value hierarchy for movements during the period is as follows:

	At fair value through other comprehensive income
	Stock
Beginning balance as of Jan. 1, 2020	$226,860
Recognized in other comprehensive income	—
Transfer out of Level 3	—
Ending balance as of Mar. 31, 2020	$226,860

	At fair value through other comprehensive income
	Stock
Beginning balance as of Jan. 1, 2019	$234,878
Recognized in other comprehensive income	—
Transfer out of Level 3	—
Ending balance as of Mar. 31, 2019	$234,878

Information on significant unobservable inputs to valuation

Description of significant unobservable inputs to valuation of recurring fair value measurements categorized within Level 3 of the fair value hierarchy is as follows:

March 31, 2020

	Valuation techniques	Significant unobservable inputs	Quantitative information	Relationship between inputs and fair value	Sensitivity of the input to fair value
Financial assets:					
Financial assets at fair value through other comprehensive income					
Stocks	(1)Market approach —P/E (2) Market approach —P/S (3) Option	(1) Discount rate (2) Discount for lack of marketability	11.59％ ~25.06％	(1) The higher the discount rate, the lower the fair value of the stocks (2) The higher the discount for lack of marketability, the lower the fair value of the stocks	1% increase (decrease) in the discount for lack of marketability would result in (decrease) increase in the Company's equity by $2,388 thousand.

December 31, 2019

	Valuation techniques	Significant unobservable inputs	Quantitative information	Relationship between inputs and fair value	Sensitivity of the input to fair value
Financial assets:					
Financial assets at fair value through other comprehensive income					
Stocks	(1)Market approach －P/E (2) Market approach －P/S (3) Option	(1)Discount rate (2)Discount for lack of marketability	11.59％ ~25.06％	(1) The higher the discount rate, the lower the fair value of the stocks (2) The higher the discount for lack of marketability, the lower the fair value of the stocks	1% increase (decrease) in the discount for lack of marketability would result in (decrease) increase in the Company's equity by $2,376 thousand.

March 31, 2019

	Valuation techniques	Significant unobservable inputs	Quantitative information	Relationship between inputs and fair value	Sensitivity of the input to fair value
Financial assets:					
Financial assets at fair value through other comprehensive income					
Stocks	Option-Pricing Model	(1)Discount rate (2)Discount for lack of marketability	13％~19％	(1) The higher the discount rate, the lower the fair value of the stocks (2) The higher the discount for lack of marketability, the lower the fair value of the stocks	1% increase (decrease) in the discount for lack of marketability would result in (decrease) increase in the Company's equity by $2,372 thousand.

(c) Fair value measurement hierarchy of the Group's assets and liabilities not measured at fair value but for which the fair value is disclosed

March 31, 2020

	Level 1	Level 2	Level 3	Total
Financial assets not measured at fair value but for which the fair value is disclosed:				
Investment properties	—	—	$489,247	$489,247
Financial liabilities not measured at fair value but for which the fair value is disclosed:				
Long-term loans	—	$2,003,381	—	2,003,381
Lease liabilities	—	260,693	—	260,693

December 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets not measured at fair value but for which the fair value is disclosed:				
Investment properties	—	—	$486,819	$486,819
Financial liabilities not measured at fair value but for which the fair value is disclosed:				
Long-term loans	—	$2,095,326	—	2,095,326
Lease liabilities	—	244,406	—	244,406

As of March 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets not measured at fair value but for which the fair value is disclosed:				
Investment properties	—	—	$504,945	$504,945
Financial liabilities not measured at fair value but for which the fair value is disclosed:				
Long-term loans	—	$3,229,368	—	3,229,368
Lease liabilities	—	232,355	—	232,355

(9) Significant assets and liabilities denominated in foreign currencies

Information regarding the significant assets and liabilities denominated in foreign currencies is listed below:

	Mar. 31, 2020		
	Foreign currencies	Foreign exchange rate	NTD
Financial assets			
Monetary items:			
USD	$110,023	30.23	$3,325,995
JPY	290,796	0.279	81,132
Non-monetary items:			
USD	7,542	30.23	227,995
Financial liabilities			
Monetary items:			
USD	77,819	30.23	2,352,468
JPY	239,189	0.279	66,734

	Dec. 31, 2019		
	Foreign currencies	Foreign exchange rate	NTD
Financial assets			
Monetary items:			
USD	$132,199	30.08	$3,976,546
JPY	386,287	0.2771	107,040
Non-monetary items:			
USD	7,542	30.08	226,863
Financial liabilities			
Monetary items:			
USD	77,754	30.08	2,338,840
JPY	251,559	0.2771	69,707

	Mar. 31, 2019		
	Foreign currencies	Foreign exchange rate	NTD
Financial assets			
Monetary items:			
USD	$111,147	30.81	$3,424,439
JPY	534,499	0.2782	148,698
Non-monetary items:			
USD	36,292	30.81	1,118,157
Financial liabilities			
Monetary items:			
USD	84,837	30.81	2,613,828
JPY	561,155	0.2782	156,113

The above information is disclosed based on the carrying amount of foreign currency (after conversion to functional currency).

The Group's entities functional currencies are various, and hence are not able to disclose the information of exchange gains and losses of monetary financial assets and liabilities by each significant asset and liability denominated in foreign currencies. The foreign exchange gains (losses) were $14,965 thousand and ($1,067) thousand for the three-month periods ended March 31, 2020 and 2019, respectively.

(10) Capital management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximize shareholder value. The Group manages its capital structure and makes adjustments to it, in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may adjust dividend payment to shareholders, return capital to shareholders or issue new shares.

13. SEGMENT INFORMATION

For management purposes, the Company is organized into business units based on its products and services and has two reportable segments as follows:

Semiconductor Group: Mainly provides IC packaging and testing services.
EMS Group: Provides professional electronics manufacturing services.

No operating segments have been aggregated to form the above reportable operating segments.

Management monitors the operating results of its business units separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on operating profit or loss and is measured consistently with operating profit or loss in the consolidated financial statements. However, group finance costs, finance income and income taxes are managed on a group basis and are not allocated to operating segments.

The transfer prices between operating segments are on an arm's length basis in a manner similar to transactions with third parties.

For the three-month periods ended March 31, 2020

	Semiconductor Group	EMS Group	Other	Adjustment and Eliminations (Note 1 and Note 2)	Consolidated
Revenue					
External customer	$2,127,892	$1,514,641	—	—	$3,642,533
Inter-Segment	15,981	39,528	—	($55,509)	—
Total Revenue	$2,143,873	$1,554,169	—	($55,509)	$3,642,533
Segment Profit	($46,151)	$45,113	$3,141	$8,405	$10,508

(Note 1)：Inter-segment revenues are eliminated on consolidation.

(Note 2)：The profit for each operating segment does not include income tax expense.

For the three-month periods ended Mar. 31, 2019

	Semiconductor Group	EMS Group	Other	Adjustment and Eliminations (Note 1 and Note 2)	Consolidated
Revenue					
External customer	$2,383,583	$1,512,389	—	—	$3,895,972
Inter-Segment	14,655	224,067	—	($238,722)	—
Total Revenue	$2,398,238	$1,736,456	—	($238,722)	$3,895,972
Segment Profit	($35,753)	$126,428	($11,066)	($1,429)	$78,180

(Note 1)：Inter-segment revenues are eliminated on consolidation.

(Note 2)：The profit for each operating segment does not include income tax expense.