ChipMOS TECHNOLOGIES INC. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS AND

REPORT OF INDEPENDENT ACCOUNTANTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

For the convenience of readers and for information purpose only, the independent accountants' 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. In the event of any discrepancy between the English version and the original Chinese version or any differences in the interpretation of the two versions, the Chinese-language independent accountants' report and consolidated financial statements shall prevail.

ChipMOS TECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED FINANCIAL STATEMENTS
AND REPORT OF INDEPENDENT ACCOUNTANTS
YEARS ENDED DECEMBER 31, 2019 AND 2018

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ChipMOS TECHNOLOGIES INC.

Declaration of Consolidated Financial Statements of Affiliated Enterprises

For the year ended December 31, 2019, pursuant to "Criteria Governing Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises," the companies that are required to be included in the consolidated financial statements of affiliates, are the same as the companies required to be included in the consolidated financial statements under International Financial Reporting Standards 10. And if relevant information that should be disclosed in the consolidated financial statements of affiliated enterprises has all been disclosed in the consolidated financial statements of parent and subsidiary companies, it shall not be required to prepare consolidated financial statements of affiliated enterprises.

Hereby declare,

ChipMOS TECHNOLOGIES INC.
March 10, 2020

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REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Shareholders of ChipMOS TECHNOLOGIES INC.

Opinion

We have audited the accompanying consolidated balance sheets of ChipMOS TECHNOLOGIES INC. and its subsidiaries (the "Group") as of December 31, 2019 and 2018, and the related consolidated statements of comprehensive income, of changes in equity and of 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, based on our audits and the report of other independent accountants, as described in the *Other matters* section of our report, 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 Preparations of Financial Reports by Securities Issuers" and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations as endorsed by the Financial Supervisory Commission.

Basis for opinion

We conducted our audits in accordance with the "Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants" and generally accepted auditing standards in the Republic of China ("ROC GAAS"). Our responsibilities under those standards are further described in the *Independent Accountant's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group in accordance with the Code of Professional Ethics for Certified Public Accountants in the Republic of China (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with this Code. Based on our audits and the report of other independent accountants, we believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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Key audit matters

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

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

Measuring progress towards complete satisfaction of performance obligation

Description

Please refer to Note 4(27) to the consolidated financial statements for the accounting policies on revenue recognition; Note 5(2) for uncertainty of accounting estimates and assumptions of revenue recognition; and Note 6(21) for details of the revenue.

The Group's revenue is primarily generated from the assembly and testing services of high-integration and high-precision integrated circuits based on customer's specification, and is recognized based on measuring progress towards complete satisfaction of performance obligation during the service period. For assembly services, services for Liquid Crystal Display and other Flat-Panel Display Driver Semiconductors and Bumping, the Group recognizes revenue on the basis of input costs to the satisfaction of performance obligation relative to the total expected input costs to the satisfaction of that performance obligation. Since the total expected input costs is uncertain and subject to management's significant estimation, measuring progress towards complete satisfaction of performance obligation was identified as a key audit matter.

How our audit addressed the matter

Our key audit procedures performed in respect of the above included the following:

1. Interviewed with management to understand and evaluate the accounting policies on revenue recognition, and validated the design and operating effectiveness of respective internal controls.
2. Validated management's assessment on progress completion of performance obligation, and tested the logics applied on calculating the progress completion of performance obligation.
3. Verified the related documents provided by management, validated management reports in relation to the calculation on progress completion of performance obligation, and tested the accuracy of revenue recognition.

Provisions for deficiency compensation

Description

Please refer to Note 4(21) to the consolidated financial statements for the accounting policies on provisions; Note 5(1) for uncertainty of accounting estimates and assumptions of provisions; and Note 6(11) for the details of the provisions for deficiency compensation.

The Group is primarily engaged in assembly and testing services for high-integration and high-precision integrated circuits. In case of deficiencies in the assembly and testing services provided, the Group has to clarify the reason for such deficiencies and attribute responsibilities, and determine whether to provide related provisions. Since the timing and amount of deficiency compensation are uncertain, and subject to management's significant judgment, the provision for deficiency compensation was identified as a key audit matter.

How our audit addressed the matter

Our key audit procedures performed in respect of the above included the following:

1. Interviewed with management and verified the internal process on estimating provisions for deficiency compensation, and the consistency of process application during the financial reporting periods.
2. Validated related documents and evidence provided by management, sampled and tested the reasonableness of providing and reversing provisions for deficiency compensation during the current period.
3. Reviewed significant payments made subsequent to the reporting period and validated the reasonableness of provisions for deficiency compensation.

Other matters

The report of the other independent accountants

We did not audit the financial statements of a certain investee company accounted for using equity method. Those financial statements were audited by other independent accountants, whose reports thereon have been furnished to us, and our opinion expressed herein, insofar as it relates to the amounts included in the consolidated financial statements and the information on the investee disclosed in Note 13 was based solely on the reports of the other independent accountants. Investments in this investee company amounted to NT$249,793 thousand and NT$406,792 thousand, respectively, representing 0.7% and 1.2% of total consolidated assets as of December 31, 2019 and 2018, and total net comprehensive income including the share of profit and other comprehensive income of associate accounted for using equity method amounted to NT$69,570 thousand and NT$39,245 thousand, representing 2.8% and 3.7% of total consolidated comprehensive income for the years then ended, respectively.

Parent company only financial reports

We have audited and expressed an unmodified opinion on the parent company only financial statements of ChipMOS TECHNOLOGIES INC. as of and for the years ended December 31, 2019 and 2018.

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 Preparations of Financial Reports by Securities Issuers" and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations as endorsed by the Financial Supervisory Commission, and for such internal controls as management determines are necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

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

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

Independent accountant's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a report that includes our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit conducted in accordance with ROC GAAS 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.

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As part of an audit in accordance with ROC GAAS, 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 controls.
2. Obtain an understanding of internal controls 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 controls.
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 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 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 footnote disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group's audit. We remain solely responsible for our audit opinion.

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

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

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our 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.

Chun-Yuan Hsiao | Chih-Cheng Hsieh

Chun-Yuan Hsiao Chih-Cheng Hsieh

For and on behalf of PricewaterhouseCoopers, Taiwan

March 10, 2020

The accompanying consolidated financial statements are not intended to present the financial position and results of operations and cash flows in accordance with accounting principles generally accepted in countries and jurisdictions other than the Republic of China. The standards, procedures and practices in the Republic of China governing the audit of such financial statements may differ from those generally accepted in countries and jurisdictions other than the Republic of China. Accordingly, the accompanying consolidated financial statements and report of independent accountants are not intended for use by those who are not informed about the accounting principles or auditing standards generally accepted in the Republic of China, and their applications in practice.

ChipMOS TECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Expressed in thousands of New Taiwan dollars)

	Assets	Notes	December 31, 2019 Amount	%	December 31, 2018 Amount	%
	Current assets					
1100	Cash and cash equivalents	6(1)	$ 4,704,084	14	$ 4,642,522	15
1136	Current financial assets at amortized cost	6(2)	168,970	1	169,168	1
1140	Current contract assets	6(21)	377,869	1	299,835	1
1150	Notes receivable, net		765	-	1,595	-
1170	Accounts receivable, net	6(3)	4,452,904	13	4,745,693	14
1180	Accounts receivable－related parties, net		1,045	-	140	-
1200	Other receivables		89,676	-	63,037	-
1210	Other receivables－related parties		2,948	-	3,131	-
1220	Current tax assets		138,941	-	139,595	-
130X	Inventories	6(4)	1,767,642	5	1,778,835	5
1410	Prepayments		57,502	-	44,592	-
11XX	**Total current assets**		11,762,346	34	11,888,143	36
	Non-current assets					
1510	Non-current financial assets at fair value through profit or loss	6(5)	11,038	-	11,471	-
1517	Non-current financial assets at fair value through other comprehensive income	6(6)	121,808	-	174,357	1
1535	Non-current financial assets at amortized cost	6(2) and 8	68,450	-	99,103	-
1550	Investments accounted for using equity method	6(7)	3,392,910	10	3,863,741	11
1600	Property, plant and equipment	6(8) and 8	17,979,444	53	16,819,621	51
1755	Right-of-use assets	6(9)	687,068	2	-	-
1840	Deferred tax assets	6(28)	194,552	1	226,716	1
1920	Refundable deposits		21,145	-	22,006	-
1990	Other non-current assets		67,126	-	28,560	-
15XX	**Total non-current assets**		22,543,541	66	21,245,575	64
1XXX	**Total assets**		$ 34,305,887	100	$ 33,133,718	100

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ChipMOS TECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Expressed in thousands of New Taiwan dollars)

	Liabilities and Equity	Notes	December 31, 2019 Amount	%	December 31, 2018 Amount	%
	Liabilities					
	Current liabilities					
2130	Current contract liabilities	6(21)	$ 1,231	-	$ 1,432	-
2170	Accounts payable	6(10)	819,548	2	637,271	2
2180	Accounts payable－related parties		-	-	347	-
2200	Other payables		2,977,036	9	3,195,217	10
2220	Other payables－related parties		-	-	218	-
2230	Current tax liabilities		269,672	1	496,704	1
2250	Current provisions	6(11)	1,998	-	29,352	-
2280	Current lease liabilities	6(32)	24,567	-	-	-
2310	Receipts in advance		988	-	1,013	-
2320	Long-term bank loans, current portion	6(13)(32) and 8	748,419	2	747,422	2
2355	Long-term lease obligations payable, current portion	6(14)	-	-	17,792	-
2365	Current refund liabilities	6(12)	26,000	-	32,627	-
2399	Other current liabilities		32,242	-	30,800	-
21XX	**Total current liabilities**		4,901,701	14	5,190,195	15
	Non-current liabilities					
2540	Long-term bank loans	6(13)(32) and 8	8,293,226	24	9,042,096	27
2570	Deferred tax liabilities	6(28)	305,635	1	308,759	1
2580	Non-current lease liabilities	6(32)	668,384	2	-	-
2640	Net defined benefit liability, non-current	6(15)	480,107	2	520,765	2
2645	Guarantee deposits	6(32)	1,095	-	1,092	-
2670	Other non-current liabilities		4,500	-	-	-
25XX	**Total non-current liabilities**		9,752,947	29	9,872,712	30
2XXX	**Total liabilities**		14,654,648	43	15,062,907	45
	Equity					
	Equity attributable to equity holders of the Company					
	Capital stock	6(17)				
3110	Capital stock－common stock		7,272,401	21	7,528,577	23
	Capital surplus	6(18)				
3200	Capital surplus		6,059,651	17	6,280,482	19
	Retained earnings	6(19)				
3310	Legal reserve		1,579,478	5	1,469,170	5
3350	Unappropriated retained earnings		4,759,511	14	3,635,372	11
	Other equity interest	6(20)				
3410	Financial statements translation differences of foreign operations		(89,682)	-	14,516	-
3420	Unrealized gain on valuation of financial assets at fair value through other comprehensive income		69,880	-	106,898	-
3490	Unearned employee awards		-	-	(1,701)	-
3500	**Treasury stock**	6(17)	-	-	(962,503)	(3)
31XX	**Equity attributable to equity holders of the Company**		19,651,239	57	18,070,811	55
3XXX	**Total equity**		19,651,239	57	18,070,811	55
	Significant contingent liabilities and unrecognized contract commitments	9				
	Significant events after the reporting period	11				
3X2X	**Total liabilities and equity**		$ 34,305,887	100	$ 33,133,718	100

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

ChipMOS TECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Expressed in thousands of New Taiwan dollars, except earnings per share)

			Years ended December 31,			
			2019		2018	
	Items	Notes	Amount	%	Amount	%
4000	**Revenue**	6(21)	$ 20,337,881	100	$ 18,480,027	100
5000	**Cost of revenue**	6(4)(26)(27)	(16,411,742)	(81)	(15,050,032)	(81)
5900	**Gross profit**		3,926,139	19	3,429,995	19
	Operating expenses	6(26)(27)				
6100	Sales and marketing expenses		(56,076)	-	(53,451)	-
6200	General and administrative expenses		(498,241)	(3)	(485,068)	(3)
6300	Research and development expenses		(1,007,631)	(5)	(939,269)	(5)
6000	**Total operating expenses**		(1,561,948)	(8)	(1,477,788)	(8)
6500	**Other income (expenses), net**	6(22)	92,928	1	147,514	1
6900	**Operating profit**		2,457,119	12	2,099,721	12
	Non-operating income (expenses)					
7010	Other income	6(23)	75,127	1	58,361	-
7020	Other gains and losses	6(24)	833,261	4	114,709	1
7050	Finance costs	6(25)	(180,262)	(1)	(190,248)	(1)
7060	Share of loss of associates and joint ventures accounted for using equity method	6(7)	(154,926)	(1)	(300,101)	(2)
7000	**Total non-operating income (expenses)**		573,200	3	(317,279)	(2)
7900	**Profit before income tax**		3,030,319	15	1,782,442	10
7950	Income tax expense	6(28)	(446,158)	(2)	(679,367)	(4)
8200	**Profit for the year**		$ 2,584,161	13	$ 1,103,075	6
	Other comprehensive income (loss)					
8311	Profit (loss) on remeasurements of defined benefit plans	6(15)	$ 20,916	-	($ 59,961)	-
8316	Unrealized (loss) gain on valuation of equity instruments at fair value through other comprehensive income	6(6)	(52,549)	-	85,022	-
8320	Share of other comprehensive income (loss) of associates and joint ventures accounted for using equity method that will not be reclassified to profit or loss		5,732	-	(2,687)	-
8349	Income tax effect on components that will not be reclassified to profit or loss	6(28)	6,327	-	(4,126)	-
8310	**Components of other comprehensive (loss) income that will not be reclassified to profit or loss**		(19,574)	-	18,248	-
8361	Exchange differences on translation of foreign operations	6(20)	(104,198)	(1)	(51,077)	-
8360	**Components of other comprehensive loss that will be reclassified to profit or loss**		(104,198)	(1)	(51,077)	-
8300	**Other comprehensive loss, net of income tax**		($ 123,772)	(1)	($ 32,829)	-
8500	**Total comprehensive income for the year**		$ 2,460,389	12	$ 1,070,246	6
9750	**Earnings per share - basic**	6(29)	$ 3.55		$ 1.37	
9850	**Earnings per share - diluted**	6(29)	$ 3.51		$ 1.36	

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

ChipMOS TECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(Expressed in thousands of New Taiwan dollars)

