

**UNITED MICROELECTRONICS CORPORATION
AND SUBSIDIARIES
CONSOLIDATED FINANCIAL STATEMENTS
WITH REPORT OF INDEPENDENT ACCOUNTANTS
FOR THE THREE-MONTH PERIODS ENDED
MARCH 31, 2019 AND 2018**

Address: No. 3 Li-Hsin Road II, Hsinchu Science Park, Hsinchu City, Taiwan, R.O.C.

Telephone: 886-3-578-2258

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

Review Report of Independent Accountants

To United Microelectronics Corporation

Introduction

We have reviewed the accompanying consolidated balance sheets of United Microelectronics Corporation and subsidiaries (collectively, the “Company”) as of March 31, 2019 and 2018, the related consolidated statements of comprehensive income, changes in equity and cash flows for the three-month periods ended March 31, 2019 and 2018, and notes to the consolidated financial statements, including the summary of significant accounting policies (together “the consolidated financial statements”). Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Accounting Standard 34, “Interim Financial Reporting” as endorsed and became effective by Financial Supervisory Commission of the Republic of China. Our responsibility is to express a conclusion on these consolidated financial statements based on our reviews.

Scope of Review

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

Conclusion

Based on our reviews and the review reports of other independent accountants (please refer to the Other Matter paragraph of our report), nothing has come to our attention that causes us to believe that the accompanying consolidated financial statements do not present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as of March 31, 2019 and 2018, and their consolidated financial performance and cash flows for the three-month periods ended March 31, 2019 and 2018, in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Accounting Standard 34, “Interim Financial Reporting” as endorsed and became effective by Financial Supervisory Commission of the Republic of China.

Emphasis of Matter – Applying for New Accounting Standards

We draw attention to Note 3 of the consolidated financial statements, which describes the Company and its subsidiaries applied for the International Financial Reporting Standard 16, “Leases” starting from January 1, 2019, and elected not to restate the consolidated financial statements for prior periods. Our conclusion is not modified in respect of this matter.

Other Matter – Making Reference to the Reviews of Other Independent Accountants

Our review, insofar as it related to the investments accounted for under the equity method balances of NT\$8,946 million and NT\$9,003 million, which represented 2.39% and 2.34% of the total consolidated assets as of March 31, 2019 and 2018, respectively, the related shares of investment income from the associates and joint ventures in the amount of NT\$225 million and NT\$229 million, which represented (64.25)% and 12.34% of the consolidated income (loss) from continuing operations before income tax for the three-month ended March 31, 2019 and 2018, respectively, and the related shares of other comprehensive income from the associates and joint ventures in the amount of NT\$321 million and NT\$124 million, which represented 8.66% and 4.45% of the consolidated total comprehensive income for the three-month periods ended March 31, 2019 and 2018, respectively, are based solely on the reports of other independent accountants.

/s/ Chiu, Wan-Ju

/s/ Hsu, Hsin-Min

Ernst & Young, Taiwan

April 24, 2019

Notice to Readers

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

English Translation of Consolidated Financial Statements Originally Issued in Chinese
UNITED MICROELECTRONICS CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

March 31, 2019, December 31, 2018 and March 31, 2018 (March 31, 2019 and 2018 are unaudited)
(Expressed in Thousands of New Taiwan Dollars)

Assets	Notes	As of		
		March 31, 2019	December 31, 2018	March 31, 2018
Current assets				
Cash and cash equivalents	6(1), 6(27)	\$ 88,738,198	\$ 83,661,739	\$ 77,142,866
Financial assets at fair value through profit or loss, current	6(2), 12(7)	552,492	528,450	524,648
Contract assets, current	6(19)	90,450	92,210	135,405
Notes receivable		175	118	3,852
Accounts receivable, net	6(3), 6(27)	22,909,082	23,735,989	24,902,635
Accounts receivable-related parties, net	7	82,994	138,912	106,909
Other receivables		621,221	708,432	882,293
Current tax assets		26,691	20,856	626,962
Inventories, net	6(4), 6(27)	18,873,745	18,203,119	17,137,478
Prepayments		11,681,329	11,225,322	12,938,608
Other current assets	6(19)	3,219,631	2,878,285	2,019,536
Total current assets		<u>146,796,008</u>	<u>141,193,432</u>	<u>136,421,192</u>
Non-current assets				
Financial assets at fair value through profit or loss, noncurrent	6(2), 12(7)	12,507,893	11,555,847	13,477,592
Financial assets at fair value through other comprehensive income, noncurrent	6(5), 12(7)	13,806,600	11,585,477	11,279,702
Investments accounted for under the equity method	6(6)	10,902,406	10,363,977	11,305,220
Property, plant and equipment	6(7), 6(27), 8	167,822,550	172,846,595	196,664,280
Right-of-use assets	4, 6(8), 8	8,548,269	-	-
Intangible assets	6(9), 7	3,351,521	2,991,804	3,688,381
Deferred tax assets	6(24)	6,204,474	6,387,909	6,508,372
Prepayment for equipment		129,291	661,402	1,103,785
Refundable deposits	8	2,716,783	2,757,399	1,845,244
Other noncurrent assets-others	8	1,351,785	4,261,064	3,266,204
Total non-current assets		<u>227,341,572</u>	<u>223,411,474</u>	<u>249,138,780</u>
Total assets		<u>\$ 374,137,580</u>	<u>\$ 364,604,906</u>	<u>\$ 385,559,972</u>

(continued)

English Translation of Consolidated Financial Statements Originally Issued in Chinese
UNITED MICROELECTRONICS CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
March 31, 2019, December 31, 2018 and March 31, 2018 (March 31, 2019 and 2018 are unaudited)
(Expressed in Thousands of New Taiwan Dollars)

Liabilities and Equity	Notes	As of		
		March 31, 2019	December 31, 2018	March 31, 2018
Current liabilities				
Short-term loans	6(10), 6(26), 6(27)	\$ 16,797,506	\$ 13,103,808	\$ 20,167,778
Financial liabilities at fair value through profit or loss, current	6(11), 12(7)	34	-	-
Contract liabilities, current	6(19)	925,753	932,371	3,027,825
Notes and accounts payable		6,778,612	6,801,745	6,997,791
Other payables	7	11,601,476	12,455,861	11,702,454
Payables on equipment		2,951,568	4,008,142	2,971,142
Current tax liabilities		1,085,228	2,059,172	2,703,831
Lease liabilities, current	4, 6(8), 12(7)	449,829	-	-
Current portion of long-term liabilities	6(12), 6(13), 6(26), 6(27), 8, 12(7)	6,553,294	5,121,396	19,829,241
Other current liabilities	6(15), 6(16), 6(26), 7	5,501,251	5,416,842	5,168,876
Total current liabilities		<u>52,644,551</u>	<u>49,899,337</u>	<u>72,568,938</u>
Non-current liabilities				
Contract liabilities, noncurrent	6(19)	493,760	-	-
Bonds payable	6(12), 6(26), 12(7)	36,471,347	38,878,947	23,677,236
Long-term loans	6(13), 6(26), 6(27), 8, 12(7)	28,504,822	28,204,054	28,935,140
Deferred tax liabilities	6(24)	2,019,386	1,965,693	1,802,228
Lease liabilities, noncurrent	4, 6(8), 12(7)	5,539,024	-	-
Net defined benefit liabilities, noncurrent	6(14)	4,158,014	4,167,174	4,132,385
Guarantee deposits	6(26)	205,016	612,903	477,014
Other noncurrent liabilities-others	6(15), 6(26), 9(5)	34,287,448	34,340,307	37,754,635
Total non-current liabilities		<u>111,678,817</u>	<u>108,169,078</u>	<u>96,778,638</u>
Total liabilities		<u>164,323,368</u>	<u>158,068,415</u>	<u>169,347,576</u>
Equity attributable to the parent company				
Capital	6(17)			
Common stock		121,243,187	124,243,187	126,243,187
Additional paid-in capital	6(12), 6(17)			
Premiums		35,402,413	36,278,383	36,862,383
Treasury stock transactions		2,267,703	1,737,113	1,753,028
The differences between the fair value of the consideration paid or received from acquiring or disposing subsidiaries and the carrying amounts of the subsidiaries		573,336	573,336	573,336
Recognition of changes in subsidiaries' ownership		-	39	-
Share of changes in net assets of associates and joint ventures accounted for using equity method		108,733	108,613	97,513
Employee stock options		288,153	178,401	-
Stock options		1,515,297	1,515,297	1,515,297
Other		8,095	8,181	722,454
Retained earnings	6(17)			
Legal reserve		10,865,280	10,865,280	9,902,407
Unappropriated earnings		50,521,129	50,723,263	59,479,795
Other components of equity				
Exchange differences on translation of foreign operations		(4,626,899)	(5,692,326)	(7,226,411)
Unrealized gains or losses on financial assets measured at fair value through other comprehensive income		(6,287,497)	(8,819,556)	(8,595,241)
Gains or losses on hedging instruments		(2,058)	(2,058)	-
Treasury stock	6(17), 6(18)	<u>(2,515,594)</u>	<u>(5,647,430)</u>	<u>(5,320,669)</u>
Total equity attributable to the parent company		<u>209,361,278</u>	<u>206,069,723</u>	<u>216,007,079</u>
Non-controlling interests	6(17), 6(27)	452,934	466,768	205,317
Total equity		<u>209,814,212</u>	<u>206,536,491</u>	<u>216,212,396</u>
Total liabilities and equity		<u>\$ 374,137,580</u>	<u>\$ 364,604,906</u>	<u>\$ 385,559,972</u>

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

English Translation of Consolidated Financial Statements Originally Issued in Chinese
UNITED MICROELECTRONICS CORPORATION AND SUBSIDIARIES
UNAUDITED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
For the three-month periods ended March 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars, Except for Earnings per Share)

	Notes	For the three-month periods ended March 31,	
		2019	2018
Operating revenues	6(19), 7, 14	\$ 32,582,959	\$ 37,497,137
Operating costs	6(4), 6(9), 6(14), 6(18), 6(20), 7, 14	(30,320,879)	(32,855,138)
Gross profit		2,262,080	4,641,999
Operating expenses	6(9), 6(14), 6(18), 6(20), 7, 14		
Sales and marketing expenses		(888,545)	(908,787)
General and administrative expenses		(1,237,275)	(1,016,585)
Research and development expenses		(2,806,877)	(2,924,180)
Subtotal		(4,932,697)	(4,849,552)
Net other operating income and expenses	6(15), 6(21), 14	1,073,153	976,945
Operating income		(1,597,464)	769,392
Non-operating income and expenses			
Other income		236,945	140,772
Other gains and losses	6(22)	1,036,851	404,660
Finance costs	6(22)	(729,213)	(685,814)
Share of profit or loss of associates and joint ventures	6(6), 14	195,955	207,215
Exchange gain, net	12	506,821	1,020,411
Subtotal		1,247,359	1,087,244
Income (loss) from continuing operations before income tax		(350,105)	1,856,636
Income tax benefit	6(24), 14	442,712	1,172,948
Net income		92,607	3,029,584
Other comprehensive income (loss)	6(23)		
Items that will not be reclassified subsequently to profit or loss			
Unrealized gains or losses on financial assets at fair value through other comprehensive income		2,221,123	1,148,243
Share of other comprehensive income (loss) of associates and joint ventures which will not be reclassified subsequently to profit or loss		322,477	151,546
Income tax related to items that will not be reclassified subsequently	6(24)	(11,541)	(28,017)
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation of foreign operations		1,076,384	(1,515,172)
Share of other comprehensive income (loss) of associates and joint ventures which may be reclassified subsequently to profit or loss		9,523	(15,627)
Income tax related to items that may be reclassified subsequently	6(24)	(3,487)	25,068
Total other comprehensive income (loss), net of tax		3,614,479	(233,959)
Total comprehensive income		\$ 3,707,086	\$ 2,795,625
Net income attributable to:			
Stockholders of the parent		\$ 1,201,447	\$ 3,400,398
Non-controlling interests		(1,108,840)	(370,814)
		\$ 92,607	\$ 3,029,584
Comprehensive income attributable to:			
Stockholders of the parent		\$ 4,812,868	\$ 3,158,292
Non-controlling interests		(1,105,782)	(362,667)
		\$ 3,707,086	\$ 2,795,625
Earnings per share (NTD)	6(25)		
Earnings per share-basic		\$ 0.10	\$ 0.28
Earnings per share-diluted		\$ 0.10	\$ 0.26

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

English Translation of Consolidated Financial Statements Originally Issued in Chinese
UNITED MICROELECTRONICS CORPORATION AND SUBSIDIARIES
UNAUDITED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
For the three-month periods ended March 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars)

		Equity Attributable to the Parent Company											
		Capital	Retained Earnings			Other Components of Equity							
							Unrealized Gains or Losses on Financial Assets Measured at Fair Value through Other Comprehensive Income	Gains or Losses on Hedging Instruments	Treasury Stock	Total	Non- Controlling Interests	Total Equity	
Notes		Common Stock	Additional Paid-in Capital	Legal Reserve	Unappropriated Earnings	Exchange Differences on Translation of Foreign Operations							
Adjusted balance as of January 1, 2018		\$ 126,243,187	\$ 40,858,350	\$ 9,902,407	\$ 56,133,198	\$ (5,712,533)	\$ (9,867,013)	\$ -	\$ (4,719,037)	\$ 212,838,559	\$ 958,405	\$ 213,796,964	
Net income for the three-month ended March 31, 2018	6(17)	-	-	-	3,400,398	-	-	-	-	3,400,398	(370,814)	3,029,584	
Other comprehensive income (loss), net of tax for the three-month ended March 31, 2018	6(17), 6(23)	-	-	-	-	(1,513,878)	1,271,772	-	-	(242,106)	8,147	(233,959)	
Total comprehensive income (loss)		-	-	-	3,400,398	(1,513,878)	1,271,772	-	-	3,158,292	(362,667)	2,795,625	
Treasury stock acquired	6(17)	-	-	-	-	-	-	-	(601,632)	(601,632)	-	(601,632)	
Share of changes in net assets of associates and joint ventures accounted for using equity method		-	31	-	16,351	-	-	-	-	16,382	-	16,382	
Changes in subsidiaries' ownership	6(17)	-	-	-	(61,311)	-	-	-	-	(61,311)	(748,190)	(809,501)	
Others	6(17)	-	665,630	-	(8,841)	-	-	-	-	656,789	357,769	1,014,558	
Balance as of March 31, 2018	6(17)	\$ 126,243,187	\$ 41,524,011	\$ 9,902,407	\$ 59,479,795	\$ (7,226,411)	\$ (8,595,241)	\$ -	\$ (5,320,669)	\$ 216,007,079	\$ 205,317	\$ 216,212,396	
Balance as of January 1, 2019	6(17)	\$ 124,243,187	\$ 40,399,363	\$ 10,865,280	\$ 50,723,263	\$ (5,692,326)	\$ (8,819,556)	\$ (2,058)	\$ (5,647,430)	\$ 206,069,723	\$ 466,768	\$ 206,536,491	
Impact of retroactive applications	3, 6(17)	-	(10,427)	-	-	(13,935)	-	-	-	(24,362)	(0)	(24,362)	
Adjusted balance as of January 1, 2019	6(17)	124,243,187	40,388,936	10,865,280	50,723,263	(5,706,261)	(8,819,556)	(2,058)	(5,647,430)	206,045,361	466,768	206,512,129	
Net income for the three-month ended March 31, 2019	6(17)	-	-	-	1,201,447	-	-	-	-	1,201,447	(1,108,840)	92,607	
Other comprehensive income (loss), net of tax for the three-month ended March 31, 2019	6(17), 6(23)	-	-	-	-	1,079,362	2,532,059	-	-	3,611,421	3,058	3,614,479	
Total comprehensive income (loss)		-	-	-	1,201,447	1,079,362	2,532,059	-	-	4,812,868	(1,105,782)	3,707,086	
Share-based payment transaction	6(18)	-	114,318	-	-	-	-	-	-	114,318	-	114,318	
Treasury stock acquired	6(17)	-	-	-	-	-	-	-	(218,110)	(218,110)	-	(218,110)	
Treasury stock cancelled	6(17)	(3,000,000)	(349,946)	-	-	-	-	-	3,349,946	-	-	-	
Share of changes in net assets of associates and joint ventures accounted for using equity method		-	120	-	-	-	-	-	-	120	-	120	
Changes in subsidiaries' ownership	6(17)	-	(39)	-	(22,280)	-	-	-	-	(22,319)	23,916	1,597	
Others	6(17)	-	10,341	-	(1,381,301)	-	-	-	-	(1,370,960)	1,068,032	(302,928)	
Balance as of March 31, 2019	6(17)	\$ 121,243,187	\$ 40,163,730	\$ 10,865,280	\$ 50,521,129	\$ (4,626,899)	\$ (6,287,497)	\$ (2,058)	\$ (2,515,594)	\$ 209,361,278	\$ 452,934	\$ 209,814,212	

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

English Translation of Consolidated Financial Statements Originally Issued in Chinese
UNITED MICROELECTRONICS CORPORATION AND SUBSIDIARIES
UNAUDITED CONSOLIDATED STATEMENTS OF CASH FLOWS
For the three-month periods ended March 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars)

	For the three-month periods ended March 31,	
	2019	2018
Cash flows from operating activities:		
Net (loss) income before tax	\$ (350,105)	\$ 1,856,636
Adjustments to reconcile net income before tax to net cash provided by operating activities:		
Depreciation	11,906,595	12,750,186
Amortization	473,302	538,309
Expected credit losses	-	844
Net gain of financial assets and liabilities at fair value through profit or loss	(1,032,105)	(376,519)
Interest expense	709,994	668,979
Interest income	(236,945)	(139,453)
Dividend income	-	(1,319)
Share-based payment	109,752	-
Share of profit of associates and joint ventures	(195,955)	(207,215)
Loss (gain) on disposal of property, plant and equipment	14,619	(26,525)
Loss on disposal of investments	-	2,609
Exchange gain on financial assets and liabilities	(553,617)	(1,356,273)
Amortization of deferred government grants	(1,014,570)	(869,370)
Income and expense adjustments	10,181,070	10,984,253
Changes in operating assets and liabilities:		
Financial assets and liabilities at fair value through profit or loss	(105,682)	(282,193)
Contract assets	1,908	(7,228)
Notes receivable and accounts receivable	830,959	(3,267,609)
Other receivables	79,574	299,831
Inventories	(599,873)	952,501
Prepayments	(159,491)	38,293
Other current assets	(333,638)	707,715
Contract fulfillment costs	8,111	(40,605)
Contract liabilities	(12,493)	(919,491)
Notes and accounts payable	(48,933)	490,546
Other payables	(1,019,763)	(1,185,698)
Other current liabilities	33,143	(11,084)
Net defined benefit liabilities	(9,160)	(6,134)
Other noncurrent liabilities-others	(3,240)	-
Cash generated from operations	8,492,387	9,609,733
Interest received	238,076	108,794
Dividend received	-	1,319
Interest paid	(214,627)	(311,894)
Income tax paid	(332,725)	(631,581)
Net cash provided by operating activities	8,183,111	8,776,371

(continued)

English Translation of Consolidated Financial Statements Originally Issued in Chinese
UNITED MICROELECTRONICS CORPORATION AND SUBSIDIARIES
UNAUDITED CONSOLIDATED STATEMENTS OF CASH FLOWS
For the three-month periods ended March 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars)

	For the three-month periods ended March 31,	
	2019	2018
Cash flows from investing activities:		
Acquisition of financial assets at fair value through profit or loss	\$ (1,849)	\$ (54,531)
Proceeds from disposal of financial assets at fair value through profit or loss	177,765	-
Acquisition of investments accounted for under the equity method	(10,000)	-
Increase in prepayment for investments	(20,368)	-
Proceeds from capital reduction and liquidation of investments	-	113
Acquisition of property, plant and equipment	(5,562,980)	(5,716,267)
Proceeds from disposal of property, plant and equipment	21,730	39,040
Increase in refundable deposits	(16,205)	(33,939)
Decrease in refundable deposits	60,789	94,205
Acquisition of intangible assets	(530,156)	(247,730)
Government grants related to assets acquisition	190,333	6,593,436
Increase in other noncurrent assets-others	(614)	(17,375)
Decrease in other noncurrent assets-others	8,786	9,131
Net cash (used in) provided by investing activities	(5,682,769)	666,083
Cash flows from financing activities:		
Increase in short-term loans	10,394,766	4,665,925
Decrease in short-term loans	(6,928,161)	(9,845,395)
Cash payments for the principal portion of the lease liability	(136,536)	-
Redemption of bonds	-	(7,500,000)
Proceeds from long-term loans	747,900	-
Repayments of long-term loans	(1,751,849)	(381,430)
Increase in guarantee deposits	190,786	20,620
Decrease in guarantee deposits	(9,606)	(77,896)
Treasury stock acquired	(330,855)	(595,495)
Change in non-controlling interests	1,538	-
Others	1,631	(97)
Net cash provided by (used in) financing activities	2,179,614	(13,713,768)
Effect of exchange rate changes on cash and cash equivalents	396,503	(260,392)
Net increase (decrease) in cash and cash equivalents	5,076,459	(4,531,706)
Cash and cash equivalents at beginning of period	83,661,739	81,674,572
Cash and cash equivalents at end of period	\$ 88,738,198	\$ 77,142,866

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

UNITED MICROELECTRONICS CORPORATION AND SUBSIDIARIES
NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS

For the Three-Month Periods Ended March 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars unless Otherwise Specified)

1. HISTORY AND ORGANIZATION

United Microelectronics Corporation (UMC) was incorporated in Republic of China (R.O.C.) in May 1980 and commenced operations in April 1982. UMC is a full service semiconductor wafer foundry, and provides a variety of services to satisfy customer needs. UMC's ordinary shares were publicly listed on the Taiwan Stock Exchange (TWSE) in July 1985 and its American Depositary Shares (ADSs) were listed on the New York Stock Exchange (NYSE) in September 2000.

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

The consolidated financial statements of UMC and its subsidiaries ("the Company") were authorized for issue in accordance with a resolution of the Board of Directors' meeting on April 24, 2019.

3. NEWLY ISSUED OR REVISED STANDARDS AND INTERPRETATIONS

(1) The Company applied International Financial Reporting Standards, International Accounting Standards, and Interpretations issued, revised or amended which are endorsed by Financial Supervisory Commission ("FSC") and become effective for annual periods beginning on or after January 1, 2019. Apart from the impact of the standards and interpretations which is described below, all other standards and interpretations have no material impact on the Company's financial position and performance.

a. IFRS 16 "Leases" ("IFRS 16")

IFRS 16 replaces IAS 17 "Leases" ("IAS 17"), IFRIC 4 "Determining whether an Arrangement contains a Lease" ("IFRIC 4"), SIC 15 "Operating Leases-Incentives", and SIC 27 "Evaluating the Substance of Transactions in the Legal Form of a Lease" for annual periods beginning on or after January 1, 2019.

