Nuvoton Technology Corporation and Subsidiaries

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

Deloitte.

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INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders
Nuvoton Technology Corporation

Opinion

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

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

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Occurrence of Sales Revenues

There is a significant risk on revenue recognition, and customers' line of credits and delivery of products are highly correlated to delivery of products and recognition of sales revenue. We therefore considered that the occurrence of sales revenue from the twenty largest customers with changes in credit limits and temporary increase in credit limits in 2019 as a key audit matter for this year. Refer to Note 4 to the consolidated financial statements for the Group's revenue recognition policies.

Our audit procedures in response to the occurrence of sales revenue included understanding the design and the implementation of internal control of sales revenue and selecting samples of revenue items to verify that revenue transactions have indeed occurred.

Other Matter

We have also audited the parent company only financial statements of Nuvoton Technology Corporation as of and for the years ended December 31, 2019 and 2018 on which we have issued an unmodified opinion.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and IFRS, IAS, IFRIC, and SIC endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

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

Those charged with governance (including members of the audit committee) are responsible for overseeing the Group's financial reporting process.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

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

4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.

5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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

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

We also provide those charged with governance with statements that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Shu-Lin Liu and Hung-Bin Yu.

Shu-Lin Liu   Hung-Bin Yu

Deloitte & Touche
Taipei, Taiwan
Republic of China

February 6, 2020

<u>*Notice to Readers*</u>

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

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

NUVOTON TECHNOLOGY CORPORATION AND SUBSIDIARIES

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

	2019		2018	
ASSETS	**Amount**	**%**	**Amount**	**%**
CURRENT ASSETS				
Cash and cash equivalents (Notes 4 and 6)	$ 4,859,223	44	$ 1,543,918	25
Financial assets at fair value through profit or loss - current (Notes 4 and 7)	6,037	-	763	-
Notes and accounts receivable, net (Notes 4 and 8)	1,010,722	9	934,777	15
Accounts receivable from related parties, net (Notes 4, 8 and 27)	67,394	1	62,306	1
Other receivables (Notes 9 and 27)	496,881	4	181,397	3
Inventories (Notes 4 and 10)	1,604,658	14	1,560,938	26
Other current assets (Note 13)	142,442	1	173,760	3
Total current assets	8,187,357	73	4,457,859	73
NON-CURRENT ASSETS				
Financial assets at fair value through other comprehensive income - non-current (Notes 4 and 11)	1,117,410	10	539,283	9
Property, plant and equipment (Notes 4 and 12)	760,321	7	697,917	11
Right-of-use assets (Notes 4, 13 and 27)	600,288	5	-	-
Investment properties (Notes 4 and 14)	44,207	1	50,527	1
Intangible assets (Notes 4 and 15)	261,230	2	144,754	2
Deferred tax assets (Notes 4 and 21)	97,919	1	109,790	2
Refundable deposits (Note 6)	86,879	1	81,435	1
Other non-current assets (Note 13)	618	-	36,103	1
Total non-current assets	2,968,872	27	1,659,809	27
TOTAL	$ 11,156,229	100	$ 6,117,668	100
LIABILITIES AND EQUITY				
CURRENT LIABILITIES				
Accounts payable	$ 1,129,375	10	$ 888,700	15
Other payables (Notes 17 and 27)	951,058	8	878,329	14
Current tax liabilities (Notes 4 and 21)	78,732	1	84,963	1
Lease liabilities - current (Notes 4 and 13)	114,308	1	-	-
Other current liabilities	68,411	1	63,186	1
Total current liabilities	2,341,884	21	1,915,178	31
NON-CURRENT LIABILITIES				
Long-term borrowings (Note 16)	500,000	4	-	-
Products guarantee based on commitment (Note 4)	101,891	1	101,891	2
Lease liabilities - non-current (Notes 4 and 13)	452,715	4	-	-
Net defined benefit liabilities - non-current (Notes 4 and 18)	287,565	3	294,427	5
Other non-current liabilities	80,143	1	71,806	1
Total non-current liabilities	1,422,314	13	468,124	8
Total liabilities	3,764,198	34	2,383,302	39
EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY				
Share capital (Note 19)	2,875,544	26	2,075,544	34
Capital surplus (Note 19)	2,906,976	26	63,498	1
Retained earnings (Note 19)				
Legal reserve	541,722	5	470,659	8
Unappropriated earnings	917,229	8	955,346	15
Exchange differences on translation of foreign financial statements (Notes 4 and 19)	(18,984)	-	(10,535)	-
Unrealized gains (losses) on financial assets at fair value through other comprehensive income (Notes 4 and 19)	169,544	1	179,854	3
Total equity	7,392,031	66	3,734,366	61
TOTAL	$ 11,156,229	100	$ 6,117,668	100

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

NUVOTON TECHNOLOGY CORPORATION AND SUBSIDIARIES

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

	2019		2018	
	Amount	%	Amount	%
OPERATING REVENUE (Note 20)	$ 10,367,269	100	$ 10,040,221	100
OPERATING COST	6,239,380	61	6,127,054	61
GROSS PROFIT	4,127,889	39	3,913,167	39
OPERATING EXPENSES				
Selling expenses	249,968	2	231,683	3
General and administrative expenses	468,518	5	398,485	4
Research and development expenses	2,822,825	27	2,524,485	25
Expected credit loss (gain)	2,257	-	3,855	-
Total operating expenses	3,543,568	34	3,158,508	32
PROFIT FROM OPERATIONS	584,321	5	754,659	7
NON-OPERATING INCOME AND EXPENSES				
Interest expense	(14,279)	-	-	-
Interest income	17,777	-	12,105	-
Dividend income	70,529	1	73,322	1
Other gains and losses	12,203	-	7,516	-
Gains (losses) on disposal of property, plant and equipment	62	-	1,254	-
Foreign exchange gains (losses)	(2,791)	-	20,475	-
Gains (losses) on financial instruments at fair value through profit or loss	(253)	-	(30,411)	-
Total non-operating income and expenses	83,248	1	84,261	1
PROFIT BEFORE INCOME TAX	667,569	6	838,920	8
INCOME TAX EXPENSE (Notes 4 and 21)	(109,110)	(1)	(128,287)	(1)
NET PROFIT FOR THE YEAR	558,459	5	710,633	7

(Continued)

NUVOTON TECHNOLOGY CORPORATION AND SUBSIDIARIES

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

	2019		2018	
	Amount	**%**	**Amount**	**%**
OTHER COMPREHENSIVE INCOME (LOSS)				
Items that will not be reclassified subsequently to profit or loss:				
Remeasurement of defined benefit plans (Notes 4 and 18)	$ (56,330)	-	$ (67,323)	(1)
Unrealized gains (losses) on investments in equity instruments at fair value through other comprehensive income	39,393	-	(196,160)	(2)
Items that may be reclassified subsequently to profit or loss:				
Exchange differences on translating foreign operations	(8,449)	-	(10,370)	-
Other comprehensive income (loss)	(25,386)	-	(273,853)	(3)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	$ 533,073	5	$ 436,780	4
EARNINGS PER SHARE (Notes 4 and 24)				
From continuing operations				
Basic	$ 2.53		$ 3.42	
Diluted	$ 2.52		$ 3.40	

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

NUVOTON TECHNOLOGY CORPORATION AND SUBSIDIARIES

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

	Equity Attributable to Owners of the Company							
			Retained Earnings		Other Equity			
	Ordinary Share	Capital Surplus	Legal Reserve	Unappropriated Earnings	Exchange Differences on Translation of Foreign Financial Statements	Unrealized Gains (Losses) on Financial Assets at Fair Value Through Other Comprehensive Income	Unrealized Gains (Losses) on Available-for-sale Financial Assets	Total Equity
BALANCE AT JANUARY 1, 2018	$ 2,075,544	$ 63,498	$ 401,846	$ 896,014	$ (165)	$ -	$ 226,224	$ 3,662,961
Effect of retrospective application and retrospective restatement	-	-	-	493	-	379,242	(226,224)	153,511
BALANCE AT JANUARY 1, 2018 AS RESTATED	2,075,544	63,498	401,846	896,507	(165)	379,242	-	3,816,472
Appropriation of 2017 earnings (Note 19)								
Legal reserve	-	-	68,813	(68,813)	-	-	-	-
Cash dividends	-	-	-	(518,886)	-	-	-	(518,886)
Net profit for the year ended December 31, 2018	-	-	-	710,633	-	-	-	710,633
Other comprehensive income (loss) for the year ended December 31, 2018, net of income tax	-	-	-	(67,323)	(10,370)	(196,160)	-	(273,853)
Total comprehensive income (loss) for the year ended December 31, 2018	-	-	-	643,310	(10,370)	(196,160)	-	436,780
Disposals of investments in equity instruments designated as at fair value through other comprehensive income (Notes 11 and 19)	-	-	-	3,228	-	(3,228)	-	-
BALANCE AT DECEMBER 31, 2018	2,075,544	63,498	470,659	955,346	(10,535)	179,854	-	3,734,366
Appropriation of 2018 earnings (Note 19)								
Legal reserve	-	-	71,063	(71,063)	-	-	-	-
Cash dividends	-	-	-	(518,886)	-	-	-	(518,886)
Net profit for the year ended December 31, 2019	-	-	-	558,459	-	-	-	558,459
Other comprehensive income (loss) for the year ended December 31, 2019, net of income tax	-	-	-	(56,330)	(8,449)	39,393	-	(25,386)
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	-	502,129	(8,449)	39,393	-	533,073
Compensation cost of employee share options (Notes 19 and 23)	-	49,920	-	-	-	-	-	49,920
Unclaimed dividends from claims extinguished by prescriptions	-	52	-	-	-	-	-	52
Disposals of investments in equity instruments designated as at fair value through other comprehensive income (Notes 11 and 19)	-	-	-	49,703	-	(49,703)	-	-
Issuance of ordinary shares for cash (Note 19)	800,000	2,793,506	-	-	-	-	-	3,593,506
BALANCE AT DECEMBER 31, 2019	$ 2,875,544	$ 2,906,976	$ 541,722	$ 917,229	$ (18,984)	$ 169,544	$ -	$ 7,392,031