				Retained earnings		Other equity interest					
	Notes	Capital stock —common stock	Capital surplus	Legal reserve	Unappropriated retained earnings	Financial statements translation differences of foreign operations	Unrealized gain (loss) on valuation of financial assets at fair value through other comprehensive income	Unrealized gain (loss) on valuation of available-for-sale financial assets	Unearned employee awards	Treasury stock	Total equity
Year 2018											
Balance at January 1, 2018		$ 8,862,971	$ 6,288,377	$ 1,166,517	$ 3,071,424	$ 65,593	$ -	$ 678	($ 54,570)	($ 1,007,654)	$ 18,393,336
Effects on initial application of IFRS 9 and IFRS 15		-	-	-	65,050	-	42,843	(678)	-	-	107,215
Adjusted balance at January 1, 2018		8,862,971	6,288,377	1,166,517	3,136,474	65,593	42,843	-	(54,570)	(1,007,654)	18,500,551
Profit for the year		-	-	-	1,103,075	-	-	-	-	-	1,103,075
Other comprehensive (loss) income	6(20)	-	-	-	(45,807)	(51,077)	64,055	-	-	-	(32,829)
Total comprehensive income (loss) for the year		-	-	-	1,057,268	(51,077)	64,055	-	-	-	1,070,246
Appropriation of prior year's earnings:	6(19)										
Legal reserve		-	-	302,653	(302,653)	-	-	-	-	-	-
Cash dividends		-	-	-	(256,806)	-	-	-	-	-	(256,806)
Restricted shares	6(16)	(4,948)	(7,967)	-	1,089	-	-	-	52,869	-	41,043
Capital reduction	6(17)	(1,329,446)	72	-	-	-	-	-	-	45,151	(1,284,223)
Balance at December 31, 2018		$ 7,528,577	$ 6,280,482	$ 1,469,170	$ 3,635,372	$ 14,516	$ 106,898	$ -	($ 1,701)	($ 962,503)	$ 18,070,811
Year 2019											
Balance at January 1, 2019		$ 7,528,577	$ 6,280,482	$ 1,469,170	$ 3,635,372	$ 14,516	$ 106,898	$ -	($ 1,701)	($ 962,503)	$ 18,070,811
Profit for the year		-	-	-	2,584,161	-	-	-	-	-	2,584,161
Other comprehensive income (loss)	6(20)	-	-	-	17,372	(104,198)	(36,946)	-	-	-	(123,772)
Total comprehensive income (loss) for the year		-	-	-	2,601,533	(104,198)	(36,946)	-	-	-	2,460,389
Appropriation of prior year's earnings:	6(19)										
Legal reserve		-	-	110,308	(110,308)	-	-	-	-	-	-
Cash dividends		-	-	-	(872,718)	-	-	-	-	-	(872,718)
Restricted shares	6(16)	(477)	(412)	-	10	-	-	-	1,701	-	822
Cancellation of treasury stock	6(17)	(255,699)	(212,354)	-	(494,450)	-	-	-	-	962,503	-
Disposal of investment accounted for using equity method	6(18)	-	(8,065)	-	72	-	(72)	-	-	-	(8,065)
Balance at December 31, 2019		$ 7,272,401	$ 6,059,651	$ 1,579,478	$ 4,759,511	($ 89,682)	$ 69,880	$ -	$ -	$ -	$ 19,651,239

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

ChipMOS TECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in thousands of New Taiwan dollars)

	Notes	Years ended December 31, 2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before income tax		$ 3,030,319	$ 1,782,442
Adjustments to reconcile profit (loss)			
Depreciation expenses	6(8)(9)(26)	3,731,914	3,376,579
(Reversal of) expected credit losses		(806)	348
Interest expense	6(25)	171,075	152,416
Interest income	6(23)	(64,368)	(49,971)
Dividend income	6(23)	(585)	(571)
Share-based payments	6(16)(27)	822	41,043
Share of loss of associates and joint ventures accounted for using equity method	6(7)	154,926	300,101
Gain on valuation of financial assets at fair value through profit or loss	6(5)(24)	(1,317)	(1,485)
Gain on disposal of property, plant and equipment	6(22)	(20,271)	(14,274)
Impairment loss on property, plant and equipment	6(8)(22)	9,938	-
Gain on disposal of investment accounted for using equity method	6(7)(24)	(981,675)	-
Deferred income		(12,279)	(42,857)
Changes in operating assets and liabilities			
Changes in operating assets			
Financial assets at fair value through profit or loss		1,750	1,447
Current contract assets		(78,013)	(44,858)
Notes receivable		830	434
Accounts receivable		293,579	(734,129)
Accounts receivable－related parties		(905)	(129)
Other receivables		(8,082)	5,238
Other receivables－related parties		12,437	16,317
Inventories		11,193	(58,101)
Prepayments		(4,333)	46,781
Other non-current assets		6,914	6,914
Changes in operating liabilities			
Current contract liabilities		(201)	280
Accounts payable		182,277	(50,689)
Accounts payable－related parties		(347)	121
Other payables		331,207	(301,711)
Other payables－related parties		(218)	182
Current provisions		(27,354)	(27,803)
Current refund liabilities		(6,627)	(37,529)
Other current liabilities		1,442	(475)
Net defined benefit liability, non-current		(19,742)	(17,722)
Cash generated from operations		6,713,500	4,348,339
Interest received		67,105	48,590
Dividends received		20,585	6,184
Interest paid		(171,149)	(154,307)
Income tax paid		(637,169)	(119,473)
Net cash generated from operating activities		5,992,872	4,129,333

(Continued)

ChipMOS TECHNOLOGIES INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in thousands of New Taiwan dollars)

	Notes	Years ended December 31, 2019	2018
CASH FLOWS FROM INVESTING ACTIVITIES			
Decrease (increase) in financial assets at amortized cost		$ 30,851	($ 198,030)
Acquisition of investments accounted for using equity method	6(7) and 7	-	(794,694)
Proceeds from disposal of investment accounted for using equity method	6(7)	1,180,179	-
Acquisition of property, plant and equipment	6(31)	(5,440,621)	(4,154,198)
Proceeds from disposal of property, plant and equipment		21,434	18,160
Decrease (increase) in refundable deposits		861	(664)
Increase in other non-current assets		(45,480)	-
Increase in other non-current liabilities		4,500	-
Net cash used in investing activities		(4,248,276)	(5,129,426)
CASH FLOWS FROM FINANCING ACTIVITIES	6(32)		
Proceeds from short-term bank loans		834,955	1,053,202
Payments on short-term bank loans		(834,955)	(2,022,555)
Payments on lease liabilities		(48,161)	-
Proceeds from long-term bank loans		-	12,663,550
Payments on long-term bank loans		(756,450)	(12,553,300)
Increase (decrease) in guarantee deposits		3	(279)
Cash dividend paid	6(19)	(872,718)	(256,806)
Capital reduction		-	(1,284,223)
Net cash used in financing activities		(1,677,326)	(2,400,411)
Effect of foreign exchange rate changes		(5,708)	7,312
Net increase (decrease) in cash and cash equivalents		61,562	(3,393,192)
Cash and cash equivalents at beginning of year		4,642,522	8,035,714
Cash and cash equivalents at end of year		$ 4,704,084	$ 4,642,522

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

(Expressed in thousands of New Taiwan dollars, except as otherwise indicated)

1. HISTORY AND ORGANIZATION

ChipMOS TECHNOLOGIES INC. (the "Company") was incorporated on July 28, 1997. The Company and its subsidiaries (collectively referred herein as the "Group") are primarily engaged in the research, development, manufacturing and sale of high-integration and high-precision integrated circuits and related assembly and testing services. On April 11, 2014, the Company's shares were listed on the Taiwan Stock Exchange. On November 1, 2016, the Company's American Depositary Shares ("ADSs") were listed on the NASDAQ Global Select Market.

2. THE AUTHORIZATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements were authorized for issuance by the Board of Directors on March 10, 2020.

3. APPLICATION OF NEW AND AMENDED INTERNATIONAL FINANCIAL REPORTING STANDARDS AND INTERPRETATIONS

(1) Effect of the adoption of new or amended International Financial Reporting Standards ("IFRS") as endorsed by the Financial Supervisory Commission ("FSC")

A. New standards, interpretations and amendments endorsed by the FSC effective from 2019 are as follows:

New Standards, Interpretations and Amendments	Effective date issued by International Accounting Standards Board ("IASB")
Amendments to IFRS 9 "Prepayment Features with Negative Compensation"	January 1, 2019
IFRS 16 "Leases"	January 1, 2019
Amendments to International Accounting Standards ("IAS") 19 "Plan Amendment, Curtailment or Settlement"	January 1, 2019
Amendments to IAS 28 "Long-term Interests in Associates and Joint Ventures"	January 1, 2019
International Financial Reporting Interpretations Committee ("IFRIC") 23 "Uncertainty Over Income Tax Treatments"	January 1, 2019
Annual Improvements to IFRSs 2015－2017 Cycle	January 1, 2019

B. Except for the following, the above standards and interpretations have no significant impact on the Group's financial position and financial performance based on the Group's assessment.

IFRS 16 "Leases"

(a) IFRS 16 "Leases" ("IFRS 16"), supersedes IAS 17 "Leases" ("IAS 17") and the related interpretations issued by the Standing Interpretation Committee. The standard requires lessees to recognize a right-of-use asset and a lease liability (except for those leases with terms of 12 months or less and leases of low-value assets). The accounting stays the same for lessors, which is to classify their leases as either finance leases or operating leases and account for those two types of leases differently. IFRS 16 only requires enhanced disclosures to be provided by lessors.

(b) The Group has elected to apply IFRS 16 by not restating the comparative information (referred herein as the "modified retrospective approach") when applying IFRS, IAS, IFRIC interpretations, and SIC interpretations effective in 2019 as endorsed by FSC ("IFRSs"). Accordingly, the Group increased right-of-use assets and lease liabilities by $898,387 and $884,275, respectively, and decreased leased assets and lease obligations payable by $31,904 and $17,792, respectively.

(c) The Group has adopted the following practical expedients permitted by the standard at the date of initial application of IFRS 16:

i. Reassessment as to whether a contract is, or contains, a lease is not required, instead, the application of IFRS 16 depends on whether or not the contracts were previously identified as leases applying IAS 17 and IFRIC 4 "Determining whether an Arrangement contains a Lease".

ii. The use of a single discount rate to a portfolio of leases with reasonably similar characteristics.

iii. The accounting for operating leases whose period will end before December 31, 2019 as short-term leases and accordingly, rent expense of $28,126 was recognized for the year ended 2019.

(d) The Group calculated the present value of lease liabilities by using the incremental borrowing interest rate, ranging from 1.7895% to 3.9474%.

(e) The reconciliation between operating lease commitments for the remaining lease payments under IAS 17 and lease liabilities recognized as of January 1, 2019, measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate is as follows:

Operating lease commitments disclosed by applying IAS 17 as of December 31, 2018	$ 320,214
Add: Lease payable recognized under finance lease by applying IAS 17 as of December 31, 2018	17,792
Less: Short-term leases	(28,121)
Add: Adjustments as a result of a different treatment of extension and termination options	874,298
Total lease contracts amount recognized as lease liabilities by applying IFRS 16 on January 1, 2019	$ 1,184,183
Incremental borrowing interest rate at the date of initial application	1.7895%~3.9474%
Lease liabilities recognized as of January 1, 2019 by applying IFRS 16	$ 884,275

(2) Effect of new, revised or amended IFRSs endorsed by the FSC that has not been adopted

A. New standards, interpretations and amendments endorsed by the FSC effective from 2020 are as follows:

New Standards, Interpretations and Amendments	Effective date issued by IASB
Amendments to IAS 1 and IAS 8 "Disclosure Initiative－Definition of Material"	January 1, 2020
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020
Amendments to IFRS 9, IAS 39 and IFRS 7, "Interest Rate Benchmark Reform"	January 1, 2020

B. Based on the Group's assessment, the above standards and interpretations have no significant impact on the Group's financial position and financial performance.

(3) The IFRSs issued by IASB but not yet endorsed by the FSC

A. New standards, interpretations and amendments issued by IASB but not yet included in the IFRSs endorsed by the FSC are as follows:

New Standards, Interpretations and Amendments	Effective date issued by IASB
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture"	To be determined by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1, "Classification of Liabilities as Current or Non-current"	January 1, 2022

B. Based on the Group's assessment, the above standards and interpretations have no significant impact on the Group's financial position and financial performance.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies applied in the preparation of these accompanying consolidated financial statements are set out below. These policies have been consistently applied during the reported periods, unless otherwise stated.

(1) Statement of compliance

The consolidated financial statements of the Group have been prepared in accordance with "Regulations Governing the Preparation of Financial Reports by Securities Issuers" and IFRSs.

(2) Basis of preparation

A. Except for the following items, the consolidated financial statements have been prepared under the historical cost convention:

(a) Financial assets at fair value through profit or loss (including derivative instruments).

(b) Financial assets at fair value through other comprehensive income.

(c) Defined benefit liabilities were recognized based on the net amount of pension fund assets less the present value of benefit obligation.

B. The preparation of the consolidated financial statements in conformity with IFRSs requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 5.

(3) Basis of consolidation

A. Basis for preparation of consolidated financial statements:

(a) All subsidiaries are included in the Group's consolidated financial statements. Subsidiaries are all entities controlled by the Group. The Group controls an entity when the Group is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Consolidation of subsidiaries begins from the date the Group obtains control of the subsidiaries and ceases when the Group loses control of the subsidiaries.

(b) Transactions, balances and unrealized gains or losses on transactions between companies within the Group are eliminated. Accounting policies of subsidiaries have been adjusted where necessary to ensure consistency with the policies adopted by the Group.

(c) Profit or loss and each component of other comprehensive income are attributed to the owners of the parent and to the non-controlling interests. Total comprehensive income is attributed to the owners of the parent and to the non-controlling interests even if this results in a deficit balance in the non-controlling interests.

(d) Changes in a parent's ownership interest in a subsidiary that do not result in the parent losing control of the subsidiary (transactions with non-controlling interests) are accounted for as equity transactions, i.e. transactions with owners in their capacity as owners. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity.

(e) When the Group loses control of a subsidiary, the Group remeasures any investment retained in the former subsidiary at its fair value. That fair value is regarded as the fair value on initial recognition of a financial asset or the cost on initial recognition of the associate or joint venture. Any difference between fair value and carrying amount is recognized in profit or loss. All amounts previously recognized in other comprehensive income in relation to the subsidiary are reclassified to profit or loss on the same basis as would be required if the related assets or liabilities were disposed of. That is, when the Group loses control of a subsidiary, all gains or losses previously recognized in other comprehensive income in relation to the subsidiary should be reclassified from equity to profit or loss, if such gains or losses would be reclassified to profit or loss when the related assets or liabilities are disposed of.

B. Subsidiaries included in the consolidated financial statements:

			Percentage of Ownership (%)	
Name of investor	Name of investee	Main business	December 31, 2019	December 31, 2018
The Company	ChipMOS U.S.A., Inc. ("ChipMOS USA")	Research, development, and marketing of semiconductors, circuits, electronic related products	100	100
The Company	ChipMOS TECHNOLOGIES (BVI) LTD. ("ChipMOS BVI")	Holding company	100	100

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

D. Adjustments for subsidiaries with different balance sheet dates: Not applicable.

E. No significant restrictions on the ability of subsidiaries to transfer funds to parent company.

F. Subsidiaries that have non-controlling interests that are material to the Group: None.

(4) Foreign currency translation

Items included in the financial statements of each of the Group’s entities are measured using the currency of the primary economic environment in which the entity operates (the “functional currency”). The consolidated financial statements are presented in New Taiwan dollars (NTD), which is the Company’s functional currency and the Group’s presentation currency.

A. Foreign currency transactions and balances

(a) Foreign currency transactions are translated into the functional currency using the exchange rates on the trade date or measurement date. Therefore, foreign exchange differences resulting from the settlement of such transactions are recognized in profit or loss in the period in which they arise.

(b) Monetary assets and liabilities denominated in foreign currencies at the period end are re-translated at the exchange rates prevailing at the balance sheet date. Exchange differences arising upon re-translation are recognized in profit or loss on the balance sheet date.

(c) Non-monetary assets and liabilities denominated in foreign currencies held at fair value through profit or loss are re-translated at the exchange rates prevailing at the balance sheet date; their exchange differences are recognized in profit or loss. Non-monetary assets and liabilities denominated in foreign currencies held at fair value through other comprehensive income are re-translated at the exchange rates prevailing at the balance sheet date; their exchange differences are recognized in other comprehensive income. However, non-monetary assets and liabilities denominated in foreign currencies that are not measured at fair value are translated using the historical exchange rates at the initial dates of the transactions.

(d) All foreign exchange differences are presented in the statement of comprehensive income under “Other gains and losses” by the nature of transactions.

B. Translation of foreign operations

The operating results and financial position of all the group entities, associates that have different functional currency and presentation currency are translated into the presentation currency as follows:

(a) Assets and liabilities for each balance sheet are translated at the exchange rates prevailing at the balance sheet date;

(b) Income and expenses for each statement of comprehensive income are translated at average exchange rates of that period; and

(c) All exchange differences are recognized in other comprehensive income.