The Company elects not to reassess whether a contract is, or contains, a lease at the date of initial application (January 1, 2019) in accordance with the transition provision in IFRS 16. The Company is permitted to apply IFRS 16 to contracts that were previously identified as leases applying IAS 17 and IFRIC 4. The Company elects not to restate comparative information and applies the standard retrospectively only to contracts that are not completed at the date of initial application in accordance with the transition provision in IFRS 16. Instead, the Company will recognize the cumulative effect of initially applying IFRS 16 on January 1, 2019. The impact arising from the adoption of IFRS 16 are summarized as follows:

- i. For leases that were classified as operating leases applying IAS 17, lease payments are recognized as an expense on a straight-line basis over the lease term. After adopting IFRS 16, the Company expects to measure and recognize those leases, except for short-term or low-value asset lease exemptions, as lease liability at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. On a lease-by-lease basis, the right-of-use asset is measured and recognized at an amount equal to the lease liability (adjusted by the amount of any prepaid lease payments). The Company assesses the cumulative effect at the date of initial application is primarily consisted of a decrease in prepayments amounting to NT\$15 million; an increase in right-of-use assets amounting to NT\$8,578 million; a decrease in other noncurrent assets-others amounting to NT\$2,621 million; a decrease in other payables amounting to NT\$40 million; an increase in lease liabilities amounting to NT\$6,006 million; a decrease in additional paid-in capital-other amounting to NT\$10 million; and a decrease in other components of equity amounting to NT\$14 million.
- ii. The Company measured lease liabilities on January 1, 2019 using the weighted-average incremental borrowing rate of 2.64%.
- iii. The difference between the present value of operating lease commitments under IAS 17 as of December 31, 2018 discounted at the lessee's incremental borrowing rate and lease liabilities recognized on January 1, 2019 is explained as below:

Operating lease commitments under IAS 17 as of December 31, 2018	\$7,408,369
Present value discounted at the incremental borrowing rate on January 1, 2019	\$5,997,551
Add: An extension option reasonably certain to be exercised	8,906
Lease liabilities as of January 1, 2019	<u>\$6,006,457</u>

- (2) Standards issued by IASB but not yet endorsed by FSC (the effective dates are to be determined by FSC) are listed below:

No.	The projects of Standards or Interpretations	Effective for annual periods beginning on or after
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 IFRS 3	Definition of a Business	January 1, 2020
Amendments to IAS 1 and 8	Definition of Material	January 1, 2020

The potential effects of adopting the standards or interpretations issued by IASB but not yet endorsed by FSC on the Company's financial statements in future periods are summarized as below:

b. IFRS 10 "Consolidated Financial Statements" ("IFRS 10") and IAS 28 "Investments in Associates and Joint Ventures" - Sale or Contribution of Assets between an Investor and its Associate or Joint Ventures (Amendment) ("IAS 28")

The amendments address the inconsistency between the requirements in IFRS 10 and IAS 28, in dealing with the loss of control of a subsidiary that is contributed to an associate or a joint venture. IAS 28 restricts gains and losses arising from contributions of non-monetary assets to an associate or a joint venture to the extent of the interest attributable to the other equity holders in the associate or joint venture. IFRS 10 requires full profit or loss recognition on the loss of control of a subsidiary. IAS 28 was amended so that the gain or loss resulting from the sale or contribution of assets that constitute a business as defined in IFRS 3 "Business Combinations" ("IFRS 3") between an investor and its associate or joint venture is recognized in full. IFRS 10 was also amended so that the gain or loss resulting from the sale or contribution of a subsidiary that does not constitute a business as defined in IFRS 3 between an investor and its associate or joint venture is recognized only to the extent of the unrelated investors' interests in the associate or joint venture. The effective date of this amendment has been deferred indefinitely, but early adoption is allowed.

c. IFRS 3 - Definition of a Business (Amendment)

The amendments clarify the definition of a business in IFRS 3 Business Combinations. The amendments are intended to assist entities to determine whether a transaction should be accounted for as a business combination or as an asset acquisition.

IFRS 3 continues to adopt a market participant's perspective to determine whether an acquired set of activities and assets is a business. The amendments clarify the minimum requirements for a business; add guidance to help entities assess whether an acquired process is substantive; and narrow the definitions of a business and of outputs; etc.

d. IAS 1 "Presentation of Financial Statements" and IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" - Definition of Material (Amendment)

The main amendment is to clarify a new definition of material. It states that "information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity." The amendments clarify that materiality will depend on the nature or magnitude of information. An entity will need to assess whether the information, either individually or in combination with other information, is material in the context of the financial statements. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users.

The Company is currently evaluating the potential impact of the aforementioned standards and interpretations listed (b) ~ (d) to the Company's financial position and performance, and the related impact will be disclosed when the evaluation is completed.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(1) Statement of Compliance

The Company's consolidated financial statements were prepared in accordance with Regulations Governing the Preparation of Financial Reports by Securities Issuers (Regulations) and IAS 34 "Interim Financial Reporting" which is endorsed and become effective by FSC.

(2) Basis of Preparation

The consolidated financial statements have been prepared on a historical cost basis, except for financial instruments measured at fair value.

(3) General Description of Reporting Entity

a. Principles of consolidation

The same principles of consolidation have been applied in the Company's consolidated financial statements as those applied in the Company's consolidated financial statements for the year ended December 31, 2018. For the principles of consolidation, please refer to Note 4(3) of the Company's consolidated financial statements for the year ended December 31, 2018.

b. The consolidated entities are as follows:

As of March 31, 2019, December 31, 2018 and March 31, 2018

Investor	Subsidiary	Business nature	Percentage of ownership (%)		
			As of		
			March 31, 2019	December 31, 2018	March 31, 2018
UMC	UMC GROUP (USA)	IC Sales	100.00	100.00	100.00
UMC	UNITED MICROELECTRONICS (EUROPE) B.V.	Marketing support activities	100.00	100.00	100.00
UMC	UMC CAPITAL CORP.	Investment holding	100.00	100.00	100.00
UMC	GREEN EARTH LIMITED (GE)	Investment holding	100.00	100.00	100.00
UMC	TLC CAPITAL CO., LTD. (TLC)	Venture capital	100.00	100.00	100.00
UMC	UMC NEW BUSINESS INVESTMENT CORP. (NBI)	Investment holding	-	-	100.00
UMC	UMC INVESTMENT (SAMOA) LIMITED	Investment holding	100.00	100.00	100.00
UMC	FORTUNE VENTURE CAPITAL CORP. (FORTUNE)	Consulting and planning for venture capital	100.00	100.00	100.00
UMC	UMC GROUP JAPAN	IC Sales	100.00	100.00	100.00
UMC	UMC KOREA CO., LTD.	Marketing support activities	100.00	100.00	100.00
UMC	OMNI GLOBAL LIMITED (OMNI)	Investment holding	100.00	100.00	100.00
UMC	SINO PARAGON LIMITED	Investment holding	100.00	100.00	100.00
UMC	BEST ELITE INTERNATIONAL LIMITED (BE)	Investment holding	100.00	100.00	100.00
UMC, FORTUNE and TLC	NEXPOWER TECHNOLOGY CORP. (NEXPOWER)	Sales and manufacturing of solar power batteries	93.36	93.36	87.06

Investor	Subsidiary	Business nature	Percentage of ownership (%)		
			As of		
			March 31, 2019	December 31, 2018	March 31, 2018
UMC and FORTUNE	WAVETEK MICROELECTRONICS CORPORATION (WAVETEK)	Sales and manufacturing of integrated circuits	80.57	78.47	78.47
UMC CAPITAL CORP.	UMC CAPITAL (USA)	Investment holding	100.00	100.00	100.00
TLC	SOARING CAPITAL CORP.	Investment holding	100.00	100.00	100.00
SOARING CAPITAL CORP.	UNITRUTH ADVISOR (SHANGHAI) CO., LTD.	Investment holding and advisory	100.00	100.00	100.00
GE	UNITED MICROCHIP CORPORATION	Investment holding	100.00	100.00	100.00
UMC INVESTMENT (SAMOA) LIMITED	UMC (BEIJING) LIMITED	Marketing support activities	-	-	100.00
FORTUNE	TERA ENERGY DEVELOPMENT CO., LTD. (TERA ENERGY)	Energy technical services	100.00	100.00	-
NBI	TERA ENERGY	Energy technical services	-	-	100.00
NBI	UNISTARS CORP.	High brightness LED packages	-	-	83.69
TERA ENERGY	EVERRICH ENERGY INVESTMENT (HK) LIMITED (EVERRICH-HK)	Investment holding	100.00	100.00	100.00
EVERRICH-HK	EVERRICH (SHANDONG) ENERGY CO., LTD.	Solar engineering integrated design services	100.00	100.00	100.00
OMNI	UNITED MICROTECHNOLOGY CORPORATION (NEW YORK)	Research and development	100.00	100.00	100.00
OMNI	UNITED MICROTECHNOLOGY CORPORATION (CALIFORNIA)	Research and development	100.00	100.00	100.00
OMNI	ECP VITA PTE. LTD.	Insurance	100.00	100.00	100.00
OMNI	UMC TECHNOLOGY JAPAN CO., LTD.	Semiconductor manufacturing technology development and consulting services	100.00	100.00	100.00

Investor	Subsidiary	Business nature	Percentage of ownership (%)		
			As of		
			March 31, 2019	December 31, 2018	March 31, 2018
WAVETEK	WAVETEK MICROELECTRONICS INVESTMENT (SAMOA) LIMITED (WAVETEK-SAMOA)	Investment holding	100.00	100.00	100.00
WAVETEK- SAMOA	WAVETEK MICROELECTRONICS CORPORATION (USA)	Sales and marketing service	100.00	100.00	100.00
NEXPOWER	SOCIALNEX ITALIA 1 S.R.L.	Photovoltaic power plant	100.00	100.00	100.00
BE	INFOSHINE TECHNOLOGY LIMITED (INFOSHINE)	Investment holding	100.00	100.00	100.00
INFOSHINE	OAKWOOD ASSOCIATES LIMITED (OAKWOOD)	Investment holding	100.00	100.00	100.00
OAKWOOD	HEJIAN TECHNOLOGY (SUZHOU) CO., LTD. (HEJIAN)	Sales and manufacturing of integrated circuits	98.14	98.14	100.00
HEJIAN	UNITEDDS SEMICONDUCTOR (SHANDONG) CO., LTD.	Integrated circuits design services	100.00	100.00	100.00
UNITED MICROCHIP CORPORATION and HEJIAN	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	Sales and manufacturing of integrated circuits	65.22	65.22	61.50

(4) Other Significant Accounting Policies

Apart from the accounting policies which are described below, the same accounting policies of consolidation have been applied in the Company's consolidated financial statements as those applied in the Company's consolidated financial statements for the year ended December 31, 2018. For the summary of significant accounting policies, please refer to Note 4 of the Company's consolidated financial statements for the year ended December 31, 2018.

Lease

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange of consideration, and to obtain substantially all economic benefits from use of the identified asset. At the commencement date of a lease, a lessee is required to recognize right-of-use assets and lease liabilities, except for short-term leases and low-value asset leases.

For contract that is, or contains, a lease, the Company accounts for the contract as a single lease component and separates the lease and non-lease components of a contract.

The company as lessee

The Company recognizes right-of-use assets and lease liabilities at the commencement date of the lease.

- a. At the commencement date, lease liabilities should be recognized and measured at the present value of the lease payments that have not been paid at that date, using a lessee's incremental borrowing rate. The payments comprise:
 - i. fixed payments less any lease incentives receivable;
 - ii. variable lease payments that depend on an index or rate;
 - iii. amounts expected to be payable by the lessee under residual value guarantees;
 - iv. the exercise price of a purchase option if the lessee is reasonably certain to exercise; and
 - v. payments for terminating the lease unless it is reasonably certain that early termination will not occur.

The lease liability is measured in subsequent periods using the effective interest method, and the interest expense is recognized over the lease term. If there is a change other than lease modification in the lease term and the lease payment, the lease liabilities should be remeasured. The remeasurement of the lease liabilities should be recognized as an adjustment to the right-of-use assets.

- b. At the commencement date, the right-of-use assets should be measured at cost, which comprise:
 - i. the amount of the initial measurement of the lease liabilities;
 - ii. any lease payments made at or before the commencement date;
 - iii. any initial direct costs incurred.

Subsequent to initial recognition, the right-of-use assets are measured using a cost model. Right-of-use assets measured under the cost model are depreciated from the commencement date to the earlier of the end of the useful life of the right-of-use assets or the end of the lease term. Any remeasurement of the lease liabilities results in a corresponding adjustment of the right-of-use assets.

The company presents right-of-use assets and lease liabilities on the balance sheet, and depreciation expenses and interest expenses are separately presented in the comprehensive income statement. The Company recognizes the lease payments associated with short-term leases and low-value asset leases as expenses on a straight-line basis over the lease term.

5. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS

The same significant accounting judgments, estimates and assumptions have been applied in the Company's consolidated financial statements for the three-month period ended March 31, 2019 as those applied in the Company's consolidated financial statements for the year ended December 31, 2018. For significant accounting judgments, estimates and assumptions, please refer to Note 5 of the Company's consolidated financial statements for the year ended December 31, 2018.

6. CONTENTS OF SIGNIFICANT ACCOUNTS

(1) Cash and Cash Equivalents

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Cash on hand	\$6,132	\$6,091	\$4,319
Checking and savings accounts	27,233,517	25,021,265	29,158,382
Time deposits	52,189,252	49,139,549	39,304,482
Repurchase agreements collateralized by government and corporate bonds	9,309,297	9,494,834	8,675,683
Total	<u>\$88,738,198</u>	<u>\$83,661,739</u>	<u>\$77,142,866</u>

(2) Financial Assets at Fair Value through Profit or Loss

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Financial assets mandatorily measured at fair value through profit or loss			
Common stocks	\$7,804,957	\$6,814,915	\$9,052,176
Preferred stocks	3,208,862	2,998,228	3,427,077
Funds	1,982,925	2,030,688	1,227,055
Convertible Bonds	59,992	236,905	215,876
Forward contracts	3,649	3,561	-
Option	-	-	80,056
Total	<u>\$13,060,385</u>	<u>\$12,084,297</u>	<u>\$14,002,240</u>
Current	\$552,492	\$528,450	\$524,648
Noncurrent	12,507,893	11,555,847	13,477,592
Total	<u>\$13,060,385</u>	<u>\$12,084,297</u>	<u>\$14,002,240</u>

On June 29, 2018, the Board of Directors of UMC resolved to exercise the call option of a joint venture agreement between FUJITSU SEMICONDUCTOR LIMITED (FSL) and UMC. The transaction was approved by the Taiwan authorities on September 26, 2018. Upon obtaining other relevant authority's approval of the investment application, the Company anticipates to invest NT\$15.3 billion for acquiring remaining shares of MIE FUJITSU SEMICONDUCTOR LIMITED (MIFS), representing ownership interest of 84.1% and making MIFS a wholly-owned subsidiary of the Company. The change of the fair value for the call option is recorded in profit or loss.

(3) Accounts Receivable, Net

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Accounts receivable	\$22,930,767	\$23,784,141	\$24,943,115
Less: loss allowance	(21,685)	(48,152)	(40,480)
Net	<u>\$22,909,082</u>	<u>\$23,735,989</u>	<u>\$24,902,635</u>

Aging analysis of accounts receivable, net:

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Neither past due nor impaired	\$17,871,612	\$18,271,304	\$19,927,351
Past due but not impaired:			
≤ 30 days	2,628,456	3,407,690	2,689,490
31 to 60 days	244,542	739,054	1,199,175
61 to 90 days	505,857	545,366	696,072
91 to 120 days	402,078	365,007	89,343
≥ 121 days	1,256,537	407,568	301,204
Subtotal	<u>5,037,470</u>	<u>5,464,685</u>	<u>4,975,284</u>
Total	<u>\$22,909,082</u>	<u>\$23,735,989</u>	<u>\$24,902,635</u>

Movement on individually evaluated loss allowance:

	For the three-month periods ended March 31,	
	2019	2018
Beginning balance	\$48,152	\$39,578
Net charge for the period	(26,467)	902
Ending balance	<u>\$21,685</u>	<u>\$40,480</u>

The collection periods for third party domestic sales and third party overseas sales were month-end 30~60 days and net 30~60 days, respectively.

An impairment analysis is performed at each reporting date to measure expected credit lossess (ECLs) of accounts receivable. For receivable past due within 60 days, including not past due, the Company estimates a provision rate to calculate ECLs. A provision rate is determined based on the Company's historical credit loss experience and customers' current financial condition, adjusted for forward-looking factors, such as customers' economic environment. For the receivable past due over 60 days, the Company applies the aforementioned provision rate and also individually assesses whether to recognize additional expected credit losses by considering customer's operating situation and debt-paying ability.

(4) Inventories, Net

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Raw materials	\$4,383,897	\$3,766,056	\$2,790,548
Supplies and spare parts	3,204,458	3,133,737	3,278,082
Work in process	10,105,476	10,034,488	9,901,456
Finished goods	1,179,914	1,268,838	1,167,392
Total	<u>\$18,873,745</u>	<u>\$18,203,119</u>	<u>\$17,137,478</u>

a. For the three-month periods ended March 31, 2019 and 2018, the Company recognized NT\$29,429 million and NT\$31,500 million, respectively, in operating cost, of which NT\$1,021 million and NT\$991 million were related to write-down of inventories.

b. None of the aforementioned inventories were pledged.

(5) Financial Assets at Fair Value through Other Comprehensive Income, Non-Current

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Equity instruments			
Common stocks	\$13,660,064	\$11,401,451	\$11,051,955
Preferred stocks	146,536	184,026	227,747
Total	<u>\$13,806,600</u>	<u>\$11,585,477</u>	<u>\$11,279,702</u>

These investments in equity instruments are held for medium to long-term purposes and therefore are accounted for as fair value through other comprehensive income. Dividends from equity instruments designated as fair value through other comprehensive income were both nil for the three-month periods ended March 31, 2019 and 2018.

(6) Investments Accounted For Under the Equity Method

a. Details of investments accounted for under the equity method are as follows:

Investee companies	As of					
	March 31,		December 31,		March 31,	
	2019		2018		2018	
	Amount	Percentage of ownership or voting rights	Amount	Percentage of ownership or voting rights	Amount	Percentage of ownership or voting rights
<u>Listed companies</u>						
CLIENTRON CORP.	\$255,322	22.39	\$249,762	22.39	\$265,519	22.39
FARADAY TECHNOLOGY CORP. (FARADAY) (Note A)	1,476,371	13.78	1,477,167	13.78	1,631,225	13.78
<u>Unlisted companies</u>						
WINAICO SOLAR PROJEKT 1 GMBH (Note B)	-	50.00	-	50.00	-	50.00
MTIC HOLDINGS PTE. LTD.	2,088	45.44	3,026	45.44	49,241	45.44
YUNG LI INVESTMENTS, INC.	2,213	45.16	2,213	45.16	41,062	45.16
WINAICO IMMOBILIEN GMBH (Note B)	-	44.78	-	44.78	-	44.78
PURIUMFIL INC.	9,622	44.45	-	-	-	-
UNITECH CAPITAL INC.	600,450	42.00	568,005	42.00	702,829	42.00
TRIKNIGHT CAPITAL CORPORATION	1,555,118	40.00	1,520,575	40.00	879,268	40.00

Investee companies	As of					
	March 31,		December 31,		March 31,	
	2019		2018		2018	
	Amount	Percentage of ownership or voting rights	Amount	Percentage of ownership or voting rights	Amount	Percentage of ownership or voting rights
HSUN CHIEH INVESTMENT CO., LTD.	\$3,576,672	36.49	\$3,419,430	36.49	\$4,181,462	36.49
YANN YUAN INVESTMENT CO., LTD.	2,958,878	30.87	2,642,543	30.87	2,974,125	30.87
HSUN CHIEH CAPITAL CORP.	154,859	30.00	161,319	30.00	189,417	30.00
VSENSE CO., LTD.	29,788	26.89	31,544	26.89	76,377	28.63
UNITED LED CORPORATION HONG KONG LIMITED	160,717	25.14	167,953	25.14	208,683	25.14
TRANSLINK CAPITAL PARTNERS I, L.P. (Note C)	120,308	10.38	120,440	10.38	106,012	10.38
SHANDONG HUAHONG ENERGY INVEST CO., INC. (SHANDONG HUAHONG) (Note B)	-	-	-	-	-	50.00
Total	<u>\$10,902,406</u>		<u>\$10,363,977</u>		<u>\$11,305,220</u>	

Note A: Beginning from June 2015, the Company accounts for its investment in FARADAY as an associate given the fact that the Company obtained the ability to exercise significant influence over FARADAY through representation on its Board of Directors.

Note B: WINAICO SOLAR PROJEKT 1 GMBH, WINAICO IMMOBILIEN GMBH and SHANDONG HUAHONG are joint ventures to the Company.

Note C: The Company follows international accounting practices in equity accounting for limited partnerships and uses the equity method to account for these investees.

The carrying amount of investments accounted for using the equity method for which there are published price quotations amounted to NT\$1,732 million, NT\$1,727 million and NT\$1,897 million, as of March 31, 2019, December 31, 2018 and March 31, 2018, respectively. The fair value of these investments were NT\$1,735 million, NT\$1,621 million and NT\$2,556 million, as of March 31, 2019, December 31, 2018 and March 31, 2018, respectively.

Certain investments accounted for under the equity method were audited by other independent accountants. Shares of profit or loss of these associates and joint ventures amounted to NT\$225 million and NT\$229 million for the three-month periods ended March 31, 2019 and 2018, respectively. Share of other comprehensive income (loss) of these associates and joint ventures amounted to NT\$321 million and NT\$124 million for the three-month periods ended March 31, 2019 and 2018, respectively. The balances of investments accounted for under the equity method were NT\$8,946 million, NT\$8,714 million and NT\$9,003 million as of March 31, 2019, December 31, 2018 and March 31, 2018, respectively.