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

NUVOTON TECHNOLOGY CORPORATION AND SUBSIDIARIES

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

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit before income tax	$ 667,569	$ 838,920
Adjustments for:		
Depreciation expense	290,277	164,001
Amortization expense	89,569	86,807
Interest expense	14,279	-
Expected credit loss (gain) recognized on accounts receivable	2,257	3,855
Interest income	(17,777)	(12,105)
Dividend income	(70,529)	(73,322)
Compensation cost of employee share options	49,920	-
Net (gains) losses on financial assets at fair value through profit or loss	(5,274)	947
(Gains) losses on disposal of property, plant and equipment	(62)	(1,254)
Changes in operating assets and liabilities		
(Increase) decrease in notes and accounts receivable	(78,012)	(195,624)
(Increase) decrease in accounts receivable from related parties	(5,088)	(11,192)
(Increase) decrease in other receivables	(308,916)	194,234
(Increase) decrease in inventories	(43,720)	73,380
(Increase) decrease in other current assets	26,911	51,972
(Increase) decrease in other non-current assets	356	2,593
Increase (decrease) in accounts payable	240,675	(46,201)
Increase (decrease) in other payables	6,315	(30,619)
Increase (decrease) in other current liabilities	5,225	(25,363)
Increase (decrease) on accrued pension liabilities	(63,192)	(79,003)
Increase (decrease) in other non-current liabilities	8,337	(8,190)
Cash flows from operations	809,120	933,836
Income tax paid	(103,362)	(146,907)
Interest received	11,101	12,896
Interest paid	(12,240)	-
Dividend received	70,529	73,322
Net cash flows from (used in) operating activities	775,148	873,147
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of intangible assets	(163,513)	(23,855)
Proceeds from disposal of financial assets at fair value through other comprehensive income	87,266	5,850
Acquisition of financial assets at fair value through other comprehensive income	(630,000)	-
Proceeds from capital reduction of financial assets at fair value through other comprehensive income	4,000	3,500
Acquisition of property, plant and equipment	(214,755)	(198,466)
Proceeds from disposal of property, plant and equipment	233	1,941
(Increase) decrease in refundable deposits paid	(5,444)	(9,864)
Net cash flows from (used in) investing activities	(922,213)	(220,894)

(Continued)

NUVOTON TECHNOLOGY CORPORATION AND SUBSIDIARIES

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

	2019	2018
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from long-term borrowings	$ 500,000	$ -
Repayments of the principal portion of lease liabilities	(102,217)	-
Dividends paid to owners of the Company	(518,886)	(518,886)
Proceeds from issuance of ordinary shares	3,593,506	-
Other financing activities	52	-
Net cash flows from (used in) financing activities	3,472,455	(518,886)
EFFECTS OF EXCHANGE RATE CHANGES ON THE BALANCE OF CASH HELD IN FOREIGN CURRENCIES	(10,085)	(6,478)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	3,315,305	126,889
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	1,543,918	1,417,029
CASH AND CASH EQUIVALENTS, END OF YEAR	$ 4,859,223	$ 1,543,918

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

NUVOTON TECHNOLOGY CORPORATION AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

1. GENERAL INFORMATION

Nuvoton Technology Corporation (the "Company") was incorporated in the Republic of China ("ROC") in April 2008 and commenced business in July 2008. The Company is engaged mainly in the research, design, development, manufacture, and sale of logic integrated circuits ("ICs") and the manufacturing, testing and OEM of 6-inch wafers.

For the specialization and division of labor and the reinforcement of core competitive ability, the Company's parent company, Winbond Electronics Corporation (WEC), spun off its Logic IC business into the Company on July 1, 2008 in accordance with the Business Mergers and Acquisitions Act and the Company commenced business in July 2008. WEC held approximately 61% and 62% of the ownership interest in the Company as of December 31, 2018 and 2019, respectively.

The Company's shares have been listed on the Taiwan Stock Exchange since September 27, 2010.

2. APPROVAL OF FINANCIAL STATEMENTS

The consolidated financial statements were approved by the Company's Board of Directors and authorized for issue on February 6, 2020.

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

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

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

   1) IFRS 16 "Leases"

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

      Definition of a lease

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

The Group as lessee

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

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

The lessee's weighted average incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 is 1.38%-3.69%. The difference between the lease liabilities recognized and operating lease commitments disclosed on December 31, 2018 is explained as follows:

The future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018	$ 592,242
Less: Recognition exemption for short-term leases	(11,929)
Undiscounted amounts on January 1, 2019	$ 580,313
Lease liabilities recognized on January 1, 2019	$ 539,177

The Group as lessor

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

The Group subleased its leasehold to a third party. Such sublease was classified as an operating lease under IAS 17. The Group classified the sublease as a finance lease on the basis of the remaining contractual terms and conditions of the head lease and sublease on January 1, 2019.

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

	Carrying Amount as of December 31, 2018	**Adjustments Arising from Initial Application**	**Adjusted Carrying Amount as of January 1, 2019**
Prepayments for leases - current	$ 3,463	$ (3,463)	$ -
Prepayments for leases - non-current	35,129	(35,129)	-
Right-of-use assets	-	577,769	577,769
Total effect on assets	$ 38,592	$ 539,177	$ 577,769

(Continued)

	Carrying Amount as of December 31, 2018	Adjustments Arising from Initial Application	Adjusted Carrying Amount as of January 1, 2019
Lease liabilities - current	$ -	$ 89,302	$ 89,302
Lease liabilities - non-current	-	449,875	449,875
Total effect on liabilities	$ -	$ 539,177	$ 539,177
Retained earnings	$ 1,426,005	$ -	$ 1,426,005

(Concluded)

2) IFRIC 23 "Uncertainty over Income Tax Treatments"

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

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

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

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

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

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

1) Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"

The amendments deal with issues affecting financial reporting in the period before the replacement of an existing interest rate benchmark (such as the London Interbank Offered Rate or LIBOR) with an alternative interest rate, and provide temporary exceptions to all hedging relationships that are directly affected by the interest rate benchmark reform. The Group would apply those hedge accounting requirements assuming that the interest rate benchmark on which the hedged cash flows and cash flows from the hedging instrument are based will not be altered as a result of interest rate benchmark reform. The amendments also require additional disclosures about the extent to which the entity's hedging relationships are affected by the amendments.

2) Amendments to IAS 1 and IAS 8 “Definition of material”

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

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

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

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

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

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

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Statement of Compliance

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

Basis of Preparation

The consolidated financial statements have been prepared on the historical cost basis except for financial instruments and defined benefit liabilities which are measured at the present value of the defined benefit obligation less the fair value of plan assets, that are measured at fair value. Historical cost is generally based on the fair value of the consideration given in exchange for assets.

Basis of Consolidation

The consolidated financial statements incorporate the financial statements of the Company and the entities controlled by the Company. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by the Company. All intra-group transactions, balances, income and expenses are eliminated in full upon consolidation.

Subsidiaries included in the consolidated financial statements:

Investor	Investee	Main Business	% of Ownership December 31 2019	% of Ownership December 31 2018
The Company	Nuvoton Electronics Technology (H.K.) Limited ("NTHK")	Sales of semiconductor	100	100
	Pigeon Creek Holding Co., Ltd. ("PCH")	Investment holding	- (Note)	100
	Marketplace Management Limited ("MML")	Investment holding	100	100
	Nuvoton Investment Holding Ltd. ("NIH")	Investment holding	100	100
	Song Yong Investment Corporation ("SYI")	Investment holding	100	100
	Nuvoton Technology India Private Limited ("NTIPL")	Design, sales and after-sales service of semiconductor	100	100
	Nuvoton Technology Corporation America ("NTCA")	Design, sales and after-sales service of semiconductor	100	-
NTHK	Nuvoton Electronics Technology (Shenzhen) Limited ("NTSZ")	Computer software service (except I.C. design), wholesale business for computer, supplement and software	100	100
PCH	Nuvoton Technology Corporation America ("NTCA")	Design, sales and after-sales service of semiconductor	- (Note)	100
MML	Goldbond LLC ("GLLC")	Investment holding	100	100
GLLC	Nuvoton Electronics Technology (Shanghai) Limited ("NTSH")	Provides projects for sale in China and repairing, testing and consulting of software	100	100
	Winbond Electronics (Nanjing) Ltd. ("WENJ")	Computer software service (except I.C. design)	100	100
NIH	Nuvoton Technology Israel Ltd. ("NTIL")	Design and service of semiconductor	100	100

Note: PCH completed the liquidation and legal procedures in January 2019.

Classification of Current and Non-current Assets and Liabilities

Current assets include cash and cash equivalents and those assets held primarily for trading purposes or to be realized, sold or consumed within twelve months after the reporting period, unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period. Current liabilities are obligations incurred for trading purposes or to be settled within twelve months after the reporting period and liabilities that the Group does not have an unconditional right to defer settlement for at least twelve months after the reporting period. Except as otherwise mentioned, assets and liabilities that are not classified as current are classified as non-current.

Foreign Currencies

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

In preparing the financial statements of each individual entity, transactions in currencies other than the entity's foreign currency are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences on monetary items arising from settlement or translation are recognized in profit or loss in the period in which they arise.

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

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

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into New Taiwan dollars using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period, and exchange differences arising are recognized in other comprehensive income.

Cash Equivalents

Cash equivalents consist of highly liquid investments that are readily convertible to a known amount of cash and which are subject to an insignificant risk of changes in value.

Financial Instruments

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

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

a. Financial assets

   All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis, except derivative financial assets which are recognized and derecognized on settlement date basis.

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

   1) Financial asset at FVTPL

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

      Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any dividend or interest earned on the financial asset. Fair value is determined in the manner described in Note 26.

   2) Financial assets at amortized cost

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

      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.

Subsequent to initial recognition, financial assets at amortized cost are measured at amortized cost, which equals the gross carrying amount determined using the effective interest method less any impairment loss. Exchange differences are recognized in profit or loss.

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

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

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

3) Investments in equity instruments at FVTOCI

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

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

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

b. Impairment of financial assets

The Group recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including accounts receivable).

The Group always recognizes lifetime Expected Credit Loss (ECL) on accounts receivable. On all other financial instruments, the Group recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

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

The Group recognizes an impairment loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account.

c. Derecognition of financial assets

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the financial asset expire or when it transfers the financial asset and substantially all the risks and rewards of ownership of the financial asset to another entity. On derecognition of a financial asset at amortized cost in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. However, on derecognition of an investment in an equity instrument at FVTOCI, the cumulative gain or loss which had been recognized in other comprehensive income is transferred directly to retained earnings, without recycling through profit or loss.

d. Financial liabilities

Financial liabilities are classified as at fair value through profit or loss when the financial liabilities are either held for trading or are designated at fair value through profit or loss. Financial liabilities at fair value through profit or loss are stated at fair value, with any interest paid on such financial liabilities is recognized in finance costs, and any gains or losses arising on remeasurement recognized in profit or loss.