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

A. Assets that meet one of the following criteria are classified as current assets:

(a) Assets arising from operating activities that are expected to be realized, or are intended to be sold or consumed within the normal operating cycle;

(b) Assets held mainly for trading purposes;

(c) Assets that are expected to be realized within 12 months from the balance sheet date;

(d) Cash and cash equivalents, excluding restricted cash and cash equivalents and those that are to be exchanged or used to pay off liabilities more than 12 months after the balance sheet date.

All assets that do not meet the above criteria are classified as non-current assets.

B. Liabilities that meet one of the following criteria are classified as current liabilities:

(a) Liabilities that are expected to be settled within the normal operating cycle;

(b) Liabilities arising mainly from trading activities;

(c) Liabilities that are to be settled within 12 months from the balance sheet date;

(d) Liabilities for which the repayment date cannot be unconditionally extended to more than 12 months after the balance sheet date. Liabilities bearing terms that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

All liabilities that do not meet the above criteria are classified as non-current liabilities.

(6) Cash equivalents

Cash equivalents refer to short-term, highly liquid investments that are readily convertible to known amounts of cash and are subject to an insignificant risk of changes in value (including time deposits with less than 3 months contract period). Time deposits that meet the above definition and are held for the purpose of meeting short-term cash commitments in operations are classified as cash equivalents.

(7) Financial assets at fair value through profit or loss

A. Financial assets at fair value through profit or loss are financial assets that are not measured at amortized cost or fair value through other comprehensive income.

B. On a regular way purchase or sale basis, financial assets at fair value through profit or loss are recognized and derecognized using settlement date accounting.

C. At initial recognition, the Group measures the financial assets at fair value and recognizes the transaction costs in profit or loss. The Group subsequently measures the financial assets at fair value, and recognizes the gain or loss in profit or loss.

D. The Group recognizes the dividend income when the right to receive such payment is confirmed, inflow of the future economic benefits associated with the dividend is probable to the Group and the amount of the dividend can be measured reliably.

(8) Financial assets at fair value through other comprehensive income

A. Financial assets at fair value through other comprehensive income comprise equity instruments which are not held for trading, and for which the Group has made an irrevocable election at initial recognition to recognize changes in fair value in other comprehensive income.

B. On a regular way purchase or sale basis, financial assets at fair value through other comprehensive income are recognized and derecognized using settlement date accounting.

C. At initial recognition, the Group measures the financial assets at fair value plus transaction costs. The Group subsequently measures the financial assets at fair value:

The changes in fair value of equity instruments that were recognized in other comprehensive income are reclassified to retained earnings and are not reclassified to profit or loss following the derecognition of the investment. Dividends are recognized as income when the right to receive such payment is confirmed, inflow of the future economic benefits associated with the dividend is probable to the Group and the amount of the dividend can be measured reliably.

(9) Financial assets at amortized cost

A. Financial assets at amortized cost are those that meet all of the following criteria:

(a) The objective of the Group's business model is achieved by collecting contractual cash flows.

(b) The financial assets' contractual cash flows represent solely payments of principal and interest.

B. The Group's bank deposits which do not fall under cash equivalents are those with a short maturity period and are measured at initial investment amount as the effect of discounting is immaterial.

(10) Accounts and notes receivable

A. Accounts and notes receivable entitle the Group a legal right to receive consideration in exchange for transferred goods or rendered services.

B. The short-term accounts and notes receivable without bearing interest are subsequently measured at initial invoice amount as the effect of discounting is immaterial.

(11) Impairment of financial assets

For financial assets at amortized cost, at each reporting date, the Group recognizes the impairment provision for 12 months expected credit losses if there has not been a significant increase in credit risk since initial recognition or recognizes the impairment provision for the lifetime expected credit losses if such credit risk has increased since initial recognition after taking into consideration all reasonable and verifiable information that includes forecasts. On the other hand, for accounts receivable or contract assets that do not contain a significant financing component, the Group recognizes the impairment provision for lifetime expected credit losses.

(12) Derecognition of financial assets

The Group derecognizes a financial asset when the contractual rights to receive the cash flows from the financial asset have expired.

(13) Inventories

Inventories are initially recorded at cost. Cost is determined on a weighted-average cost basis. At the end of reporting period, the differences were allocated to inventories and cost of revenue based on an appropriate rate. Allocation of fixed production overheads is based on the normal operating capacity of the production facilities. Costs associated with underutilized capacity are expensed in the period that the cost occurs.

Inventories are valued at the lower of cost and net realizable value. Net realizable value 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 item by item approach is used in raw materials. The amount of any write-down of inventories to net realizable value and all losses of inventories are recognized as an expense in the period the write-down or loss occurs.

(14) Investments accounted for using equity method – associates

A. Associates are all entities over which the Group has significant influence but not control. In general, it is presumed that the investor has significant influence, if an investor holds, directly or indirectly 20 percent or more of the voting power of the investee. Investments in associates are accounted for using the equity method and are initially recognized at cost.

B. The Group's share of its associates' post-acquisition profits or losses is recognized in profit or loss, and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income. When the Group's share of losses in an associate equals or exceeds its interests in the associate, including any other unsecured receivables, the Group does not recognize further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.

C. When changes in an associate's equity that are not recognized in profit or loss or other comprehensive income of the associate and such changes not affecting the Group's ownership percentage of the associate, the Group recognizes the Group's share of change in equity of the associate in "Capital surplus" in proportion to its ownership.

D. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interests in the associates. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been adjusted where necessary to ensure consistency with the policies adopted by the Group.

E. In the case where an associate issues new shares and the Group does not subscribe or proportionately acquire the new shares, which results in a change in the Group's ownership percentage of the associate while maintaining significant influence on the associate, then "Capital surplus" and "Investments accounted for using equity method" shall be adjusted for the increase or decrease of its share of equity interests. If the above condition causes a decrease in the Group's ownership percentage of the associate, in addition to the above adjustment, the amounts previously recognized in other comprehensive income in relation to the associate are reclassified to profit or loss proportionately on the same basis as would be required if the relevant assets or liabilities were disposed of.

F. When the Group disposes of its investment in an associate, if it loses significant influence on this associate, the amounts previously recognized in other comprehensive income in relation to the associate are reclassified to profit or loss, on the same basis as would be required if the relevant assets or liabilities were disposed of. If it still retains significant influence on this associate, then the amounts previously recognized in other comprehensive income in relation to the associate are reclassified to profit or loss proportionately in accordance with the aforementioned approach.

(15) Property, plant and equipment

A. Property, plant and equipment are initially recorded at cost. Borrowing costs incurred during the construction period are capitalized.

B. Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

C. Land is not depreciated. Other property, plant and equipment apply cost model and are depreciated using the straight-line method to allocate their cost over their estimated useful lives. Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item must be depreciated separately.

D. The assets' residual values, useful lives and depreciation methods are reviewed, and adjusted if appropriate, at each financial year-end. If expectations for the assets' residual values and useful lives differ from previous estimates or the patterns of consumption of the assets' future economic benefits embodied in the assets have changed significantly, any change is accounted for as a change in estimate under IAS 8 "Accounting Policies, Change in Accounting Estimates and Errors", from the date of the change. The estimated useful lives of property, plant and equipment are as follows:

Buildings	5 to 51 years
Machinery and equipment	2 to 8 years
Tools	2 to 4 years
Others	2 to 6 years

(16) Leasing arrangements (lessee)－right-of-use assets / lease liabilities

Effective from 2019

A. Leases are recognized as a right-of-use asset and a corresponding lease liability at the date at which the leased asset is available for use by the Group. For short-term leases or leases of low value assets, lease payments are recognized as an expense on a straight-line basis over the lease term.

B. Lease liabilities include the net present value of the remaining lease payments at the commencement date, discounted using the incremental borrowing interest rate.

Lease payments are comprised of the following:

(a) Fixed payments, less any lease incentives receivable;

(b) The exercise price of a purchase option, if the lessee is reasonably certain to exercise that option.

The Group subsequently measures the lease liability at amortized cost using the interest method and recognizes interest expense over the lease term. The lease liability is remeasured and the amount of remeasurement is recognized as an adjustment to the right-of-use asset when there are changes in the lease term or lease payments and such changes do not arise from contract modifications.

C. At the commencement date, the right-of-use asset is stated at the amount of the initial measurement of lease liability. The right-of-use asset is measured subsequently using the cost model and is depreciated from the commencement date to the earlier of the end of the asset's useful life or the end of the lease term. When the lease liability is remeasured, the amount of remeasurement is recognized as an adjustment to the right-of-use asset.

(17) Leased assets / operating leases (lessee)

Prior to 2019

A. Based on the terms of a lease contract, a lease is classified as a finance lease if the Group assumes substantially all the risks and rewards incidental to ownership of the leased asset.

(a) A finance lease is recognized as an asset and a liability at the lease's commencement at the lower of the fair value of the leased asset or the present value of the minimum lease payments.

(b) The minimum lease payments are apportioned between the finance charges and the reduction of the outstanding liability. The finance charges are allocated to each period over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

(c) Property, plant and equipment held under finance leases are depreciated over their estimated useful lives. If there is no reasonable certainty that the Group will obtain ownership at the end of the lease, the asset shall be depreciated over the shorter of the lease term and its useful life.

B. Payments made under an operating lease (net of any incentives received from the lessor) are recognized in profit or loss on a straight-line basis over the lease term.

(18) Impairment of non-financial assets

The Group assesses at each balance sheet date the recoverable amounts of those assets where there is an indication that they are impaired. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell or value in use. When the circumstances or reasons for recognizing impairment loss for an asset in prior years no longer exist or diminish, the impairment loss is reversed. The increased carrying amount due to reversal should not be more than what the depreciated or amortized historical cost would have been if the impairment had not been recognized.

(19) Loans

Loans comprise long-term and short-term bank loans. Loans are recognized initially at fair value, net of transaction costs incurred. Loans are subsequently stated at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized as interest expense in profit or loss over the period of the loans using the effective interest method.

(20) Accounts payable

Accounts payable are liabilities for purchases of raw materials, goods or services. The short-term accounts payable without bearing interest are subsequently measured at initial invoice amount as the effect of discounting is immaterial.

(21) Provisions for deficiency compensation

Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events, and it is probable that an outflow of economic resources will be required to settle the obligation and the amount of the obligation can be reliably estimated. Provisions are measured at the present value of the expenditures expected to be required to settle the obligation on the balance sheet date, which is discounted using a pre-tax discount rate that reflects the current market assessments of the time value of money and the risks specific to the obligation. When discounting is used, the increase in the provision arising from the passage of time is recognized as interest expense. Provisions are not recognized for future operating losses.

(22) Employee benefits

A. Short-term employee benefits

Short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in respect of service rendered by employees and should be recognized as expenses when the employees render service.

B. Pensions

(a) Defined contribution plans

For defined contribution plans, the contributions are recognized as pension expenses when they are due on an accrual basis. Prepaid contributions are recognized as an asset to the extent of a cash refund or a reduction in future payments.

(b) Defined benefit plans

i. Net obligation under a defined benefit plan is defined as the present value of an amount of pension benefits that employees will receive on retirement for their services with the Group in the current period or prior periods. The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets. The net defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The discount rate is determined by using the interest rates of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability.

ii. Remeasurements arising on defined benefit plans are recognized in other comprehensive income in the period in which they arise and are recorded as retained earnings.

iii. Past service costs are recognized immediately in profit or loss.

C. Termination benefits

Termination benefits are employee benefits provided in exchange for the termination of employment as a result from either the Group's decision to terminate an employee's employment before the normal retirement date, or an employee's decision to accept an offer of redundancy benefits in exchange for the termination of employment. The Group recognizes an expense as it can no longer withdraw an offer of termination benefits, or it recognizes related restructuring costs, whichever is earlier. Benefits that are expected to be due more than 12 months after balance sheet date shall be discounted to their present value.

D. Employees' compensation and directors' remuneration

Employees' compensation and directors' remuneration are recognized as expenses and liabilities, provided that such recognition is required under legal obligation or constructive obligation and those amounts can be reliably estimated. Any difference between the resolved amounts and the subsequently actual distributed amounts is accounted for as changes in estimates.

(23) Employee share-based payments

Restricted shares

A. Restricted shares issued to employees are measured at the fair value of the equity instruments granted at the grant date, and are recognized as compensation cost over the vesting period.

B. For restricted shares where those shares do not restrict distribution of dividends to employees and employees are not required to return the dividends received if they resign during the vesting period, the Group recognizes the fair value of the dividends received by employees who are expected to resign during the vesting period as a compensation cost at the date the dividends were declared.

C. For restricted shares where employees do not need to pay to acquire those shares, if an employee resigns during the vesting period, the Group will recover and retire those shares at no cost.

(24) Income tax

A. The income tax expense for the period comprises current and deferred tax. Income tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or items recognized directly in equity, in which cases the income tax is recognized in other comprehensive income or equity.

B. The current income tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Group and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in accordance with applicable tax regulations. It establishes provisions where appropriate based on the amounts expected to be paid to the tax authorities. An additional income tax is levied on the unappropriated retained earnings and is recorded as income tax expense in the year the stockholders resolve to retain the earnings.

C. Deferred tax is recognized, using the balance sheet liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated balance sheet. However, the deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax is provided on temporary differences arising on investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax is determined using tax rates (and laws) that have been enacted or substantially enacted at the balance sheet date and are expected to apply when the related deferred tax asset is realized or the deferred tax liability is settled.

D. Deferred tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized. At each balance sheet date, unrecognized and recognized deferred tax assets are reassessed.

E. A deferred tax asset shall be recognized for the carryforward of unused tax credits resulting from equity investments to the extent that it is possible that future taxable profit will be available against which the unused tax credits can be utilized.

F. If a change in tax rate is enacted or substantively enacted, the Group recognizes the effect of the change immediately in the period in which the change occurs. The effect of the change on items recognized outside profit or loss is recognized in other comprehensive income or equity while the effect of the change on items recognized in profit or loss is recognized in profit or loss.

(25) Capital stock

A. Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares in net proceeds of tax are shown in equity as a deduction.

B. Where the Company repurchases the Company's shares that have been issued, the consideration paid, including any directly attributable incremental costs (net of income taxes) is deducted from equity attributable to the Company's equity holders. Where such shares are subsequently reissued, the difference between their book value and any consideration received, net of any directly attributable incremental transaction costs and the related income tax effects, is included in equity attributable to the Company's equity holders.

(26) Dividends

Dividends are recorded in the Company's financial statements in the period in which they are resolved by the Company's shareholders. Cash dividends are recorded as liabilities; stock dividends are recorded as stock dividends to be distributed and are reclassified to ordinary shares on the effective date of new shares issuance.

(27) Revenue recognition

A. The Group is primarily engaged in the customized assembly and testing services of high-integration and high-precision integrated circuits based on customer's specification demand to create or enhance the product. When providing assembly and testing services, the Group considers:

(a) Customer controls the provided raw materials and the Group receives the instruction from the customer on providing assembly and testing services and subsequent treatments.

(b) The Group provides assembly and testing services to create or enhance an asset which is solely provided and controlled by the customer. The Group has no right to transfer the asset for another use.

As the asset ownership belongs to the customer, who bears the significant risk and rewards and rights on the use of the asset, the Group recognizes assembly and testing service revenue based on the progress towards completion of performance obligation during the service period.

B. The progress towards completion on assembly services, services for Liquid Crystal Display and other Flat-Panel Display Driver Semiconductors ("LCDD") and Bumping are measured by the actual input costs relative to estimate total expected input costs. The progress towards completion on testing services is measured by the actual incurred testing volume. The Group believes that aforementioned methods are the most appropriate manner to measure the satisfaction of performance obligation to customers because the input costs incurred to assembly and testing volume completed in testing services are based on customer's specification and not linear over the duration of these services. Customer payment on assembly and testing services is based on predetermined payment schedule. A contract asset is recognized when the Group provides services in excess of customer's payment.