None of the aforementioned associates and joint ventures were pledged.

b. Financial information of associates and joint ventures:

There is no individually significant associate or joint venture for the Company. When an associate or a joint venture is a foreign operation, and the functional currency of the foreign entity is different from the Company, an exchange difference arising from translation of the foreign entity will be recognized in other comprehensive income (loss). Such exchange differences recognized in other comprehensive income (loss) in the financial statements for the three-month periods ended March 31, 2019 and 2018 were NT\$2 million and NT\$(10) million, respectively, which were not included in the following table.

i. The aggregate amount of the Company's share of its associates that are accounted for using the equity method was as follows:

	For the three-month periods ended March 31,	
	2019	2018
Income (loss) from continuing operations	\$195,955	\$207,215
Other comprehensive income (loss)	329,811	148,968
Total comprehensive income (loss)	<u>\$525,766</u>	<u>\$356,183</u>

ii. The aggregate amount of the Company's share of its joint ventures that are accounted for using the equity method were both nil for the three-month periods ended March 31, 2019 and 2018.

c. One of UMC's associates, HSUN CHIEH INVESTMENT CO., LTD., held 441 million shares of UMC's stock as of March 31, 2019, December 31, 2018 and March 31, 2018. Another associate, YANN YUAN INVESTMENT CO., LTD., held 172 million shares of UMC's stock as of March 31, 2019, December 31, 2018 and March 31, 2018.

(7) Property, Plant and Equipment

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Land	\$1,314,402	\$1,314,402	\$1,314,402
Buildings	19,684,908	19,841,058	21,006,185
Machinery and equipment	133,220,147	139,213,317	158,386,263
Transportation equipment	22,666	20,921	20,501
Furniture and fixtures	1,845,729	1,908,214	2,074,762
Leasehold improvement	3,399	3,869	5,806
Construction in progress and equipment awaiting inspection	11,731,299	10,544,814	13,856,361
Net	<u>\$167,822,550</u>	<u>\$172,846,595</u>	<u>\$196,664,280</u>

Cost:

	Land	Buildings	Machinery and equipment	Transportation equipment	Furniture and fixtures	Leasehold improvement	Construction in progress and equipment awaiting inspection	Total
As of January 1, 2019	\$1,314,402	\$38,306,302	\$853,688,505	\$66,355	\$8,056,901	\$53,449	\$10,550,763	\$912,036,677
Additions	-	-	-	-	-	-	4,650,488	4,650,488
Disposals	-	-	(228,966)	(161)	(3,627)	-	(21,717)	(254,471)
Transfers and reclassifications	-	62,110	3,824,438	3,046	58,314	-	(3,593,833)	354,075
Exchange effect	-	209,218	2,390,954	318	22,826	352	151,547	2,775,215
As of March 31, 2019	<u>\$1,314,402</u>	<u>\$38,577,630</u>	<u>\$859,674,931</u>	<u>\$69,558</u>	<u>\$8,134,414</u>	<u>\$53,801</u>	<u>\$11,737,248</u>	<u>\$919,561,984</u>

							Construction in progress and equipment awaiting inspection	
	Land	Buildings	Machinery and equipment	Transportation equipment	Furniture and fixtures	Leasehold improvement		Total
As of January 1, 2018	\$1,314,402	\$38,073,660	\$826,268,919	\$75,782	\$7,675,798	\$52,557	\$20,761,439	\$894,222,557
Additions	-	-	-	-	-	-	3,097,820	3,097,820
Disposals	-	-	(631,777)	-	(289)	-	-	(632,066)
Transfers and reclassifications	-	242,905	9,797,344	3,234	162,863	1,980	(10,183,102)	25,224
Exchange effect	-	(15,653)	(2,364,047)	(137)	228	(763)	186,153	(2,194,219)
As of March 31, 2018	\$1,314,402	\$38,300,912	\$833,070,439	\$78,879	\$7,838,600	\$53,774	\$13,862,310	\$894,519,316

Accumulated Depreciation and Impairment:

							Construction in progress and equipment awaiting inspection	
	Land	Buildings	Machinery and equipment	Transportation equipment	Furniture and fixtures	Leasehold improvement		Total
As of January 1, 2019	\$-	\$18,465,244	\$714,475,188	\$45,434	\$6,148,687	\$49,580	\$5,949	\$739,190,082
Depreciation	-	398,805	11,214,806	1,481	136,332	523	-	11,751,947
Disposals	-	-	(227,669)	(161)	(3,502)	-	-	(231,332)
Exchange effect	-	28,673	992,459	138	7,168	299	-	1,028,737
As of March 31, 2019	\$-	\$18,892,722	\$726,454,784	\$46,892	\$6,288,685	\$50,402	\$5,949	\$751,739,434

							Construction in progress and equipment awaiting inspection	
	Land	Buildings	Machinery and equipment	Transportation equipment	Furniture and fixtures	Leasehold improvement		Total
As of January 1, 2018	\$-	\$16,960,853	\$665,771,857	\$57,031	\$5,636,982	\$48,204	\$5,949	\$688,480,876
Depreciation	-	375,436	12,240,929	1,523	131,723	575	-	12,750,186
Disposals	-	-	(627,461)	-	(262)	-	-	(627,723)
Transfers and reclassifications	-	-	(3,150)	-	3,150	-	-	-
Exchange effect	-	(41,562)	(2,697,999)	(176)	(7,755)	(811)	-	(2,748,303)
As of March 31, 2018	\$-	\$17,294,727	\$674,684,176	\$58,378	\$5,763,838	\$47,968	\$5,949	\$697,855,036

Please refer to Note 8 for property, plant and equipment pledged as collateral.

(8) Leases

a. Right-of-use assets

	As of
	December 31, March 31,
	March 31, 2018 2018
	(Note) (Note)
Land	\$6,321,336
Buildings	293,581
Machinery and equipment	1,907,565
Transportation equipment	10,636
Other facilities	15,151
Net	<u>\$8,548,269</u>

Note : The Company adopted IFRS 16 on January 1, 2019. The Company elected not to restate prior periods in accordance with the transition provision in IFRS 16.

Cost:

	Land	Buildings	Machinery and equipment	Transportation equipment	Other facilities	Total
As of January 1, 2019	\$6,338,790	\$306,831	\$1,904,399	\$12,003	\$16,392	\$8,578,415
Increase	12,125	-	1,489	-	1,276	14,890
Decrease	-	-	(0)	-	(1,497)	(1,497)
Exchange effect	64,748	3,911	42,128	(12)	93	110,868
As of March 31, 2019	<u>\$6,415,663</u>	<u>\$310,742</u>	<u>\$1,948,016</u>	<u>\$11,991</u>	<u>\$16,264</u>	<u>\$8,702,676</u>

Accumulated Depreciation and Impairment:

	Land	Buildings	Machinery and equipment	Transportation equipment	Other facilities	Total
As of January 1, 2019	\$-	\$-	\$-	\$-	\$-	\$-
Depreciation	94,419	17,199	40,557	1,356	1,117	154,648
Exchange effect	(92)	(38)	(106)	(1)	(4)	(241)
As of March 31, 2019	<u>\$94,327</u>	<u>\$17,161</u>	<u>\$40,451</u>	<u>\$1,355</u>	<u>\$1,113</u>	<u>\$154,407</u>

b. Lease Liabilities

	As of		
	March 31, 2019	December 31, 2018 (Note)	March 31, 2018 (Note)
Current	\$449,829		
Noncurrent	5,539,024		
Total	<u>\$5,988,853</u>		

Note : The Company adopted IFRS 16 on January 1, 2019. The Company elected not to restate prior periods in accordance with the transition provision in IFRS 16.

Please refer to Note 6(22) for the interest expense of lease liabilities.

(9) Intangible Assets

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Goodwill	\$15,012	\$15,012	\$15,188
Software	603,996	524,155	408,761
Patents and technology license fees	2,046,553	1,668,218	2,128,093
Others	685,960	784,419	1,136,339
Net	<u>\$3,351,521</u>	<u>\$2,991,804</u>	<u>\$3,688,381</u>

Cost:

	Goodwill	Software	Patents and technology license fees	Others	Total
As of January 1, 2019	\$15,012	\$1,125,804	\$4,511,629	\$3,190,116	\$8,842,561
Additions	-	128,965	293,654	126,240	548,859
Disposals	-	(13,594)	-	(223,883)	(237,477)
Reclassifications	-	57,495	-	-	57,495
Exchange effect	-	9,661	256,759	(2)	266,418
As of March 31, 2019	<u>\$15,012</u>	<u>\$1,308,331</u>	<u>\$5,062,042</u>	<u>\$3,092,471</u>	<u>\$9,477,856</u>

			Patents and technology		
	Goodwill	Software	license fees	Others	Total
As of January 1, 2018	\$15,188	\$1,080,726	\$4,687,751	\$3,565,705	\$9,349,370
Additions	-	-	-	183,422	183,422
Disposals	-	(36,028)	-	(181,945)	(217,973)
Reclassifications	-	64,278	-	-	64,278
Exchange effect	-	1,126	139,031	1	140,158
As of March 31, 2018	<u>\$15,188</u>	<u>\$1,110,102</u>	<u>\$4,826,782</u>	<u>\$3,567,183</u>	<u>\$9,519,255</u>

Accumulated Amortization and Impairment:

			Patents and technology		
	Goodwill	Software	license fees	Others	Total
As of January 1, 2019	\$-	\$601,649	\$2,843,411	\$2,405,697	\$5,850,757
Amortization	-	110,815	119,133	224,699	454,647
Disposals	-	(13,594)	-	(223,883)	(237,477)
Exchange effect	-	5,465	52,945	(2)	58,408
As of March 31, 2019	<u>\$-</u>	<u>\$704,335</u>	<u>\$3,015,489</u>	<u>\$2,406,511</u>	<u>\$6,126,335</u>

			Patents and technology		
	Goodwill	Software	license fees	Others	Total
As of January 1, 2018	\$-	\$670,014	\$2,585,190	\$2,306,657	\$5,561,861
Amortization	-	67,883	114,119	306,131	488,133
Disposals	-	(36,028)	-	(181,945)	(217,973)
Exchange effect	-	(528)	(620)	1	(1,147)
As of March 31, 2018	<u>\$-</u>	<u>\$701,341</u>	<u>\$2,698,689</u>	<u>\$2,430,844</u>	<u>\$5,830,874</u>

The amortization amounts of intangible assets are as follows:

	For the three-month periods ended March 31,	
	2019	2018
Operating costs	<u>\$200,282</u>	<u>\$168,758</u>
Operating expenses	<u>\$254,365</u>	<u>\$319,375</u>

(10) Short-Term Loans

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Unsecured bank loans	\$9,130,182	\$7,780,552	\$12,361,001
Unsecured other loans	7,667,324	5,323,256	7,806,777
Total	<u>\$16,797,506</u>	<u>\$13,103,808</u>	<u>\$20,167,778</u>
	For the three-month periods ended March 31,		
	2019	2018	
Interest rates applied	<u>0.00%~4.55%</u>	<u>0.00%~3.60%</u>	

The Company's unused short-term lines of credit amounted to NT\$73,357 million, NT\$77,658 million and NT\$69,236 million as of March 31, 2019, December 31, 2018 and March 31, 2018, respectively.

(11) Financial Liabilities at Fair Value through Profit or Loss, Current

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Forward contracts	<u>\$34</u>	<u>\$-</u>	<u>\$-</u>

(12) Bonds Payable

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Unsecured domestic bonds payable	\$23,700,000	\$23,700,000	\$23,700,000
Unsecured convertible bonds payable	18,196,332	18,196,332	18,196,332
Less: Discounts on bonds payable	(426,881)	(518,150)	(789,227)
Total	41,469,451	41,378,182	41,107,105
Less: Current portion	(4,998,104)	(2,499,235)	(17,429,869)
Net	<u>\$36,471,347</u>	<u>\$38,878,947</u>	<u>\$23,677,236</u>

A. UMC issued domestic unsecured corporate bonds. The terms and conditions of the bonds were as follows:

Term	Issuance date	Issued amount	Coupon rate	Repayment
Seven-year	In early June 2012	NT\$2,500 million	1.63%	Interest will be paid annually and the principal will be repayable in June 2019 upon maturity.
Five-year	In mid-March 2013	NT\$7,500 million	1.35%	Interest will be paid annually and the principal has been fully repaid in March 2018.
Seven-year	In mid-March 2013	NT\$2,500 million	1.50%	Interest will be paid annually and the principal will be repayable in March 2020 upon maturity.
Seven-year	In mid-June 2014	NT\$2,000 million	1.70%	Interest will be paid annually and the principal will be repayable in June 2021 upon maturity.
Ten-year	In mid-June 2014	NT\$3,000 million	1.95%	Interest will be paid annually and the principal will be repayable in June 2024 upon maturity.
Five-year	In late March 2017	NT\$6,200 million	1.15%	Interest will be paid annually and the principal will be repayable in March 2022 upon maturity.
Seven-year	In late March 2017	NT\$2,100 million	1.43%	Interest will be paid annually and the principal will be repayable in March 2024 upon maturity.
Five-year	In early October 2017	NT\$2,000 million	0.94%	Interest will be paid annually and the principal will be repayable in October 2022 upon maturity.
Seven-year	In early October 2017	NT\$3,400 million	1.13%	Interest will be paid annually and the principal will be repayable in October 2024 upon maturity.

B. On May 18, 2015, UMC issued SGX-ST listed currency linked zero coupon convertible bonds. The terms and conditions of the bonds were as follows:

a. Issue Amount: US\$600 million

b. Period: May 18, 2015 ~ May 18, 2020 (Maturity date)

c. Redemption:

- i. UMC may redeem the bonds, in whole or in part, after 3 years of the issuance and prior to the maturity date, at the principal amount of the bonds with an interest calculated at the rate of -0.25% per annum (the Early Redemption Amount) if the closing price of the ordinary shares of UMC on the TWSE, for a period of 20 out of 30 consecutive trading days, the last of which occurs not more than 5 days prior to the date upon which notice of such redemption is published, is at least 125% of the conversion price. The Early Redemption Price will be converted into NTD based on the Fixed Exchange Rate (NTD 30.708=USD 1.00), and this fixed NTD amount will be converted using the prevailing rate at the time of redemption for payment in USD.
- ii. UMC may redeem the bonds, in whole, but not in part, at the Early Redemption Amount if at least 90% in principal amount of the bonds has already been converted, redeemed or repurchased and cancelled.
- iii. UMC may redeem all, but not part, of the bonds, at the Early Redemption Amount at any time, in the event of certain changes in the R.O.C.'s tax rules which would require UMC to gross up for payments of principal, or to gross up for payments of interest or premium.
- iv. All or any portion of the bonds will be redeemable at Early Redemption Amount at the option of bondholders on May 18, 2018 at 99.25% of the principal amount.
- v. Bondholders have the right to require UMC to redeem all of the bonds at the Early Redemption Amount if UMC's ordinary shares cease to be listed on the Taiwan Stock Exchange.
- vi. In the event that a change of control as defined in the indenture of the bonds occurs to UMC, the bondholders shall have the right to require UMC to redeem the bonds, in whole but not in part, at the Early Redemption Amount.

d. Terms of Conversion:

- i. Underlying Securities: Ordinary shares of UMC
- ii. Conversion Period: The bonds are convertible at any time on or after June 28, 2015 and prior to May 8, 2020, into UMC ordinary shares; provided, however, that if the exercise date falls within 5 business days from the beginning of, and during, any closed period, the right of the converting holder of the bonds to vote with respect to the shares it receives will be subject to certain restrictions.
- iii. Conversion Price and Adjustment: The conversion price was originally NT\$17.50 per share. The conversion price will be subject to adjustments upon the occurrence of certain events set out in the indenture. The conversion price was NT\$14.8157 per share on March 31, 2019.

- e. Redemption on the Maturity Date: On the maturity date, UMC will redeem the bonds at 98.76% of the principal amount unless, prior to such date:
 - i. UMC shall have redeemed the bonds at the option of UMC, or the bonds shall have been redeemed at option of the bondholder;
 - ii. The bondholders shall have exercised the conversion right before maturity; or
 - iii. The bonds shall have been redeemed or repurchased by UMC and cancelled.

In accordance with IAS 32, the value of the conversion right of the convertible bonds was determined at issuance and recognized in additional paid-in capital-stock options amounting to NT\$1,894 million, after reduction of issuance costs amounting to NT\$9 million. The effective interest rate on the liability component of the convertible bonds was determined to be 2.03%.

(13) Long-Term Loans

- a. Details of long-term loans as of March 31, 2019, December 31, 2018 and March 31, 2018 are as follows:

Lenders	As of			Redemption
	March 31, 2019	December 31, 2018	March 31, 2018	
Secured Long-Term Loan from Mega International Commercial Bank (1)	\$-	\$-	\$3,000	Effective November 21, 2013 to November 21, 2018. Interest-only payment for the first year. Principal is repaid in 17 quarterly payments with monthly interest payments.
Secured Long-Term Loan from Mega International Commercial Bank (2)	5,467	6,013	7,653	Effective July 3, 2017 to July 5, 2021. Interest-only payment for the first year. Principal is repaid in 17 quarterly payments with monthly interest payments.
Secured Long-Term Loan from Taiwan Cooperative Bank (1)	-	-	11,235	Effective July 10, 2013 to July 10, 2018. Interest-only payment for the first year. Principal is repaid in 17 quarterly payments with monthly interest payments.
Secured Long-Term Loan from Taiwan Cooperative Bank (2)	-	-	9,134	Effective February 13, 2015 to February 13, 2020. Interest-only payment for the first year. Principal is repaid in 17 quarterly payments with monthly interest payments.

Lenders	As of			Redemption
	March 31, 2019	December 31, 2018	March 31, 2018	
Secured Long-Term Loan from Taiwan Cooperative Bank (3)	\$-	\$-	\$12,044	Effective April 28, 2015 to April 28, 2020. Interest-only payment for the first year. Principal is repaid in 17 quarterly payments with monthly interest payments.
Secured Long-Term Loan from Taiwan Cooperative Bank (4)	2,577	3,006	4,294	Effective August 10, 2015 to August 10, 2020. Interest-only payment for the first year. Principal is repaid in 17 quarterly payments with monthly interest payments.
Secured Long-Term Loan from Taiwan Cooperative Bank (5)	80,270	83,243	92,162	Effective October 19, 2015 to October 19, 2025. Interest-only payment for the first year. Principal is repaid in 37 quarterly payments with monthly interest payments.
Secured Long-Term Loan from Taiwan Cooperative Bank (6)	-	-	1,329	Effective October 28, 2015 to April 28, 2020. Interest-only payment for the first half year. Principal is repaid in 17 quarterly payments with monthly interest payments.
Secured Long-Term Loan from Taiwan Cooperative Bank (7)	-	-	3,818	Effective November 20, 2015 to November 20, 2020. Interest-only payment for the first year. Principal is repaid in 17 quarterly payments with monthly interest payments.
Unsecured Long-Term Loan from Bank of Taiwan	-	1,000,000	300,000	Repayable quarterly from March 23, 2019 to December 23, 2021 with monthly interest payments.
Unsecured Syndicated Loans from Bank of Taiwan and 7 others	-	747,900	997,200	Repayable semi-annually from February 6, 2017 to February 6, 2020 with monthly interest payments.
Unsecured Long-Term Loan from CTBC Bank	747,900	-	-	Effective January 10, 2019 to September 30, 2021. Interest-only payment for the first and nine months. Principal is repaid in full at the end of the term with monthly interest payments.

Lenders	As of			Redemption
	March 31, 2019	December 31, 2018	March 31, 2018	
Unsecured Long-Term Loan from Mega International Commercial Bank	\$-	\$-	\$355,767	Repayable quarterly from October 4, 2015 to October 4, 2018 with monthly interest payments.
Secured Syndicated Loans from China Development Bank and 6 others	29,223,798	28,987,895	29,539,992	Effective October 20, 2016 to October 20, 2024. Interest-only payment for the first and the second year. Principal is repaid in 13 semi-annual payments with semi-annual interest payments.
Subtotal	30,060,012	30,828,057	31,337,628	
Less: Administrative expenses from syndicated loans	-	(1,842)	(3,116)	
Less: Current portion	(1,555,190)	(2,622,161)	(2,399,372)	
Total	<u>\$28,504,822</u>	<u>\$28,204,054</u>	<u>\$28,935,140</u>	
For the three-month periods ended				
March 31,				
	2019	2018		
Interest rates applied	<u>0.99%~5.56%</u>	<u>0.99%~4.66%</u>		

- b. Please refer to Note 8 for property, plant and equipment pledged as collateral for long-term loans.

(14) Post-Employment Benefits

- a. Defined contribution plan

The employee pension plan under the Labor Pension Act of the R.O.C. (the Act) is a defined contribution plan. Pursuant to the plan, UMC and its domestic subsidiaries make monthly contributions of 6% based on each individual employee's salary or wage to employees' pension accounts. Pension benefits for employees of the Singapore branch and subsidiaries overseas are provided in accordance with the local regulations. Total pension expenses of NT\$348 million and NT\$331 million are contributed by the Company for the three-month periods ended March 31, 2019 and 2018, respectively.

b. Defined benefit plan

The employee pension plan mandated by the Labor Standards Act of the R.O.C. is a defined benefit plan. The pension benefits are disbursed based on the units of service years and average monthly salary prior to retirement according to the Labor Standards Act. Two units per year are awarded for the first 15 years of services while one unit per year is awarded after the completion of the 15th year and the total units will not exceed 45 units. The Company contributes an amount equivalent to 2% of the employees' total salaries and wages on a monthly basis to the pension fund deposited with the Bank of Taiwan under the name of a pension fund supervisory committee. The pension fund is managed by the government's designated authorities and therefore is not included in the Company's consolidated financial statements. Pension cost for an interim period is calculated on a year-to-date basis by using the actuarially determined pension cost rate at the end of the prior financial year. For the three-month periods ended March 31, 2019 and 2018, total pension expenses of NT\$15 million and NT\$17 million, respectively, were recognized by the Company.

(15) Deferred Government Grants

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Beginning balance	\$17,480,904	\$14,595,546	\$14,595,546
Arising during the period	190,333	7,129,770	6,593,436
Recorded in profit or loss:			
Other operating income	(1,014,570)	(3,885,722)	(869,370)
Exchange effect	404,644	(358,690)	294,319
Ending balance	<u>\$17,061,311</u>	<u>\$17,480,904</u>	<u>\$20,613,931</u>
Current	\$4,022,020	\$3,832,124	\$3,947,736
Noncurrent	13,039,291	13,648,780	16,666,195
Total	<u>\$17,061,311</u>	<u>\$17,480,904</u>	<u>\$20,613,931</u>

The significant government grants related to equipment acquisitions received by the Company are amortized as income over the useful lives of related equipment, and recorded in the net other operating income and expenses.