Other financial liabilities are measured at amortized cost using the effective interest method.

e. Derecognition of financial liabilities

The difference between the carrying amount of a financial liability derecognized and the consideration paid is recognized in profit or loss.

f. Derivative financial instruments

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

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

Inventories

Inventories consist of raw materials, supplies, finished goods and work-in-process. The cost of raw materials and supplies are recognized using moving-average method and finished goods and work-in-process are recorded at standard cost and adjusted to approximate weighted-average cost at the end of the reporting period. Inventories are stated at the lower of cost or net realizable value; evaluation and recognition of appropriate allowance for value decline are based on the amount of inventories and sales situation. Inventory write-downs are made by item, except where it may be appropriate to group similar or related items. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale.

Property, Plant and Equipment

Property, plant and equipment are initially measured at cost and subsequently measured at cost less accumulated depreciation and accumulated impairment loss.

Property, plant and equipment in the course of construction are measured at cost less any recognized impairment loss. Cost includes professional fees and borrowing costs eligible for capitalization. Such assets are depreciated and classified to the appropriate categories of property, plant and equipment when completed and ready for intended use.

Depreciation is recognized using the straight-line method over the following estimated useful life after considering residual values: buildings 8-20 years, machinery and equipment 3-5 years and other equipment 5 years. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

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

Investment Properties

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties are initially measured at cost. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and accumulated impairment loss, and depreciated over 20 years useful life after considering residual values, using the straight-line method. On derecognition of an investment property, the difference between the net disposal proceeds and the carrying amount of the asset is included in profit or loss.

Intangible Assets

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized using the straight-line method over the following estimated useful life of the assets: Deferred technical assets - economic life or contract period and other intangible assets 3-5 years. The estimated useful life, residual value, and amortization method are reviewed at the end of each reporting period with the effect of any changes in estimate accounted for on a prospective basis.

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

Impairment of Tangible and Intangible Assets

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. The recoverable amount is the higher of fair value less costs to sell and value in use.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount, with the resulting impairment loss recognized in profit or loss.

When an impairment loss is subsequently reversed, the reversed carrying amount should not exceed the carrying amount (after amortization or depreciation) that would have been determined had no impairment loss been recognized on the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized in profit or loss.

Products Guarantee Based on Commitment

The Group will estimate guarantee provision by using appropriate ratio at the time the related product is sold.

Revenue Recognition

The Group identifies the performance obligations in the contract with customers, allocates the transaction price to the performance obligations in the contracts and recognizes revenue when (or as) the Group satisfies a performance obligation.

Revenue from the sale of goods is mainly recognized when a customer obtains control of promised goods, at which time the goods are delivered to the customer's specific location and performance obligation is satisfied.

Revenue from sale of goods is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances. Provision for estimated sales returns and other allowances is generally made and adjusted based on historical experience and on the consideration of varying contractual terms affecting the recognition of a provision, which is classified under other non-current liabilities.

Leasing

2019

At the inception of a contract, the Group assesses whether the contract is, or contains, a lease.

a. The Group as lessor

   Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

   When the Group subleases a right-of-use asset, the sublease is classified by reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. However, if the head lease is a short-term lease that the Group, as a lessee, has accounted for applying recognition exemption, the sublease is classified as an operating lease.

   Under finance leases, the lease payments comprise fixed payments, in-substance fixed payments, variable lease payments which depend on an index or a rate, residual value guarantees, the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and payments of penalties for terminating a lease if the lease term reflects such termination, less any lease incentives payable. The net investment in a lease is measured at (a) the present value of the sum of the lease payments receivable by a lessor and any unguaranteed residual value accrued to the lessor plus (b) initial direct costs, and is presented as a finance lease receivable. Finance lease income is allocated to the relevant accounting periods so as to reflect a constant, periodic rate of return on the Group's net investment outstanding in respect of leases.

   Under operating lease, lease payments (less any lease incentives payable) are recognized as income on a straight-line basis over the terms of the relevant lease. Initial direct costs incurred in obtaining operating lease are added to the carrying amount of the underlying assets and recognized as expenses on a straight-line basis over the lease terms.

b. The Group as lessee

   The Group recognizes right-of-use assets and lease liabilities for all leases at the commencement date of a lease, except for short-term leases and low-value asset leases accounted for applying a recognition exemption where lease payments are recognized as expenses on a straight-line basis over the lease terms.

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities adjusted for lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs needed to restore the underlying assets, and less any lease incentives received. Right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liabilities.

Right-of-use assets are depreciated using the straight-line method from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms.

Lease liabilities are initially measured at the present value of the lease payments, which comprise fixed payments, in-substance fixed payments, variable lease payments which depend on an index or a rate, residual value guarantees, the exercise price of a purchase option if the Group is reasonably certain to exercise that option, and payments of penalties for terminating a lease if the lease term reflects such termination, less any lease incentives receivable. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If that rate cannot be readily determined, the Group uses the lessee’s incremental borrowing rate.

Subsequently, lease liabilities are measured at amortized cost using the effective interest method, with interest expense recognized over the lease terms. When there is a change in a lease term, a change in the amounts expected to be payable under a residual value guarantee, a change in the assessment of an option to purchase an underlying asset, or a change in future lease payments resulting from a change in an index or a rate used to determine those payments, the Group remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented on a separate line in the consolidated balance sheets.

2018

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating lease.

Under finance lease, the Group as lessor recognizes amounts due from lessees as receivables at the amount of the Group’s net investment in the lease. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group’s net investment outstanding in respect of the leases.

Under operating lease, the Group as lessor recognizes rental income from operating lease on a straight-line basis over the term of the relevant lease. Contingent rents receivable arising under operating leases are recognized as income in the period in which they are earned. As lessee, operating lease payments are recognized as an expense on a straight-line basis over the lease term. Contingent rents payable arising under operating leases are recognized as an expense in the period in which they are incurred.

Employee Benefits

a. Short-term employee benefits

   Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

b. Retirement benefits

   Payments to defined contribution retirement benefit plans are recognized as expense when employees have rendered service entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost and net interest on the net defined benefit liabilities are recognized as employee benefits expense in the period in which they occur. Remeasurement, comprising actuarial gains and losses and the return on plan assets excluding interest, is recognized in other comprehensive income in the period in which it occurs. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liabilities represent the actual deficit in the Group's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

Share-based payment arrangements

Cash-settled share-based payment is a liability in which the entity receives goods or services and the fair value of the amount payable is initially measured at cost. The amount is remeasured at each reporting date and at settlement based on the fair value. Any changes in the liabilities are recognized in profit or loss, with a corresponding adjustment to capital surplus - employee share options.

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

a. Current tax

   According to the Income Tax Law, an additional tax on unappropriated earnings is provided for as income tax in the year the shareholders approve to retain earnings. Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

b. Deferred tax

   Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit and it is remeasured at the end of each reporting period and recognized to the extent that it has become probable that there will be future taxable profit.

   Deferred tax assets arising from deductible temporary differences associated with investments in subsidiaries are recognized only to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

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

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised if the revisions affect only that period or in the period of the revision and future periods if the revision affects both current and future periods.

The Group's critical accounting judgments and key sources of estimation uncertainty are described below:

Write-down of Inventories

The net realizable value of inventory is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. The estimation of net realizable value is based on current market conditions and the historical experience with product sales of a similar nature. Changes in market conditions may have a material impact on the estimation of the net realizable value.

6. CASH AND CASH EQUIVALENTS

	December 31	
	2019	**2018**
Cash and deposits in banks	$ 4,650,223	$ 1,420,618
Repurchase agreements collateralized by bonds	209,000	123,300
	$ 4,859,223	$ 1,543,918

a. The Group has time deposits pledged to secure land leases and customs tariff obligations which are reclassified as "refundable deposits" as follows:

	December 31	
	2019	**2018**
Time deposits	$ 75,988	$ 72,074

b. The Group has time deposits which are not held for the purpose of meeting short-term cash commitments and are reclassified to "other receivables" as follows (Note 9):

	December 31	
	2019	**2018**
Time deposits	$ 447,725	$ 145,654

7. FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31	
	2019	**2018**
Financial assets at FVTPL - current		
Foreign exchange forward contracts	$ 6,037	$ 763

At the end of the year, outstanding foreign exchange forward contracts not under hedge accounting were as follows:

	Currencies	Maturity Date	Contract Amount (In Thousands)
December 31, 2019			
Sell forward exchange contracts	USD/NTD	2020.01.03-2020.03.05	USD20,000/NTD604,050
December 31, 2018			
Sell forward exchange contracts	USD/NTD	2019.01.04-2019.02.21	USD17,000/NTD521,731

The Group entered into forward exchange contracts to manage exposures to exchange rate fluctuations of foreign-currency-denominated assets and liabilities. The forward exchange contracts entered into by the Group did not meet the criteria for hedge accounting; therefore, the Group did not apply hedge accounting treatment.

8. NOTES AND ACCOUNTS RECEIVABLE

	December 31	
	2019	2018
Notes receivable	$ 21	$ -
Accounts receivable (including related parties)		
At amortized cost		
Gross carrying amount	1,100,661	1,017,582
Less: Allowance for impairment loss	(22,566)	(20,499)
	$ 1,078,116	$ 997,083

The average credit period of sales of goods was 30-60 days. No interest was charged on accounts receivable. The Group adopted a policy of only dealing with entities that are rated the equivalent of investment grade or higher and obtaining sufficient collateral, where appropriate, as a means of mitigating the risk of financial loss from defaults. The Group uses other publicly available financial information and its own trading records to rate its major customers. The Group's exposure and the credit ratings of its counterparties are continuously monitored. Credit exposure is controlled by counterparty limits that are reviewed and approved annually.

In order to minimize credit risk, the management of the Group has delegated a team responsible for determining credit limits, credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover overdue debts. In addition, the Group reviews the recoverable amount of each individual trade debt at the end of the reporting period to ensure that adequate allowance is made for possible irrecoverable amounts. In this regard, the management believes the Group's credit risk was significantly reduced.