(28) Operating segments

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The Group's chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Chairman of the Board of Directors that makes strategic decisions.

5. CRITICAL ACCOUNTING JUDGMENTS, ESTIMATES AND KEY SOURCES OF ASSUMPTION UNCERTAINTY

The preparation of the accompanying consolidated financial statements requires management to make critical judgments in applying the Group's accounting policies and make critical assumptions and estimates concerning future events. Assumptions and estimates may differ from the actual results and are continually evaluated and adjusted based on historical experience and other factors. Such assumptions and estimates have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year; and the related information is addressed below:

(1) Critical judgments in applying the Group's accounting policies

Provisions for deficiency compensation

The Group is primarily engaged in the research, development, manufacturing, sale, and assembly and testing of high-integration and high-precision integrated circuits. In any cases where deficiencies in the assembly and testing services arise, the Group has to clarify the reason for deficiencies and attribute of responsibilities. The Group follows the guidance of IAS 37 "Provisions, Contingent Liabilities and Contingent Assets" to determine warranty provisions. Since the timing and amount of these warranties are based on assumptions and estimates it requires management to make critical judgments.

(2) Critical accounting estimates and assumptions

Revenue recognition

A. The Group recognizes revenue from services for assembly, LCDD and Bumping based on the progress towards completion of performance obligation during the service period. The Group estimates total expected input costs based on historical experience and measures the progress towards completion by the actual input costs relative to the total expected input costs.

B. The Group estimates sales refund liabilities for sales allowance based on historical results and other known factors. Provisions for such liabilities are recorded as a deduction to revenues when the sales are recognized. The Group reassesses the reasonableness of estimates of discounts and returns periodically.

6. DETAILS OF SIGNIFICANT ACCOUNTS

(1) Cash and cash equivalents

	December 31, 2019	December 31, 2018
Cash on hand and petty cash	$ 470	$ 470
Checking accounts and demand deposits	915,134	1,396,302
Time deposits	3,788,480	3,245,750
	$ 4,704,084	$ 4,642,522

A. The Group transacts with a variety of financial institutions all with high credit quality to disperse credit risk, so it expects that the probability of counterparty default is remote.
B. No cash and cash equivalents of the Group were pledged to others.

(2) Financial assets at amortized cost

	December 31, 2019	December 31,2018
Current:		
Time deposits	$ 168,970	$ 169,168
Non-current:		
Time deposits	$ -	$ 30,715
Restricted bank deposits	68,450	68,388
	$ 68,450	$ 99,103

A. Amounts recognized in profit or loss in relation to financial assets at amortized cost are listed below:

	2019	2018
Interest income	$ 4,467	$ 920

B. Without taking into account any collateral held or other credit enhancements, the maximum exposure to credit risk in respect of the amount that best represents the financial assets at amortized cost held by the Group is the carrying amount at the end of each reporting period.
C. Information about the financial assets at amortized cost that were pledged to others as collateral is provided in Note 8.
D. Information relating to credit risk of financial assets at amortized cost is provided in Note 12(2).

(3) Accounts receivable

	December 31, 2019	December 31, 2018
Accounts receivable	$ 4,454,255	$ 4,747,834
Less: Loss allowance	(1,351)	(2,141)
	$ 4,452,904	$ 4,745,693

A. The Group's credit term granted to customers is 30~90 days. Receivables do not bear interest. The loss allowance is determined based on the credit quality of customers. Information relating to credit risk is provided in Note 12(2).
B. The aging analysis of accounts receivable based on past due date is as follows:

	December 31, 2019	December 31, 2018
Current	$ 4,440,081	$ 4,595,300
Within 1 month	13,733	18,807
1-2 months	441	131,787
2-3 months	-	1,436
3-4 months	-	180
Over 4 months	-	324
	$ 4,454,255	$ 4,747,834

C. As of December 31, 2019 and 2018, accounts receivable were all from contracts with customers. And as of January 1, 2018, the balance of accounts receivable from contracts with customers was $4,013,705.

D. Without taking into account of any collateral held or other credit enhancements, the amount that best reflects the Group' maximum exposure to credit risk in respect of the accounts receivable is the carrying amount at the end of each reporting period.

E. No accounts receivable of the Group were pledged to others.

(4) Inventories

	December 31, 2019		
	Cost	Allowance for impairment losses	Carrying amount
Raw materials	$ 1,831,140	($ 63,498)	$ 1,767,642

	December 31, 2018		
	Cost	Allowance for impairment losses	Carrying amount
Raw materials	$ 1,814,992	($ 36,157)	$ 1,778,835

The cost of inventories recognized as an expense for the year:

	2019	2018
Cost of revenue	$ 16,372,032	$ 15,057,605
Loss on abandonment	12,369	5,497
Allowance for (reversal of) inventory valuation and obsolescence loss	27,341	(13,070)
	$ 16,411,742	$ 15,050,032

A. Reversal of allowance for inventory valuation and obsolescence loss was recognized due to the change in net realizable market value.

B. No inventories of the Group were pledged to others.

(5) Non-current financial assets at fair value through profit or loss

	December 31, 2019	December 31, 2018
Financial assets mandatorily measured at fair value through profit or loss		
Foreign partnership interests	$ 10,940	$ 10,940
Valuation adjustment	98	531
	$ 11,038	$ 11,471

A. Amounts recognized in profit or loss in relation to the financial assets at fair value through profit or loss are listed below:

	2019	2018
Financial assets mandatorily measured at fair value through profit or loss		
Foreign partnership interests	($ 433)	$ 38
Beneficiary certificates	1,750	1,396
Derivative instruments	-	51
	$ 1,317	$ 1,485

B. No financial assets at fair value through profit or loss were pledged to others.

(6) Non-current financial assets at fair value through other comprehensive income

	December 31, 2019	December 31, 2018
Designation of equity instruments		
Foreign unlisted stocks	$ 38,534	$ 38,534
Valuation adjustment	83,274	135,823
	$ 121,808	$ 174,357

A. Based on the Group's business model, the foreign unlisted stocks held for strategic investments were elected to classify as "Financial assets at fair value through other comprehensive income". As of December 31, 2019 and 2018, the fair value of aforementioned investments is the carrying amount at the end of each reporting period.

B. Amounts recognized in other comprehensive income in relation to the financial assets at fair value through other comprehensive income are listed below:

	2019	2018
Financial assets at fair value through other comprehensive income		
Foreign unlisted stocks	($ 52,549)	$ 85,022

C. No financial assets at fair value through other comprehensive income were pledged to others.

(7) Investments accounted for using equity method

Associates	December 31, 2019	December 31, 2018
JMC ELECTRONICS CO., LTD. ("JMC")	$ 249,793	$ 406,792
Unimos Microelectronics (Shanghai) Co., Ltd. ("Unimos Shanghai")	3,143,117	3,456,949
	$ 3,392,910	$ 3,863,741

A. In January 2018, ChipMOS BVI participated in Unimos Shanghai's increase of paid-in capital based on its shareholding amounted to $794,694.

B. JMC has quoted market prices. As of December 31, 2019 and 2018, the fair value was $807,000 and $2,081,900, respectively.

C. The Company’s investments accounted for using equity method are based on the audited financial statements of investees for the reporting period. For the years ended December 31, 2019 and 2018, the Company recognized its share of profit (loss) of investments accounted for using equity method amounted to ($154,926) and ($300,101), respectively.

D. To further strengthen financial structure, increase balance of working capital and reduce debt ratio, the Company’s Board of Directors adopted a resolution on April 2, 2019 to dispose of 9,100,000 common shares of JMC, which reduced the shareholding of equity investment in JMC to 10%. The disposal of shares was completed on April 8, 2019 for cash consideration of $1,180,179, and the Company recognized gain on disposal of investment in associates amounted to $981,675. JMC is still recognized as investment accounted for using equity method given that the Company retains significant influence by holding two seats in JMC’s Board of Directors.

E. The basic information and summarized financial information of the associates of the Group are as follows:

(a) Basic information

Company name	Principal place of business	Shareholding ratio December 31, 2019	Shareholding ratio December 31, 2018	Nature of relationship	Method of measurement
JMC	Kaohsiung, Taiwan	10.00%	19.10%	Strategic Investee	Equity method
Unimos Shanghai	Shanghai, People’s Republic of China (“P.R.C.”)	45.02%	45.02%	Strategic Investee	Equity method

(b) Summarized financial information

Balance sheets

	JMC December 31, 2019	JMC December 31, 2018
Current assets	$ 1,347,546	$ 1,106,789
Non-current assets	2,457,975	1,699,498
Current liabilities	(888,184)	(817,697)
Non-current liabilities	(660,111)	(103,922)
Total net assets	$ 2,257,226	$ 1,884,668
Share in associate's net assets	$ 225,723	$ 359,972
Goodwill	24,070	46,820
Carrying amount of the associate	$ 249,793	$ 406,792

Balance sheets

	Unimos Shanghai	
	December 31, 2019	December 31, 2018
Current assets	$ 3,042,377	$ 3,946,082
Non-current assets	3,499,819	3,254,687
Current liabilities	(459,502)	(554,160)
Non-current liabilities	(448,929)	(442,306)
Total net assets	$ 5,633,765	$ 6,204,303
Share in associate's net assets	$ 2,536,558	$ 2,793,438
Depreciable assets	584,441	644,718
Goodwill	22,118	22,118
Inter-company transactions and amortization	-	(3,325)
Carrying amount of the associate	$ 3,143,117	$ 3,456,949

Statements of comprehensive income

	JMC	
	2019	2018
Revenue	$ 3,017,155	$ 1,931,008
Profit for the year from continuing operations	$ 524,347	$ 219,544
Other comprehensive income (loss), net of income tax	48,211	(14,074)
Total comprehensive income	$ 572,558	$ 205,470
Dividends received from the associate	$ 20,000	$ 5,730

Statements of comprehensive income

	Unimos Shanghai	
	2019	2018
Revenue	$ 1,584,648	$ 1,334,196
Loss for the year from continuing operations	($ 352,008)	($ 629,303)
Other comprehensive income (loss), net of income tax	-	-
Total comprehensive loss	($ 352,008)	($ 629,303)
Dividends received from the associate	$ -	$ -

(8) Property, plant and equipment

	2019						
	Land	Buildings	Machinery and equipment	Tools	Others	Construction in progress and equipment to be inspected	Total
January 1							
Cost	$ 452,738	$ 10,254,531	$ 48,274,171	$ 4,402,711	$ 2,610,893	$ 1,069,892	$ 67,064,936
Accumulated depreciation and impairment	-	(6,345,800)	(38,042,078)	(3,660,532)	(2,196,905)	-	(50,245,315)
	$ 452,738	$ 3,908,731	$ 10,232,093	$ 742,179	$ 413,988	$ 1,069,892	$ 16,819,621
January 1	$ 452,738	$ 3,908,731	$ 10,232,093	$ 742,179	$ 413,988	$ 1,069,892	$ 16,819,621
Effects on initial application of IFRS 16	-	-	-	-	(31,904)	-	(31,904)
Adjusted balance at January 1	452,738	3,908,731	10,232,093	742,179	382,084	1,069,892	16,787,717
Additions	-	116,238	2,334,358	781,465	224,287	1,440,308	4,896,656
Disposals	-	-	(16,033)	(9,336)	(416)	-	(25,785)
Reclassifications	-	455,792	1,111,715	7,880	25,042	(1,573,811)	26,618
Depreciation expenses	-	(384,832)	(2,489,070)	(625,712)	(196,201)	-	(3,695,815)
Impairment losses	-	-	(9,938)	-	-	-	(9,938)
Exchange adjustment	-	-	(4)	-	(5)	-	(9)
December 31	$ 452,738	$ 4,095,929	$ 11,163,121	$ 896,476	$ 434,791	$ 936,389	$ 17,979,444
December 31							
Cost	$ 452,738	$ 10,821,972	$ 51,244,512	$ 5,008,321	$ 1,937,755	$ 936,389	$ 70,401,687
Accumulated depreciation and impairment	-	(6,726,043)	(40,081,391)	(4,111,845)	(1,502,964)	-	(52,422,243)
	$ 452,738	$ 4,095,929	$ 11,163,121	$ 896,476	$ 434,791	$ 936,389	$ 17,979,444

	2018						
	Land	Buildings	Machinery and equipment	Tools	Others	Construction in progress and equipment to be inspected	Total
January 1							
Cost	$ 452,738	$ 9,809,970	$ 45,778,207	$ 4,004,703	$ 2,624,083	$ 968,719	$ 63,638,420
Accumulated depreciation and impairment	-	(5,890,884)	(36,964,480)	(3,314,234)	(2,203,511)	-	(48,373,109)
	$ 452,738	$ 3,919,086	$ 8,813,727	$ 690,469	$ 420,572	$ 968,719	$ 15,265,311
January 1	$ 452,738	$ 3,919,086	$ 8,813,727	$ 690,469	$ 420,572	$ 968,719	$ 15,265,311
Additions	-	247,186	2,445,313	591,229	172,652	1,489,190	4,945,570
Disposals	-	-	(904)	(11,745)	(2,067)	-	(14,716)
Reclassifications	-	199,724	1,154,663	7,604	26,026	(1,388,017)	-
Depreciation expenses	-	(457,265)	(2,180,718)	(535,378)	(203,218)	-	(3,376,579)
Exchange adjustment	-	-	12	-	23	-	35
December 31	$ 452,738	$ 3,908,731	$ 10,232,093	$ 742,179	$ 413,988	$ 1,069,892	$ 16,819,621
December 31							
Cost	$ 452,738	$ 10,254,531	$ 48,274,171	$ 4,402,711	$ 2,610,893	$ 1,069,892	$ 67,064,936
Accumulated depreciation and impairment	-	(6,345,800)	(38,042,078)	(3,660,532)	(2,196,905)	-	(50,245,315)
	$ 452,738	$ 3,908,731	$ 10,232,093	$ 742,179	$ 413,988	$ 1,069,892	$ 16,819,621

A. Amount of borrowing costs capitalized as part of property, plant and equipment and the range of the interest rates for such capitalization are as follows:

	2019	2018
Amount of interest capitalized	$ 15,114	$ 18,542
Range of the interest rates for capitalization	1.7822%	1.7582%

B. Information about the property, plant and equipment that were pledged to others as collaterals is provided in Note 8.

(9) Leasing arrangements－lessee

Effective from 2019

A. The Group leases various assets, including land, buildings, machinery and equipment, and others. Lease agreements are typically made for periods of 2 to 30 years. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose covenants, but leased assets may not be used as security for borrowing purposes.