(16) Refund Liabilities

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Refund liabilities	<u>\$1,274,787</u>	<u>\$1,213,476</u>	<u>\$982,205</u>

(17) Equity

a. Capital stock:

- i. UMC had 26,000 million common shares authorized to be issued as of March 31, 2019, December 31, 2018 and March 31, 2018, of which 12,124 million shares, 12,424 million shares, and 12,624 million shares were issued as of March 31, 2019, December 31, 2018 and March 31, 2018, respectively, each at a par value of NT\$10.
- ii. UMC had 143 million, 143 million and 144 million ADSs, which were traded on the NYSE as of March 31, 2019, December 31, 2018 and March 31, 2018, respectively. The total number of common shares of UMC represented by all issued ADSs were 716 million shares, 717 million shares and 721 million shares as of March 31, 2019, December 31, 2018 and March 31, 2018, respectively. One ADS represents five common shares.
- iii. On March 11, 2019, UMC cancelled 300 million shares of treasury stock, which were repurchased during the period from November 7, 2018 to January 4, 2019, for the purpose of maintaining UMC's credit and stockholders' rights and interests.
- iv. On August 27, 2018, UMC cancelled 200 million shares of treasury stock, which were repurchased during the period from March 12 to May 4, 2018, for the purpose of maintaining UMC's credit and stockholders' rights and interests.

b. Treasury stock:

- i. UMC carried out treasury stock program and repurchased its shares from the centralized securities exchange market. The purpose for repurchase, and changes in treasury stock during the three-month periods ended March 31, 2019 and 2018 are as follows:

For the three-month period ended March 31, 2019

(In thousands of shares)

Purpose	As of January 1, 2019	Increase	Decrease	As of March 31, 2019
For transfer to employees	200,000	-	-	200,000
To maintain UMC's credit and stockholders' rights and interests	280,000	20,000	300,000	-
	<u>480,000</u>	<u>20,000</u>	<u>300,000</u>	<u>200,000</u>

For the three-month period ended March 31, 2018

(In thousands of shares)

Purpose	As of January 1, 2018	Increase	Decrease	As of March 31, 2018
For transfer to employees	400,000	-	-	400,000
To maintain UMC's credit and stockholders' rights and interests	-	39,607	-	39,607
	<u>400,000</u>	<u>39,607</u>	<u>-</u>	<u>439,607</u>

- ii. According to the Securities and Exchange Law of the R.O.C., the total shares of treasury stock shall not exceed 10% of UMC's issued stock, and the total purchase amount shall not exceed the sum of the retained earnings, additional paid-in capital-premiums and realized additional paid-in capital. As such, the number of shares of treasury stock that UMC held as of March 31, 2019, December 31, 2018 and March 31, 2018, did not exceed the limit.
- iii. In compliance with Securities and Exchange Law of the R.O.C., treasury stock held by the parent company should not be pledged, nor should it be entitled to voting rights or receiving dividends. Stock held by subsidiaries is treated as treasury stock. These subsidiaries have the same rights as other stockholders except for subscription to new stock issuance and voting rights.
- iv. As of March 31, 2019, December 31, 2018 and March 31, 2018, UMC's subsidiary, FORTUNE VENTURE CAPITAL CORP., held 16 million shares of UMC's stock. The closing price on March 31, 2019, December 31, 2018 and March 31, 2018, were NT\$11.65, NT\$11.25 and NT\$15.50, respectively.
- v. UMC's subsidiary, FORTUNE VENTURE CAPITAL CORP., held shares of UMC's stock through acquiring shares of UNITED SILICON INC. in 1997, and these shares were converted to UMC's stock in 2000 as a result of the Company's 5 in 1 merger.

c. Retained earnings and dividend policies:

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

- i. Payment of taxes.
- ii. Making up loss for preceding years.
- iii. Setting aside 10% for legal reserve, except for when accumulated legal reserve has reached UMC's paid-in capital.
- iv. Appropriating or reversing special reserve by government officials or other regulations.
- v. The remaining, plus the previous year's unappropriated earnings, shall be distributed according to the distribution plan proposed by the Board of Directors according to the dividend policy and submitted to the stockholders' meeting for approval.

Because UMC conducts business in a capital intensive industry and continues to operate in its growth phase, the dividend policy of UMC shall be determined pursuant to factors such as the investment environment, its funding requirements, domestic and overseas competitive landscape and its capital expenditure forecast, as well as stockholders' interest, balancing dividends and UMC's long-term financial planning. The Board of Directors shall propose the distribution plan and submit it to the stockholders' meeting every year. The distribution of stockholders' dividend shall be allocated as cash dividend in the range of 20% to 100%, and stock dividend in the range of 0% to 80%.

According to the regulations of Taiwan FSC, UMC is required to appropriate a special reserve in the amount equal to the sum of debit elements under equity, such as unrealized loss on financial instruments and debit balance of exchange differences on translation of foreign operations, at every year-end. Such special reserve is prohibited from distribution. However, if any of the debit elements is reversed, the special reserve in the amount equal to the reversal may be released for earnings distribution or offsetting accumulated deficits.

The distribution of earnings for 2017 was approved by the stockholders' meeting held on June 12, 2018, while the distribution of earnings for 2018 was approved by the Board of Directors' meeting on March 6, 2019. The details of distribution are as follows:

	Appropriation of earnings (in thousand NT dollars)		Cash dividend per share (NT dollars)	
	2018	2017	2018	2017
Legal reserve	\$707,299	\$962,873		
Special reserve	14,513,940	-		
Cash dividends	6,916,105	8,557,023	\$0.58	\$0.70

The aforementioned 2017 distribution approved by stockholders' meeting was consistent with the resolutions of meeting of Board of Directors held on March 7, 2018.

The cash dividend per share for 2017 was adjusted to NT\$0.71164307 per share according to the resolution of the Board of Directors' meeting on June 12, 2018. The adjustment was made for the decrease in outstanding common shares due to the share repurchase program.

The appropriation of 2018 unappropriated retained earnings has not yet been approved by the stockholder's meeting as of the reporting date. Information relevant to the Board of Directors' meeting recommendations and stockholders' meeting approval can be obtained from the "Market Observation Post System" on the website of the TWSE.

Please refer to Note 6(20) for information on the employees' compensation and remuneration to directors.

d. Non-controlling interests:

	For the three-month periods ended March 31,	
	2019	2018
Adjusted balance at January 1	\$466,768	\$958,405
Attributable to non-controlling interests:		
Net loss	(1,108,840)	(370,814)
Other comprehensive income (loss)	3,058	8,147
Changes in subsidiaries' ownership	23,916	(748,190)
Others	1,068,032	357,769
Ending balance	<u>\$452,934</u>	<u>\$205,317</u>

(18) Share-Based Payment

In order to attract, retain talents and reward the employees for their productivity and loyalty, the Company carried out a compensation plan to offer 200 million shares of treasury stock to employees in August 2018. The compensation cost for the share-based payment was measured at fair value, having recognized in expense the difference between the closing quoted market price of the shares at the grant date and the cash received from employees. The closing quoted market price of the Company's shares on the grant date was NT\$16.95 per share. For the stocks vested on the date of grant, the Company recognized the entire compensation cost on the grant date, whereas for the stocks with requisite service conditions to vest at the end of one or two-years from the date of grant, the Company recognizes the compensation cost on a straight-line basis over the period in which the services conditions are fulfilled, together with a corresponding increase in equity. As such, for the three-month period ended March 31, 2019, total compensation cost of NT\$110 million was recognized by the Company.

(19) Operating Revenues

a. Disaggregation of revenue

i. By operating segments

For the three-month period ended March 31, 2019					
	Wafer	New		Adjustment	
	Fabrication	Business	Subtotal	and	Consolidated
				Elimination	
Revenue from					
contracts with					
customers	\$32,558,380	\$24,579	\$32,582,959	\$-	\$32,582,959

The timing of revenue recognition:

At a point in	\$32,323,280	\$24,579	\$32,347,859	\$-	\$32,347,859
time					
Over time	235,100	-	235,100	-	235,100
Total	\$32,558,380	\$24,579	\$32,582,959	\$-	\$32,582,959

For the three-month period ended March 31, 2018					
	Wafer	New		Adjustment	
	Fabrication	Business	Subtotal	and	Consolidated
				Elimination	
Revenue from					
contracts with					
customers	\$37,437,590	\$66,521	\$37,504,111	\$(6,974)	\$37,497,137

The timing of revenue recognition:

At a point in	\$35,813,130	\$66,521	\$35,879,651	\$(6,974)	\$35,872,677
time					
Over time	1,624,460	-	1,624,460	-	1,624,460
Total	\$37,437,590	\$66,521	\$37,504,111	\$(6,974)	\$37,497,137

ii. By geography

For the three-month period ended March 31, 2019								
	China (includes							
	Taiwan	Singapore	Hong Kong)	Japan	USA	Europe	Others	Total
Revenue from contracts with customers	<u>\$12,189,125</u>	<u>\$6,353,276</u>	<u>\$3,141,635</u>	<u>\$1,972,506</u>	<u>\$3,698,845</u>	<u>\$1,711,504</u>	<u>\$3,516,068</u>	<u>\$32,582,959</u>
The timing of revenue recognition:								
At a point in time	\$12,173,632	\$6,353,276	\$3,105,549	\$1,966,791	\$3,692,336	\$1,547,880	\$3,508,395	\$32,347,859
Over time	15,493	-	36,086	5,715	6,509	163,624	7,673	235,100
Total	<u>\$12,189,125</u>	<u>\$6,353,276</u>	<u>\$3,141,635</u>	<u>\$1,972,506</u>	<u>\$3,698,845</u>	<u>\$1,711,504</u>	<u>\$3,516,068</u>	<u>\$32,582,959</u>

For the three-month period ended March 31, 2018								
	China (includes							
	Taiwan	Singapore	Hong Kong)	Japan	USA	Europe	Others	Total
Revenue from contracts with customers	<u>\$12,627,077</u>	<u>\$6,602,198</u>	<u>\$5,301,402</u>	<u>\$1,084,275</u>	<u>\$5,876,505</u>	<u>\$2,834,725</u>	<u>\$3,170,955</u>	<u>\$37,497,137</u>
The timing of revenue recognition:								
At a point in time	\$12,560,918	\$6,601,040	\$3,929,180	\$1,082,935	\$5,871,846	\$2,656,334	\$3,170,424	\$35,872,677
Over time	66,159	1,158	1,372,222	1,340	4,659	178,391	531	1,624,460
Total	<u>\$12,627,077</u>	<u>\$6,602,198</u>	<u>\$5,301,402</u>	<u>\$1,084,275</u>	<u>\$5,876,505</u>	<u>\$2,834,725</u>	<u>\$3,170,955</u>	<u>\$37,497,137</u>

The geographic breakdown of the Company's operating revenues was based on the location of the Company's customers.

iii. By Product

	For the three-month periods ended March 31,	
	2019	2018
Wafer	\$31,365,759	\$34,603,879
Others	1,217,200	2,893,258
Total	<u>\$32,582,959</u>	<u>\$37,497,137</u>

b. Contract balances

i. Contract assets, current

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Sales of goods and services	\$486,394	\$486,184	\$135,405
Less: Loss allowance	(395,944)	(393,974)	-
Net	<u>\$90,450</u>	<u>\$92,210</u>	<u>\$135,405</u>

The loss allowance was assessed by the company primarily at an amount equal to lifetime expected credit losses. The loss allowance was mainly resulted from the indictment filed by the United States Department of Justice (DOJ) against UMC related to the joint technology development agreement. Please refer to Note 9(7).

ii. Contract liabilities

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Sales of goods and services	<u>\$1,419,513</u>	<u>\$932,371</u>	<u>\$3,027,825</u>
Current	\$925,753	\$932,371	\$3,027,825
Noncurrent	493,760	-	-
Total	<u>\$1,419,513</u>	<u>\$932,371</u>	<u>\$3,027,825</u>

The movement of contract liabilities is mainly caused by the timing difference of the satisfaction of a performance of obligation and the consideration received from customers.

The Company recognized NT\$298 million and NT\$1,524 million, respectively, in revenues from the contract liabilities balance at the beginning of the period as performance obligations were satisfied during the three-month periods ended March 31, 2019 and 2018.

- c. The Company's transaction price allocated to unsatisfied performance obligations amounted to NT\$3,142 million as of March 31, 2019. The Company will recognize revenue as the Company satisfies its performance obligations over time that aligns with progress toward completion of a contract in the future. As of the report date, the progress cannot be reliably estimated primarily due to the suspension as disclosed in Note 9(7). The estimate of the transaction price does not include any estimated amounts of variable consideration that are constrained.

d. Asset recognized from the cost to fulfill a contract with customer

As of March 31, 2019, December 31, 2018 and March 31, 2018, the Company recognized the cost to fulfill engineering and service contracts that are eligible for capitalization as assets which amounted to NT\$562 million, NT\$567 million and NT\$161 million, and accounted for as other current assets. Subsequently, the Company will expense to operating costs from the cost to fulfill a contract when the related obligations are satisfied.

(20) Operating Costs and Expenses

The Company's employee benefit, depreciation and amortization expenses are summarized as follows:

	For the three-month periods ended March 31,					
	2019			2018		
	Operating costs	Operating expenses	Total	Operating costs	Operating expenses	Total
Employee benefit expenses						
Salaries	\$4,106,458	\$1,778,716	\$5,885,174	\$4,320,721	\$1,664,301	\$5,985,022
Labor and health insurance	228,754	89,691	318,445	228,667	86,403	315,070
Pension	269,872	92,521	362,393	265,977	81,873	347,850
Other employee benefit expenses	60,884	23,060	83,944	61,385	20,247	81,632
Depreciation	11,381,436	461,024	11,842,460	12,074,723	636,072	12,710,795
Amortization	205,408	267,894	473,302	195,633	342,676	538,309

According to UMC's Articles of Incorporation, the employees' and directors' compensation shall be distributed in the following order:

UMC shall allocate no less than 5% of profit as employees' compensation and no more than 0.1% of profit as directors' compensation for each profitable fiscal year after offsetting any cumulative losses. The aforementioned employees' compensation will be distributed in shares or cash. The employees of UMC's subsidiaries who fulfill specific requirements stipulated by the Board of Directors may be granted such compensation. Directors may only receive compensation in cash. UMC may, by a resolution adopted by a majority vote at a meeting of the Board of Directors attended by two-thirds of the total number of directors, distribute the aforementioned employees' and directors' compensation and report to the stockholders' meeting for such distribution.

The Company estimates the amounts of the employees' and directors' compensation and recognizes them in the profit or loss during the periods when earned for the three-month periods ended March 31, 2019 and 2018. The Board of Directors estimated the amount by taking into consideration the Articles of Incorporation, government regulations and industry averages. If the Board of Directors resolves to distribute employee compensation through stock, the number of stock distributed is calculated based on total employee compensation divided by the closing price of the day before the Board of Directors meeting. If the Board of Directors subsequently modifies the estimates significantly, the Company will recognize the change as an adjustment in the profit or loss in the subsequent period.

The distributions of employees' and directors' compensation for 2017 were reported to the stockholders' meeting on June 12, 2018, while the distributions of employees' and directors' compensation for 2018 were approved through the Board of Directors' meeting on March 6, 2019. The details of distribution are as follows:

	2018	2017
Employees' compensation – Cash	\$1,400,835	\$1,032,324
Directors' compensation	7,624	11,452

The aforementioned 2018 employees' and directors' compensation approved during the Board of Directors' meeting were consistent with amounts recognized by the Company. The aforementioned 2017 employees' and directors' compensation reported during the stockholders' meeting were consistent with the resolutions of meeting of Board of Directors held on March 7, 2018.

Information relevant to the aforementioned employees' and directors' compensation can be obtained from the "Market Observation Post System" on the website of the TWSE.

(21) Net Other Operating Income and Expenses

	For the three-month periods ended March 31,	
	2019	2018
Government grants	\$1,115,062	\$981,289
Gain (loss) on disposal of property, plant and equipment	(14,619)	26,525
Others	(27,290)	(30,869)
Total	<u>\$1,073,153</u>	<u>\$976,945</u>

(22) Non-Operating Income and Expenses

a. Other gains and losses

	For the three-month periods ended March 31,	
	2019	2018
Gain on valuation of financial assets and liabilities at fair value through profit or loss	\$1,032,105	\$376,519
Loss on disposal of investments	-	(2,609)
Others	4,746	30,750
Total	<u>\$1,036,851</u>	<u>\$404,660</u>

b. Finance costs

	For the three-month periods ended March 31,	
	2019	2018
Interest expenses		
Bonds payable	\$173,594	\$192,612
Bank loans	447,796	406,046
Lease liabilities (Note)	40,425	-
Others	48,179	70,321
Financial expenses	<u>19,219</u>	<u>16,835</u>
Total	<u>\$729,213</u>	<u>\$685,814</u>

Note : The Company adopted IFRS 16 on January 1, 2019. The Company elected not to restate prior periods in accordance with the transition provision in IFRS 16.

(23) Components of Other Comprehensive Income (Loss)

	For the three-month period ended March 31, 2019				
	Arising during the period	Reclassification adjustments during the period	Other comprehensive income (loss), before tax	Income tax effect	Other comprehensive income (loss), net of tax
Items that will not be reclassified subsequently to profit or loss:					
Unrealized gains or losses on financial assets at fair value through other comprehensive income	\$2,221,123	\$-	\$2,221,123	\$(11,541)	\$2,209,582
Share of other comprehensive income (loss) of associates and joint ventures which will not be reclassified subsequently to profit or loss	322,477	-	322,477	-	322,477

For the three-month period ended March 31, 2019					
	Arising during the period	Reclassification adjustments during the period	Other comprehensive income (loss), before tax	Income tax effect	Other comprehensive income (loss), net of tax
Items that may be reclassified subsequently to profit or loss:					
Exchange differences on translation of foreign operations	\$1,076,384	\$-	\$1,076,384	\$(3,049)	\$1,073,335
Share of other comprehensive income (loss) of associates and joint ventures which may be reclassified subsequently to profit or loss	9,523	-	9,523	(438)	9,085
Total other comprehensive income (loss)	<u>\$3,629,507</u>	<u>\$-</u>	<u>\$3,629,507</u>	<u>\$(15,028)</u>	<u>\$3,614,479</u>
For the three-month period ended March 31, 2018					
	Arising during the period	Reclassification adjustments during the period	Other comprehensive income (loss), before tax	Income tax effect	Other comprehensive income (loss), net of tax
Items that will not be reclassified subsequently to profit or loss:					
Unrealized gains or losses on financial assets at fair value through other comprehensive income	\$1,148,243	\$-	\$1,148,243	\$(22,973)	\$1,125,270
Share of other comprehensive income (loss) of associates and joint ventures which will not be reclassified subsequently to profit or loss	151,546	-	151,546	(5,044)	146,502
Items that may be reclassified subsequently to profit or loss:					
Exchange differences on translation of foreign operations	(1,515,172)	-	(1,515,172)	17,002	(1,498,170)
Share of other comprehensive income (loss) of associates and joint ventures which may be reclassified subsequently to profit or loss	(18,317)	2,690	(15,627)	8,066	(7,561)
Total other comprehensive income (loss)	<u>\$(233,700)</u>	<u>\$2,690</u>	<u>\$(231,010)</u>	<u>\$(2,949)</u>	<u>\$(233,959)</u>

(24) Income Tax

- a. The major components of income tax expense for the three-month periods ended March 31, 2019 and 2018 were as follows:

- i. Income tax expense recorded in profit or loss

	For the three-month periods ended March 31,	
	2019	2018
Current income tax expense (benefit):		
Current income tax charge	\$136,132	\$86,301
Adjustments in respect of current income tax of prior periods	(803,453)	(952,754)
Deferred income tax expense (benefit):		
Deferred income tax related to origination and reversal of temporary differences	99,694	418,169
Deferred income tax related to recognition and derecognition of tax losses and unused tax credits	(77,327)	(77,554)
Deferred income tax related to changes in tax rates	-	(869,858)
Adjustment of prior year's deferred income tax	(5,328)	(27,394)
Deferred income tax arising from write-down or reversal of write-down of deferred tax assets	207,570	250,142
Income tax benefit recorded in profit or loss	<u><u>\$(442,712)</u></u>	<u><u>\$(1,172,948)</u></u>

- ii. Income tax related to components of other comprehensive income (loss)

Items that will not be reclassified subsequently to profit or loss:

	For the three-month periods ended March 31,	
	2019	2018
Unrealized gains or losses on financial assets at fair value through other comprehensive income	\$(11,541)	\$(35,500)
Deferred income tax related to changes in tax rates	-	(7,483)
Income tax related to items that will not be reclassified subsequently to profit or loss	<u><u>\$(11,541)</u></u>	<u><u>\$(28,017)</u></u>

Items that may be reclassified subsequently to profit or loss:

	For the three-month periods ended March 31,	
	2019	2018
Exchange differences on translation of foreign operations	\$(3,049)	\$14,214
Share of other comprehensive income (loss) of associates and joint ventures which may be reclassified subsequently to profit or loss	(438)	3,619
Deferred income tax related to changes in tax rates	-	7,235
Income tax related to items that may be reclassified subsequently	\$(3,487)	\$25,068

iii. Deferred income tax charged directly to equity

	For the three-month periods ended March 31,	
	2019	2018
Deferred income tax related to changes in tax rates	\$-	\$(56,759)

- b. The Company is subject to taxation in Taiwan and other foreign jurisdictions. As of March 31, 2019, income tax returns of UMC and its subsidiaries in Taiwan have been examined by the tax authorities through 2014, while in other foreign jurisdictions, relevant tax authorities have completed the examination through 2010.

(25) Earnings Per Share

a. Earnings per share-basic

Basic earnings per share amounts are calculated by dividing the net income for the year attributable to ordinary equity holders of the parent company by the weighted-average number of ordinary shares outstanding during the year. The reciprocal stockholdings held by subsidiaries are deducted from the computation of weighted-average number of shares outstanding.

	For the three-month periods ended March 31,	
	2019	2018
Net income attributable to the parent company	<u>\$1,201,447</u>	<u>\$3,400,398</u>
Weighted-average number of ordinary shares for basic earnings per share (thousand shares)	<u>11,908,707</u>	<u>12,202,773</u>
Earnings per share-basic (NTD)	<u>\$0.10</u>	<u>\$0.28</u>

b. Earnings per share-diluted

Diluted earnings per share is calculated by taking basic earnings per share plus the effect of additional common shares that would have been outstanding if the dilutive share equivalents had been issued. The net income attributable to ordinary equity holders of the parent company would be also adjusted for the interest and other income or expenses derived from any underlying dilutive share equivalents, such as convertible bonds. For employees' compensation that may be distributed in shares, the number of shares to be distributed is taken into consideration assuming the distribution will be made entirely in shares when calculating diluted earnings per share.