The Group applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for all accounts receivable. The expected credit losses on accounts receivable are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast direction of conditions at the reporting date. The Group estimates expected credit losses based on past due days. As the Group's historical credit loss experience does not show significantly different loss patterns for different customer segments, the provision for loss allowance based on past due status is not further distinguished between the Group's different customer base.

The Group writes off a accounts receivable when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery. For accounts receivable that have been written off, the Group continues to engage in enforcement activity to attempt to recover the receivables due. Where recoveries are made, these are recognized in profit or loss.

The following table details the loss allowance of accounts receivable based on the Group's provision matrix.

December 31, 2019

	Not Overdue	Overdue under 30 Days	Overdue 31-90 Days	Overdue 91-180 Days	Over 180 Days	Total
Expected credit loss rate	2%	2%	10%	20%	50%	
Gross carrying amount	$ 1,093,869	$ 6,813	$ -	$ -	$ -	$ 1,100,682
Loss allowance (lifetime ECL)	(22,430)	(136)	-	-	-	(22,566)
Amortized cost	$ 1,071,439	$ 6,677	$ -	$ -	$ -	$ 1,078,116

December 31, 2018

	Not Overdue	Overdue under 30 Days	Overdue 31-90 Days	Overdue 91-180 Days	Over 180 Days	Total
Expected credit loss rate	2%	2%	10%	20%	50%	
Gross carrying amount	$ 1,004,975	$ 12,607	$ -	$ -	$ -	$ 1,017,582
Loss allowance (lifetime ECL)	(20,246)	(253)	-	-	-	(20,499)
Amortized cost	$ 984,729	$ 12,354	$ -	$ -	$ -	$ 997,083

The movements of the loss allowance of notes and accounts receivable were as follows:

	For the Year Ended December 31	
	2019	2018
Balance at January 1	$ 20,499	$ 16,388
Add: Net remeasurement of loss allowance	2,257	3,855
Foreign exchange gains and losses	(190)	256
Balance at December 31	$ 22,566	$ 20,499

The Group's provision for losses on accounts receivable was recognized on a collective basis.

9. OTHER RECEIVABLES

	December 31	
	2019	2018
Time deposits (Note 6)	$ 447,725	$ 145,654
Business tax refund receivable	34,611	26,477
Others	14,545	9,266
	$ 496,881	$ 181,397

10. INVENTORIES

	December 31	
	2019	2018
Raw materials and supplies	$ 105,937	$ 123,949
Work-in-process	1,181,653	1,062,207
Finished goods	308,869	342,307
Inventories in transit	8,199	32,475
	$ 1,604,658	$ 1,560,938

a. As of December 31, 2019 and 2018, the allowance for inventory value decline was NT$362,717 thousand and NT$329,409 thousand, respectively.

b. The operating cost for the years ended December 31, 2019 and 2018 was NT$6,239,380 thousand and NT$6,127,054 thousand, respectively. The inventory write-downs and obsolescence and abandonment of inventories for the years ended December 31, 2019 and 2018 were NT$58,550 thousand and NT$44,388 thousand, respectively.

11. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

Investments in equity instruments at FVTOCI:

	December 31	
	2019	2018
Domestic listed shares and emerging market shares		
Nyquest Technology Co., Ltd.	$ 60,720	$ 120,209
Brightek Optoelectronic Co., Ltd.	485	341
Unlisted shares		
United Industrial Gases Co., Ltd.	440,000	396,000
Yu-Ji Venture Capital Co., Ltd.	16,605	22,733
Autotalks Ltd. - Preferred E. Share	599,600	-
	$ 1,117,410	$ 539,283

These investments in equity instruments are not held for trading. Instead, they are held for medium to long-term strategic purposes. Accordingly, the management elected to designate these investments in equity instruments as at FVTOCI as they believe that recognizing short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Group's strategy of holding these investments for long-term purposes.

In 2019, the Group sold part of its shares in Nyquest Technology Co., Ltd. in order to manage credit concentration risk. The shares sold had a fair value of NT$87,266 thousand and its related unrealized valuation gain of NT$49,703 thousand was transferred from other equity to retained earnings. Refer to Note 19 for related information.

Dividends of NT$70,529 thousand were recognized during 2019. The dividends related to investments derecognized during 2019 were NT$4,006 thousand, and those related to investments held at December 31, 2019 were NT$66,523 thousand.

In August 2019, NTC resolved to invest in the Preferred E Share of the non-related party communication chip maker in Israel, Autotalks Ltd. The rights of the Preferred E Share were as follows:

a. Each Preferred E Share grants its holder a number of votes equal to the number of votes per Ordinary Share.

b. The Preferred E Share shall be prior to all other equity securities of Autotalks Ltd. in the event of liquidation.

c. The holders of the Preferred E Share shall be entitled to receive non-cumulative cash dividends at the rate of eight percent.

d. The investors shall have the right to appoint one non-voting observer ("Observer") to attend Autotalks Ltd.'s board meetings.

e. The holders of the Preferred E Share shall be entitled to preemptive right with respect to future issuance of new securities of Autotalks Ltd.

f. The investors have the rights to obtain the annual financial statements, quarterly financial statements and etc.

12. PROPERTY, PLANT AND EQUIPMENT

	December 31	
	2019	2018
Land and buildings	$ 189,755	$ 198,813
Machinery and equipment	465,033	393,283
Other equipment	104,117	105,821
Construction in progress and prepayments for purchase of equipment	1,416	-
	$ 760,321	$ 697,917

	Land and Buildings	Machinery and Equipment	Other Equipment	Construction in Progress and Prepayments for Purchase of Equipment	Total
Cost					
Balance at January 1, 2019	$ 3,649,663	$ 11,403,272	$ 381,190	$ -	$ 15,434,125
Additions	16,446	172,191	48,188	1,416	238,241
Disposals	(3,964)	(45,210)	(2,664)	-	(51,838)
Reclassified	-	23,735	(23,735)	-	-
Effects of foreign currency exchange differences	-	3,259	2,939	-	6,198
Balance at December 31, 2019	3,662,145	11,557,247	405,918	1,416	15,626,726

(Continued)

	Land and Buildings	Machinery and Equipment	Other Equipment	Construction in Progress and Prepayments for Purchase of Equipment	Total
Accumulated depreciation and impairment					
Balance at January 1, 2019	$ 3,450,850	$ 11,009,989	$ 275,369	$ -	$ 14,736,208
Disposals	(3,964)	(45,158)	(2,545)	-	(51,667)
Depreciation expenses	25,504	124,974	28,395	-	178,873
Reclassified	-	-	-	-	-
Effects of foreign currency exchange differences	-	2,409	582	-	2,991
Balance at December 31, 2019	3,472,390	11,092,214	301,801	-	14,866,405
Carrying amounts at December 31, 2019	$ 189,755	$ 465,033	$ 104,117	$ 1,416	$ 760,321
Cost					
Balance at January 1, 2018	$ 3,608,264	$ 11,443,998	$ 394,138	$ 20,167	$ 15,466,567
Additions	41,376	146,815	13,272	16,222	217,685
Disposals	-	(185,617)	(55,991)	-	(241,608)
Reclassified	23	797	35,762	(36,582)	-
Effects of foreign currency exchange differences	-	(2,721)	(5,991)	193	(8,519)
Balance at December 31, 2018	3,649,663	11,403,272	381,190	-	15,434,125
Accumulated depreciation and impairment					
Balance at January 1, 2018	3,425,627	11,089,179	309,098	-	14,823,904
Disposals	-	(185,121)	(55,800)	-	(240,921)
Depreciation expenses	25,200	107,917	26,188	-	159,305
Reclassified	23	-	(23)	-	-
Effects of foreign currency exchange differences	-	(1,986)	(4,094)	-	(6,080)
Balance at December 31, 2018	3,450,850	11,009,989	275,369	-	14,736,208
Carrying amounts at December 31, 2018	$ 198,813	$ 393,283	$ 105,821	$ -	$ 697,917

(Concluded)

13. LEASE ARRANGEMENTS

a. Right-of-use assets - 2019

	December 31, 2019
Carrying amounts	
Land	$ 226,581
Buildings	333,255
Other equipment	40,452
	$ 600,288

	For the Year Ended December 31, 2019
Additions to right-of-use assets	$ 117,417
Depreciation for right-of-use assets	
Land	$ 25,408
Buildings	72,722
Other equipment	8,669
	$ 106,799
Income from the subleasing of right-of-use assets (presented in other income)	$ (7,600)

b. Lease liabilities - 2019

	December 31, 2019
Carrying amounts	
Current	$ 114,308
Non-current	$ 452,715

Range of discount rate for lease liabilities was as follows:

	December 31, 2019
Land	1.76%-2.06%
Buildings	1.44%-3.75%
Other equipment	0.73%-3.61%

For the year ended December 31, 2019, the interest expense under lease liabilities amounted to $11,361 thousand.

c. Material lease-in activities and terms

The Group leased parcels of land from Science Park Administration, and the lease term will expire in December 2027, which can be extended after the expiration of the lease period.

The Group leased parcel of land from Taiwan Sugar Corporation under a twenty-year term from October 2014 to September 2034, which is allowed to extend after the expiration of lease. The chairman of the Company, is a joint guarantor of such lease (refer to Note 27).

The Group leased some of the offices in the United States, China, Israel, India, Shen-Zhen and part in Taiwan, and the lease terms will expire between 2020 and 2026 which can be extended after the expiration of the lease periods.

d. Subleases

The Group subleases its right-of-use assets for buildings under operating leases with lease terms between 1 and 5 years.

The maturity analysis of lease payments receivable under operating subleases was as follows:

	December 31, 2019
Year 1	$ 6,244
Year 2	5,795
Year 3	5,881
Year 4	1,985
Year 5	-
Year 6 onwards	-
	$ 19,905

To reduce the residual asset risk related to the subleased asset at the end of the relevant sublease, the lease contract between the Group and the lessee includes the receipt of the deposits and the compensation for damage due to the lack of management and maintenance.

e. Other lease information

2019

	For the Year Ended December 31, 2019
Expenses relating to short-term leases	$ 13,493
Total cash outflow for leases	$ (125,190)

The Group leases certain buildings and transportation equipment which qualify as short-term leases. The Group has elected to apply the recognition exemption and thus, did not recognize right-of-use assets and lease labilities for these leases.

Lease-out arrangements under operating leases for investment properties are set out in Note 14.