B. The carrying amount of right-of-use assets and the depreciation expenses are as follows:

	December 31, 2019	2019
	Carrying amount	Depreciation expenses
Land	$ 669,967	($ 22,657)
Buildings	15,043	(7,113)
Machinery and equipment	-	(4,520)
Others	2,058	(1,809)
	$ 687,068	($ 36,099)

C. For the year ended December 31, 2019, additions to right-of-use assets was $11,183.

D. The information on profit and loss accounts relating to lease contracts is as follows:

	2019
Items affecting profit or loss	
Interest expense on lease liabilities	$ 14,349
Expense on short-term lease contracts	230,589

E. For the year ended December 31, 2019, the Group's total cash outflow for leases was $273,709.

(10) Accounts payable

	December 31, 2019	December 31, 2018
Accounts payable	$ 419,520	$ 267,368
Estimated accounts payable	400,028	369,903
	$ 819,548	$ 637,271

(11) Current provisions

A. Movements in provisions are as follows:

	Provisions for deficiency compensation
	2019
January 1	$ 29,352
Provision	5,204
Reversal	(1,967)
Payment	(30,591)
December 31	$ 1,998

B. The detailed explanation of provisions for deficiency compensation is provided in Note 5(1).

(12) Current refund liabilities

A. Movements in refund liabilities are as follows:

	Provisions for sales allowance	
	2019	2018
January 1	$ 32,627	$ 70,156
Provision	63,863	44,950
Reversal	-	(7,413)
Payment	(70,490)	(75,066)
December 31	$ 26,000	$ 32,627

B. The detailed explanation of provisions for sales allowance is provided in Note 5(2).

(13) Long-term bank loans

Type of loans	Period and payment term	December 31, 2019	December 31, 2018
Syndicated bank loan	Borrowing period is from May 30, 2018 to May 30, 2023; interest is repayable monthly; principal is repayable semi-annually from November 30, 2018	$ 9,066,000	$ 9,822,000
Less: Fee on syndicated bank loan		(24,355)	(32,482)
Less: Current portion (fee included)		(748,419)	(747,422)
		$ 8,293,226	$ 9,042,096
Interest rate range		1.7895%	1.7895%
Unused credit lines of long-term bank loans			
NT$		$ 1,800,000	$ 1,800,000

A. On May 15, 2018, the Company entered into a syndicated loan with eleven banks in Taiwan, including Taiwan Cooperative Bank, in the amount of NT$12 billion with a term of five years. Funding from this syndicated loan was used to repay the existing debt of financial institutions and broaden the Company's working capital. Pursuant to the syndicated loan agreement, the Group is required to maintain certain financial ratios including current ratio, interest protection multiples and debt to equity ratio during the loan periods.

B. On May 16, 2016, the Company entered into a syndicated loan with ten banks in Taiwan, including Land Bank of Taiwan, in the amount of NT$13.2 billion with a term of five years. Funding from this syndicated loan was used to repay the prior syndicated loan in 2014 and broaden the Company's working capital. Pursuant to the syndicated loan agreement, the Group is required to maintain certain financial ratios including current ratio, interest protection multiples and debt to equity ratio during the loan periods. The syndicated loan was fully repaid in May 2018.

C. Information about the items related to the long-term bank loans that are pledged to others as collaterals is provided in Note 8.

(14) Lease obligations payable

Prior to 2019

The Company leases equipment under finance lease and based on the terms of the lease contracts, the Company has the option to purchase the equipment at a price which is expected to be sufficiently lower than fair value at the date the option becomes exercisable when the leases expire.

Future minimum lease payables and their present values as of December 31, 2018 are as follows:

	December 31, 2018		
	Total finance lease liabilities	Future finance charges	Present value of finance lease liabilities
Current	$ 18,000	($ 208)	$ 17,792

(15) Pensions

A. Defined Benefit Plans

The Company has a defined benefit pension plan in accordance with the Labor Standards Act, covering all regular employees' service years prior to the enforcement of the Labor Pension Act on July 1, 2005 and service years thereafter of employees who chose to continue to be subject to the pension mechanism under the Labor Standards Act. Under the defined benefit pension plan, two units are accrued for each year of service for the first 15 years and one unit for each additional year thereafter, subject to a maximum of 45 units. Pension benefits are based on the number of units accrued and the average monthly salaries and wages of the last 6 months prior to retirement. The Company contributes monthly an amount equal to 2% of the employees' monthly salaries and wages to the pension fund deposited with the Bank of Taiwan, the trustee, under the name of the independent pension fund committee. Also, the Company would assess the balance in the aforementioned labor pension reserve account by the end of every year. If the account balance is insufficient to pay the pension calculated by the aforementioned method, to the employees expected to be qualified for retirement next year, the Company will make contributions to cover the deficit by March of following year.

(a) The amounts recognized in the balance sheets are as follows:

	December 31, 2019	December 31, 2018
Present value of defined benefit obligations	($ 901,159)	($ 910,081)
Fair value of plan assets	421,052	389,316
Net defined benefit liability	($ 480,107)	($ 520,765)

(b) Movements in net defined benefit liability are as follows:

	2019		
	Present value of defined benefit obligations	Fair value of plan assets	Net defined benefit liability
January 1	($ 910,081)	$ 389,316	($ 520,765)
Current services cost	(332)	-	(332)
Interest (expense) income	(11,170)	4,831	(6,339)
	(921,583)	394,147	(527,436)
Remeasurements:			
Return on plan assets (excluding amounts included in interest income or expense)	-	12,601	12,601
Financial assumption movement effect	(27,993)	-	(27,993)
Experience adjustments	36,308	-	36,308
	8,315	12,601	20,916
Pension fund contribution	-	26,413	26,413
Paid pension	12,109	(12,109)	-
December 31	($ 901,159)	$ 421,052	($ 480,107)

	2018		
	Present value of defined benefit obligations	Fair value of plan assets	Net defined benefit liability
January 1	($ 838,543)	$ 360,017	($ 478,526)
Current services cost	(382)	-	(382)
Interest (expense) income	(14,429)	6,291	(8,138)
	(853,354)	366,308	(487,046)
Remeasurements:			
Return on plan assets (excluding amounts included in interest income or expense)	-	8,145	8,145
Financial assumption movement effect	(56,934)	-	(56,934)
Experience adjustments	(11,172)	-	(11,172)
	(68,106)	8,145	(59,961)
Pension fund contribution	-	26,242	26,242
Paid pension	11,379	(11,379)	-
December 31	($ 910,081)	$ 389,316	($ 520,765)

(c) The Bank of Taiwan was commissioned to manage the fund of the Company's defined benefit pension plan in accordance with the fund's annual investment and utilization plan and the "Regulations for Revenues, Expenditures, Safeguard and Utilization of the Labor Retirement Fund" (Article 6: The scope of utilization for the fund includes deposit in domestic or foreign financial institutions, investment in domestic or foreign listed, over-the-counter, or private placement equity securities, investment in domestic or foreign real estate securitization products, etc.). With regard to the utilization of the fund, its minimum earnings in the annual distributions on the final financial statements shall be no less than the earnings attainable from the amounts accrued from two-year time deposits with the interest rates offered by local banks. If the earnings is less than aforementioned rates, government shall make payment for the deficit after being authorized by the authority. The Company has no right to participate in managing and operating that fund and hence the Company is unable to disclose the classification of the fair value of plan asset in accordance with IAS 19 "Employee Benefits" paragraph 142. The composition of fair value of plan assets as of December 31, 2019 and 2018 is given in the Annual Labor Retirement Fund Utilization Report announced by the government.

(d) The principal actuarial assumptions used were as follows:

	2019	2018
Discount rate	1.00%	1.25%
Future salary increase	3.50%	3.50%

Assumptions regarding future mortality are set based on actuarial advice in accordance with published statistics and experience in each territory.

Because the main actuarial assumption changed, the present value of defined benefit obligations is affected. The analysis was as follows:

	Discount rate		Future salary increase	
	Increase 0.25%	Decrease 0.25%	Increase 0.25%	Decrease 0.25%
December 31, 2019				
Effect on present value of defined benefit obligations	($ 27,993)	$ 29,284	$ 28,501	($ 27,407)
December 31, 2018				
Effect on present value of defined benefit obligations	($ 29,052)	$ 30,430	$ 29,692	($ 28,513)

The sensitivity analysis above is based on a change in an assumption while holding all other assumptions constant. In practice, changes in some of the assumptions may be correlated. The method of sensitivity analysis and the method of calculating net defined benefit liability in the balance sheet are the same.

The methods and types of assumptions used in preparing the sensitivity analysis remain unchanged from previous period.

(e) Expected contributions to the defined benefit pension plans of the Company for the year ending December 31, 2020 amounts to $27,337.

(f) As of December 31, 2019, the weighted average duration of that retirement plan is 12.8 years. The analysis of timing of the future pension payment was as follows:

Within 1 year	$	35,272
1-2 years		34,647
2-5 years		122,670
5-10 years		167,707
	$	360,296

B. Defined Contribution Plans

Effective from July 1, 2005, the Company established a defined contribution pension plan ("New Plan") under the Labor Pension Act, covering all regular employees with Republic of China ("R.O.C.") nationality. Under the New Plan, the Company contributes monthly an amount based on 6% of the employees' monthly salaries and wages to the employees' individual pension accounts at the Bureau of Labor Insurance. The benefits accrued are paid monthly or in lump sum upon termination of employment. The pension costs under defined contribution pension plans of the Company for the years ended December 31, 2019 and 2018 were $187,502 and $193,047, respectively.

(16) Share-based payments

Restricted shares

A. On July 14, 2015, the Company's Board of Directors approved the issuance of restricted shares. The record dates for the shares issuance were July 21, 2015 and May 10, 2016. The relevant information is as follows:

Type of arrangement	Grant date	Share price on grant date (in dollars)	Number of shares (in thousands)	Number of shares returned due to employee resignation (in thousands)		Contract period	Vesting condition
				2019	2018		
Restricted shares award agreement	July 21, 2015	36.1	15,752	-	(256)	3 years	Meet service and performance conditions
Restricted shares award agreement	May 10, 2016	30.6	1,548	(25)	(116)	3 years	Meet service and performance conditions

The restricted shares issued by the Company cannot be transferred during the vesting period, but voting right and dividend right are not restricted. Employees are required to return the shares but not required to return the dividends received if they resign during the vesting period. When the employees accomplish the years of service and performance conditions, the received restricted shares will be vested based on the vesting ratio.

B. The expenses incurred on share-based payment transactions for the years ended December 31, 2019 and 2018 were $822 and $41,043, respectively.

(17) Capital stock

A. As of December 31, 2019, the Company's authorized capital was $9,700,000, consisting of 970,000 thousand ordinary shares, and the paid-in capital was $7,272,401 with a par value of $10 (in dollars) per share, consisting of 727,240 thousand ordinary shares. All proceeds from shares issued have been collected.

B. As of December 31, 2019, the outstanding ADSs were approximately 4,801,737 units representing 96,035 thousand ordinary shares and each ADS represents 20 ordinary shares of the Company. The major terms and conditions of the ADSs are summarized as follows:

(a) Voting rights:

ADS holders have no right to directly vote in shareholders' meetings with respect to the deposited shares. The depository bank shall vote on behalf of ADS holders or provide voting instruction to the designated person of the Company. The depository bank shall vote in the manner as instructed by ADS holders.

(b) Distribution of dividends:

ADS holders are deemed to have the same rights as holders of ordinary shares with respect to the distribution of dividends.

C. Movements in the number of the Company's ordinary shares outstanding are as follows:

	Number of shares (in thousands)	
	2019	2018
January 1	727,265	856,059
Restricted shares – cancelled	(25)	(349)
Restricted shares – uncancelled	-	(23)
Capital reduction	-	(128,422)
December 31	727,240	727,265

D. Treasury stock

(a) On March 7, 2019 and August 6, 2019, the Company's Board of Directors approved the cancellation of treasury stock 25,570 thousand shares amounted to $962,503. As of December 31, 2019, all of the Company's treasury stocks were cancelled. As of December 31, 2018, the reasons for share repurchases are as follows:

		December 31, 2018	
Name of company holding the shares	Reason for repurchase	Number of shares (in thousands)	Carrying amount
The Company	To be reissued to employees	30,000	$ 1,005,011
The Company	Dissenting shareholders	85	2,643
The Company	Capital reduction	(4,515)	(45,151)
		25,570	$ 962,503

(b) Pursuant to the R.O.C. Securities and Exchange Act, the number of shares repurchased as treasury stock may not exceed 10% of the number of the Company's issued shares and the amount bought back may not exceed the sum of retained earnings, paid-in capital in excess of par value and realized capital surplus.

(c) Pursuant to the R.O.C. Securities and Exchange Act, treasury stock may not be pledged as collateral and is not entitled to dividends before it is reissued.

(d) Pursuant to the R.O.C. Securities and Exchange Act, treasury stock should be reissued to the employees within five years from the reacquisition date and shares not reissued within the five-year period are to be retired. Treasury stock to enhance the Company's credit rating and the stockholders' equity should be retired within six months from acquisition.

E. In order to adjust capital structure and increase return of equity, the Company's shareholders adopted a resolution on June 26, 2018 to reduce capital stock and return cash to shareholders. Subsequently, the record date of the capital reduction was fixed on August 15, 2018, and capital was reduced approximately 15% amounted to $1,329,446, consisting of 132,945 thousand ordinary shares.

(18) Capital surplus

Pursuant to the R.O.C. Company Act, any capital surplus arising from paid-in capital in excess of par value on issuance of ordinary shares and donations can be used to cover accumulated deficits or to issue new shares or cash to shareholders in proportion to their share ownership, provided that the Company has no accumulated deficits. Furthermore, the R.O.C. Securities and Exchange Act requires that the amount of capital surplus to be capitalized mentioned above may not exceed 10% of the paid-in capital each year. The capital surplus may not be used to cover accumulated deficits unless the legal reserve is insufficient.

	2019			
	Share premium	Employee restricted shares	Long-term investment	Total
January 1	$ 5,873,743	$ 382,506	$ 24,233	$6,280,482
Share-based payments	-	(412)	-	(412)
Cancellation of treasury stock	(199,501)	(12,853)	-	(212,354)
Disposal of investment accounted for using equity method	-	-	(8,065)	(8,065)
December 31	$ 5,674,242	$ 369,241	$ 16,168	$6,059,651

	2018			
	Share premium	Employee restricted shares	Long-term investment	Total
January 1	$ 5,873,743	$ 390,401	$ 24,233	$6,288,377
Share-based payments	-	(7,967)	-	(7,967)
Capital reduction	-	72	-	72
December 31	$ 5,873,743	$ 382,506	$ 24,233	$6,280,482

(19) Retained earnings

A. Under the Company's Articles of Incorporation, the current year's earnings, if any, shall first be used to pay all taxes and offset prior years' operating losses and then 10% of the remaining amount shall be set aside as a legal reserve. The Company may then appropriate or reverse a certain amount as special reserve according to the relevant regulations. After the distribution of earnings, the remaining earnings and prior years' unappropriated retained earnings may be appropriated according to a proposal by the Board of Directors and approved in the shareholders' meeting.

B. The Company's dividend policy is summarized here. As the Company operates in a volatile business environment, the issuance of dividends to be distributed takes into consideration the Company's financial structure, operating results and future expansion plans. The earnings distribution of the Company may be made by way of cash dividends or stock dividends, provided that cash dividends account for at least 10% of the total dividends distributed. The earnings distribution will be proposed by the Board of Directors and approved at the shareholders' meeting.

C. Except for covering accumulated deficits or issuing new shares or cash to shareholders in proportion to their share ownership, the legal reserve may not be used for any other purpose. The use of the legal reserve for the issuance of shares or cash to shareholders in proportion to their share ownership is permitted, provided that the distribution of the reserve is limited to the portion in excess of 25% of the Company's paid-in capital.

D. In accordance with the regulations, the Company must set aside a special reserve from the debit balance on other equity items at the balance sheet date before distributing earnings. When the debit balance on other equity items is reversed subsequently, the reversed amount may be included in the distributable earnings.