	For the three-month periods ended March 31,	
	2019	2018
Net income attributable to the parent company	\$1,201,447	\$3,400,398
Effect of dilution		
Unsecured convertible bonds	<u>71,742</u>	<u>70,307</u>
Income attributable to stockholders of the parent	<u>\$1,273,189</u>	<u>\$3,470,705</u>
Weighted-average number of common stocks for basic earnings per share (thousand shares)	11,908,707	12,202,773
Effect of dilution		
Employees' compensation	85,875	60,453
Unsecured convertible bonds	<u>1,243,599</u>	<u>1,193,935</u>
Weighted-average number of common stocks after dilution (thousand shares)	<u>13,238,181</u>	<u>13,457,161</u>
Earnings per share-diluted (NTD)	<u>\$0.10</u>	<u>\$0.26</u>

(26) Reconciliation of Liabilities Arising from Financing Activities

For the three-month period ended March 31, 2019:

Items	As of January 1, 2019	Cash Flows	Non-cash changes		As of March 31, 2019
			Foreign exchange	Others (Note A)	
Short-term loans	\$13,103,808	\$3,466,605	\$178,949	\$48,144	\$16,797,506
Long-term loans (current portion included)	30,826,215	(1,003,949)	235,904	1,842	30,060,012
Bonds payable (current portion included)	41,378,182	-	-	91,269	41,469,451
Guarantee deposits (current portion included)	665,793	181,180	2,220	(619,347)	229,846
Lease liabilities	6,006,457	(136,536)	65,113	53,819	5,988,853
Other financial liabilities-noncurrent	20,410,355	-	485,510	97,024	20,992,889

For the three-month period ended March 31, 2018:

Items	As of January 1, 2018	Cash Flows	Non-cash changes		As of March 31, 2018
			Foreign exchange	Others (Note A)	
Short-term loans	\$25,445,540	\$(5,179,470)	\$(169,163)	\$70,871	\$20,167,778
Long-term loans (current portion included)	32,165,336	(381,430)	(449,820)	426	31,334,512
Bonds payable (current portion included)	48,517,631	(7,500,000)	-	89,474	41,107,105
Guarantee deposits (current portion included)	564,576	(57,276)	(10,228)	-	497,072
Other financial liabilities-noncurrent	20,486,119	-	321,012	96,265	20,903,396

Note A: Other non-cash changes mainly consisted of discount amortization measured by the effective interest method.

Note B: Please refer to Note 9(5) for more details on other financial liabilities-noncurrent.

(27) Deconsolidation of Subsidiaries

UNISTARS CORP. (UNISTARS)

As UMC's subsidiary disposed of all of its shares of UNISTARS in December 2018, the Company lost control of UNISTARS, derecognizing the relevant assets and liabilities of UNISTARS at the date when the control is lost.

a. Derecognized assets and liabilities mainly consisted of:

Assets	
Cash and cash equivalents	\$14,430
Notes and accounts receivable	18,239
Inventories	46,717
Property, plant and equipment	45,515
Others	2,365
	<u>127,266</u>
Liabilities	
Short-term loans	(34,313)
Payables	(29,309)
Current portion of long-term liabilities	(11,899)
Long-term loans	(5,502)
Others	(2,872)
	<u>(83,895)</u>
Net assets of the subsidiary deconsolidated	<u>\$43,371</u>

b. Consideration received and loss recognized from the transaction:

Cash received	\$4,617
Less: Net assets of the subsidiary deconsolidated	(43,371)
Add: Non-controlling interests	7,074
Less: Goodwill	(176)
Loss on disposal of subsidiary	<u>\$(31,856)</u>

Loss on disposal of subsidiary for the year ended December 31, 2018 was recognized as other gains and losses in the consolidated statement of comprehensive income.

c. Analysis of net cash outflow arising from deconsolidation of the subsidiary:

Cash received	\$4,617
Net cash of subsidiary derecognized	<u>(14,430)</u>
Net cash outflow from deconsolidation	<u>\$(9,813)</u>

7. RELATED PARTY TRANSACTIONS

The following is a summary of transactions between the Company and related parties during the financial reporting periods:

(1) Name and Relationship of Related Parties

<u>Name of related parties</u>	<u>Relationship with the Company</u>
FARADAY TECHNOLOGY CORP. and its Subsidiaries	Associate
JINING SUNRICH SOLARENERGY CORPORATION	Joint venture's subsidiary
SILICON INTEGRATED SYSTEMS CORP.	The Company's director
PHOTRONICS DNP MASK CORPORATION	Other related parties

(2) Significant related party transactions

a. Operating transactions

Operating revenues

	<u>For the three-month periods ended March 31,</u>	
	<u>2019</u>	<u>2018</u>
Associates	\$214,333	\$177,067
Joint ventures	-	3,199
Others	2,001	3,206
Total	<u>\$216,334</u>	<u>\$183,472</u>

Accounts receivable, net

	<u>As of</u>		
	<u>March 31,</u> <u>2019</u>	<u>December 31,</u> <u>2018</u>	<u>March 31,</u> <u>2018</u>
Associates	\$82,107	\$134,646	\$102,719
Joint ventures	-	-	1,068
Others	887	4,266	3,122
Total	<u>\$82,994</u>	<u>\$138,912</u>	<u>\$106,909</u>

The sales price to the above related parties was determined through mutual agreement in reference to market conditions. The collection period for domestic sales to related parties were month-end 30~60 days, while the collection period for overseas sales was net 30~60 days.

Refund liabilities (classified under other current liabilities)

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Associates	\$1,078	\$1,287	\$2,078
Others	57	71	120
Total	<u>\$1,135</u>	<u>\$1,358</u>	<u>\$2,198</u>

b. Significant asset transactions

Acquisition of intangible assets

	Purchase price	
	For the three-month periods ended March 31,	
	2019	2018
Associates	<u>\$41,311</u>	<u>\$10,169</u>

c. Others

Mask expenditure

	For the three-month periods ended March 31,	
	2019	2018
	2019	2018
Others	<u>\$521,504</u>	<u>\$469,950</u>

Other payables of mask expenditure

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Others	<u>\$590,390</u>	<u>\$571,036</u>	<u>\$589,690</u>

d. Key management personnel compensation

	For the three-month periods ended March 31,	
	2019	2018
	2019	2018
Short-term employee benefits	\$74,528	\$82,405
Post-employment benefits	586	1,079
Termination benefits	3,415	-
Share-based payment	19,268	16
Others	147	69
Total	<u>\$97,944</u>	<u>\$83,569</u>

8. ASSETS PLEDGED AS COLLATERAL

As of March 31, 2019, December 31, 2018 and March 31, 2018

	Amount			Party to which asset(s) was pledged	Purpose of pledge
	As of				
	March 31, 2019	December 31, 2018	March 31, 2018		
Refundable Deposits (Bank deposit and Time deposit)	\$964,836	\$961,198	\$967,080	Customs	Customs duty guarantee
Refundable Deposits (Time deposit)	237,358	237,358	237,358	Science Park Administration	Collateral for land lease
Refundable Deposits (Time deposit)	19,510	19,579	19,579	Science Park Administration	Collateral for dormitory lease
Refundable Deposits (Time deposit)	-	-	800	Science Park Administration	Industry-university cooperative research project performance guarantees
Refundable Deposits (Time deposit)	37,085	37,084	37,084	Liquefied Natural Gas Business Division, CPC Corporation, Taiwan	Energy resources guarantee
Refundable Deposits (Time deposit)	1,000,000	1,000,000	-	Bank of China	Bank performance guarantee
Buildings	5,895,290	5,823,938	6,064,461	Taiwan Cooperative Bank and Secured Syndicated Loans from China Development Bank and 6 others	Collateral for long-term loans
Machinery and equipment	24,857,950	25,762,086	31,480,732	Taiwan Cooperative Bank, Mega International Commercial Bank and Secured Syndicated Loans from China Development Bank and 6 others	Collateral for long-term loans
Right-of-use assets	314,825	-	-	Secured Syndicated Loans from China Development Bank and 6 others	Collateral for long-term loans
Other noncurrent assets	-	309,108	326,370	Secured Syndicated Loans from China Development Bank and 6 others	Collateral for long-term loans
Total	\$33,326,854	\$34,150,351	\$39,133,464		

9. SIGNIFICANT CONTINGENCIES AND UNRECOGNIZED CONTRACT COMMITMENTS

- (1) As of March 31, 2019, amounts available under unused letters of credit for importing machinery and equipment was NT\$0.3 billion.
- (2) As of March 31, 2019, the Company entrust financial institutes to open performance guarantee, mainly related to the litigations and customs tax guarantee, amounted to NT\$1.7 billion.
- (3) The Company entered into several patent license agreements and development contracts of intellectual property for a total contract amount of approximately NT\$12.0 billion. As of March 31, 2019, the portion of royalties and development fees not yet recognized was NT\$1.1 billion.
- (4) The Company entered into several construction contracts for the expansion of its operations. As of March 31, 2019, these construction contracts amounted to approximately NT\$2.0 billion and the portion of the contracts not yet recognized was approximately NT\$0.8 billion.
- (5) The Board of Directors of UMC resolved in October 2014 to participate in a 3-way agreement with Xiamen Municipal People's Government and FUJIAN ELECTRONIC & INFORMATION GROUP to form a company which will focus on 12" wafer foundry services. As of March 31, 2019, the Company obtained R.O.C. government authority's approval for the investment and invested RMB 8.3 billion in USCXM, representing ownership interest of 65.22%. Furthermore, based on the agreement, UMC recognized a financial liability in other noncurrent liabilities-others for the purchase from the other investors of their investments in USCXM at their original investment cost plus interest totally amounting to RMB 4.9 billion, beginning from the seventh year (2022) following the last instalment payment made by the other investors. Accordingly, the Company recognizes non-controlling interests as required by IFRS 10 during the reporting period. At the end of each reporting period, the Company recognizes a financial liability for its commitment to the other investors in accordance with IFRS 9, at the same time derecognizing the non-controlling interests. Any difference between the financial liability and the non-controlling interests balance is recognized in equity.
- (6) On July 1, 2016, INTERNATIONAL BUSINESS MACHINES CORPORATION (IBM) filed a complaint in the United States District Court for the Southern District of New York alleging that UMC failed to pay the technology license fees in accordance with the technology license agreement and claimed US\$10 million with interest of 12% per annum. UMC appealed a judgment issued on September 15, 2017 by the United States District Court of Southern District of New York for the subject matter. The United States Court of Appeals for the Second Circuit made a summary order on March 11, 2019, vacated part of the district court's judgment and remanded the case. On March 27, 2019, UMC reached a USD 3.8 million settlement with IBM and mutually withdrew the litigation.

(7) On August 31, 2017, the Taichung District Prosecutors Office indicted UMC for the Trade Secret Act of R.O.C., alleging that employees of UMC misappropriated the trade secrets of MICRON TECHNOLOGY INC. (MICRON). On December 5, 2017, MICRON filed a civil action with similar cause against UMC with the United States District Court, Northern District of California. MICRON claimed entitlement to the actual damages, treble damages and relevant fees and requested the court to issue an order that enjoins UMC from using its trade secrets in question. The case is currently in progress and UMC has appointed counsels to prepare answers against these charges.

On January 12, 2018, UMC filed three patent infringement actions with the Fuzhou Intermediate People's Court against, among others, MICRON (XI'AN) CO., LTD. and MICRON (SHANGHAI) TRADING CO., LTD., requesting the court to order the defendants to stop manufacturing, processing, importing, selling, and committing to sell the products deploying the infringing patents in questions, and also to destroy all inventories and related molds and tools. On July 3, 2018, the Fuzhou Intermediate People's Court ruled against the aforementioned two defendants, holding that the two defendants must immediately cease to manufacture, sell, and import products that infringe the patent rights of UMC. The lawsuit filed by UMC is still on trial.

On November 1, 2018, the Department of Justice of the United States (DOJ) unsealed an indictment against UMC, FUJIAN JINHUA INTEGRATED CIRCUIT CO., LTD. (JINHUA), and three individuals, including one current employee and two former employees of UMC, alleging that UMC and others conspired to steal trade secrets of MICRON, and used that information to develop technology that was subsequently transferred to JINHUA. On the same day, the DOJ filed a civil complaint enjoining the aforementioned defendants from exporting to the United States any products containing DRAM manufactured by UMC or JINHUA and preventing the defendants from transferring the trade secrets to anyone else. The indictment and civil complaint are still on trial. UMC has suspended the joint technology development activities with JINHUA and appointed counsel to prepare answers against these charges. Given these litigations are still in the preliminary stages, UMC cannot assess the legal proceeding and probable outcome or impact.

10. SIGNIFICANT DISASTER LOSS

None.

11. SIGNIFICANT SUBSEQUENT EVENTS

None.

12. OTHERS

(1) Categories of financial instruments

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
<u>Financial Assets</u>			
Financial assets at fair value through profit or loss	\$13,060,385	\$12,084,297	\$14,002,240
Financial assets at fair value through other comprehensive income	13,806,600	11,585,477	11,279,702
Financial assets measured at amortized cost			
Cash and cash equivalents (excludes cash on hand)	88,732,066	83,655,648	77,138,547
Receivables	23,613,472	24,583,451	25,895,689
Refundable deposits	2,716,783	2,757,399	1,845,244
Other financial assets	2,657,717	2,320,037	1,887,681
Total	<u>\$144,587,023</u>	<u>\$136,986,309</u>	<u>\$132,049,103</u>
<u>Financial Liabilities</u>			
Financial liabilities at fair value through profit or loss	\$34	\$-	\$-
Financial liabilities measured at amortized cost			
Short-term loans	16,797,506	13,103,808	20,167,778
Payables	21,531,515	23,465,536	21,779,912
Guarantee deposits (current portion included)	229,846	665,793	497,072
Bonds payable (current portion included)	41,469,451	41,378,182	41,107,105
Long-term loans (current portion included)	30,060,012	30,826,215	31,334,512
Lease liabilities (Note)	5,988,853	-	-
Other financial liabilities	20,992,903	20,523,099	20,903,396
Total	<u>\$137,070,120</u>	<u>\$129,962,633</u>	<u>\$135,789,775</u>

Note : The Company adopted IFRS 16 on January 1, 2019. The Company elected not to restate prior periods in accordance with the transition provision in IFRS 16.

(2) Financial risk management objectives and policies

The Company's risk management objectives are to manage the market risk, credit risk and liquidity risk related to its operating activities. The Company identifies, measures and manages the aforementioned risks based on policy and risk preference.

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

(3) Market risk

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 currency risk, interest rate risk and other price risk (such as equity price risk).

Foreign currency risk

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

The Company applies natural hedges on the foreign currency risk arising from purchases or sales, and utilizes spot or forward exchange contracts to manage foreign currency risk and the net effect of the risks related to monetary financial assets and liabilities is minor. The notional amounts of the foreign currency contracts are the same as the amount of the hedged items. In principle, the Company does not carry out any forward exchange contracts for uncertain commitments. The Company designates certain forward currency contracts as cash flow hedges to hedge its exposure to foreign currency exchange risk associated with certain highly probable forecast transactions. On the basis of assessment, the Company expects that the value of forward currency exchange contracts and the value of the hedged transactions will change systematically in opposite directions for given changes in foreign exchange rates. Hedge ineffectiveness in these hedging relationships mainly arises from the counterparties' credit risk, impacting the fair value movements of the hedging instruments and hedged items. No other sources of ineffectiveness emerged from these hedging relationships. Furthermore, as net investments in foreign subsidiaries are for strategic purposes, they are not hedged by the Company.

The company designated certain forward exchange contracts, amounting to JPY 23 billion, to partially hedge foreign currency exchange rate risks associated with the highly probable purchase of the remaining outstanding shares of MIFS in JPY. The Company discontinued hedge accounting when the hedging instrument expired prior to December 31, 2018. The cash flow hedge reserve in other components of equity amounted to NT\$(2) million as of March 31, 2019.

The foreign currency sensitivity analysis of the possible change in foreign exchange rates on the Company's profit is performed on significant monetary items denominated in foreign currencies as of the end of the reporting period. When NTD strengthens/weakens against USD by 10%, the profit for the three-month periods ended March 31, 2019 and 2018 decreases/increases by NT\$980 million and NT\$1,473 million, respectively. When RMB strengthens/weakens against USD by 10%, the profit for the three-month periods ended March 31, 2019 and 2018 increases/decreases by NT\$2,553 million and NT\$2,865 million, respectively.

Interest rate risk

The Company is exposed to interest rate risk arising from borrowing at floating interest rates. All of the Company's bonds have fixed interest rates and are measured at amortized cost. As such, changes in interest rates would not affect the future cash flows. On the other hand, as the interest rates of the Company's short-term and long-term bank loans are floating, changes in interest rates would affect the future cash flows but not the fair value. Please refer to Note 6(10), 6(12) and 6(13) for the range of interest rates of the Company's bonds and bank loans.

At the reporting dates, a change of 10 basis points of interest rate in a reporting period could cause the profit for the three-month periods ended March 31, 2019 and 2018 to decrease/increase by NT\$12 million and NT\$13 million, respectively.

Equity price risk

The Company's listed and unlisted equity securities are susceptible to market price risk arising from uncertainties about future performance of equity markets. The Company's equity investments are classified as financial assets at fair value through profit or loss and financial assets at fair value through other comprehensive income.

The sensitivity analysis for the equity instruments is based on the change in fair value as of the reporting date. A change of 5% in the price of the aforementioned financial assets at fair value through profit or loss of listed companies could increase/decrease the Company's profit for the three-month periods ended March 31, 2019 and 2018 by NT\$207 million and NT\$235 million, respectively. A change of 5% in the price of the aforementioned financial assets at fair value through other comprehensive income of listed companies could increase/decrease the Company's other comprehensive income for the three-month periods ended March 31, 2019 and 2018 by NT\$522 million and NT\$374 million.

(4) Credit risk management

The Company only trades with approved and creditworthy third parties. Where the Company trades with third parties which have less credit, it will request collateral from them. It is the Company's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, notes and accounts receivable balances are monitored on an ongoing basis to decrease the credit risk.

The Company mitigates the credit risks from financial institutions by limiting its counter parties to only reputable domestic or international financial institutions with good credit standing and spreading its holdings among various financial institutions. The Company's exposure to credit risk arising from the default of counter-parties is limited to the carrying amount of these instruments.

As of March 31, 2019, December 31, 2018 and March 31, 2018, accounts receivable from the top ten customers represent 50%, 54% and 48% of the total accounts receivable of the Company, respectively. The credit concentration risk of other accounts receivable is insignificant.

(5) Liquidity risk management

The Company's objectives are to maintain a balance between continuity of funding and flexibility through the use of cash and cash equivalents, bank loans, bonds and lease.

The table below summarizes the maturity profile of the Company's financial liabilities based on the contractual undiscounted payments and contractual maturity:

	As of March 31, 2019				Total
	Less than 1 year	2 to 3 years	4 to 5 years	> 5 years	
Non-derivative financial liabilities					
Short-term loans	\$16,871,180	\$-	\$-	\$-	\$16,871,180
Payables	20,738,493	199,859	-	-	20,938,352
Guarantee deposits	24,830	161,278	-	43,738	229,846
Bonds payable	5,432,497	26,870,171	4,362,756	6,431,929	43,097,353
Long-term loans	2,982,085	11,161,099	17,349,147	4,745,185	36,237,516
Lease liabilities	632,202	1,241,687	1,178,266	4,204,168	7,256,323
Other financial liabilities	14	13,420,339	8,947,211	-	22,367,564
Total	<u>\$46,681,301</u>	<u>\$53,054,433</u>	<u>\$31,837,380</u>	<u>\$15,425,020</u>	<u>\$146,998,134</u>

	As of March 31, 2019				
	Less than 1 year	2 to 3 years	4 to 5 years	> 5 years	Total
Derivative financial liabilities					
Hedging instruments					
-Forward exchange contracts					
Net settlement					
-outflow	\$(34)	\$-	\$-	\$-	\$(34)

	As of December 31, 2018				
	Less than 1 year	2 to 3 years	4 to 5 years	> 5 years	Total
Non-derivative financial liabilities					
Short-term loans	\$13,171,811	\$-	\$-	\$-	\$13,171,811
Payables	22,994,059	199,788	-	-	23,193,847
Guarantee deposits	52,890	154,787	15,385	442,731	665,793
Bonds payable	3,000,855	23,187,913	8,484,393	8,563,021	43,236,182
Long-term loans	4,036,260	10,997,829	17,209,849	4,765,719	37,009,657
Other financial liabilities	112,744	-	17,477,984	4,369,730	21,960,458
Total	\$43,368,619	\$34,540,317	\$43,187,611	\$18,141,201	\$139,237,748

	As of March 31, 2018				
	Less than 1 year	2 to 3 years	4 to 5 years	> 5 years	Total
Non-derivative financial liabilities					
Short-term loans	\$20,279,211	\$-	\$-	\$-	\$20,279,211
Payables	21,108,239	-	-	108,525	21,216,764
Guarantee deposits	64,296	24,536	29,160	379,080	497,072
Bonds payable	18,663,775	5,545,404	10,559,240	8,658,233	43,426,652
Long-term loans	3,703,895	8,360,864	13,174,224	13,243,025	38,482,008
Other financial liabilities	6,138	-	18,150,364	4,537,834	22,694,336
Total	\$63,825,554	\$13,930,804	\$41,912,988	\$26,926,697	\$146,596,043

(6) Foreign currency risk management

UMC entered into forward exchange contracts for hedging the exchange rate risk arising from the net monetary assets or liabilities denominated in foreign currency. The details of forward exchange contracts entered into by UMC are summarized as follows:

As of March 31, 2019

Type	Notional Amount	Contract Period
Forward exchange contracts	Sell USD 78 million	March 5, 2019~April 9, 2019

As of December 31, 2018

Type	Notional Amount	Contract Period
Forward exchange contracts	Sell USD 28 million	December 10, 2018~January 7, 2019

As of March 31, 2018: None.

(7) Fair value of financial instruments

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

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

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

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

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

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

- Level 1 — Quoted (unadjusted) market prices in active markets for identical assets or liabilities;
- Level 2 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable;
- Level 3 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For assets and liabilities that are recognized in the financial statements on a recurring basis, the Company determines whether transfers have occurred between levels in the hierarchy by re-assessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

a. Assets and liabilities measured and recorded at fair value on a recurring basis:

	As of March 31, 2019			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at fair value through profit or loss, current	\$517,494	\$34,998	\$-	\$552,492
Financial assets at fair value through profit or loss, noncurrent	4,195,410	39,893	8,272,590	12,507,893
Financial assets at fair value through other comprehensive income, noncurrent	10,437,108	-	3,369,492	13,806,600
Financial liabilities:				
Financial liabilities at fair value through profit or loss, current	-	34	-	34

	As of December 31, 2018			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at fair value through profit or loss, current	\$493,481	\$34,969	\$-	\$528,450
Financial assets at fair value through profit or loss, noncurrent	3,612,243	44,597	7,899,007	11,555,847
Financial assets at fair value through other comprehensive income, noncurrent	8,166,277	-	3,419,200	11,585,477

	As of March 31, 2018			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at fair value through profit or loss, current	\$422,598	\$21,994	\$80,056	\$524,648
Financial assets at fair value through profit or loss, noncurrent	4,962,267	41,902	8,473,423	13,477,592
Financial assets at fair value through other comprehensive income, noncurrent	7,488,257	-	3,791,445	11,279,702

Fair values of financial assets at fair value through profit or loss and financial assets at fair value through other comprehensive income that are categorized into level 1 are based on the quoted market prices in active markets. If there is no active market, the Company estimates the fair value by using the valuation techniques (income approach and market approach) in consideration of cash flow forecast, recent fund raising activities, valuation of similar companies, individual company's development, market conditions and other economic indicators. If there are restrictions on the sale or transfer of a financial asset, which are a characteristic of the asset, the fair value of the asset will be determined based on similar but unrestricted financial assets' quoted market price with appropriate discounts for the restrictions. To measure fair values, if the lowest level input that is significant to the fair value measurement is directly or indirectly observable, then the financial assets are classified as Level 2 of the fair value hierarchy, otherwise as Level 3.