2018

Prepayments for lease obligations

	December 31, 2018
Current (presented in other current assets)	$ 3,463
Non-current (presented in other non-current assets)	35,129
	$ 38,592

Prepayments for lease obligations are prepayments for the right of land access which the Company leased from Taiwan Sugar Corporation.

Lease expense

	For the Year Ended December 31, 2018
Lease expenditure	$ 108,879

14. INVESTMENT PROPERTIES

	December 31	
	2019	2018
Investment properties, net	$ 44,207	$ 50,527

The investment properties are located in Shenzhen, China. As of December 31, 2019 and 2018, the fair value of such investment properties was both approximately NT$200,000 thousand, which used as reference the neighboring area transactions.

	Investment Properties
Cost	
Balance at January 1, 2019	$ 102,333
Effects of foreign currency exchange differences	(3,822)
Balance at December 31, 2019	98,511
Accumulated depreciation and impairment	
Balance at January 1, 2019	51,806
Depreciation expenses	4,605
Effects of foreign currency exchange differences	(2,107)
Balance at December 31, 2019	54,304
Carrying amount at December 31, 2019	$ 44,207

	Investment Properties
Cost	
Balance at January 1, 2018	$ 104,460
Effects of foreign currency exchange differences	(2,127)
Balance at December 31, 2018	102,333
Accumulated depreciation and impairment	
Balance at January 1, 2018	48,182
Depreciation expenses	4,696
Effects of foreign currency exchange differences	(1,072)
Balance at December 31, 2018	51,806
Carrying amount at December 31, 2018	$ 50,527

The investment properties were leased out for 3 years. The lease contracts contain market review clauses in the event that the lessees exercise their options to extend. The lessees do not have bargain purchase options to acquire the investment properties at the expiry of the lease periods.

The maturity analysis of lease payments receivable under operating leases of investment properties at December 31, 2019 was as follows:

	December 31, 2019
Year 1	$ 7,832
Year 2	4,120
Year 3	2,270
Year 4	-
Year 5	-
Year 6 on wards	-
	$ 14,222

To reduce the residual asset risk related to the subleased asset at the end of the relevant sublease, the lease contract between the Group and the lessee includes the receipt of the deposits and the compensation for damage due to the lack of management and maintenance.

15. INTANGIBLE ASSETS

	December 31	
	2019	2018
Deferred technical assets	$ 260,837	$ 144,044
Other intangible assets	393	710
	$ 261,230	$ 144,754

	Deferred Technical Assets	Other Intangible Assets	Total
Cost			
Balance at January 1, 2019	$ 1,043,189	$ 3,558	$ 1,046,747
Additions	206,283	-	206,283
Disposals	(53,844)	-	(53,844)
Effects of foreign currency exchange differences	6,827	(132)	6,695
Balance at December 31, 2019	1,202,455	3,426	1,205,881
Accumulated amortization and impairment			
Balance at January 1, 2019	899,145	2,848	901,993
Disposals	(53,844)	-	(53,844)
Amortization expenses	89,267	302	89,569
Effects of foreign currency exchange differences	7,050	(117)	6,933
Balance at December 31, 2019	941,618	3,033	944,651
Carrying amounts at December 31, 2019	$ 260,837	$ 393	$ 261,230

(Continued)

	Deferred Technical Assets	Other Intangible Assets	Total
Cost			
Balance at January 1, 2018	$ 1,020,816	$ 4,057	$ 1,024,873
Additions	27,986	105	28,091
Disposals	-	(535)	(535)
Effects of foreign currency exchange differences	(5,613)	(69)	(5,682)
Balance at December 31, 2018	1,043,189	3,558	1,046,747
Accumulated amortization and impairment			
Balance at January 1, 2018	818,182	3,079	821,261
Disposals	-	(535)	(535)
Amortization expenses	86,446	361	86,807
Effects of foreign currency exchange differences	(5,483)	(57)	(5,540)
Balance at December 31, 2018	899,145	2,848	901,993
Carrying amounts at December 31, 2018	$ 144,044	$ 710	$ 144,754

(Concluded)

16. BORROWINGS

Long-term Borrowings

	Period	Interest Rate	December 31 2019	December 31 2018
Unsecured borrowings				
The Export-Import Bank of ROC	2019.09.20-2026.09.21	1.16%	$ 500,000	$ -

The proceeds of the Company's unsecured loan from the Export-Import Bank of ROC was invested in Autotalks Ltd. The principal will be repaid every six months from September 20, 2023 until maturity and the interest rate will be reviewed and may be adjusted every six months.

17. OTHER PAYABLES

	December 31 2019	December 31 2018
Payable for salaries or employee benefits	$ 367,537	$ 399,259
Payable for royalties	129,494	99,273
Payable for purchase of equipment	93,619	70,133
Payable for software	58,540	55,363
Others	301,868	254,301
	$ 951,058	$ 878,329

18. RETIREMENT BENEFIT PLANS

a. Defined contribution plan

The Company adopted a pension plan under the Labor Pension Act (LPA), which is a state-managed defined contribution plan. Under the LPA, the Company makes monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages.

The employees of the Group's subsidiaries in the United States, Hong Kong, Israel and China are members of a state-managed defined contribution plan implemented through the local government. The subsidiaries are required to contribute a specified percentage of payroll costs to the retirement benefit scheme to fund the benefits. The only obligation of the Group with respect to the retirement benefit plan is to make the specified contributions.

b. Defined benefit plans

The defined benefit plan adopted by the Company in accordance with the Labor Standards Law is operated by the government of the ROC. Pension benefits are calculated on the basis of the length of service and average of monthly salaries of the 6 months before retirement. In 2019 and 2018, the Company contributed amounts equal to 15% of total monthly salaries and wages to a pension fund administered by the pension fund monitoring committee of the Company. Pension contributions are deposited in the Bank of Taiwan in the committee's name. Before the end of each year, the Company assesses the balance in the pension fund. If the amount of the balance in the pension fund is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Company is required to fund the difference in one appropriation that should be made before the end of March of the next year. The pension fund is managed by the Bureau of Labor Funds, Ministry of Labor ("the Bureau"); the Company has no right to influence the investment policy and strategy.

The payables for employee turnover of NTIL are calculated on the basis of the length of service and the last monthly salary under a defined benefit plan.

The amounts included in the consolidated balance sheets in respect of the Group's defined benefit plans are as follows:

	December 31	
	2019	**2018**
Present value of defined benefit obligation	$ 1,444,939	$ 1,282,657
Fair value of plan assets	(1,157,374)	(988,230)
Net defined benefit liability	$ 287,565	$ 294,427

Movements in net defined benefit liabilities (assets) were as follows:

	Present Value of the Defined Benefit Obligation	**Fair Value of the Plan Assets**	**Net Defined Benefit Liabilities (Assets)**
Balance at January 1, 2018	$ 1,248,983	$ (942,876)	$ 306,107
Service cost			
Current service cost	31,010	-	31,010
Net interest expense (income)	25,773	(15,991)	9,782
Others	(3,692)	3,189	(503)
Recognized in profit or loss	53,091	(12,802)	40,289

(Continued)

	Present Value of the Defined Benefit Obligation	Fair Value of the Plan Assets	Net Defined Benefit Liabilities (Assets)
Remeasurement			
Actuarial (gain) loss - the discount rate more (less) than the realized rate of return	$ -	$ (13,703)	$ (13,703)
Actuarial (gain) loss - changes in financial assumptions	3,748	15,497	19,245
Actuarial (gain) loss - experience adjustments	60,878	903	61,781
Recognized in other comprehensive income	64,626	2,697	67,323
Contributions from the employer	-	(109,539)	(109,539)
Plan assets paid	(56,637)	55,135	(1,502)
Settlement of pension liabilities	(8,060)	-	(8,060)
Effect of foreign currency exchange difference	(19,346)	19,155	(191)
Balance at December 31, 2018	1,282,657	(988,230)	294,427
Service cost			
Current service cost	37,909	-	37,909
Net interest expense (income)	27,098	(15,581)	11,517
Recognized in profit or loss	65,007	(15,581)	49,426
Remeasurement			
Actuarial (gain) loss - the discount rate more (less) than the realized rate of return	-	(19,854)	(19,854)
Actuarial (gain) loss - changes in demographic assumptions	398	-	398
Actuarial (gain) loss - changes in financial assumptions	102,769	(42,426)	60,343
Actuarial (gain) loss - experience adjustments	23,637	(8,194)	15,443
Recognized in other comprehensive income	126,804	(70,474)	56,330
Contributions from the employer	-	(112,657)	(112,657)
Plan assets paid	(51,951)	51,951	-
Effect of foreign currency exchange difference	22,422	(22,383)	39
Balance at December 31, 2019	$ 1,444,939	$ (1,157,374)	$ 287,565

(Concluded)

An analysis by function of the amounts recognized in profit or loss in respect of the defined benefit plans is as follows:

	For the Year Ended December 31	
	2019	2018
Operating costs	$ 6,253	$ 6,932
Selling expenses	103	105
General and administrative expenses	7,571	5,334
Research and development expenses	35,499	27,918
	$ 49,426	$ 40,289

Through the defined benefit plans under the Labor Standards Law, the Group is exposed to the following risks:

1) Investment risk: The plan assets are invested in domestic and foreign equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the Bureau or under the mandated management. However, in accordance with relevant regulations, the return generated by plan assets shall not be below the interest rate for a 2-year time deposit with local banks.

2) Interest risk: A decrease in the government bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the plans' debt investments.

3) Salary risk: The present value of the defined benefit obligation is calculated using the future salaries of plan participants. As such, an increase in the salaries of the plan participants will increase the present value of the defined benefit obligation.

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The significant assumptions used for the purposes of the actuarial valuations are as follows:

	December 31	
	2019	**2018**
Discount rate(s)	0.75%-4.18%	1.25%-3.58%
Expected rate(s) of salary increase	1.00%-2.00%	1.00%-2.00%

If possible reasonable change in each of the significant actuarial assumptions will occur and all other assumptions will remain constant, the present value of the defined benefit obligation will increase (decrease) as follows:

	For the Year Ended December 31	
	2019	**2018**
Discount rate(s)		
0.25% increase	$ (32,671)	$ (28,655)
0.25% decrease	$ 37,019	$ 31,173
Expected rate(s) of salary increase		
0.25% increase	$ 33,724	$ 29,060
0.25% decrease	$ (28,667)	$ (26,038)

The sensitivity analysis presented above may not be representative of the actual change in the present value of the defined benefit obligation as it is unlikely that changes in assumptions will occur in isolation of one another as some of the assumptions may be correlated.