E. The appropriations of 2018 and 2017 earnings were resolved in the shareholders' meetings held on June 10, 2019 and June 26, 2018, respectively. The appropriations and dividends per share are as follows:

	2018		2017	
	Amount	Cash distribution per share (in dollars)	Amount	Cash distribution per share (in dollars)
Legal reserve	$ 110,308		$ 302,653	
Cash dividend	872,718	$ 1.20	256,806	$ 0.30

F. The information relating to employees' compensation and directors' remuneration is provided in Note 6(27).

(20) Other equity interest

	2019			
	Financial statements translation differences of foreign operations	Unrealized gain (loss) on valuation of financial assets at fair value through other comprehensive income	Unearned employee awards	Total
January 1	$ 14,516	$ 106,898	($ 1,701)	$ 119,713
Currency translation differences				
- The Company	(104,198)	-	-	(104,198)
Employee restricted shares				
- The Company	-	-	1,701	1,701
Evaluation adjustment				
- The Company	-	(52,549)	-	(52,549)
- Associates	-	5,093	-	5,093
Evaluation adjustment related tax				
- The Company	-	10,510	-	10,510
Disposal of investment accounted for using equity method	-	(72)	-	(72)
December 31	($ 89,682)	$ 69,880	$ -	($ 19,802)

	2018				
	Financial statements translation differences of foreign operations	Unrealized gain (loss) on valuation of financial assets at fair value through other comprehensive income	Unrealized gain (loss) on valuation of available-for-sale financial assets	Unearned employee awards	Total
January 1	$ 65,593	$ -	$ 678	($ 54,570)	$ 11,701
Effects on initial application of IFRS 9	-	42,843	(678)	-	42,165
Adjusted beginning balance	65,593	42,843	-	(54,570)	53,866
Currency translation differences					
- The Company	(51,077)	-	-	-	(51,077)
Employee restricted shares					
- The Company	-	-	-	52,869	52,869
Evaluation adjustment					
- The Company	-	85,022	-	-	85,022
- Associates	-	(2,438)	-	-	(2,438)
Evaluation adjustment related tax					
- The Company	-	(18,529)	-	-	(18,529)
December 31	$ 14,516	$ 106,898	$ -	($ 1,701)	$ 119,713

(21) Revenue

	2019	2018
Revenue from contracts with customers	$ 20,337,881	$ 18,480,027

A. The Group is primarily engaged in the assembly and testing services on high-integration and high-precision integrated circuits, and recognized revenue based on the progress towards completion of performance obligation during the service period. Information on revenue disaggregation is provided in Note 14.

B. Contract assets and liabilities

The Group has recognized the following contract assets and liabilities in relation to revenue from contracts with customers:

	December 31, 2019	December 31, 2018	January 1, 2018
Contract assets	$ 377,869	$ 299,835	$ 254,997
Contract liabilities (Advance payments)	$ 1,231	$ 1,432	$ 1,152

C. Contract assets have increased as the Group has completed more services in excess of customers' payments. The information relating to loss allowance for contract assets is provided in Note 12(2).

D. Revenue recognized in the current reporting period amounted to $766 was related to carried forward contract liabilities for performance obligations not satisfied in prior year.

E. All of the service contracts are for periods of one year or less. As permitted under IFRS 15, the transaction price allocated to these unsatisfied contracts is not disclosed. As of December 31, 2019, the Group did not recognized an asset in relation to costs to acquire or fulfill a service contract.

(22) Other income (expenses), net

	2019	2018
Gain on disposal of scrapped materials	$ 43,652	$ 59,380
Royalty income	12,336	43,224
Gain on disposal of items purchased on behalf of others	15,080	31,268
Gain on disposal of property, plant and equipment	20,271	14,274
Insurance compensation income	10,435	147
Impairment loss on property, plant and equipment	(9,938)	-
Others	1,092	(779)
	$ 92,928	$ 147,514

(23) Other income

	2019	2018
Interest income		
Bank deposits	$ 59,901	$ 49,051
Financial assets at amortized cost	4,467	920
	64,368	49,971
Rental income	9,249	7,819
Dividend income	585	571
Grant income	925	-
	$ 75,127	$ 58,361

(24) Other gains and losses

	2019	2018
Foreign exchange (losses) gains, net	($ 154,993)	$ 93,104
Gain on disposals of investment accounted for using equity method	981,675	-
Reimbursement of ADSs service charge	4,292	13,269
Gain on valuation of financial assets at fair value through profit or loss	1,317	1,485
Others	970	6,851
	$ 833,261	$ 114,709

(25) Finance costs

	2019	2018
Interest expense		
Bank loans	$ 171,840	$ 170,476
Lease liabilities	14,349	-
Lease obligations payable	-	482
Less: Amounts capitalized in qualifying assets	(15,114)	(18,542)
	171,075	152,416
Finance expense	9,187	37,832
	$ 180,262	$ 190,248

(26) Expenses by nature

	2019	2018
Raw materials and supplies used	$ 3,575,283	$ 3,079,909
Employee benefit expenses	6,075,773	5,606,833
Depreciation expenses	3,731,914	3,376,579
Others	4,590,720	4,464,499
	$ 17,973,690	$ 16,527,820

(27) Employee benefit expenses

	2019	2018
Salaries	$ 5,114,790	$ 4,628,039
Directors' remuneration	26,266	18,456
Labor and health insurance	422,106	406,111
Pension	194,173	201,567
Share-based payments	822	41,043
Other personnel expenses	317,616	311,617
	$ 6,075,773	$ 5,606,833

A. In accordance with the Company's Articles of Incorporation, employees' compensation is based on the current year's earnings, which should first be used to cover accumulated deficits, if any, and then 10% of the remaining balance distributed as employees' compensation, including distributions to certain qualifying employees in affiliate companies, and no more than 0.5% as directors' remuneration. Subject to the Board of Directors' approval, employees' compensation may be made by way of cash or share issuance. Distribution of employees' compensation and directors' remuneration shall be presented and reported in the subsequent shareholders' meeting.

B. Based on profit distributable as of the end of reporting period, for the years ended December 31, 2019 and 2018, the employees' compensation were accrued at $338,356 and $199,027, respectively; the directors' remuneration were accrued at $16,918 and $ 9,951, respectively.

C. For the year of 2018, employees' compensation and directors' remuneration recognized were consistent with the amounts resolved in the Board of Directors' meetings.

Information about the appropriation of employees' compensation and directors' remuneration by the Company as approved by the Board of Directors is posted in the "Market Observation Post System".

(28) Income tax expense

A. Income tax expense

(a) Components of income tax expense:

	2019	2018
Current income tax:		
Current income tax on profits for the period	$ 408,788	$ 326,057
Income tax on unappropriated retained earnings	7,019	250,914
Prior year income tax (over) under estimation	(5,016)	3,729
Total current income tax	410,791	580,700
Deferred income tax:		
Relating to origination and reversal of temporary differences	35,367	101,441
Impact of change in tax rate	-	(2,774)
Total deferred income tax	35,367	98,667
Income tax expense	$ 446,158	$ 679,367

(b) The income tax (charge)/credit relating to components of other comprehensive income is as follows:

	2019	2018
Unrealized (loss) gain on valuation of financial assets at fair value through other comprehensive income	($ 10,510)	$ 17,005
Remeasurement of defined benefit obligations	4,183	(11,992)
Impact of change in tax rate	-	(887)
	($ 6,327)	$ 4,126

B. Reconciliation of income tax expense and the accounting profit:

	2019	2018
Tax calculated based on profit before tax and statutory tax rate	$ 606,917	$ 356,488
Expenses disallowed by tax regulation	3,055	14,689
Tax exempted (income) expenses by tax regulation	(165,979)	66,353
Temporary difference not recognized as deferred tax assets	(608)	(10,951)
Prior year income tax (over) under estimation	(5,016)	3,729
Income tax on unappropriated retained earnings	7,019	250,914
Impact of change in tax rate	-	(2,774)
Effect of different tax rates in countries in which the Group operates	770	919
Income tax expense	$ 446,158	$ 679,367

C. The amounts of deferred tax assets or liabilities resulting from temporary differences and investment tax credits are as follows:

	2019			
	January 1	Recognized in profit or loss	Recognized in other comprehensive income	December 31
Deferred tax assets				
Loss on inventories	$ 7,232	$ 5,468	$ -	$ 12,700
Property, plant and equipment	64,183	(25,515)	-	38,668
Provisions	12,396	(6,796)	-	5,600
Deferred revenue	34,156	(6,506)	-	27,650
Net defined benefit liability	100,743	(3,948)	(4,183)	92,612
Unrealized exchange losses	3,575	13,721	-	17,296
Investment tax credits	4,420	(4,420)	-	-
Others	11	15	-	26
Total	$ 226,716	($ 27,981)	($ 4,183)	$ 194,552
Deferred tax liabilities				
Property, plant and equipment	($ 281,594)	($ 7,386)	$ -	($ 288,980)
Financial assets at fair value through other comprehensive income	(27,165)	-	10,510	(16,655)
Total	($ 308,759)	($ 7,386)	$ 10,510	($ 305,635)
Information presented on balance sheets:				
Deferred tax assets	$ 226,716			$ 194,552
Deferred tax liabilities	($ 308,759)			($ 305,635)

	2018				
	January 1	Effects on initial application of IFRS 9 and IFRS 15	Recognized in profit or loss	Recognized in other comprehensive income	December 31
Deferred tax assets					
Loss on inventories	$ 9,132	($ 770)	($ 1,130)	$ -	$ 7,232
Property, plant and equipment	55,494	-	8,689	-	64,183
Provisions	21,643	-	(9,247)	-	12,396
Deferred revenue	39,485	-	(5,329)	-	34,156
Net defined benefit liability	78,451	-	7,889	14,403	100,743
Unrealized exchange losses	8,167	144	(4,736)	-	3,575
Investment tax credits	-	-	4,420	-	4,420
Others	-	-	11	-	11
Total	$ 212,372	($ 626)	$ 567	$ 14,403	$ 226,716
Deferred tax liabilities					
Property, plant and equipment	($ 174,293)	$ -	($ 107,301)	$ -	($ 281,594)
Contract assets	-	(8,067)	8,067	-	-
Financial assets at fair value through other comprehensive income	-	(8,636)	-	(18,529)	(27,165)
Total	($ 174,293)	($ 16,703)	($ 99,234)	($ 18,529)	($ 308,759)
Information presented on balance sheets:					
Deferred tax assets	$ 212,372				$ 226,716
Deferred tax liabilities	($ 174,293)				($ 308,759)

D. The Company has not recognized deductible and taxable temporary differences associated with investments as deferred tax assets and liabilities. As of December 31, 2019 and 2018, the amount of taxable temporary differences not recognized as deferred tax liability were $180,395 and $495,154, respectively.

E. The Company's income tax returns through 2016 have been assessed and approved by the Tax Authority.

F. The amendment to the Income Tax Act has been approved and promulgated in February 2018 to raise the profit-seeking enterprise income tax rate from 17% to 20%, decrease the tax rate on unappropriated retained earnings from 10% to 5%, and abandon the imputation tax credit account effective from fiscal year starting January 1, 2018.

G. On October 31, 2016, the Company merged with its former parent company, ChipMOS TECHNOLOGIES (Bermuda) LTD. and as a result, the Company recognized its own shares originally held by former parent company as treasury stock. Subsequently, the Company deducted unappropriated retained earnings by $5,052,343 to reflect the loss due from the cancellation of treasury stock. In January 2017, the Company has filed an application to the National Taxation Bureau of the Northern Area, Ministry of Finance to apply the accumulated deficit amount, derived from subtracting the aforementioned amount from unappropriated retained earnings generated prior to year 2015 (not including 2015 unappropriated retained earnings), as a deduction in the calculation of years 2016 and 2015 additional 10% tax on unappropriated retained earnings. On August 26, 2019, the Ministry of Finance issued Interpretation No.10804006760 and agreed the aforementioned deduction of unappropriated retained earnings to reflect the loss due from the cancellation of treasury stock as a result of the merger. As of the issue date of this report, the Company has not received the Notice for Assessment of Tax approved by the National Taxation Bureau of the Northern Area, Ministry of Finance.

(29) Earnings per share

	2019		
Basic earnings per share	Amount after income tax	Weighted average number of ordinary shares outstanding (in thousands)	Earnings per share (in dollars)
Profit attributable to common share of the Company	$ 2,584,161	727,111	$ 3.55
Diluted earnings per share			
Assumed conversion of all dilutive potential ordinary shares:			
Employees' compensation		9,879	
Restricted shares		126	
Profit attributable to common share of the Company	$ 2,584,161	737,116	$ 3.51

	2018		
Basic earnings per share	Amount after income tax	Weighted average number of ordinary shares outstanding (in thousands)	Earnings per share (in dollars)
Profit attributable to common share of the Company	$ 1,103,075	802,725	$ 1.37
Diluted earnings per share			
Assumed conversion of all dilutive potential ordinary shares:			
Employees' compensation		7,626	
Restricted shares		3,356	
Profit attributable to common share of the Company	$ 1,103,075	813,707	$ 1.36

(30) Operating lease commitments

Prior to 2019

A. The Company has entered into several operating lease contracts for land with Hsinchu and Southern Taiwan Science Park Bureaus. These renewable operating leases will expire by 2032 and 2034. In accordance with the lease contracts, Science Park Bureau reserves the right to adjust annual rents and the annual rents for the year ended 2018 was $33,142.

B. ChipMOS USA has entered into renewable operating lease contracts for its office. The renewable operating leases will expire by 2019 and 2020.

C. Future aggregate minimum lease obligations payable under the aforementioned leases are as follows:

	December 31, 2018
Within 1 year	$ 68,631
1 to 5 years	140,137
Over 5 years	111,446
	$ 320,214

(31) Supplemental cash flow information

Partial cash paid for investing activities

Property, plant and equipment

	2019	2018
Purchase of property, plant and equipment	$ 4,896,656	$ 4,945,570
Add: Beginning balance of payable on equipment	1,516,735	713,313
Beginning balance of payable on lease	-	29,842
Less: Ending balance of payable on equipment	(972,770)	(1,516,735)
Ending balance of payable on lease	-	(17,792)
Cash paid during the year	$ 5,440,621	$ 4,154,198

(32) Changes in liabilities from financing activities

	2019			
	Long-term bank loans (including current portion)	Guarantee deposits	Lease liabilities	Total liabilities from financing activities
January 1	$ 9,789,518	$ 1,092	$ -	$ 9,790,610
Effects on initial application of IFRS 16	-	-	884,275	884,275
Adjusted balance at January 1	9,789,518	1,092	884,275	10,674,885
Changes in cash flow from financing activities	(756,450)	3	(48,161)	(804,608)
Adjustment to right-of-use assets	-	-	(148,512)	(148,512)
Reclassification to payable on equipment from lease liabilities	-	-	(9,000)	(9,000)
Amortization of loan fees	8,577	-	-	8,577
Amortization of interest expense	-	-	14,349	14,349
December 31	$ 9,041,645	$ 1,095	$ 692,951	$ 9,735,691

	2018			
	Short-term bank loans	Long-term bank loans (including current portion)	Guarantee deposits	Total liabilities from financing activities
January 1	$ 969,353	$ 9,642,021	$ 1,371	$ 10,612,745
Changes in cash flow from financing activities	(969,353)	110,250	(279)	(859,382)
Amortization of loan fees	-	37,247	-	37,247
December 31	$ -	$ 9,789,518	$ 1,092	$ 9,790,610

7. RELATED PARTY TRANSACTIONS

(1) Parent and ultimate controlling party

The Company has neither a parent company nor an ultimate controlling party. The transactions between the Company and its subsidiaries were eliminated in the accompanying consolidated financial statements and were not disclosed herein. The transactions between the Group and other related parties are as follows.

(2) Names of related parties and relationship

Name	Relationship
Unimos Shanghai	Associate
JMC	Associate

(3) Significant related party transactions

A. Purchases of materials

	2019	2018
JMC	$ 9	$ 132,494

Purchases of materials from associate is based on normal commercial terms and conditions. The payment terms of the purchases from associate have no significant differences with third party suppliers.

B. Acquisition of financial assets

In January 2018, ChipMOS BVI participated in Unimos Shanghai's increase of paid-in capital based on its shareholding amounted to $794,694, please refer to Note 6(7).

(4) Key management personnel compensation

	2019	2018
Salaries and other short-term employee benefits	$ 178,713	$ 151,095
Post-employment compensation	2,049	2,067
Share-based payments	-	6,763
	$ 180,762	$ 159,925

8. PLEDGED ASSETS

		Carrying amount	
Assets	Purpose	December 31, 2019	December 31, 2018
Non-current financial assets at amortized cost	Lease and bank loan	$ 68,450	$ 68,388
Property, plant and equipment			
- Land	Bank loan	452,738	452,738
- Buildings	Bank loan	4,095,929	3,908,731
- Machinery and equipment	Bank loan	4,105,912	5,310,769
		$ 8,723,029	$ 9,740,626

9. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED CONTRACT COMMITMENTS

(1) A letter of guarantee was issued by the Bank of Taiwan to the Customs Administration of the Ministry of Finance for making payment of customs-duty deposits when importing. As of December 31, 2019 and 2018, the amounts of $100,800 and $97,500, respectively, were guaranteed by the Bank of Taiwan.