During the three-month periods ended March 31, 2019 and 2018, there were no significant transfers between Level 1 and Level 2 fair value measurements.

Reconciliations for fair value measurement in Level 3 fair value hierarchy were as follows:

	Financial assets at fair value through profit or loss					Financial assets at fair value through other comprehensive income		
	Option	Common	Preferred	Funds	Total	Common	Preferred	Total
		stock	stock			stock	stock	
As of January 1, 2019	\$-	\$3,077,691	\$2,971,528	\$1,849,788	\$7,899,007	\$3,235,174	\$184,026	\$3,419,200
Recognized in profit (loss)	-	162,830	211,456	(56,700)	317,586	-	-	-
Recognized in other comprehensive income (loss)	-	-	-	-	-	(12,218)	(37,490)	(49,708)
Acquisition	-	41,250	-	1,849	43,099	-	-	-
Disposal	-	(1,141)	-	-	(1,141)	-	-	-
Exchange effect	-	1,822	4,228	7,989	14,039	-	-	-
As of March 31, 2019	<u>\$-</u>	<u>\$3,282,452</u>	<u>\$3,187,212</u>	<u>\$1,802,926</u>	<u>\$8,272,590</u>	<u>\$3,222,956</u>	<u>\$146,536</u>	<u>\$3,369,492</u>

	Financial assets at fair value through profit or loss					Financial assets at fair value through other comprehensive income (loss)		
	Option	Common	Preferred	Funds	Total	Common	Preferred	Total
		stock	stock			stock	stock	
As of January 1, 2018	\$31,605	\$3,832,537	\$2,994,294	\$1,183,940	\$8,042,376	\$3,350,694	\$233,326	\$3,584,020
Recognized in profit (loss)	48,451	(46,070)	(34,132)	4,952	(26,799)	-	-	-
Recognized in other comprehensive income (loss)	-	-	-	-	-	213,004	(5,579)	207,425
Acquisition	-	94,912	473,081	54,531	622,524	-	-	-
Disposal	-	(587)	(12,504)	-	(13,091)	-	-	-
Exchange effect	-	(14,651)	(40,512)	(16,368)	(71,531)	-	-	-
As of March 31, 2018	<u>\$80,056</u>	<u>\$3,866,141</u>	<u>\$3,380,227</u>	<u>\$1,227,055</u>	<u>\$8,553,479</u>	<u>\$3,563,698</u>	<u>\$227,747</u>	<u>\$3,791,445</u>

Recognized as part of profit (loss) above, the profit (loss) from financial assets still held by the Company as of March 31, 2019 and 2018 was NT\$317 million and NT\$(23) million, respectively.

Recognized as part of other comprehensive income (loss) above, the income (loss) from financial assets still held by the Company as of March 31, 2019 and 2018 was NT\$(50) million and NT\$207 million, respectively.

The Company's policy to recognize the transfer into and out of fair value hierarchy levels is based on the event or changes in circumstances that caused the transfer.

Significant unobservable inputs of fair value measurement in Level 3 fair value hierarchy were as follow:

As of March 31, 2019

Category of equity securities	Valuation technique	Significant unobservable inputs	Quantitative information	Interrelationship between inputs and fair value	Sensitivity analysis of interrelationship between inputs and fair value
Unlisted stock	Market Approach	Discount for lack of marketability	14%~50%	The greater degree of lack of marketability, the lower the estimated fair value is determined.	A change of 5% in the discount for lack of marketability of the aforementioned fair values of unlisted stocks could decrease/increase the Company's profit or loss and other comprehensive income (loss) for the three-month period ended March 31, 2019 by NT\$318 million and by NT\$237 million, respectively.

As of March 31, 2018

Category of equity securities	Valuation technique	Significant unobservable inputs	Quantitative information	Interrelationship between inputs and fair value	Sensitivity analysis of interrelationship between inputs and fair value
Unlisted stock	Market Approach	Discount for lack of marketability	15%~50%	The greater degree of lack of marketability, the lower the estimated fair value is determined.	A change of 5% in the discount for lack of marketability of the aforementioned fair values of unlisted stocks could decrease/increase the Company's profit or loss and other comprehensive income (loss) for the three-month period ended March 31, 2018 by NT\$380 million and by NT\$264 million, respectively.

b. Assets and liabilities not recorded at fair value but for which fair value is disclosed:

The fair value of bonds payable is estimated by the market price or using a valuation model. The model uses market-based observable inputs including share price, volatility, credit spread and risk-free interest rates. The fair value of long-term loans is determined using discounted cash flow model, based on the Company's current incremental borrowing rates of similar loans. The fair value of lease liabilities is determined by discounted cash flow model using the Company's incremental borrowing rate.

The fair values of the Company's short-term financial instruments including cash and cash equivalents, receivables, refundable deposits, other financial assets-current, short-term loans, payables and guarantee deposits approximate their carrying amount due to their maturities within one year.

As of March 31, 2019

Items	Fair value	Fair value measurements during reporting period using			Carrying amount
		Level 1	Level 2	Level 3	
Bonds payables (current portion included)	\$41,721,320	\$23,894,939	\$17,826,381	\$-	\$41,469,451
Long-term loans (current portion included)	30,060,012	-	30,060,012	-	30,060,012
Lease liabilities	5,988,853	-	-	5,988,853	5,988,853

As of December 31, 2018

Items	Fair value	Fair value measurements during reporting period using			Carrying amount
		Level 1	Level 2	Level 3	
Bonds payables (current portion included)	\$41,714,368	\$23,929,019	\$17,785,349	\$-	\$41,378,182
Long-term loans (current portion included)	30,826,215	-	30,826,215	-	30,826,215

As of March 31, 2018

Items	Fair value	Fair value measurements during reporting period using			Carrying amount
		Level 1	Level 2	Level 3	
Bonds payables (current portion included)	\$41,960,006	\$23,952,325	\$18,007,681	\$-	\$41,107,105
Long-term loans (current portion included)	31,334,512	-	31,334,512	-	31,334,512

(8) Significant financial assets and liabilities denominated in foreign currencies

	As of					
	March 31, 2019			December 31, 2018		
	Foreign			Foreign		
	Currency (thousand)	Exchange Rate	NTD (thousand)	Currency (thousand)	Exchange Rate	NTD (thousand)
<u>Financial Assets</u>						
<u>Monetary items</u>						
USD	\$1,502,451	30.76	\$46,215,379	\$1,536,283	30.67	\$47,117,775
JPY	22,140,562	0.2765	6,121,865	19,954,240	0.2764	5,515,352
EUR	3,179	34.41	109,392	2,669	35.01	93,450
SGD	30,803	22.67	698,300	34,325	22.41	769,217
RMB	4,296,728	4.55	19,567,298	4,089,229	4.45	18,184,800
<u>Non-Monetary items</u>						
USD	219,907	30.76	6,764,343	215,146	30.67	6,598,528
JPY	8,551,884	0.2765	2,364,596	8,466,263	0.2764	2,340,075
SGD	6,464	22.67	146,536	8,212	22.41	184,025
RMB	49,181	4.55	223,972	49,506	4.45	220,152
<u>Financial Liabilities</u>						
<u>Monetary items</u>						
USD	311,442	30.86	9,611,099	322,705	30.77	9,929,626
JPY	3,167,062	0.2806	888,678	3,875,144	0.2805	1,086,978
EUR	2,722	34.81	94,758	13,721	35.41	485,880
SGD	83,437	22.85	1,906,556	39,650	22.59	895,677
RMB	15,376,156	4.60	70,791,826	14,332,554	4.50	64,453,497
<u>The exchange gain</u>						
<u>or loss from</u>						
<u>monetary financial</u>						
<u>assets and liabilities</u>						
USD			98,858			635,992
JPY			(9,619)			39,116
EUR			4,800			8,133
SGD			(16,232)			4,473
RMB			427,975			(1,044,912)
Other			1,039			205

	As of		
	March 31, 2018		
	Foreign Currency (thousand)	Exchange Rate	NTD (thousand)
<u>Financial Assets</u>			
<u>Monetary items</u>			
USD	\$1,495,931	29.04	\$43,441,586
JPY	5,813,332	0.2722	1,582,604
EUR	5,724	35.61	203,846
SGD	27,235	22.14	602,982
RMB	5,206,553	4.62	24,054,261
<u>Non-Monetary items</u>			
USD	227,650	29.06	6,615,492
JPY	9,763,350	0.2723	2,658,560
<u>Financial Liabilities</u>			
<u>Monetary items</u>			
USD	402,695	29.16	11,742,579
JPY	2,907,406	0.2760	802,356
EUR	2,749	36.09	99,223
SGD	35,612	22.32	794,846
RMB	15,322,285	4.67	71,555,075
<u>The exchange gain or loss from</u>			
<u>monetary financial assets and liabilities</u>			
USD			(268,097)
JPY			(19,462)
EUR			212
SGD			6,570
RMB			1,301,412
Other			(224)

- (9) Significant intercompany transactions among consolidated entities for three-month period ended March 31, 2019 and 2018 are disclosed in Attachment 1.

(10) Capital management

The primary objective of the Company's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios to support its business and maximize the stockholders' value. The Company also ensures its ability to operate continuously to provide returns to stockholders and the interests of other related parties, while maintaining the optimal capital structure to reduce costs of capital.

To maintain or adjust the capital structure, the Company may adjust the dividend payment to stockholders, return capital to stockholders, issue new shares or dispose assets to redeem liabilities.

Similar to its peers, the Company monitors its capital based on debt to capital ratio. The ratio is calculated as the Company's net debt divided by its total capital. The net debt is derived by taking the total liabilities on the consolidated balance sheets minus cash and cash equivalents. The total capital consists of total equity (including capital, additional paid-in capital, retained earnings, other components of equity and non-controlling interests) plus net debt.

The Company's strategy, which is unchanged for the reporting periods, is to maintain a reasonable ratio in order to raise capital with reasonable cost. The debt to capital ratios as of March 31, 2019, December 31, 2018 and March 31, 2018 were as follows:

	As of		
	March 31, 2019	December 31, 2018	March 31, 2018
Total liabilities	\$164,323,368	\$158,068,415	\$169,347,576
Less: Cash and cash equivalents	(88,738,198)	(83,661,739)	(77,142,866)
Net debt	75,585,170	74,406,676	92,204,710
Total equity	209,814,212	206,536,491	216,212,396
Total capital	\$285,399,382	\$280,943,167	\$308,417,106
Debt to capital ratios	26.48%	26.48%	29.90%

13. ADDITIONAL DISCLOSURES

(1) The following are additional disclosures for the Company and its affiliates as required by the R.O.C. Securities and Futures Bureau:

a. Financing provided to others for the three-month period ended March 31, 2019: Please refer to Attachment 2.

- b. Endorsement/Guarantee provided to others for the three-month period ended March 31, 2019: Please refer to Attachment 3.
- c. Securities held as of March 31, 2019 (excluding subsidiaries, associates and joint venture): Please refer to Attachment 4.
- d. Individual securities acquired or disposed of with accumulated amount exceeding the lower of NT\$300 million or 20 percent of the capital stock for the three-month period ended March 31, 2019: Please refer to Attachment 5.
- e. Acquisition of individual real estate with amount exceeding the lower of NT\$300 million or 20 percent of the capital stock for the three-month period ended March 31, 2019: Please refer to Attachment 6.
- f. Disposal of individual real estate with amount exceeding the lower of NT\$300 million or 20 percent of the capital stock for the three-month period ended March 31, 2019: Please refer to Attachment 7.
- g. Related party transactions for purchases and sales amounts exceeding the lower of NT\$100 million or 20 percent of the capital stock for the three-month period ended March 31, 2019: Please refer to Attachment 8.
- h. Receivables from related parties with amounts exceeding the lower of NT\$100 million or 20 percent of capital stock as of March 31, 2019: Please refer to Attachment 9.
- i. Names, locations and related information of investees as of March 31, 2019 (excluding investment in Mainland China): Please refer to Attachment 10.
- j. Financial instruments and derivative transactions: Please refer to Note 12.

(2) Investment in Mainland China

- a. Investee company name, main businesses and products, total amount of capital, method of investment, accumulated inflow and outflow of investments from Taiwan, net income (loss) of investee company, percentage of ownership, investment income (loss), carrying amount of investments, cumulated inward remittance of earnings and limits on investment in Mainland China: Please refer to Attachment 11.
- b. Directly or indirectly significant transactions through third regions with the investees in Mainland China, including price, payment terms, unrealized gain or loss, and other events with significant effects on the operating results and financial condition: Please refer to Attachment 1, Attachment 2, Attachment 3, Attachment 8 and Attachment 9.

14. OPERATING SEGMENT INFORMATION

The Company determined its operating segments based on business activities with discrete financial information regularly reported through the Company's internal reporting protocols to the Company's chief operating decision maker. The Company is organized into business units based on its products and services. As of March 31, 2019, the Company had the following segments: wafer fabrication and new business. The operating segment information was prepared according to the accounting policies described in Note 4. The primary operating activity of the wafer fabrication segment is the manufacture of chips to the design specifications of our customers by using our own proprietary processes and techniques. The Company maintains a diversified customer base across industries, including communication, consumer electronics, computer, memory and others, while continuing to focus on manufacturing for high growth, large volume applications, including networking, telecommunications, internet, multimedia, PCs and graphics. New business segment primarily includes researching, developing, manufacturing, and providing solar energy.

Reportable segment information for the three-month periods ended March 31, 2019 and 2018 were as follows:

	For the three-month period ended March 31, 2019				
	Wafer Fabrication	New Business	Subtotal	Adjustment and Elimination	Consolidated
Operating revenues from external customers	\$32,558,380	\$24,579	\$32,582,959	\$-	\$32,582,959
Segment net income (loss), net of tax	99,430	(105,485)	(6,055)	98,662	92,607
Acquisition of property, plant and equipment	5,562,980	-	5,562,980	-	5,562,980
Acquisition of intangible assets	530,156	-	530,156	-	530,156
Cash payments for the principal portion of the lease liability	131,853	4,683	136,536	-	136,536
Depreciation	11,870,670	35,925	11,906,595	-	11,906,595
Share of profit or loss of associates and joint ventures	97,293	-	97,293	98,662	195,955
Income tax expense (benefit)	(442,393)	(319)	(442,712)	-	(442,712)

For the three-month period ended March 31, 2018					
	Wafer Fabrication	New Business	Subtotal	Adjustment and Elimination	Consolidated
Operating revenues from external customers	\$37,437,590	\$59,547	\$37,497,137	\$-	\$37,497,137
Operating revenues from sales among intersegments	-	6,974	6,974	(6,974)	-
Segment net income (loss), net of tax	3,041,449	(125,547)	2,915,902	113,682	3,029,584
Acquisition of property, plant and equipment	5,716,267	-	5,716,267	-	5,716,267
Depreciation	12,701,633	48,553	12,750,186	-	12,750,186
Share of profit or loss of associates and joint ventures	105,225	(11,692)	93,533	113,682	207,215
Income tax expense (benefit)	(1,168,929)	(4,019)	(1,172,948)	-	(1,172,948)

As of March 31, 2019					
	Wafer Fabrication	New Business	Subtotal	Adjustment and Elimination (Note)	Consolidated
Segment assets	\$372,937,814	\$1,290,793	\$374,228,607	\$(91,027)	\$374,137,580
Segment liabilities	\$163,124,142	\$1,203,154	\$164,327,296	\$(3,928)	\$164,323,368

As of December 31, 2018					
	Wafer Fabrication	New Business	Subtotal	Adjustment and Elimination (Note)	Consolidated
Segment assets	\$363,529,040	\$1,263,368	\$364,792,408	\$(187,502)	\$364,604,906
Segment liabilities	\$157,000,054	\$1,068,722	\$158,068,776	\$(361)	\$158,068,415

As of March 31, 2018					
	Wafer Fabrication	New Business	Subtotal	Adjustment and Elimination (Note)	Consolidated
Segment assets	\$384,139,954	\$2,620,981	\$386,760,935	\$(1,200,963)	\$385,559,972
Segment liabilities	\$167,946,059	\$1,411,067	\$169,357,126	\$(9,550)	\$169,347,576

Note: The adjustment primarily consisted of elimination entries for wafer fabrication segment's investments in new business segment that was accounted for under the equity method.

ATTACHMENT 1 (Significant intercompany transactions between consolidated entities)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

For the three-month period ended March 31, 2019

No. (Note 1)	Related party	Counterparty	Relationship with the Company (Note 2)	Transactions			Percentage of consolidated operating revenues or consolidated total assets (Note 4)
				Account	Amount	Collection periods (Note 3)	
0	UNITED MICROELECTRONICS CORPORATION	UMC GROUP (USA)	1	Sales	\$10,672,008	Net 60 days	33%
0	UNITED MICROELECTRONICS CORPORATION	UMC GROUP (USA)	1	Accounts receivable	6,432,153	-	2%
0	UNITED MICROELECTRONICS CORPORATION	UMC GROUP JAPAN	1	Sales	1,196,454	Net 60 days	4%
0	UNITED MICROELECTRONICS CORPORATION	UMC GROUP JAPAN	1	Accounts receivable	868,891	-	0%
0	UNITED MICROELECTRONICS CORPORATION	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	1	Sales	281,350 (Note 5)	Net 30 days	1%
0	UNITED MICROELECTRONICS CORPORATION	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	1	Accounts receivable	23,809	-	0%
1	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	UMC GROUP (USA)	3	Sales	343,015	Net 60 days	1%
1	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	UMC GROUP (USA)	3	Accounts receivable	208,660	-	0%

For the three-month period ended March 31, 2018

No. (Note 1)	Related party	Counterparty	Relationship with the Company (Note 2)	Transactions			Percentage of consolidated operating revenues or consolidated total assets (Note 4)
				Account	Amount	Collection periods (Note 3)	
0	UNITED MICROELECTRONICS CORPORATION	UMC GROUP (USA)	1	Sales	\$15,616,682	Net 60 days	42%
0	UNITED MICROELECTRONICS CORPORATION	UMC GROUP (USA)	1	Accounts receivable	8,630,190	-	2%
0	UNITED MICROELECTRONICS CORPORATION	UMC GROUP JAPAN	1	Sales	958,472	Net 60 days	3%
0	UNITED MICROELECTRONICS CORPORATION	UMC GROUP JAPAN	1	Accounts receivable	695,834	-	0%
0	UNITED MICROELECTRONICS CORPORATION	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	1	Sales	338,208 (Note 5)	Net 30 days	1%
0	UNITED MICROELECTRONICS CORPORATION	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	1	Accounts receivable	62,202	-	0%
1	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	UMC GROUP (USA)	3	Sales	201,281	Net 60 days	0%
1	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	UMC GROUP (USA)	3	Accounts receivable	70,532	-	0%

Note 1: UMC and its subsidiaries are coded as follows:

1. UMC is coded "0".
2. The subsidiaries are coded consecutively beginning from "1" in the order presented in the table above.

Note 2: Transactions are categorized as follows:

1. The holding company to subsidiary.
2. Subsidiary to holding company.
3. Subsidiary to subsidiary.

Note 3: The sales price to the above related parties was determined through mutual agreement in reference to market conditions.

Note 4: The percentage with respect to the consolidated asset/liability for transactions of balance sheet items are based on each item's balance at period-end.

For profit or loss items, cumulative balances are used as basis.

Note 5: UMC authorized technology licenses to its subsidiary, UNITED SEMICONDUCTOR (XIAMEN) CO., LTD., in the amount of USD 0.35 billion which was recognized as deferred revenue.

Since it was a downstream transaction, the deferred revenue would be realized over time.

ATTACHMENT 2 (Financing provided to others for the three-month period ended March 31, 2019)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

UNITED MICROELECTRONICS CORPORATION

No. (Note 1)	Lender	Counter-party	Financial statement account	Related Party	Maximum balance for the period	Ending balance	Actual amount provided	Interest rate	Nature of financing	Amount of sales to (purchases from) counter-party	Reason for financing	Loss allowance	Collateral		Limit of financing amount for individual counter-party (Note2)	Limit of total financing amount (Note2)
													Item	Value		
0	UNITED MICROELECTRONICS CORPORATION	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	Other receivables - related parties	Yes	\$7,690,000	\$7,690,000	\$-	-	The need for short-term financing	\$-	Business turnover	\$-	None	\$-	\$20,936,128	\$83,744,511

TERA ENERGY DEVELOPMENT CO., LTD.

No. (Note 1)	Lender	Counter-party	Financial statement account	Related Party	Maximum balance for the period	Ending balance	Actual amount provided	Interest rate	Nature of financing	Amount of sales to (purchases from) counter-party	Reason for financing	Loss allowance	Collateral		Limit of financing amount for individual counter-party (Note3)	Limit of total financing amount (Note3)
													Item	Value		
1	TERA ENERGY DEVELOPMENT CO., LTD.	TIPPING POINT ENERGY COC PPA SPE-1,LLC	Other receivables	No	\$2,406	\$2,406	\$2,406	9.00%	Needs for operation	\$2,406	-	\$2,406	None	\$-	\$2,406	\$32,659

Note 1: The parent company and its subsidiaries are coded as follows:

- (i) The parent company is coded "0".
- (ii) The subsidiaries are coded consecutively beginning from "1" in the order presented in the table above.

Note 2: Limit of financing amount for individual counter-party shall not exceed 10% of the lender's net assets value as of the period.

Limit of total financing amount shall not exceed 40% of the Company's net asset value.

Note 3: Limit of financing amount for individual counter-party shall not exceed 10% of the lender's net assets value as of the period or the needed amount for operation, which is lower.

Limit of total financing amount shall not exceed 40% of latest financial statements of lender.