	December 31	
	2019	**2018**
Expected contributions to the plans for the next year	$ 51,326	$ 117,978
Average duration of the defined benefit obligation	9-12.74 years	9.4-13.17 years

19. EQUITY

a. Share capital

Ordinary shares

	December 31	
	2019	2018
Authorized shares (in thousands)	500,000	300,000
Authorized capital	$ 5,000,000	$ 3,000,000
Issued and paid shares (in thousands)	287,554	207,554
Issued capital	$ 2,875,544	$ 2,075,544
Par value (in New Taiwan dollars)	$ 10	$ 10

On July 25, 2019, the Company's board of directors resolved to issue 80,000 thousand ordinary shares with a par value of NT$10 to fund working capital. On August 26, 2019, this resolution was approved by the FSC. The consideration of NT$45 per share was determined by the chairman which was authorized by the board of directors of the Company; the subscription base date was October 23, 2019; the increase in share capital was fully paid. The associated issuance cost of $6,494 thousand was deducted from capital surplus - additional paid-in capital.

On December 6, 2019, the extraordinary general shareholders' meeting of the Company resolved to increase its capital by issuing ordinary shares between 60,000 thousand and 90,000 thousand through the offering of the Global Depository Shares (GDSs) to raise fund for the acquisition of the related business of Panasonic Semiconductor. The offering price for the GDSs was NT$45 per share tentatively. According to the laws, the actual offering price should not be lower than the closing share price of the Company, one of the simple arithmetic averages of the Company's common share closing price for one, three or five business days prior to the pricing data adjusted for any distribution of stock dividends, cash dividends or capital reduction, and 90% of the average price ex-dividends. The total proposed funds amounted to US$132,787 thousand (at the exchange rate of US$1:NT$30.5); the total amount of the actual offering is based on the outstanding unit and price of the GDSs. The chairman is authorized by the board of the Company to set the pricing date and subscription base date after the proposal is approved by the FSC.

As of December 31, 2019 and 2018, the balance of the Company's capital account amounted to NT$2,875,544 thousand and NT$2,075,544 thousand, divided into 287,554 thousand ordinary shares and 207,554 thousand ordinary shares at a par value of NT$10.

b. Capital surplus

	December 31	
	2019	2018
May be used to offset a deficit, distributed as cash dividends, or transferred to share capital*		
Additional paid-in capital	$ 2,856,991	$ 63,485
May only be used to offset a deficit		
Cash capital increase reserved for employee share options	49,920	-
Overdue dividends unclaimed	52	-
May not be used for any purpose		
Employee share options	13	13
	$ 2,906,976	$ 63,498

* Such capital surplus may be used to offset a deficit; in addition, when the Company has no deficit, such capital surplus may be distributed as cash dividends or transferred to share capital (limited to a certain percentage of the Company's capital surplus and to once a year).

c. Retained earnings and dividends policy

The shareholders held their regular meeting on June 24, 2019 and resolved the amendments to the Company's dividend distribution policy in the Company's Articles of Incorporation (the "Articles"). Under the dividends policy as set forth in the amended Articles, if the Company has surplus earnings at the end of a fiscal year, after offsetting losses of previous years and paying taxes, the Company shall set aside as legal reserve 10% of the remaining profit. However, legal reserve need not be made when the accumulated legal reserve equals the paid-in capital of the Company. After setting aside or reversing special reserve pursuant to applicable laws and regulations and orders of competent authorities, from (1) the remaining amount plus undistributed retained earnings, or (2) the difference between the undistributed retained earnings and the losses suffered by the Company at the end of a fiscal year if the losses can be fully covered by the undistributed retained earnings, the Company shall distribute the remaining amount (if not otherwise set aside as special reserve and reserved based on business needs) and shall be used by the Company's board of directors as the basis for proposing a distribution plan, which should be resolved in the shareholders' meeting for bonus to shareholders. The board of directors shall be authorized to distribute the profit, the legal reserve and the capital reserve in cash upon resolution by a majority vote at a board meeting attended by two-thirds or more of the directors, and shall report the same to the shareholders' meeting. In principle, not less than 10% of the total shareholders' bonus shall be distributed in the form of cash. For the policies on distribution of employees' compensation and remuneration to directors, refer to Note 22 "Employee benefits expense".

Appropriation of earnings to a legal reserve shall be made until the legal reserve equals the Company's paid-in capital. The legal reserve may be used to offset deficits. If the Company has no deficit and the legal reserve has exceeded 25% of the Company's paid-in capital, the excess may be transferred to capital or distributed in cash.

The appropriations of earnings for 2018 and 2017 approved in the shareholders' meetings on June 24, 2019 and June 12, 2018, respectively, were as follows:

	Appropriation of Earnings		Dividends Per Share (NT$)	
	For Year 2018	For Year 2017	For Year 2018	For Year 2017
Legal reserve	$ 71,063	$ 68,813		
Cash dividends	518,886	518,886	$2.50	$2.50
	$ 589,949	$ 587,699		

As of the date of the Company's board meeting, February 6, 2020, the appropriation of earnings for 2019 are not subjected.

d. Other equity items

1) The exchange differences arising on translation of foreign operations' net assets from its functional currency to the Group's presentation currency (New Taiwan dollar) are recognized directly in other comprehensive income. For the years ended December 31, 2019 and 2018, other comprehensive loss was NT$8,449 thousand and NT$10,370 thousand, respectively.

2) Unrealized valuation gains (losses) on financial assets at FVTOCI

	For the Year Ended December 31, 2019
Balance at January 1	$ 179,854
Recognized for the year	39,393
Cumulative unrealized gains (losses) of equity instruments transferred to retained earnings due to disposal	(49,703)
Balance at December 31	$ 169,544

	For the Year Ended December 31, 2018
Balance at January 1 (IAS 39)	$ -
Adjustment on initial application of IFRS 9	379,242
Balance at January 1 (IFRS 9)	379,242
Recognized for the year	(196,160)
Cumulative unrealized gains (losses) of equity instruments transferred to retained earnings due to disposal	(3,228)
Balance at December 31	$ 179,854

20. REVENUE

Refer to Note 33 for the Group's revenue.

21. INCOME TAXES RELATING TO CONTINUING OPERATIONS

a. Income tax recognized in profit or loss

Major components of income tax expense are as follows:

	For the Year Ended December 31	
	2019	2018
Current tax		
In respect of the current year	$ 96,776	$ 94,576
Income tax on unappropriated earnings	-	8,149
Adjustment for prior years' tax and effects of estimated difference	462	41,220
Deferred tax		
In respect of the current year	11,872	(3,658)
Effect of tax rate changes	-	(12,000)
Income tax expense recognized in profit or loss	$ 109,110	$ 128,287

b. Reconciliation of accounting profit and income tax expense is as follows:

	For the Year Ended December 31	
	2019	2018
Income tax expense from continuing operations at the statutory rate	$ 146,352	$ 167,031
Tax effect of adjustment item		
Permanent differences	(12,813)	(27,964)
Tax-exempt income	-	(14,000)
Others	5,109	14,000
Current income tax	138,648	139,067
Effect of tax rate changes	-	(12,000)
Unused investment credits	(30,000)	(48,149)
Additional income tax on unappropriated earnings	-	8,149
Adjustment for prior year's income tax	462	23
Adjustment for prior year's income tax assessed by the authorities	-	41,197
Income tax expense recognized in profit or loss	$ 109,110	$ 128,287

The Income Tax Act was amended in 2018, and the corporate income tax rate was adjusted from 17% to 20%, effective in 2018. In addition, the rate of the corporate surtax applicable to the 2018 unappropriated earnings was reduced from 10% to 5%. The applicable tax rate used by subsidiaries in China is 25%. Tax rates used by other group entities operating in other jurisdictions are based on the tax laws in those jurisdictions.

In July 2019, the President of the ROC announced the amendments to the Statute for Industrial Innovation, which stipulate that the amounts of unappropriated earnings in 2018 and thereafter that are reinvested in the construction or purchase of certain assets or technologies are allowed as deduction when computing the income tax on unappropriated earnings. The Group has already deducted the amount of capital expenditure from the unappropriated earnings in 2018 that was reinvested when calculating the tax on unappropriated earnings for the year ended December 2019.

As the shareholders have not yet resolved the appropriation of earnings for 2019, the potential income tax consequences of the 2019 unappropriated earnings are not reliably determinable.

c. Current tax assets and liabilities

	December 31	
	2019	2018
Tax refund receivable	$ 2,253	$ 2,361
Income tax payable	$ 78,732	$ 84,963

d. Deferred income tax assets

	December 31	
	2019	2018
Deferred income tax assets		
Allowance for inventory valuation and obsolescence loss and others	$ 97,919	$ 109,790

e. Income tax assessments

The Company’s tax returns through 2017 have been assessed by the tax authorities.

f. Information about investment credits

The Company applies the Statute for Industrial Innovation Article 10, and up to 10% of its R&D expenses may be credited against the profit-seeking enterprise income tax payable in each of the three years following the then current year.

22. EMPLOYEE BENEFITS EXPENSE, DEPRECIATION AND AMORTIZATION

	For the Year Ended December 31							
	2019				2018			
	Classified as Operating Costs	Classified as Operating Expenses	Classified as Non-operating Income and Losses	Total	Classified as Operating Costs	Classified as Operating Expenses	Classified as Non-operating Income and Losses	Total
Employee benefits expense								
Short-term employment benefits	$ 711,339	$ 1,985,903	$ -	$ 2,697,242	$ 727,045	$ 1,861,540	$ -	$ 2,588,585
Post-employment benefits	30,792	151,878	-	182,670	31,212	140,475	-	171,687
Compensation cost of employee share options	16,667	33,253	-	49,920	-	-	-	-
Depreciation	123,215	162,457	4,605	290,277	97,217	62,088	4,696	164,001
Amortization	33,506	56,063	-	89,569	33,330	53,477	-	86,807

According to the Company's Articles, the Company accrued employees' compensation and remuneration of directors at rates of no less than 1% and no higher than 1%, respectively, of net profit before income tax, employees' compensation, and remuneration of director.