(2) Capital expenditures that are contracted for, but not provided for, are as follows:

	December 31, 2019	December 31, 2018
Property, plant and equipment	$ 1,640,712	$ 2,508,797

10. SIGNIFICANT DISASTER LOSS

None.

11. SIGNIFICANT EVENTS AFTER THE REPORTING PERIOD

On January 1, 2019, Ministry of Economic Affairs, R.O.C. ("MOEA") implemented the "Action Plan for Welcoming Overseas Taiwanese Businesses to Return to Invest in Taiwan" and companies are subsidized with preferential interest loans for qualified investment projects. The Company has obtained the qualification from the MOEA, and signed loan agreements with financial institutions during January and February 2020 with the line of credit amounted to $10,710,000 and terms from seven to ten years. As of the issue date of this report, the Company has not used the credit line of the aforementioned project loans.

12. OTHERS

(1) Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and to maintain an optimal capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt. The Group monitors capital on the basis of the liabilities to assets ratio. Total capital is shown as "Equity" in the consolidated balance sheet, which is also equal to total assets minus total liabilities.

The liabilities to assets ratio at December 31, 2019 and 2018 were as follows:

	December 31, 2019	December 31, 2018
Total liabilities	$ 14,654,648	$ 15,062,907
Total assets	34,305,887	33,133,718
Liabilities to assets ratio	42.72%	45.46%

(2) Financial instruments

A. Financial instruments by category

	December 31, 2019	December 31, 2018
Financial assets		
Financial assets at fair value through profit or loss		
Financial assets mandatorily measured at fair value through profit or loss	$ 11,038	$ 11,471
Financial assets at fair value through other comprehensive income		
Designation of equity instruments	121,808	174,357
Financial assets at amortized cost		
Cash and cash equivalents	4,704,084	4,642,522
Financial assets at amortized cost	237,420	268,271
Notes receivable	765	1,595
Accounts receivable	4,452,904	4,745,693
Accounts receivable－related parties	1,045	140
Other receivables	89,676	63,037
Other receivables－related parties	2,948	3,131
Refundable deposits	21,145	22,006
	$ 9,642,833	$ 9,932,223

		December 31, 2019		December 31, 2018
Financial liabilities				
Financial liabilities at amortized cost				
Accounts payable	$	819,548	$	637,271
Accounts payable－related parties		-		347
Other payables		2,977,036		3,195,217
Other payables－related parties		-		218
Long-term bank loans (including current portion)		9,041,645		9,789,518
Guarantee deposits		1,095		1,092
	$	12,839,324	$	13,623,663
Lease liabilities (including current portion)	$	692,951	$	-

B. Risk management policies

(a) The Group's risk management objective is to manage the market risk, credit risk and liquidity risk related to its operating activities.

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

(c) In order to minimize and manage financial risks, the Group's overall risk management program focuses on analyzing, identifying, and evaluating financial risk factors that may potentially have adverse effects on the Group's financial position, and provide feasible solutions to avoid those factors.

C. Significant financial risks and degrees of financial risks

(a) Market risk

The Group's market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risks comprise foreign currency risk, interest rate risk, and other price risks.
In practice, the risk variable rarely changes individually, and the change of each risk variable is usually correlative. The following sensitivity analysis did not consider the interaction of each risk variable.

Foreign exchange risk

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

ii. The Group applies natural hedges by using accounts receivable and accounts payable denominated in the same currency. However, this natural hedge does not concur with the requirement for hedge accounting. Furthermore, as net investments in foreign operations are for strategic purposes, they are not hedged by the Group.

iii. The Group's foreign currency exposure gives rise to market risks associated with exchange rate movements against the NT dollar for cash and cash equivalents, accounts receivable, other receivables, bank loans, accounts payable and other payables.

iv. The Group's businesses involve some non-functional currency operations. The information on assets and liabilities denominated in foreign currencies whose values would be materially affected by the exchange rate fluctuations is as follows:

	December 31, 2019		
	Foreign currency (in thousands)	Exchange rate	Carrying amount (NTD)
(Foreign currency: functional currency)			
Financial assets			
Monetary items			
USD:NTD	$ 188,369	29.9800	$ 5,647,303
JPY:NTD	266,819	0.2760	73,642
RMB:NTD	6,197	4.3050	26,678
Financial liabilities			
Monetary items			
USD:NTD	$ 7,867	29.9800	$ 235,853
JPY:NTD	1,033,394	0.2760	285,217

	December 31, 2018		
	Foreign currency (in thousands)	Exchange rate	Carrying amount (NTD)
(Foreign currency: functional currency)			
Financial assets			
Monetary items			
USD:NTD	$ 170,270	30.7150	$ 5,229,843
JPY:NTD	177,557	0.2782	49,396
RMB:NTD	8,850	4.4720	39,577
Financial liabilities			
Monetary items			
USD:NTD	$ 18,230	30.7150	$ 559,934
JPY:NTD	2,436,140	0.2782	677,734

v. The total exchange (loss) gain, including realized and unrealized (losses) gains arising from significant foreign exchange variations on monetary items held by the Group for the years ended December 31, 2019 and 2018, amounted to ($154,993) and $93,104, respectively.

vi. Analysis of foreign currency market risk arising from significant foreign exchange variations:

	2019		
	Sensitivity analysis		
	Change in exchange rate	Effect on profit (loss)	Effect on other comprehensive income
Financial assets			
Monetary items			
USD:NTD	5%	$ 282,365	$ -
JPY:NTD	5%	3,682	-
RMB:NTD	5%	1,334	-
Financial liabilities			
Monetary items			
USD:NTD	5%	$ 11,793	$ -
JPY:NTD	5%	14,261	-

	2018		
	Sensitivity analysis		
	Change in exchange rate	Effect on profit (loss)	Effect on other comprehensive income
Financial assets			
Monetary items			
USD:NTD	5%	$ 261,492	$ -
JPY:NTD	5%	2,470	-
RMB:NTD	5%	1,979	-
Financial liabilities			
Monetary items			
USD:NTD	5%	$ 27,997	$ -
JPY:NTD	5%	33,887	-

Price risk

i. The Group's financial instruments, which are exposed to price risk, are the financial assets at fair value through profit or loss and financial assets at fair value through other comprehensive income. To manage its price risk arising from investments in financial instruments, the Group diversifies its portfolio. Diversification of the portfolio is in accordance with the limits set by the Group.

ii. The Group's investments in financial instruments comprise foreign unlisted stocks and partnership. The prices of financial instruments would change due to different valuation models and assumptions used. Analysis related to the effect on profit or other comprehensive income if these assumptions change is provided in Note 12(3)G.

Interest rate risk on cash flow and fair value

i. Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's bank loans with floating interest rates. The Group manages its interest rate risk by having a balanced portfolio of fixed and variable rate bank loans. The Group reassesses the hedge management periodically to make sure it complies with the cost effectiveness.

ii. The sensitivity analysis depends on the exposure of interest rate risk at the end of the reporting period.

iii. Analysis of debt with floating interest rates is based on the assumption that the outstanding debt at the end of the reporting period is outstanding throughout the period. The degree of variation the Group used to report to internal management is increase or decrease of 1% in interest rates which is assessed as the reasonable degree of variation by the management.

iv. For the years ended December 31, 2019 and 2018, it is estimated that a general increase or decrease of 1% in interest rates, with all other variables held constant, would decrease or increase the Group's profit approximately by $90,660 and $98,220, respectively, mainly due to the Group's floating rate on bank loans.

(b) Credit risk

i. Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss, mainly resulted from its operating activities (primarily notes and accounts receivable) and from its financing activities (primarily deposits with banks and financial instruments). The Group is exposed to credit risk arising from the carrying amount of the financial assets recognized in the consolidated balance sheet.

ii. Each business unit performs ongoing credit evaluations of its debtors' financial conditions according to the Group's established policies, procedures and controls relating to customer credit risk management. The Group maintains an account for loss allowance based upon the available facts and circumstances, history of collection and write-off experiences of all trade and other receivables which consequently minimize the Group's exposure to bad debts.

iii. Credit risk from balances with banks and financial institutions is managed by the Group's finance unit in accordance with the Group's policies. Transaction counterparty of the Group is determined through its internal controls policy. For banks and financial institutions, only parties rated above BBB+ by Taiwan Ratings are accepted. The probability of counterparty default is remote, so there is no significant credit risk.

iv. The Group adopts the assumptions under IFRS 9 "Financial Instruments" ("IFRS 9") and the default is deemed to have occurred when the contract payments are past due over 90 days.

v. The Group categorized contract assets, accounts receivable and other receivables by characteristics of credit risk and applied the simplified approach using loss rate methodology to estimate expected credit loss.

vi. The Group referred to the forecastability of business monitoring indicators published by the National Development Council to adjust the loss rate which is based on historical and current information when assessing the future default possibility of contract assets, accounts receivable and other receivables. As of December 31, 2019 and 2018, the loss rate methodologies are as follows:

	December 31, 2019		
	Contract assets	Accounts receivable (including related parties)	Other receivables (including related parties)
Expected loss rate	0.030%	0.030%	0.030%
Total carrying amount	$ 377,983	$ 4,455,300	$ 92,642
Loss allowance	($ 114)	($ 1,351)	($ 18)

	December 31, 2018		
	Contract assets	Accounts receivable (including related parties)	Other receivables (including related parties)
Expected loss rate	0.045%	0.045%	0.045%
Total carrying amount	$ 299,970	$ 4,747,974	$ 66,181
Loss allowance	($ 135)	($ 2,141)	($ 13)

vii. Under the simplified approach, movements in relation to loss allowance for contract assets, accounts receivable, and other receivables are as follows:

	2019		
	Contract assets	Accounts receivable (including related parties)	Other receivables (including related parties)
January 1	($ 135)	($ 2,141)	($ 13)
Provision for impairment loss	-	-	(5)
Reversal of impairment loss	21	790	-
December 31	($ 114)	($ 1,351)	($ 18)

	2018		
	Contract assets	Accounts receivable (including related parties)	Other receivables (including related parties)
January 1_ IAS 39	$ -	$ -	$ -
Adjustments for applying new standards	(115)	(1,819)	(7)
January 1_IFRS 9	(115)	(1,819)	(7)
Provision for impairment loss	(20)	(322)	(7)
Reversal of impairment loss	-	-	1
December 31	($ 135)	($ 2,141)	($ 13)

viii. For investments in debt instruments at amortized cost, the credit rating levels are as follows:

	December 31, 2019			
		By lifetime		
	12 months	Increase in credit risk	Impairment of credit	Total
Financial assets at amortized cost				
Bank deposits (Note)	$ 237,420	$ -	$ -	$237,420

	December 31, 2018			
		By lifetime		
	12 months	Increase in credit risk	Impairment of credit	Total
Financial assets at amortized cost				
Bank deposits (Note)	$ 268,271	$ -	$ -	$268,271

Note: Time deposits with contract period over three months and restricted bank deposits.

(c) Liquidity risk

i. The Group manages and maintains adequate cash and cash equivalents to finance the Group's operations, and minimize the impact from cash flow fluctuations. The Group also monitors its debt financing plans to ensure it is in compliance with the financial covenants required under its loan agreements.

ii. The primary source of liquidity for the Group is from bank loans. See Note 6(13) for details of the unused credit lines of the Group as of December 31, 2019 and 2018.

iii. The contractual undiscounted cash flows of accounts payable (including related parties) and other payables (including related parties) are due within one year and are equivalent to their carrying amounts. Except for the aforementioned, the table below summarizes the maturity profile of the Group's non-derivative financial liabilities based on the earliest repayment dates and contractual undiscounted payments, including principal and interest. The Group does not consider the probability of early repayments requested by the banks.

	December 31, 2019				
	Within 1 year	1 to 3 years	3 to 5 years	Over 5 years	Total
Non-derivative financial liabilities					
Long-term bank loans	$ 914,159	$ 1,786,842	$ 6,848,327	$ -	$ 9,549,328
Lease liabilities	36,806	60,111	57,836	762,699	917,452
Guarantee deposits	-	-	-	1,095	1,095
	$ 950,965	$ 1,846,953	$ 6,906,163	$ 763,794	$ 10,467,875

	December 31, 2018				
	Within 1 year	1 to 3 years	3 to 5 years	Over 5 years	Total
Non-derivative financial liabilities					
Long-term bank loans	$ 927,243	$ 1,814,344	$ 7,734,983	$ -	$ 10,476,570
Lease obligations payable	18,000	-	-	-	18,000
Guarantee deposits	-	-	-	1,092	1,092
	$ 945,243	$ 1,814,344	$ 7,734,983	$ 1,092	$ 10,495,662

The difference between the floating interest rates and estimated interest rates will affect the non-derivative financial liabilities stated above.

(3) Fair value information

A. The different levels of inputs used in valuation techniques to measure fair value of financial and non-financial instruments are defined as follows:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date. An active market is a market in which trading for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

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

Level 3: Unobservable inputs for the asset or liability. The fair value of the Group’s investment in equity investment without active market is included in Level 3.

B. The carrying amounts of cash and cash equivalents, financial assets at amortized cost, contract assets, notes receivable, accounts receivable, other receivables, refundable deposits, bank loans, contract liabilities, accounts payable, other payables, lease liabilities and guarantee deposits are approximate to their fair values.

C. The related information of financial and non-financial instruments measured at fair value by level on the basis of the nature, characteristics and risks of the assets and liabilities are as follows:

(a) The related information of natures of the assets and liabilities is as follows:

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets				
Recurring fair value measurements				
Financial assets at fair value through profit or loss				
- Foreign partnership interests	$ -	$ -	$ 11,038	$ 11,038
Financial assets at fair value through other comprehensive income				
- Foreign unlisted stocks	-	-	121,808	121,808
	$ -	$ -	$ 132,846	$ 132,846

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets				
Recurring fair value measurements				
Financial assets at fair value through profit or loss				
- Foreign partnership interests	$ -	$ -	$ 11,471	$ 11,471
Financial assets at fair value through other comprehensive income				
- Foreign unlisted stocks	-	-	174,357	174,357
	$ -	$ -	$ 185,828	$ 185,828

(b) The methods and assumptions the Group used to measure fair value are as follows:

i. The fair value of the Group's financial instruments is measured by using valuation techniques or by reference to counterparty quotes. The fair value of financial instruments measured by using valuation techniques can be referred to current fair value of instruments with similar terms and characteristics in substance, discounted cash flow method or other valuation methods, including calculated by applying model using market information available at the consolidated balance sheet date.

ii. The Group's financial assets at fair value through profit or loss is measured by using the discounted cash flow method, which derives present value estimates by discounting expected future operating effectiveness and free cash flows projections.

iii. The Group's financial assets at fair value through other comprehensive income is measured by the comparable company valuation (EV/EBITDA ratio and P/B ratio).

iv. The Group takes into account adjustments for credit risks to measure the fair value of financial and non-financial instruments to reflect credit risk of the counterparty and the Group's credit quality.