ATTACHMENT 3 (Endorsement/Guarantee provided to others for the three-month period ended March 31, 2019)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

UNITED MICROELECTRONICS CORPORATION

No. (Note 1)	Endorsor/Guarantor	Receiving party Company name	Relationship (Note 2)	Limit of guarantee/endorsement amount for receiving party (Note 3)	Maximum balance for the period	Ending balance	Actual amount provided	Amount of collateral guarantee/endorsement	Percentage of accumulated guarantee amount to net assets value from the latest financial statement	Limit of total guarantee/endorsement amount (Note 4)
0	UNITED MICROELECTRONICS CORPORATION	NEXPOWER TECHNOLOGY CORP.	3	\$94,212,575	\$2,448,000	\$748,000 (Note 5)	\$747,900 (Note 5)	\$-	0.36%	\$94,212,575
0	UNITED MICROELECTRONICS CORPORATION	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	3	94,212,575	15,472,280	15,472,280 (Note 6)	14,809,445 (Note 6)	-	7.39%	94,212,575

HEJIAN TECHNOLOGY (SUZHOU) CO., LTD.

No. (Note 1)	Endorsor/Guarantor	Receiving party Company name	Relationship (Note 2)	Limit of guarantee/endorsement amount for receiving party (Note 7)	Maximum balance for the period	Ending balance	Actual amount provided	Amount of collateral guarantee/endorsement	Percentage of accumulated guarantee amount to net assets value from the latest financial statement	Limit of total guarantee/endorsement amount (Note 7)
1	HEJIAN TECHNOLOGY (SUZHOU) CO., LTD.	UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	6	\$10,417,435	\$9,047,059	\$9,047,059	\$4,231,657	\$-	39.08%	\$10,417,435

Note 1: The parent company and its subsidiaries are coded as follows:

1. The parent company is coded "0".
2. The subsidiaries are coded consecutively beginning from "1" in the order presented in the table above.

Note 2: According to the "Guidelines Governing the Preparation of Financial Reports by Securities Issuers" issued by the R.O.C. Securities and Futures Bureau, receiving parties should be disclosed as one of the following:

1. A company with which it does business.
2. A company in which the public company directly and indirectly holds more than 50% of the voting shares.
3. A company that directly and indirectly holds more than 50 % of the voting shares in the public company.
4. A company in which the public company holds, directly or indirectly, 90% or more of the voting shares.
5. A company that fulfills its contractual obligations by providing mutual endorsements/guarantees for another company in the same industry or for joint builders for purposes of undertaking a construction project.
6. A company that all capital contributing shareholders make endorsements/ guarantees for their jointly invested company in proportion to their shareholding percentages.
7. Companies in the same industry provide among themselves joint and several security for a performance guarantee of a sales contract for pre-construction homes pursuant to the Consumer Protection Act for each other.

Note 3: The amount of endorsements/guarantees shall not exceed 45% of the net worth of endorsor/guarantor; and the ceilings on the amount of endorsements/guarantees for any single entity are as follows:

1. The amount of endorsements/guarantees for any single entity shall not exceed 45% of net worth of endorsor/guarantor.
2. The amount of endorsements/guarantees for a company which endorsor/guarantor does business with, except the ceiling rules abovementioned shall not exceed the needed amounts arising from business dealings which is the higher amount of total sales or purchase transactions between endorsor/guarantor and the receiving party.

The aggregate amount of endorsements/guarantees that the Company as a whole is permitted to make shall not exceed 45% of the Company's net worth, and the aggregate amount of endorsements/guarantees for any single entity shall not exceed 45% of the Company's net worth.

Note 4: Limit of total guarantee/endorsement amount shall not exceed 45% of UMC's net assets value as of March 31, 2019.

Note 5: On December 24, 2014, the board of directors resolved to provide endorsement to NEXPOWER TECHNOLOGY CORP.'s syndicated loan from banks including Bank of Taiwan for the amount up to NT\$1,700 million, it has been fully repaid in January 2019.

On December 12, 2018, the board of directors resolved to increase the endorsement amounted to NT\$748 million. As of March 31, 2019, actual amount provided was NT\$748 million.

Note 6: On February 22, 2017, the board of directors resolved to guarantee UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.'s syndicated loan from banks including China Development Bank in the amount up to USD 310 million.

On March 7, 2018, the board of directors resolved to increase the endorsement amounted to USD 152 million, on October 24, 2018, the board of directors resolved to increase the endorsement amounted to USD 41 million. Total endorsement amount is up to USD 503 million.

As of March 31, 2019, actual amount provided was NT\$14,809 million.

Note 7: Limit of total endorsed/guaranteed amount shall not exceed 45% of HEJIAN TECHNOLOGY (SUZHOU) CO., LTD.'s net assets value as of March 31, 2019.

The amount of endorsements/guarantees for any single entity shall not exceed 45% of net worth of HEJIAN TECHNOLOGY (SUZHOU) CO., LTD.'s net assets value as of March 31, 2019.

The aggregate amount of endorsements/guarantees that the Company as a whole is permitted to make shall not exceed 45% of the Company's net worth, and the aggregate amount of endorsements/guarantees for any single entity shall not exceed 45% of the Company's net worth.

ATTACHMENT 4 (Securities held as of March 31, 2019) (Excluding subsidiaries, associates and joint ventures)

(Amount in thousand; Currency denomination in NTD or in foreign currencies)

UNITED MICROELECTRONICS CORPORATION

				March 31, 2019				Shares as collateral (thousand)
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	
Stock	ACTION ELECTRONICS CO., LTD.	-	Financial assets at fair value through profit or loss, current	18,182	\$127,275	6.56	\$127,275	None
Fund	MILLERFUL NO.1 REAL ESTATE INVESTMENT TRUST	-	Financial assets at fair value through profit or loss, current	18,000	180,000	1.70	180,000	None
Stock	PIXART IMAGING, INC.	-	Financial assets at fair value through profit or loss, current	1,600	140,000	1.18	140,000	None
Stock	KING YUAN ELECTRONICS CO., LTD.	-	Financial assets at fair value through profit or loss, current	2,675	70,219	0.22	70,219	None
Stock	PIXTECH, INC.	-	Financial assets at fair value through profit or loss, noncurrent	9,883	-	17.63	-	None
Stock	UNITED FU SHEN CHEN TECHNOLOGY CORP.	-	Financial assets at fair value through profit or loss, noncurrent	17,511	-	15.75	-	None
Stock	HOLTEK SEMICONDUCTOR INC.	-	Financial assets at fair value through profit or loss, noncurrent	24,644	1,799,031	10.90	1,799,031	None
Stock	OCTTASIA INVESTMENT HOLDING INC.	-	Financial assets at fair value through profit or loss, noncurrent	6,692	247,009	9.29	247,009	None
Stock	UNITED INDUSTRIAL GASES CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	16,680	1,470,148	7.66	1,470,148	None
Stock	AMIC TECHNOLOGY CORP.	-	Financial assets at fair value through profit or loss, noncurrent	5,627	-	4.71	-	None
Stock	SUBTRON TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	12,521	169,030	4.38	169,030	None
Stock	KING YUAN ELECTRONICS CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	20,483	537,671	1.68	537,671	None
Stock	EPISTAR CORP.	-	Financial assets at fair value through profit or loss, noncurrent	10,715	265,732	0.98	265,732	None
Stock	TOPOINT TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	1,184	24,088	0.82	24,088	None
Stock	PROMOS TECHNOLOGIES INC.	-	Financial assets at fair value through profit or loss, noncurrent	324	-	0.72	-	None
Stock-Preferred stock	TONBU, INC.	-	Financial assets at fair value through profit or loss, noncurrent	938	-	-	-	None
Stock-Preferred stock	AETAS TECHNOLOGY INC.	-	Financial assets at fair value through profit or loss, noncurrent	1,166	-	-	-	None
Stock-Preferred stock	TA SHEE GOLF & COUNTRY CLUB	-	Financial assets at fair value through profit or loss, noncurrent	0	21,650	-	21,650	None
Stock	SILICON INTEGRATED SYSTEMS CORP.	The Company's director	Financial assets at fair value through other comprehensive income, noncurrent	110,356	886,156	20.66	886,156	None
Stock	UNIMICRON HOLDING LIMITED	-	Financial assets at fair value through other comprehensive income, noncurrent	20,000	636,732	17.00	636,732	None
Stock	MIE FUJITSU SEMICONDUCTOR LIMITED	-	Financial assets at fair value through other comprehensive income, noncurrent	18,447	2,239,829	15.87	2,239,829	None
Stock	UNIMICRON TECHNOLOGY CORP.	-	Financial assets at fair value through other comprehensive income, noncurrent	196,136	5,805,626	13.03	5,805,626	None
Stock	ITE TECH. INC.	-	Financial assets at fair value through other comprehensive income, noncurrent	13,960	489,297	8.67	489,297	None
Stock	NOVATEK MICROELECTRONICS CORP.	-	Financial assets at fair value through other comprehensive income, noncurrent	16,445	3,256,028	2.70	3,256,028	None
Stock-Preferred stock	MTIC HOLDINGS PTE. LTD.	-	Financial assets at fair value through other comprehensive income, noncurrent	12,000	146,536	-	146,536	None

ATTACHMENT 4 (Securities held as of March 31, 2019) (Excluding subsidiaries, associates and joint ventures)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

FORTUNE VENTURE CAPITAL CORP.

Type of securities	Name of securities	Relationship	Financial statement account	March 31, 2019				Shares as collateral (thousand)
				Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	
Stock	DARCHUN VENTURE CORP.	-	Financial assets at fair value through profit or loss, noncurrent	1,782	\$5,149	19.65	\$5,149	None
Stock	SOLARGATE TECHNOLOGY CORP.	-	Financial assets at fair value through profit or loss, noncurrent	957	-	15.94	-	None
Stock	TRONC-E CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	1,800	2,718	15.93	2,718	None
Stock	CENTERA PHOTONICS INC.	-	Financial assets at fair value through profit or loss, noncurrent	3,750	19,237	14.87	19,237	None
Stock	EVERGLORY RESOURCE TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	2,500	18,150	10.23	18,150	None
Stock	ADVANCE MATERIALS CORP.	-	Financial assets at fair value through profit or loss, noncurrent	10,719	50,914	8.67	50,914	None
Stock	MONTJADE ENGINEERING CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	1,800	27,000	8.18	27,000	None
Stock	WIN WIN PRECISION TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	3,150	44,761	6.93	44,761	None
Stock	RISELINK VENTURE CAPITAL CORP.	-	Financial assets at fair value through profit or loss, noncurrent	1,754	14,510	6.67	14,510	None
Stock	ACT GENOMICS HOLDINGS CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	4,600	123,101	5.50	123,101	None
Stock	LICO TECHNOLOGY CORP.	-	Financial assets at fair value through profit or loss, noncurrent	6,609	-	5.32	-	None
Stock	ACTI CORP.	-	Financial assets at fair value through profit or loss, noncurrent	1,968	14,364	5.31	14,364	None
Stock	TAIWAN AULISA MEDICAL DEVICES TECHNOLOGIES, INC.	-	Financial assets at fair value through profit or loss, noncurrent	800	8,472	4.97	8,472	None
Stock	WALTOP INTERNATIONAL CORP.	-	Financial assets at fair value through profit or loss, noncurrent	654	1,432	4.43	1,432	None
Stock	MERIDIGEN BIOTECH CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	3,838	115,132	4.22	115,132	None
Fund	TRANSLINK CAPITAL PARTNERS IV, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	40,221	3.90	40,221	None
Stock	EXCELLENCE OPTOELECTRONICS INC.	-	Financial assets at fair value through profit or loss, noncurrent	6,374	130,665	3.72	130,665	None
Stock	SOLID STATE SYSTEM CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	3,000	67,650	3.71	67,650	None
Stock	SUBTRON TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	10,059	140,823	3.52	140,823	None
Stock	ANIMATION TECHNOLOGIES INC.	-	Financial assets at fair value through profit or loss, noncurrent	265	-	3.16	-	None
Stock	TOPOINT TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	4,416	89,869	3.08	89,869	None
Stock	BRIGHT SHELAND INTERNATIONAL CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	1,200	39,780	2.88	39,780	None
Stock	MOBILE DEVICES INC.	-	Financial assets at fair value through profit or loss, noncurrent	261	-	1.96	-	None
Fund	VERTEX V (C.I.) FUND L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	20,878	1.89	20,878	None
Stock	WIESON TECHNOLOGIES CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	1,141	5,158	1.71	5,158	None

ATTACHMENT 4 (Securities held as of March 31, 2019) (Excluding subsidiaries, associates and joint ventures)

(Amount in thousand; Currency denomination in NTD or in foreign currencies)

FORTUNE VENTURE CAPITAL CORP.

Type of securities	Name of securities	Relationship	Financial statement account	March 31, 2019				Shares as collateral (thousand)
				Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	
Stock	ALL-STARS XMI LTD.	-	Financial assets at fair value through profit or loss, noncurrent	3	\$96,328	1.37	\$96,328	None
Stock	CRYSTALWISE TECHNOLOGY INC.	-	Financial assets at fair value through profit or loss, noncurrent	2,114	26,314	1.29	26,314	None
Stock	NORATECH PHARMACEUTICALS, INC.	-	Financial assets at fair value through profit or loss, noncurrent	1,000	16,300	0.95	16,300	None
Stock	TAIWANJ PHARMACEUTICALS CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	582	8,032	0.84	8,032	None
Stock	POWERTEC ENERGY CORP.	-	Financial assets at fair value through profit or loss, noncurrent	9,930	58,486	0.75	58,486	None
Stock	FUSHENG PRECISION CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	700	114,100	0.53	114,100	None
Stock	MOSA INDUSTRIAL CORP.	-	Financial assets at fair value through profit or loss, noncurrent	900	63,270	0.51	63,270	None
Stock	QUASER MACHINE TOOLS, INC.	-	Financial assets at fair value through profit or loss, noncurrent	200	11,400	0.50	11,400	None
Stock	FORTEMEDIA, INC.	-	Financial assets at fair value through profit or loss, noncurrent	21	1	0.02	1	None
Stock-Preferred Stock	EJOULE INTERNATIONAL LIMITED	-	Financial assets at fair value through profit or loss, noncurrent	23,909	167,047	-	167,047	None
Stock-Preferred Stock	FLOADIA CORP.	-	Financial assets at fair value through profit or loss, noncurrent	2	89,090	-	89,090	None
Stock-Preferred Stock	CEREBREX, INC.	-	Financial assets at fair value through profit or loss, noncurrent	1	35,677	-	35,677	None
Stock-Preferred Stock	FORTEMEDIA, INC.	-	Financial assets at fair value through profit or loss, noncurrent	311	355	-	355	None
Convertible bonds	JIH LIN TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	100	10,400	-	10,400	None
Stock	SHIN-ETSU HANDOTAI TAIWAN CO., LTD.	-	Financial assets at fair value through other comprehensive income, noncurrent	10,500	346,395	7.00	346,395	None
Stock	UNITED MICROELECTRONICS CORP.	Parent company	Financial assets at fair value through other comprehensive income, noncurrent	16,079	187,317	0.13	187,317	None
Convertible bonds	CONCRAFT HOLDING CO., LTD.	-	Prepayments for investments	200	20,368	-	N/A	None

TLC CAPITAL CO., LTD.

Type of securities	Name of securities	Relationship	Financial statement account	March 31, 2019				Shares as collateral (thousand)
				Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	
Fund	EVERYI CAPITAL ASIA FUND, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	\$123,242	18.18	\$123,242	None
Stock	WINKING ENTERTAINMENT LTD.	-	Financial assets at fair value through profit or loss, noncurrent	6,433	116,740	15.35	116,740	None
Stock	BEAUTY ESSENTIALS INTERNATIONAL LTD.	-	Financial assets at fair value through profit or loss, noncurrent	150,500	162,028	13.99	162,028	None
Fund	OAK HILL OPPORTUNITIES FUND, SEGREGATED PORTFOLIO	-	Financial assets at fair value through profit or loss, noncurrent	9	250,319	9.00	250,319	None
Stock	ACTI CORP.	-	Financial assets at fair value through profit or loss, noncurrent	2,252	16,436	6.08	16,436	None
Stock	EXCELLENCE OPTOELECTRONICS INC.	-	Financial assets at fair value through profit or loss, noncurrent	8,529	174,847	4.98	174,847	None

ATTACHMENT 4 (Securities held as of March 31, 2019) (Excluding subsidiaries, associates and joint ventures)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

TLC CAPITAL CO., LTD.

				March 31, 2019					
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	Shares as collateral (thousand)	
Stock	EVERGLORY RESOURCE TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	1,200	\$8,712	4.91	\$8,712	None	
Stock	ADVANCE MATERIALS CORP.	-	Financial assets at fair value through profit or loss, noncurrent	5,435	25,815	4.39	25,815	None	
Fund	TRANSLINK CAPITAL PARTNERS III, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	164,506	4.24	164,506	None	
Stock	SUNDIA MEDITECH GROUP	-	Financial assets at fair value through profit or loss, noncurrent	779	11,705	3.23	11,705	None	
Stock	WIESON TECHNOLOGIES CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	1,829	8,265	2.74	8,265	None	
Fund	H&QAP GREATER CHINA GROWTH FUND, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	9,129	2.67	9,129	None	
Stock	ALL-STARS XMI LTD.	-	Financial assets at fair value through profit or loss, noncurrent	2	82,567	1.17	82,567	None	
Stock	SIMPLO TECHNOLOGY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	1,422	386,915	0.77	386,915	None	
Stock	TXC CORP.	-	Financial assets at fair value through profit or loss, noncurrent	1,978	63,790	0.64	63,790	None	
Stock	POWERTEC ENERGY CORP.	-	Financial assets at fair value through profit or loss, noncurrent	6,470	38,108	0.49	38,108	None	
Stock-Preferred stock	YOUJIA GROUP LTD.	-	Financial assets at fair value through profit or loss, noncurrent	2,685	33,749	-	33,749	None	
Stock-Preferred stock	ALO7 LTD.	-	Financial assets at fair value through profit or loss, noncurrent	2,377	249,776	-	249,776	None	
Stock-Preferred stock	ADWO MEDIA HOLDINGS LTD.	-	Financial assets at fair value through profit or loss, noncurrent	5,332	-	-	-	None	
Stock-Preferred stock	IMO, INC.	-	Financial assets at fair value through profit or loss, noncurrent	8,519	-	-	-	None	
Stock-Preferred stock	HIGHLANDER FINANCIAL GROUP CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	26,499	196,436	-	196,436	None	
Stock-Preferred stock	X2 POWER TECHNOLOGIES LTD.	-	Financial assets at fair value through profit or loss, noncurrent	35,819	142,938	-	142,938	None	
Stock-Preferred stock	GAME VIDEO LTD.	-	Financial assets at fair value through profit or loss, noncurrent	279	97,876	-	97,876	None	
Stock-Preferred stock	CLOUD MOMENT (CAYMAN) INC.	-	Financial assets at fair value through profit or loss, noncurrent	359	19,392	-	19,392	None	
Stock-Preferred stock	PLAYNITRIDE INC.	-	Financial assets at fair value through profit or loss, noncurrent	1,739	179,629	-	179,629	None	
Stock-Preferred stock	EJOULE INTERNATIONAL LTD.	-	Financial assets at fair value through profit or loss, noncurrent	35,863	250,571	-	250,571	None	
Stock-Preferred stock	TURNING POINT LASERS LTD.	-	Financial assets at fair value through profit or loss, noncurrent	2,000	61,520	-	61,520	None	

UMC CAPITAL CORP.

				March 31, 2019					
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	Shares as collateral (thousand)	
Convertible bonds	SWIFTSTACK, INC.	-	Financial assets at fair value through profit or loss, current	-	USD 829	-	USD 829	None	
Convertible bonds	CLOUDWORDS, INC.	-	Financial assets at fair value through profit or loss, current	-	USD 190	-	USD 190	None	
Convertible bonds	GLYPMPSE, INC.	-	Financial assets at fair value through profit or loss, noncurrent	-	USD 593	-	USD 593	None	

ATTACHMENT 4 (Securities held as of March 31, 2019) (Excluding subsidiaries, associates and joint ventures)

(Amount in thousand; Currency denomination in NTD or in foreign currencies)

UMC CAPITAL CORP.

				March 31, 2019						
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	Shares as collateral (thousand)		
Capital	TRANSLINK MANAGEMENT III, L.L.C.	-	Financial assets at fair value through profit or loss, noncurrent	-	USD 519	14.33	USD 519	None		
Fund	TRANSLINK CAPITAL PARTNERS IV, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	USD 3,923	11.70	USD 3,923	None		
Fund	TRANSLINK CAPITAL PARTNERS III, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	USD 14,459	11.47	USD 14,459	None		
Stock	OCTTASIA INVESTMENT HOLDING INC.	-	Financial assets at fair value through profit or loss, noncurrent	7,035	USD 8,442	9.76	USD 8,442	None		
Stock	ALL-STARS SP IV LTD.	-	Financial assets at fair value through profit or loss, noncurrent	7	USD 7,226	5.03	USD 7,226	None		
Fund	TRANSLINK CAPITAL PARTNERS II, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	USD 1,594	4.53	USD 1,594	None		
Fund	OAK HILL OPPORTUNITIES FUND, SEGREGATED PORTFOLIO	-	Financial assets at fair value through profit or loss, noncurrent	4	USD 3,617	4.00	USD 3,617	None		
Fund	SIERRA VENTURES XI, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	USD 2,087	1.76	USD 2,087	None		
Fund	STORM VENTURES FUND V, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	USD 2,768	1.69	USD 2,768	None		
Stock	ALL-STARS XMI LTD.	-	Financial assets at fair value through profit or loss, noncurrent	3	USD 3,131	1.37	USD 3,131	None		
Stock	ACHIEVE MADE INTERNATIONAL LTD.	-	Financial assets at fair value through profit or loss, noncurrent	80	USD 30	0.57	USD 30	None		
Stock	CIPHERMAX, INC.	-	Financial assets at fair value through profit or loss, noncurrent	95	-	-	-	None		
Stock-Preferred stock	ACHIEVE MADE INTERNATIONAL LTD.	-	Financial assets at fair value through profit or loss, noncurrent	2,644	USD 3,911	-	USD 3,911	None		
Stock-Preferred stock	CNEX LABS, INC.	-	Financial assets at fair value through profit or loss, noncurrent	3,052	USD 10,112	-	USD 10,112	None		
Stock-Preferred stock	GLYMPSE, INC.	-	Financial assets at fair value through profit or loss, noncurrent	1,349	USD 1,654	-	USD 1,654	None		
Stock-Preferred stock	ATSCALE, INC.	-	Financial assets at fair value through profit or loss, noncurrent	7,683	USD 8,316	-	USD 8,316	None		
Stock-Preferred stock	SENSIFREE LTD.	-	Financial assets at fair value through profit or loss, noncurrent	276	USD 97	-	USD 97	None		
Stock-Preferred stock	APPIER HOLDINGS, INC.	-	Financial assets at fair value through profit or loss, noncurrent	52	USD 2,143	-	USD 2,143	None		
Stock-Preferred stock	DCARD HOLDINGS LTD.	-	Financial assets at fair value through profit or loss, noncurrent	27,819	USD 4,518	-	USD 4,518	None		
Stock-Preferred stock	NEXTINPUT, INC.	-	Financial assets at fair value through profit or loss, noncurrent	3,866	USD 1,327	-	USD 1,327	None		
Stock-Preferred stock	SHOCARD, INC.	-	Financial assets at fair value through profit or loss, noncurrent	517	USD 478	-	USD 478	None		
Stock-Preferred stock	GCT SEMICONDUCTOR, INC.	-	Financial assets at fair value through profit or loss, noncurrent	175	USD 15	-	USD 15	None		
Stock-Preferred stock	FORTEMEDIA, INC.	-	Financial assets at fair value through profit or loss, noncurrent	12,241	USD 3,114	-	USD 3,114	None		
Stock-Preferred stock	SIFOTONICS TECHNOLOGIES CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	3,500	USD 6,429	-	USD 6,429	None		
Stock-Preferred stock	NEVO ENERGY, INC.	-	Financial assets at fair value through profit or loss, noncurrent	4,980	-	-	-	None		

ATTACHMENT 4 (Securities held as of March 31, 2019) (Excluding subsidiaries, associates and joint ventures)

(Amount in thousand; Currency denomination in NTD or in foreign currencies)

UMC CAPITAL CORP.