The employees' compensation and remuneration of directors for the years ended December 31, 2019 and 2018, which were approved by the Company's board of directors on February 6, 2020 and February 1, 2019, respectively, are as follows:

	For the Year Ended December 31			
	2019		2018	
	Amount	%	Amount	%
Employees' cash compensation	$ 40,868	6	$ 50,428	6
Remuneration of directors	6,811	1	8,405	1

If there is a change in the amounts after the annual consolidated financial statements were authorized for issue, the differences are recorded as a change in accounting estimate. There is no difference between the actual amounts of employees' compensation and remuneration to directors paid and the amounts recognized in the financial statements for the year ended December 31, 2018 and 2017.

Information on the employees' compensation and remuneration of directors resolved by the Company's board of directors in 2020 and 2019 is available at the Market Observation Post System website of the Taiwan Stock Exchange.

23. SHARE-BASED PAYMENT ARRANGEMENTS

The Company's board of directors resolved to reserve 10% of the shares from the issuance of 80,000 thousand shares approved by the FSC on August 26, 2019 to be subscribed for by its employees. The number of shares subscribed for by the employees was affirmed on September 3, 2019. The fair value of such share options subscribed for by the Company's employees on the grant date was measured using the Black-Scholes Option Pricing Model and amounted to NT$49,920 thousand which was recorded as compensation costs with a corresponding increase in capital surplus.

a. As of December 31, 2019, the Company's Share-based payments agreements are as follows:

Agreement	Grant Date	Number of Shares Grant	Vesting Conditions
Cash capital increase reserved for employee share options	2019.9.3	8,000 thousand shares	Vested immediately

b. The fair value of share options acquired by employees on grant day, September 3, 2019, was measured by using Black-Scholes Option Pricing Model. Relevant information is as follows:

Stock Price (NT$)	Exercise Price (NT$)	Expected Price Volatility	Expected Vesting Period	Expected Dividend Yield Rate	Risk-free Interest Rate	Fair Value Per Share (NT$)
$50.8	$45	32.61%	46 days	0.00%	0.43%	$6.24

24. EARNINGS PER SHARE

The numerators and denominators used in calculating basic and diluted earnings per share ("EPS") are as follows:

	Amounts (Numerator)	Shares (Denominator) (In Thousands)	EPS (NT$)
For the year ended December 31, 2019			
Net profit	$ 558,459		
Basic EPS			
Earnings used in the computation of basic EPS	558,459	220,888	$ 2.53
Effect of potentially dilutive ordinary shares			
Employee's compensation	-	874	
Diluted EPS			
Earnings used in the computation of diluted EPS	$ 558,459	221,762	2.52
For the year ended December 31, 2018			
Net profit	$ 710,633		
Basic EPS			
Earnings used in the computation of basic EPS	710,633	207,554	$ 3.42
Effect of potentially dilutive ordinary shares			
Employee's compensation	-	1,270	
Diluted EPS			
Earnings used in the computation of diluted EPS	$ 710,633	208,824	3.40

If the Company offered to settle the compensation or bonuses paid to employees in cash or shares, the Company assumed that the entire amount of the compensation or bonuses will be settled in shares, and the resulting potential shares were included in the weighted average number of shares outstanding used in the computation of diluted EPS, as the effect is dilutive. The number of shares used in the computation of diluted EPS is estimated by the amount of compensation divided by the closing price of the potential common shares at the end of the reporting period. Such dilutive effect of the potential shares is included in the computation of diluted EPS until the number of shares to be distributed to employees is resolved in the following year.

25. CAPITAL MANAGEMENT

The Group manages its capital to ensure that entities in the Group will be able to have the necessary financial resources and operational plan so that it can cope with the next twelve months working capital requirements, capital expenditures, research and development expenses, debt repayments and dividends payments.

26. FINANCIAL INSTRUMENT

a. Categories of financial instruments

	December 31			
	2019		2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
<u>Financial assets</u>				
Financial assets at amortized cost (Note 1)	$ 6,521,099	$ 6,521,099	$ 2,774,882	$ 2,774,882
Financial assets at FVTPL				
Derivative financial assets	6,037	6,037	763	763
Financial assets at FVTOCI				
Investment in equity instruments	1,117,410	1,117,410	539,283	539,283
<u>Financial liabilities</u>				
Financial liabilities at amortized cost (Note 2)	2,618,441	2,618,441	1,801,426	1,801,426

Note 1: The balance includes financial assets at amortized cost, which includes cash and cash equivalents, notes and accounts receivable (including related parties), other receivables and refundable deposits.

Note 2: The balance includes financial liabilities at amortized cost, which includes accounts payable, other payables, long-term loans and deposits received.

b. Fair value information

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

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

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

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

2) Fair value measurements recognized in the consolidated balance sheets

a) The fair values of financial assets and financial liabilities with standard terms and conditions and traded on active liquid markets are determined with reference to quoted market prices (includes listed shares and emerging shares).

b) The fair value of the financial instruments at fair value through profit or loss is based on Level 2 inputs, either directly or indirectly. The fair value of foreign-currency derivative financial instrument could be determined by reference to the price and discount rate of currency swap quoted by financial institutions. Foreign exchange forward contracts use individual maturity rate to calculate the fair value of each contract.

c) Domestic unlisted equity instruments at FVTOCI were all measured based on Level 3 fair value. Fair values of such equity instruments were determined using discounted cash flow of income approach and comparable listed company approach, by referring to strike price of similar business in active market, implied value multiple of the price and relevant information. Significant unobservable inputs included P/E ratio, value multiple and market liquidity discount. As the discounted cash flow method was used, to discount for the lack of marketability of 29%; which increase by 1% while all the other varibles are held constant fair value of investments will decrease by $9,122 thousand.

3) Fair value of financial instruments not measured at fair value

The Group recognized in the financial statements financial assets and financial liabilities that are not measured at fair value. Management believes the carrying amounts of such financial assets and liabilities approximate their fair values.

4) Fair value of financial instruments measured at fair value on a recurring basis

Fair value hierarchy

	December 31, 2019			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets at FVTPL				
Derivative financial assets	$ -	$ 6.037	$ -	$ 6.037
Financial assets at FVTOCI				
Domestic listed shares and emerging market shares	$ 61,205	$ -	$ -	$ 61,205
Domestic and overseas unlisted shares	$ -	$ -	$ 1,056,205	$ 1,056,205

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Derivative financial assets	$ -	$ 763	$ -	$ 763
Financial assets at FVTOCI				
Domestic listed shares and emerging market shares	$ 120,550	$ -	$ -	$ 120,550
Domestic unlisted shares	$ -	$ -	$ 418,733	$ 418,733

5) Reconciliation of Level 3 fair value measurements of financial assets

The financial assets measured at Level 3 fair value were financial assets at FVTPL and equity investments classified as financial assets at FVTOCI. Reconciliations for the years ended December 31, 2019 and 2018 were as follows:

	For the Year Ended December 31	
	2019	2018
Balance, beginning of period	$ 418,733	$ 454,657
Additions	630,000	-
Recognized in other comprehensive income	41,872	(32,424)
Proceeds from return of capital of investments	(4,000)	(3,500)
Effect of exchange rate changes	(30,400)	-
Balance, end of period	$ 1,056,205	$ 418,733

c. Financial risk management objectives and policies

The Group seeks to minimize the effects of financial risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives is governed by the Group's policies approved by the board of directors, which provide written principles on foreign currency risk, and the use of financial derivatives. Compliance with policies and exposure limits is reviewed by the internal auditors on a continuous basis.

1) Market risk

The Group's activities exposed it primarily to the financial risks of changes in foreign currency exchange rates and interest rates. The Group entered into foreign exchange forward contracts to hedge the exchange rate risk arising on the export business.

a) Foreign currency risk

The Group has foreign currency denominated transactions, which expose the Group to foreign currency risk. Exchange rate exposures are managed within approved policy parameters utilizing foreign exchange forward contracts.

The carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities at the end of the year are set out in Note 31.

The sensitivity analysis included only outstanding foreign currency denominated monetary items at the end of the reporting period and assuming an increase in net income and equity if New Taiwan dollars strengthen by 1% against foreign currencies. For a 1% weakening of New Taiwan dollars against the relevant currency, there would be impact on net income in the amounts of NT$3,882 thousand and NT$4,077 thousand decrease for the years ended December 31, 2019 and 2018, respectively. The amounts used in the 1% weakening of New Taiwan dollars against the relevant currency did not consider the impact of hedge contracts and hedged item.

b) Interest rate risk

Interest rate risk refers to the risk that the change in market value will influence the fair value of financial instruments. The Group's interest rate risk arises primarily from floating rate deposits.

The carrying amounts of the Group's financial assets and financial liabilities with exposure to interest rates at the end of the reporting period were as follows:

	December 31	
	2019	**2018**
Cash flow interest rate risk		
Financial assets	$ 284,413	$ 108,266
Financial liabilities	500,000	-

The sensitivity analysis of cash flows based on the Group's exposure to interest rates of variable-rate derivative instruments at the end of the year showed that if market interest rates increased by 1%, the Group's cash inflows (outflows) for the years ended December 31, 2019 and 2018 would have increased by NT$(2,156) thousand and NT$1,083 thousand, respectively.

2) Credit risk

Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in a financial loss to the Group. The Group adopted a policy of only dealing with creditworthy counterparties and obtaining sufficient collateral, where appropriate, as a means of mitigating the risk of financial loss from defaults. In this regard, the management of the Group consider that the Group's credit risk was significantly reduced.

3) Liquidity risk

The Group has enough operating capital to comply with loan covenants; liquidity risk is low.