D. The following table shows the movements of Level 3 for the years ended December 31, 2019 and 2018:

	2019		
	Debt instruments	Equity instruments	Total
January 1	$ 11,471	$ 174,357	$ 185,828
Gains or losses recognized in profit or loss			
Recorded as non-operating expenses	(433)	-	(433)
Gains or losses recognized in other comprehensive income			
Recorded as unrealized losses on valuation of financial assets at fair value through other comprehensive income	-	(52,549)	(52,549)
December 31	$ 11,038	$ 121,808	$ 132,846

	2018		
	Debt instruments	Equity instruments	Total
January 1	$ -	$ -	$ -
Effects on initial application of IFRS 9	11,433	89,335	100,768
Gains or losses recognized in profit or loss			
Recorded as non-operating income	38	-	38
Gains or losses recognized in other comprehensive income			
Recorded as unrealized gains on valuation of financial assets at fair value through other comprehensive income	-	85,022	85,022
December 31	$ 11,471	$ 174,357	$ 185,828

E. The Group engaged an external appraiser to perform the fair value measurements being categorized within Level 3, and the accounting unit is in charge of valuation procedures to independently verify the fair value of financial instruments. Such assessment is to ensure the valuation results are reasonable by applying independent information to make results close to current market conditions, confirming the resource of information is independent, reliable and in line with other resources and represented as the exercisable price, and frequently calibrating valuation model, performing back-testing, updating inputs used to the valuation model and making any other necessary adjustments to the fair value.

F. The following is the qualitative information and sensitivity analysis of changes in significant unobservable inputs under valuation model used in Level 3 fair value measurement:

	Fair value as of December 31, 2019	Valuation technique	Significant unobservable input	Range (weighted average method)	Relationship of inputs to fair value
Non-derivative debt instrument:					
Foreign partnership interests	$ 11,038	Discounted cash flow	Discount rate	0.30%	The lower the discount rate, the higher the fair value
Non-derivative equity instrument:					
Foreign unlisted stocks	121,808	Comparable companies	Price to book ratio multiple	1.22	The higher the multiple, the higher the fair value
			Enterprise value to EBITDA multiple	10.51	The higher the multiple, the higher the fair value
			Discount for lack of marketability	15.80%	The higher the discount for lack of marketability, the lower the fair value

	Fair value as of December 31, 2018	Valuation technique	Significant unobservable input	Range (weighted average method)	Relationship of inputs to fair value
Non-derivative debt instrument:					
Foreign partnership interests	$ 11,471	Discounted cash flow	Discount rate	0.35%	The lower the discount rate, the higher the fair value
Non-derivative equity instrument:					
Foreign unlisted stocks	174,357	Comparable companies	Price to book ratio multiple	1.19	The higher the multiple, the higher the fair value
			Enterprise value to EBITDA multiple	7.69	The higher the multiple, the higher the fair value
			Discount for lack of marketability	15.80%	The higher the discount for lack of marketability, the lower the fair value

G. The Group has carefully assessed the valuation models and assumptions used to measure fair value. However, use of different valuation models or assumptions may result in different measurement. The following is the effect of profit or loss or of other comprehensive income from financial assets categorized within Level 3 if the inputs used to valuation models have changed:

			December 31, 2019			
			Recognized in profit or loss		Recognized in other comprehensive income	
	Input	Change	Favorable change	Unfavorable change	Favorable change	Unfavorable change
Financial assets						
Foreign partnership interests	Discount rate	Note	$ -	$ -	$ -	$ -
Foreign unlisted stocks	Price to book ratio multiple	± 1%	-	-	53	53
	Enterprise value to EBITDA multiple	± 1%	-	-	850	900
	Discount for lack of marketability	± 1%	-	-	1,460	1,460
			$ -	$ -	$ 2,363	$ 2,413

	Input	Change	December 31, 2018 Recognized in profit or loss Favorable change	Unfavorable change	Recognized in other comprehensive income Favorable change	Unfavorable change
Financial assets						
Foreign partnership interests	Discount rate	Note	$ -	$ -	$ -	$ -
Foreign unlisted stocks	Price to book ratio multiple	± 1%	-	-	69	68
	Enterprise value to EBITDA multiple	± 1%	-	-	1,563	1,512
	Discount for lack of marketability	± 1%	-	-	2,093	2,050
			$ -	$ -	$ 3,725	$ 3,630

Note: Based on the Group's assessment, change in input would not have significant impact on profit or loss or other comprehensive income.

13. SUPPLEMENTARY DISCLOSURES

(1) Significant transactions information

A. Financings provided: None.

B. Endorsements and guarantees provided: There were no endorsements and guarantees provided by the Company. For information related to the Company's letter of guarantee for duty, please refer to Note 9(1).

C. Marketable securities held at the end of the period (excluding investments in subsidiaries, associates and joint ventures):

				As of December 31, 2019				
Held company name	Marketable securities type and name	Relationship with the company	General ledger account	Number of shares	Carrying amount	Ownership (%)	Fair value	Note
The Company	RYOWA CO., LTD.	N/A	Financial assets at fair value through other comprehensive income	420	$116,726	18.12	$ 116,726	
The Company	CONNECTEC JAPAN Corporation	N/A	Financial assets at fair value through other comprehensive income	56,497	5,082	2.74	5,082	
ChipMOS BVI	Shanghai Zuzhu Business Consulting Partnership (Limited Partnership) ("Zuzhu")	N/A	Financial assets at fair value through profit or loss	-	4,492	5.10	4,492	
ChipMOS BVI	Shanghai Zuzhan Business Consulting Partnership (Limited Partnership) ("Zuzhan")	N/A	Financial assets at fair value through profit or loss	-	2,219	13.42	2,219	
ChipMOS BVI	Shanghai Zuchen Business Consulting Partnership (Limited Partnership) ("Zuchen")	N/A	Financial assets at fair value through profit or loss	-	2,164	11.34	2,164	
ChipMOS BVI	Shanghai Guizao Business Consulting Partnership (Limited Partnership) ("Guizao")	N/A	Financial assets at fair value through profit or loss	-	2,163	11.85	2,163	

D. Marketable securities acquired or disposed of with accumulated amount exceeding the lower of $300 million or 20% of the paid-in capital:

					Balance as of January 1, 2019		Acquisition		Disposal				Balance as of December 31, 2019	
Investor	Marketable securities type and name	General ledger account	Counterparty	Relationship with the investee	Number of shares/units (in thousands)	Amount	Number of shares/units (in thousands)	Amount	Number of shares/units (in thousands)	Selling price	Book value	Gain on disposal	Number of shares/units (in thousands)	Amount
The Company	Taishin 1699 Money Market Fund	Note	N/A	N/A	-	$ -	73,891	$1,000,000	73,891	$1,000,729	$1,000,000	$ 729	-	$ -
The Company	Union Money Market Fund	Note	N/A	N/A	-	-	45,417	600,000	45,417	600,231	600,000	231	-	-
The Company	UPAMC James Bond Money Market Fund	Note	N/A	N/A	-	-	17,949	300,000	17,949	300,183	300,000	183	-	-
The Company	JMC	Investments accounted for using equity method	N/A	N/A	19,100	406,792	-	-	9,100	1,180,179	206,569	981,675	10,000	249,793

Note : Accounted for as “Financial assets at fair value through profit or loss”.

E. Acquisition of real estate properties with amount exceeding the lower of $300 million or 20% of the paid-in capital: None.

F. Disposal of real estate properties with amount exceeding the lower of $300 million or 20% of paid-in capital: None.

G. Purchases from or sales to related parties with amount exceeding the lower of $100 million or 20% of paid-in capital or more: None.

H. Receivables from related parties with amount exceeding the lower of $100 million or 20% of paid-in capital or more: None.

I. Trading in derivative instruments undertaken during the reporting periods: None.

J. Significant inter-company transactions during the reporting periods:

				Transaction			
Number	Company name	Counterparty	Relationship	General ledger account	Amount	Transaction terms	Percentage of consolidated total revenues or total assets (%)
0	The Company	ChipMOS USA	Note	Service expense	$ 32,826	-	0.16

Note: Represents the transactions from parent company to subsidiary.

(2) Information on investees

Names, locations and related information of investees (excluding information on investments in the P.R.C.):

				Original investment amount		Shares held as of December 31, 2019					
Investor	Investee	Location	Main business activities	Ending balance	Beginning balance	Number of shares	Ownership (%)	Carrying amount	Net profit (loss) of the investee for the year ended December 31, 2019	Investment income (loss) recognized for the year ended December 31, 2019	Note
The Company	ChipMOS USA	San Jose, USA	Research, development and marketing of semiconductors, circuits, electronic related products	$ 217,918	$ 217,918	3,550,000	100	$ 235,742	$ 4,267	$ 4,267	
The Company	JMC	Kaohsiung, Taiwan	Manufacturing, processing and trading of high-end flexible IC substrates for display driver ICs	165,007	315,164	10,000,000	10	249,793	524,347	63,838	Note
The Company	ChipMOS BVI	British Virgin Islands	Holding company	3,072,712	3,072,712	2,407,742,975	100	3,175,040	(219,692)	(219,692)	

Note: Company’s associate accounted for using equity method.

(3) Information on investments in the P.R.C.

A. Basic information:

Investee in P.R.C.	Main business activities	Paid-in capital	Investment method	Accumulated amount of remittance from Taiwan to P.R.C.as of January 1, 2019	Amount remitted from Taiwan to P.R.C./ Amount remitted back to Taiwan for the year ended December 31, 2019		Accumulated amount of remittance from Taiwan to P.R.C. as of December 31, 2019	Net loss of investee for the year ended December 31, 2019	Ownership (%) held by the Company (directly or indirectly)	Investment loss recognized for the year ended December 31, 2019	Carrying amount of investments in P.R.C. as of December 31, 2019	Accumulated amount of investment income remitted back to Taiwan through December 31, 2019	Note
					Remitted to P.R.C.	Remitted back to Taiwan							
Unimos Shanghai	Semiconductor assembling and testing services	$ 10,817,191	Note 1	$ 2,885,586	$ -	$ -	$ 2,885,586	($ 352,008)	45.02	($ 218,764)	3,143,117	$ -	Note 2
Zuzhu	Business consulting services	87,139	Note 1	-	-	-	-	(2)	5.10	-	4,492	-	
Zuzhan	Business consulting services	16,606	Note 1	-	-	-	-	(1)	13.42	-	2,219	-	
Zuchen	Business consulting services	19,673	Note 1	-	-	-	-	(1)	11.34	-	2,164	-	
Guizao	Business consulting services	18,810	Note 1	-	-	-	-	(1)	11.85	-	2,163	-	

Note 1: Through investing in an existing company (ChipMOS BVI) in the third area, which then invested in the investee in P.R.C..

Note 2: The financial statements that are audited by the Company’s independent accountants.

Company name	Accumulated amount of remittance from Taiwan to P.R.C. as of December 31, 2019	Investment amount approved by the Investment Commission of MOEA	Limit on investments in P.R.C. imposed by the Investment Commission of MOEA
The Company	$ 2,885,586	$ 2,885,586	$ 11,790,743

B. Significant transactions, either directly or indirectly through a third area, with investee companies in the P.R.C.: None.

14. SEGMENT INFORMATION

(1) General information

The Group engages mainly in the assembly and testing of semiconductors, memory modules and investing. In accordance with IFRS 8 "Operating Segments", the Group's segments include Testing, Assembly, Testing and Assembly for Liquid Crystal Display and other Display Panel Driver Semiconductors ("LCDD"), Bumping and others as the five reportable segments.

(2) Measurement of segment information

The Group's reportable segments are strategic business units which provide different products and services. The accounting policies adopted by the operating segments are the same as the accounting policies described in Note 4.

(3) Information about segment profit or loss

The segment information provided to the chief operating decision maker for the reportable segments is as follows:

	2019						
	Testing	Assembly	LCDD	Bumping	Others	Elimination	Total
Revenue:							
External customers	$4,257,800	$ 5,148,877	$ 6,922,205	$ 4,008,999	$ -	$ -	$ 20,337,881
Inter-segment	-	-	-	-	32,808	(32,808)	-
Total revenue	$4,257,800	$ 5,148,877	$ 6,922,205	$ 4,008,999	$ 32,808	($ 32,808)	$ 20,337,881
Operating profit (loss)	$ 709,142	($ 227,096)	$ 1,740,720	$ 232,404	$ 1,931	$ 18	$ 2,457,119
Depreciation expenses	($ 802,740)	($ 521,311)	($1,796,951)	($ 604,553)	($ 6,359)	$ -	($ 3,731,914)
Share of profit of associates	$ -	$ -	$ -	$ -	($ 370,351)	$ 215,425	($ 154,926)
Interest income	$ -	$ -	$ -	$ -	$ 64,368	$ -	$ 64,368
Interest expense	$ -	$ -	$ -	$ -	($ 171,075)	$ -	($ 171,075)
Expenditure for segment assets	$ 764,105	$ 548,063	$ 3,077,806	$ 506,635	$ 47	$ -	$ 4,896,656

	2018						
	Testing	Assembly	LCDD	Bumping	Others	Elimination	Total
Revenue:							
External customers	$4,790,097	$ 4,679,676	$ 5,694,720	$ 3,315,534	$ -	$ -	$ 18,480,027
Inter-segment	-	-	-	-	35,738	(35,738)	-
Total revenue	$4,790,097	$ 4,679,676	$ 5,694,720	$ 3,315,534	$ 35,738	($ 35,738)	$ 18,480,027
Operating profit (loss)	$1,306,742	($ 207,700)	$ 1,226,755	($ 202,497)	($ 23,433)	($ 146)	$ 2,099,721
Depreciation expenses	($ 769,660)	($ 578,205)	($1,400,784)	($ 627,412)	($ 518)	$ -	($ 3,376,579)
Share of profit of associates	$ -	$ -	$ -	$ -	($ 668,377)	$ 368,276	($ 300,101)
Interest income	$ -	$ -	$ -	$ -	$ 49,971	$ -	$ 49,971
Interest expense	$ -	$ -	$ -	$ -	($ 152,416)	$ -	($ 152,416)
Expenditure for segment assets	$1,563,919	$ 321,976	$ 2,732,141	$ 327,251	$ 283	$ -	$ 4,945,570

The application of IFRS 16 had the following impact on the segment information in 2019:

	Testing	Assembly	LCDD	Bumping	Others	Elimination	Total
Depreciation expenses increased	$ 7,631	$ 6,035	$ 10,703	$ 1,137	$ 5,808	$ -	$ 31,314
Interest expense increased	$ 4,207	$ 3,260	$ 5,862	$ 492	$ 319	$ -	$ 14,140
Segment assets increased	$ 207,593	$ 160,864	$ 289,259	$ 24,188	$ 5,164	$ -	$ 687,068
Segment liabilities increased	$ 209,328	$ 162,208	$ 291,677	$ 24,390	$ 5,348	$ -	$ 692,951

(4) Reconciliation for segment income (loss)

Revenue from external customers and segment income (loss) reported to the chief operating decision maker are measured using the same method as for revenue and operating profit in the financial statements. Thus, no reconciliation is needed.

(5) Information on products and services

	2019		2018	
	Revenue	%	Revenue	%
Testing	$ 4,257,800	21	$ 4,790,097	26
Assembly	5,148,877	25	4,679,676	25
LCDD	6,922,205	34	5,694,720	31
Bumping	4,008,999	20	3,315,534	18
	$ 20,337,881	100	$ 18,480,027	100

(6) Geographical information

	2019		2018	
	Revenue	Non-current assets	Revenue	Non-current assets
Taiwan	$ 15,875,027	$ 18,727,979	$ 14,751,766	$ 16,936,724
Japan	1,905,032	-	1,825,479	-
Singapore	1,333,114	-	1,143,661	-
P.R.C.	789,496	-	163,831	-
Others	435,212	5,659	595,290	1,851
	$ 20,337,881	$ 18,733,638	$ 18,480,027	$ 16,938,575

(7) Major customer information

The information on the major customers which constituted more than 10% of the Group’s total revenue for the years ended December 31, 2019 and 2018 is as follows:

	2019		2018	
Company name	Amount	%	Amount	%
Customer A	$ 4,756,755	23	$ 3,794,991	21
Customer K	2,419,612	12	2,637,053	14
Customer C	2,048,260	10	1,957,467	11
Customer X	1,977,427	10	1,328,752	7