				March 31, 2019						
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	Shares as collateral (thousand)		
Stock-Preferred stock	TRILLIANT HOLDINGS, INC.	-	Financial assets at fair value through profit or loss, noncurrent	4,000	USD 6,122	-	USD 6,122	None		
Stock-Preferred stock	SWIFTSTACK, INC.	-	Financial assets at fair value through profit or loss, noncurrent	2,855	USD 1,061	-	USD 1,061	None		
Stock-Preferred stock	NEXENTA SYSTEMS, INC.	-	Financial assets at fair value through profit or loss, noncurrent	6,555	USD 159	-	USD 159	None		
Stock-Preferred stock	CLOUDWORDS, INC.	-	Financial assets at fair value through profit or loss, noncurrent	9,461	USD 4,613	-	USD 4,613	None		
Stock-Preferred stock	ZYLOGIC SEMICONDUCTOR CORP.	-	Financial assets at fair value through profit or loss, noncurrent	750	-	-	-	None		
Stock-Preferred stock	EAST VISION TECHNOLOGY LTD.	-	Financial assets at fair value through profit or loss, noncurrent	2,770	-	-	-	None		
Stock-Preferred stock	SENSIFREE LTD.	-	Prepayments for investments	-	USD 565	-	N/A	None		

TERA ENERGY DEVELOPMENT CO., LTD.

				March 31, 2019				
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	Shares as collateral (thousand)
Stock	TIAN TAI PHOTOELECTRICITY CO., LTD.	-	Financial assets at fair value through profit or loss, noncurrent	375	\$4,076	1.18	\$4,076	None

NEXPOWER TECHNOLOGY CORP.

				March 31, 2019				
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	Shares as collateral (thousand)
Stock	PACIFIC-GREEN INTEGRATED TECHNOLOGY INC.	-	Financial assets at fair value through profit or loss, noncurrent	54	\$-	18.00	\$-	None

SINO PARAGON LIMITED

				March 31, 2019				
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount	Percentage of ownership (%)	Fair value/ Net assets value	Shares as collateral (thousand)
Fund	SPARKLABS GLOBAL VENTURES FUND I, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	\$78,927	11.13	\$78,927	None
Fund	SPARKLABS KOREA FUND II, L.P.	-	Financial assets at fair value through profit or loss, noncurrent	-	30,379	5.00	30,379	None

UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.

				March 31, 2019						
Type of securities	Name of securities	Relationship	Financial statement account	Units (thousand)/ bonds/ shares (thousand)	Carrying amount		Percentage of ownership (%)	Fair value/ Net assets value	Shares as collateral (thousand)	
Fund	LANHOR FUND	-	Financial assets at fair value through profit or loss, noncurrent	-	RMB	49,181	9.71	RMB	49,181	None

ATTACHMENT 5 (Individual securities acquired or disposed of with accumulated amount exceeding the lower of NT\$300 million or 20 percent of the capital stock for the three-month period ended March 31, 2019)
 (Amount in thousand; Currency denomination in NTD or in foreign currencies)

					Beginning balance		Addition		Disposal			Ending balance		
Type of securities	Name of the securities	Financial statement account	Counter-party	Relationship	Units (thousand)/ bonds/ shares (thousand)	Amount	Units (thousand)/ bonds/ shares (thousand)	Amount	Units (thousand)/ bonds/ shares (thousand)	Amount	Cost	Gain (Loss) from disposal	Units (thousand)/ bonds/ shares (thousand)	Amount
None														

ATTACHMENT 6 (Acquisition of individual real estate with amount exceeding the lower of NT\$300 million or 20 percent of the capital stock for the three-month period ended March 31, 2019)

(Amount in thousand; Currency denomination in NTD or in foreign currencies)

Name of properties	Transaction date	Transaction amount	Payment status	Counter-party	Relationship	Where counter-party is a related party, details of prior transactions					Date of acquisition and status of utilization	Other commitments
						Former holder of property	Relationship between former holder and acquirer of property	Date of transaction	Transaction amount	Price reference		
None												

ATTACHMENT 7 (Disposal of individual real estate with amount exceeding the lower of NT\$300 million or 20 percent of the capital stock for the three-month period ended March 31, 2019)

(Amount in thousand; Currency denomination in NTD or in foreign currencies)

<u>Names of properties</u>	<u>Transaction date</u>	<u>Date of original acquisition</u>	<u>Carrying amount</u>	<u>Transaction amount</u>	<u>Status of proceeds collection</u>	<u>Gain (Loss) from disposal</u>	<u>Counter-party</u>	<u>Relationship</u>	<u>Reason of disposal</u>	<u>Price reference</u>	<u>Other commitments</u>
None											

ATTACHMENT 8 (Related party transactions for purchases and sales amounts exceeding the lower of NT\$100 million or 20 percent of capital stock for the three-month period ended March 31, 2019)

(Amount in thousand; Currency denomination in NTD or in foreign currencies)

UNITED MICROELECTRONICS CORPORATION

Counter-party	Relationship	Transactions				Details of non-arm's length transaction		Notes and accounts receivable (payable)		
		Purchases (Sales)	Amount	Percentage of total purchases (sales)	Term	Unit price	Term	Balance	Percentage of total receivables (payable)	Note
UMC GROUP (USA)	Subsidiary	Sales	\$10,672,008	37 %	Net 60 days	N/A	N/A	\$6,432,153	30 %	
UMC GROUP JAPAN	Subsidiary	Sales	1,196,454	4 %	Net 60 days	N/A	N/A	868,891	4 %	
UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	Subsidiary	Sales	281,350	1 %	Net 30 days	N/A	N/A	23,809	0 %	

UMC GROUP (USA)

Counter-party	Relationship	Transactions				Details of non-arm's length transaction		Notes and accounts receivable (payable)		
		Purchases (Sales)	Amount	Percentage of total purchases (sales)	Term	Unit price	Term	Balance	Percentage of total receivables (payable)	Note
UNITED MICROELECTRONICS CORPORATION	Parent company	Purchases	USD 335,639	97 %	Net 60 days	N/A	N/A	USD 209,108	96 %	
UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	Associate	Purchases	USD 10,476	3 %	Net 60 days	N/A	N/A	USD 6,805	3 %	

UMC GROUP JAPAN

Counter-party	Relationship	Transactions				Details of non-arm's length transaction		Notes and accounts receivable (payable)		
		Purchases (Sales)	Amount	Percentage of total purchases (sales)	Term	Unit price	Term	Balance	Percentage of total receivables (payable)	Note
UNITED MICROELECTRONICS CORPORATION	Parent company	Purchases	JPY 4,084,347	96 %	Net 60 days	N/A	N/A	JPY 3,135,876	96 %	

UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.

Counter-party	Relationship	Transactions				Details of non-arm's length transaction		Notes and accounts receivable (payable)		
		Purchases (Sales)	Amount	Percentage of total purchases (sales)	Term	Unit price	Term	Balance	Percentage of total receivables (payable)	Note
UMC GROUP (USA)	Associate	Sales	RMB 75,111	35 %	Net 60 days	N/A	N/A	RMB 45,819	27 %	

ATTACHMENT 9 (Receivables from related parties with amounts exceeding the lower of NT\$100 million or 20 percent of capital stock as of March 31, 2019)

(Amount in thousand; Currency denomination in NTD or in foreign currencies)

UNITED MICROELECTRONICS CORPORATION

Counter-party	Relationship	Ending balance				Turnover rate (times)	Overdue receivables		Amount received in subsequent period	Loss allowance
		Notes receivable	Accounts receivable	Other receivables	Total		Amount	Collection status		
UMC GROUP (USA)	Subsidiary	\$-	\$6,432,153	\$-	\$6,432,153	6.21	\$-	-	\$2,761,054	\$-
UMC GROUP JAPAN	Subsidiary	-	868,891	-	868,891	5.40	82,153	Collection in subsequent period	-	-
UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	Subsidiary	-	23,809	149,371	173,180	31.27	155,070	Collection in subsequent period	-	-

UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.

Counter-party	Relationship	Ending balance				Turnover rate (times)	Overdue receivables		Amount received in subsequent period	Loss allowance
		Notes receivable	Accounts receivable	Other receivables	Total		Amount	Collection status		
UMC GROUP (USA)	Associate	\$-	RMB 45,819	\$-	RMB 45,819	8.24	\$-	-	\$-	\$-

ATTACHMENT 10 (Names, locations and related information of investee companies as of March 31, 2019) (Not including investment in Mainland China)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

UNITED MICROELECTRONICS CORPORATION

Investee company	Address	Main businesses and products	Initial Investment				Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance		Beginning balance		Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
UMC GROUP (USA)	USA	IC Sales	USD	16,438	USD	16,438	16,438	100.00	\$1,703,924	\$(16,132)	\$(16,132)	
UNITED MICROELECTRONICS (EUROPE) B.V.	The Netherlands	Marketing support activities	USD	5,421	USD	5,421	9	100.00	143,605	690	690	
UMC CAPITAL CORP.	Cayman Islands	Investment holding	USD	81,500	USD	81,500	71,663	100.00	3,590,421	84,102	84,102	
GREEN EARTH LIMITED	Samoa	Investment holding	USD	977,000	USD	977,000	977,000	100.00	15,988,460	(1,554,947)	(1,554,947)	
TLC CAPITAL CO., LTD.	Taipei City, Taiwan	Venture capital		4,610,000		4,610,000	387,600	100.00	4,366,353	119,264	119,264	
UMC INVESTMENT (SAMOA) LIMITED	Samoa	Investment holding	USD	1,520	USD	1,520	1,520	100.00	43,093	185	185	
FORTUNE VENTURE CAPITAL CORP.	Taipei City, Taiwan	Consulting and planning for venture capital		4,160,053		4,160,053	462,000	100.00	5,271,808	14,509	14,509	
UMC GROUP JAPAN	Japan	IC Sales	JPY	60,000	JPY	60,000	1	100.00	72,542	26,591	26,591	
UMC KOREA CO., LTD.	Korea	Marketing support activities	KRW	550,000	KRW	550,000	110	100.00	20,532	168	168	
OMNI GLOBAL LIMITED	Samoa	Investment holding	USD	4,300	USD	4,300	4,300	100.00	582,322	8,081	8,081	
SINO PARAGON LIMITED	Samoa	Investment holding	USD	2,600	USD	2,600	2,600	100.00	112,295	(8,605)	(8,605)	
BEST ELITE INTERNATIONAL LIMITED	British Virgin Islands	Investment holding	USD	309,102	USD	309,102	664,966	100.00	23,573,170	(60,420)	(60,420)	
WAVETEK MICROELECTRONICS CORPORATION	Hsinchu County, Taiwan	Sales and manufacturing of integrated circuits		1,894,660		1,707,482	144,948	79.92	321,175	(163,149)	(129,303)	
NEXPOWER TECHNOLOGY CORP.	Taichung City, Taiwan	Sales and manufacturing of solar power batteries		5,956,791		5,956,791	33,998	47.75	3,886	(102,730)	(49,055)	
MTIC HOLDINGS PTE. LTD.	Singapore	Investment holding	SGD	12,000	SGD	12,000	12,000	45.44	2,088	(2,279)	(1,035)	
UNITECH CAPITAL INC.	British Virgin Islands	Investment holding	USD	21,000	USD	21,000	21,000	42.00	600,450	73,430	30,840	
TRIKNIGHT CAPITAL CORPORATION	Taipei City, Taiwan	Investment holding		1,680,000		1,680,000	168,000	40.00	1,555,118	86,356	34,543	
HSUN CHIEH INVESTMENT CO., LTD.	Taipei City, Taiwan	Investment holding		336,241		336,241	168,973	36.49	3,576,672	430,294	157,005	
YANN YUAN INVESTMENT CO., LTD.	Taipei City, Taiwan	Investment holding		2,300,000		2,300,000	46,000	30.87	2,958,878	(2,963)	(915)	
FARADAY TECHNOLOGY CORPORATION	Hsinchu City, Taiwan	Design of application-specific integrated circuit		38,918		38,918	34,240	13.78	1,476,371	(53,015)	(7,303)	

ATTACHMENT 10 (Names, locations and related information of investee companies as of March 31, 2019) (Not including investment in Mainland China)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

FORTUNE VENTURE CAPITAL CORP.

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
TERA ENERGY DEVELOPMENT CO., LTD.	Hsinchu City, Taiwan	Energy Technical Services	\$100,752	\$100,752	18,655	100.00	\$79,501	\$(2,755)	\$(2,755)	
PURIUMFIL INC.	Tainan City, Taiwan	Chemicals and filtration products & Microcontamination control service	10,000	-	1,000	44.45	9,622	(852)	(378)	
NEXPOWER TECHNOLOGY CORP.	Taichung City, Taiwan	Sales and manufacturing of solar power batteries	1,688,630	1,688,630	23,827	33.46	2,723	(102,730)	(34,378)	
WINAICO IMMOBILIEN GMBH	Germany	Solar project	EUR 5,900	EUR 5,900	5,900	32.78	-	-	-	
UNITED LED CORPORATION HONG KONG LIMITED	Hongkong	Investment holding	USD 22,500	USD 22,500	22,500	25.14	160,717	(44,060)	(11,077)	
CLIENTRON CORP.	Xinbei City, Taiwan	Thin client	283,439	283,439	14,247	22.39	255,322	17,292	3,472	
WAVETEK MICROELECTRONICS CORPORATION	Hsinchu County, Taiwan	Sales and manufacturing of integrated circuits	8,856	8,856	1,194	0.66	4,178	(163,149)	(1,112)	

TLC CAPITAL CO., LTD.

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
SOARING CAPITAL CORP.	Samoa	Investment holding	USD 900	USD 900	900	100.00	\$13,918	\$(556)	\$(556)	
YUNG LI INVESTMENTS, INC.	Taipei City, Taiwan	Investment holding	22,581	22,581	2,258	45.16	2,213	1	1	
HSUN CHIEH CAPITAL CORP.	Samoa	Investment holding	USD 6,000	USD 6,000	6,000	30.00	154,859	(23,159)	(6,948)	
VSENSE CO., LTD.	Taipei City, Taiwan	Medical devices, measuring equipment, reagents and consumables	95,916	95,916	4,251	26.89	29,788	(6,561)	(1,764)	
NEXPOWER TECHNOLOGY CORP.	Taichung City, Taiwan	Sales and manufacturing of solar power batteries	888,019	888,019	8,645	12.14	988	(102,730)	(12,474)	

UMC CAPITAL CORP.

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
UMC CAPITAL (USA)	USA	Investment holding	USD 200	USD 200	200	100.00	USD 547	USD 1	USD 1	
TRANSLINK CAPITAL PARTNERS I, L.P.	Cayman Islands	Investment holding	USD 4,036	USD 4,036	-	10.38	USD 3,911	USD (190)	USD (16)	

TERA ENERGY DEVELOPMENT CO., LTD.

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
EVERRICH ENERGY INVESTMENT (HK) LIMITED	Hongkong	Investment holding	USD 750	USD 750	750	100.00	\$32,800	\$(319)	\$(319)	

ATTACHMENT 10 (Names, locations and related information of investee companies as of March 31, 2019) (Not including investment in Mainland China)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

TERA ENERGY DEVELOPMENT CO., LTD.

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
WINAICO SOLAR PROJEKT 1 GMBH	Germany	Solar project	EUR 1,120	EUR 1,120	1,120	50.00	\$-	\$-	\$-	
WINAICO IMMOBILIEN GMBH	Germany	Solar project	EUR 2,160	EUR 2,160	2,160	12.00	-	-	-	

WAVETEK MICROELECTRONICS CORPORATION

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
WAVETEK MICROELECTRONICS INVESTMENT (SAMOA) LIMITED	Samoa	Investment holding	USD 1,500	USD 1,500	1,500	100.00	\$7,360	\$(1,753)	\$(1,753)	

WAVETEK MICROELECTRONICS INVESTMENT (SAMOA) LIMITED

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
WAVETEK MICROELECTRONICS CORPORATION (USA)	USA	Sales and marketing service	USD 60	USD 60	60	100.00	\$2,688	\$79	\$79	

NEXPOWER TECHNOLOGY CORP.

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
SOCIALNEX ITALIA 1 S.R.L.	Italy	Photovoltaic power plant	EUR 3,637	EUR 3,637	-	100.00	\$122,005	\$(1,221)	\$(1,221)	

BEST ELITE INTERNATIONAL LIMITED

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
INFOSHINE TECHNOLOGY LIMITED	British Virgin Islands	Investment holding	USD 354,000	USD 354,000	-	100.00	\$23,497,853	\$(59,345)	\$(59,345)	

INFOSHINE TECHNOLOGY LIMITED

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
OAKWOOD ASSOCIATES LIMITED	British Virgin Islands	Investment holding	USD 354,000	USD 354,000	-	100.00	\$23,497,853	\$(59,345)	\$(59,345)	

ATTACHMENT 10 (Names, locations and related information of investee companies as of March 31, 2019) (Not including investment in Mainland China)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

OMNI GLOBAL LIMITED

Investee company	Address	Main businesses and products	Initial Investment				Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance		Beginning balance		Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
UNITED MICROTECHNOLOGY CORPORATION (NEW YORK)	USA	Research & Development	USD	950	USD	950	0	100.00	\$30,961	\$(10)	\$(10)	
UNITED MICROTECHNOLOGY CORPORATION (CALIFORNIA)	USA	Research & Development	USD	1,000	USD	1,000	0	100.00	34,897	454	454	
ECP VITA PTE. LTD.	Singapore	Insurance	USD	9,000	USD	9,000	9,000	100.00	528,065	7,783	7,783	
UMC TECHNOLOGY JAPAN CO., LTD.	Japan	Semiconductor manufacturing technology development and consulting services	JPY	35,000	JPY	35,000	4	100.00	9,043	(73)	(73)	

GREEN EARTH LIMITED

Investee company	Address	Main businesses and products	Initial Investment		Investment as of March 31, 2019			Net income (loss) of investee company	Investment income (loss) recognized	Note
			Ending balance	Beginning balance	Number of shares (thousand)	Percentage of ownership (%)	Carrying amount			
UNITED MICROCHIP CORPORATION	Cayman	Investment holding	USD 974,050	USD 974,050	974,050	100.00	\$15,961,492	\$(1,555,117)	\$(1,555,117)	

ATTACHMENT 11 (Investment in Mainland China as of March 31, 2019)
(Amount in thousand; Currency denomination in NTD or in foreign currencies)

					Investment flows										
Investee company	Main businesses and products	Total amount of paid-in capital		Method of investment (Note 1)	Accumulated outflow of investment from Taiwan as of January 1, 2019	Outflow	Inflow	Accumulated outflow of investment from Taiwan as of March 31, 2019		Net income (loss) of investee company	Percentage of ownership	Investment income (loss) recognized (Note 2)	Carrying amount as of March 31, 2019	Accumulated inward remittance of earnings as of March 31, 2019	
UNITRUTH ADVISOR (SHANGHAI) CO., LTD.	Investment Holding and advisory	(USD	\$24,608 800)	(ii)SOARING CAPITAL CORP.	(USD	\$24,608 800)	\$-	\$-	(USD	\$24,608 800)	\$(557)	100.00%	\$(557) (iii)	\$13,680	\$-
EVERRICH (SHANDONG) ENERGY CO., LTD.	Solar engineering integrated design services	(USD	23,070 750)	(ii)EVERRICH ENERGY INVESTMENT (HK) LIMITED	(USD	23,070 750)	-	-	23,070 750)	(323)	100.00%	(323) (iii)	32,243	135,098 (USD 4,392)	
UNITED LED CORPORATION	Research, manufacturing and sales in LED epitaxial wafers	(USD	2,583,840 84,000)	(ii)UNITED LED CORPORATION HONG KONG LIMITED	(USD	622,890 20,250)	-	-	(USD	622,890 20,250)	(RMB (43,973) (9,656))	25.14%	(RMB (11,057) (2,428)) (ii)	(RMB 144,430 31,715)	-
HEJIAN TECHNOLOGY (SUZHOU) CO., LTD.	Sales and manufacturing of integrated circuits	(RMB	14,595,634 3,205,014)	(ii)OAKWOOD ASSOCIATES LIMITED	(USD	9,507,978 309,102)	-	-	9,507,978 309,102)	(66,798) (14,668))	98.14% (Note 4)	(RMB (65,555) (14,395)) (ii)	(RMB 22,718,148 4,988,614)	-	
UNITEDDS SEMICONDUCTOR (SHANDONG) CO., LTD.	Design support of integrated circuits	(RMB	136,620 30,000)	(iii)HEJIAN TECHNOLOGY (SUZHOU) CO., LTD.	-	-	-	-	(RMB 1,403 308)	98.14%	(RMB 1,375 302) (iii)	(RMB 196,838 43,223)	-		
UNITED SEMICONDUCTOR (XIAMEN) CO., LTD.	Sales and manufacturing of integrated circuits	(RMB	57,825,754 12,697,794)	(ii)UNITED MICROCHIP CORPORATION and (iii)HEJIAN TECHNOLOGY (SUZHOU) CO., LTD.	(USD	29,682,354 964,966) (Note 5)	-	-	29,682,354 964,966) (Note 5)	(RMB (3,061,991) (672,374))	64.95%	(RMB (1,988,673) (436,687)) (ii)	(RMB 20,531,281 4,508,406)	-	
Accumulated investment in Mainland China as of March 31, 2019		Investment amounts authorized by Investment Commission, MOEA			Upper limit on investment										
\$39,860,900 (USD 1,295,868)		\$50,068,821 (USD 1,627,725)			\$125,616,767										