The Group's non-derivative financial liabilities and their agreed repayment period are as follows:

	December 31, 2019			
	Within 1 Year	**1-2 Years**	**Over 2 Years**	**Total**
Non-derivative financial liabilities				
Non-interest bearing	$ 2,076,872	$ -	$ -	$ 2,076,872
Lease liabilities	126,438	115,424	360,654	602,516
Variable interest rate liabilities	-	-	500,000	500,000
	$ 2,203,310	$ 115,424	$ 860,654	$ 3,179,388

Additional information about the maturity analysis of lease liabilities:

	Less than 2 Years	2-5 Years	5-10 Years	10-15 Years	Over 15 Years
Non-derivative financial liabilities					
Lease liabilities	$ 241,862	$ 237,395	$ 117,532	$ 5,727	$ 602,516

	December 31, 2018			
	Within 1 Year	1-2 Years	Over 2 Years	Total
Non-derivative financial liabilities				
Non-interest bearing	$ 1,763,520	$ -	$ -	$ 1,763,520

27. RELATED PARTY TRANSACTIONS

a. The names and relationships of related parties are as follows:

Related Party	Relationship with the Group
Winbond Electronics Corporation ("WEC")	Parent company
Winbond Electronics (HK) Limited ("WEHK")	Associate
Winbond Electronics Corporation America ("WECA")	Associate
Winbond Electronics Corporation Japan ("WECJ")	Associate
Techdesign Corporation	Associate
Callisto Holding Limited	Associate
Nyquest Technology Co., Ltd. ("Nyquest")	Related party in substance
Walton Advanced Engineering Inc.	Related party in substance
Chin Cherng Construction Co., Ltd.	Related party in substance
United Industrial Gases Co., Ltd.	Related party in substance

b. Operating activities

	For the Year Ended December 31	
	2019	2018
1) Operating revenue		
Related party in substance	$ 246,391	$ 247,388
Associate	90,302	85,611
	$ 336,693	$ 332,999
2) Purchases of goods		
Parent company	$ 131,874	$ 103,274
3) Manufacturing expenses		
Parent company	$ 33	$ -

	For the Year Ended December 31	
	2019	2018
4) Selling expenses		
Associate	$ 895	$ 667
Parent company	44	-
	$ 939	$ 667
5) General and administrative expenses		
Related party in substance	$ 10,780	$ 10,538
Parent company	7,043	7,818
Associate	882	664
	$ 18,705	$ 19,020
6) Research and development expenses		
Associate	$ 6,167	$ 6,798
Parent company	1,031	453
	$ 7,198	$ 7,251
7) Dividend income		
Related party in substance		
United Industrial Gases Co., Ltd.	$ 62,858	$ 57,570
Nyquest Technology Co., Ltd.	7,636	15,701
	$ 70,494	$ 73,271
8) Other income		
Related party in substance	$ 183	$ 197

	December 31	
	2019	2018
9) Accounts receivable from related parties		
Related party in substance	$ 45,903	$ 44,298
Associate	21,491	18,008
	$ 67,394	$ 62,306

	December 31	
	2019	2018
10) Other receivables		
Associate	$ 94	$ 343
Parent company	-	347
	$ 94	$ 690
11) Refundable deposits		
Parent company	$ 1,780	$ -
Related party in substance	1,722	1,722
	$ 3,502	$ 1,722
12) Accounts payable to related parties		
Parent company	$ 24,535	$ 15,700
13) Other payables		
Parent company	$ 2,740	$ 3,215
Associate	-	249
	$ 2,740	$ 3,464
14) Guarantee deposits		
Parent company	$ 545	$ 545

The sales and purchase prices and collection and payment terms with related parties were not significantly different from those with third parties. For other related party transactions, price and terms were determined in accordance with mutual agreement.

c. Lease arrangements - Group is lessee

	December 31, 2019
1) Lease liabilities	
Parent company	$ 59,750
Related party in substance	32,869
Associate	15,652
	$ 108,271

	For the Year Ended December 31, 2019
2) Interest expense	
Associate	$ 696
Related party in substance	604
Parent company	53
	$ 1,353

d. Lease arrangements - Group is lessor/Sublease arrangements

Sublease arrangements under operating leases

For the year ended December 31, 2019, the Group subleases its right-of-use assets to its associate companies WEC and WEHK under operating leases with lease terms between 1 and 3 years.

1) The balance of operating lease receivables was as follows:

Related Party Category	December 31, 2019
Parent company	$ 434
Associate	269
	$ 703

2) Future lease payment receivables are as follows:

Related Party Category	December 31, 2019
Parent company	$ 11,430
Associate	535
	$ 11,965

3) Lease income was as follows:

Related Party Category	For the Year Ended December 31, 2019
Parent company	$ 4,003
Associate	1,655
	$ 5,658

e. Endorsements and guarantees

As of December 31, 2019, the chairman of the Company is a joint guarantor of the land-leasing from Taiwan Sugar Corporation. Refer to Note 13.

f. Compensation of key management personnel

	For the Year Ended December 31	
	2019	2018
Short-term employee benefits	$ 78,687	$ 76,262
Post-employment benefits	3,066	2,813
Compensation costs of employee share options	2,072	-
	$ 83,825	$ 79,075

The remuneration of directors and key executives, as determined by the remuneration committee, was based on the performance of individuals and market trends.

28. ASSETS PLEDGED AS COLLATERAL OR FOR SECURITY

Please refer to Note 6.

29. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

a. As of December 31, 2019 and 2018, the amounts available under unused letters of credit were approximately JPY13,200 thousand and US$180 thousand, respectively.

b. Microchip Technology Inc. (listed company in the United States) filed a first amended complaint in January 2019, which alleges that the Company and NTCA infringed six patents of Microchip Technology Inc. The parties were given 90 days to reach an out-of-court settlement but no agreement was reached. The case is proceeding in the United States District Court for the Northern District of California where the Company and NTCA filed their statement of defense. The case is still in its initial stages; hence, the possible impact on the Company's business and finance is not yet determinable.

30. SIGNIFICANT CONTRACTS

On November 28, 2019, the Company's board of directors resolved to acquire the semiconductor business of Panasonic Corporation. Consequently, the Company and Panasonic Corporation reached an agreement and signed a contract for the Company's acquisition of the semiconductor business of Panasonic Corporation. Both parties will obtain approval from their government authorities and estimate to complete the contract settlement in June 2020. The total contract amount is US$250,000 thousand (approximately NT$7,627,500 thousand), which will be adjusted on or after the settlement in accordance with the regulated price formula in the contract.

31. SIGNIFICANT EVENTS AFTER THE REPORTING PERIOD

On February 6, 2020, Winbond Electronics Co. reassigned Yuan-Mou Su as its legal representative in the Company. The Company held the board of directors' meeting and resolved Yuan-Mou Su as the chairman on the same day.

32. SIGNIFICANT ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

The Group's significant financial assets and liabilities denominated in foreign currencies aggregated by the foreign currencies other than functional currency of the entities in the Group and the related exchange rates between foreign currencies and respective functional currency were as follows:

	December 31					
	2019			2018		
	Foreign Currencies (Thousand)	Exchange Rate (Note)	New Taiwan Dollars (Thousand)	Foreign Currencies (Thousand)	Exchange Rate (Note)	New Taiwan Dollars (Thousand)
Financial assets						
Monetary items						
USD	$ 40,291	29.98	$1,207,919	$ 31,623	30.715	$ 971,292
ILS	14,128	8.6652	122,421	12,398	8.1494	101,037
JPY	15,093	0.276	4,166	1,576	0.2782	438
EUR	27	33.59	891	83	35.2	2,905
Financial liabilities						
Monetary items						
USD	26,123	29.98	783,180	17,674	30.715	542,864
ILS	17,812	8.6652	154,348	12,365	8.1494	100,770
JPY	62,389	0.276	17,219	26,267	0.2782	7,307
EUR	157	33.59	5,281	536	35.2	18,868

Note: The rate foreign currencies are exchanged to New Taiwan dollars and displayed as a rate.

For the years ended December 31, 2019 and 2018, realized and unrealized net foreign exchange gains (losses) were NT$(2,791) thousand and NT$20,475 thousand, respectively. It is impractical to disclose net foreign exchange gains (losses) by each significant foreign currency due to the variety of the foreign currency transactions and functional currency of the entities in the Group.

33. SEGMENT INFORMATION

a. Basic information about operating segment

1) Classification of operating segments

The Group's reportable segments under IFRS 8 "Operating Segments" were as follows:

a) General IC product segment

The general IC product segment engages mainly in research, design, manufacturing, sale and after-sales service.

b) Foundry service segment

The foundry service segment engages mainly in research, design, manufacturing and sale.

2) Principles of measuring reportable segments profit, assets and liabilities

The significant accounting principles of each operating segment are the same as those stated in Note 4 to the consolidated financial statements. The Group's operating segment profit or loss represents the profit or loss earned by each segment. The profit or loss is controllable by segment managers and is the basis for assessment of segment performance. The Group does not provide information on assets regularly to the Group's chief operating decision maker; thus, the measure of assets is zero. Major liabilities are arranged based on the capital cost and deployment of the whole company, which are not controlled by individual segment managers.

b. Segment revenues and operating results

The following is an analysis of the Group's revenue from continuing operations by reportable segments.

	Segment Revenue		Segment Profit and Loss	
	For the Year Ended December 31		For the Year Ended December 31	
	2019	2018	2019	2018
General IC products	$ 8,426,460	$ 8,117,960	$ 933,470	$ 869,894
Foundry service	1,924,876	1,901,899	565,576	617,940
Total of segment revenue	10,351,336	10,019,859	1,499,046	1,487,834
Other revenue	15,933	20,362	8,683	13,782
Operating revenue	$ 10,367,269	$ 10,040,221	1,507,729	1,501,616
Unallocated expenditure				
Administrative and supporting expense			(468,518)	(398,485)
Sales and other common expenses			(454,890)	(348,472)
Total operating profit			584,321	754,659
Interest expense			(14,279)	-
Interest income			17,777	12,105
Dividend income			70,529	73,322
Other gains and losses			12,203	7,516
Gains (losses) on disposal of property, plant and equipment			62	1,254
Foreign exchange gains (losses)			(2,791)	20,475
Gains (losses) on financial instruments at fair value through profit or loss			(253)	(30,411)
Profit before income tax			$ 667,569	$ 838,920

c. Geographical information

The Group operates in three principal geographical area - Asia, the United States and Europe.

The Group's revenue from continuing operations from external customers by location of operations and information about its non-current assets (non-current assets exclude financial instruments and deferred income tax assets) by location are detailed below.

	Revenue from External Customers		Non-current Assets	
	For the Year Ended December 31		December 31	
	2019	2018	2019	2018
Asia	$ 9,950,563	$ 9,645,278	$ 1,626,019	$ 899,763
United States	267,851	255,267	40,645	29,538
Europe	146,703	137,402	-	-
Others	2,152	2,274	-	-
	$ 10,367,269	$ 10,040,221	$ 1,666,664	$ 929,301

d. Information about major customer

Single customers contributing 10% or more to the Group's operating revenue for the years ended December 31, 2019 and 2018 were as follows:

	For the Year Ended December 31			
	2019		2018	
	Amount	%	Amount	%
Customer V	$ 2,942,505	28	$ 2,662,123	27
Customer C	1,094,889	11	1,097,428	11
	$ 4,037,394	39	$ 3,759,551	38