ASE Technology Holding Co., Ltd. and Subsidiaries

Consolidated Financial Statements for the Six months Ended June 30, 2020 and 2019 and Independent Auditors' Review Report

Deloitte.

勤業眾信

勤業眾信聯合會計師事務所
11073 台北市信義區松仁路100號20樓

Deloitte & Touche
20F, Taipei Nan Shan Plaza
No. 100, Songren Rd.,
Xinyi Dist., Taipei 11073, Taiwan

Tel :+886 (2) 2725-9988
Fax:+886 (2) 4051-6888
www.deloitte.com.tw

INDEPENDENT AUDITORS' REVIEW REPORT

The Board of Directors and Shareholders
ASE Technology Holding Co., Ltd.

Introduction

We have reviewed the accompanying consolidated balance sheets of ASE Technology Holding Co., Ltd. (the "Company") and its subsidiaries (collectively, the "Group") as of June 30, 2020 and 2019, the related consolidated statements of comprehensive income for the three months ended June 30, 2020 and 2019 and for the six months ended June 30, 2020 and 2019, the consolidated statements of changes in equity and cash flows for the six months then ended, and the related notes to the consolidated financial statements, including a summary of significant accounting policies (collectively referred to as the "consolidated financial statements"). Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Accounting Standard No. 34 "Interim Financial Reporting" endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China. Our responsibility is to express a conclusion on the 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". 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 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 report of other auditors (please refer to the Other Matter paragraph), nothing has come to our attention that caused us to believe that the accompanying consolidated financial statements do not present fairly, in all material respects, the consolidated financial position of the Group as of June 30, 2020 and 2019, its consolidated financial performance for the three months ended June 30, 2020 and 2019 and for the six months ended June 30, 2020 and 2019, and its consolidated cash flows for the six months ended June 30, 2020 and 2019 in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Accounting Standard No. 34 "Interim Financial Reporting" endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China.

Other Matter

We did not review the consolidated financial statements of Siliconware Precision Industries Co., Ltd. (SPIL), a subsidiary included in the consolidated financial statements of the Group, but such statements were reviewed by other auditors. Our conclusion, insofar as it relates to the amounts included for SPIL, is based solely on the report of other auditors. The total assets of SPIL constituted 24% and 23%, respectively, of consolidated total assets as of June 30, 2020 and 2019, and total the revenues of SPIL constituted 25%, 24%, 25% and 22%, respectively, of consolidated total revenues for the three months ended June 30, 2020 and 2019 and for the six months ended June 30, 2020 and 2019.

The engagement partners on the reviews resulting in this independent auditors' review report are Shih-Tsung Wu and Jia-Ling Chiang.

Deloitte & Touche
Taipei, Taiwan
Republic of China

August 5, 2020

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

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

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

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
(In Thousands of New Taiwan Dollars)

	June 30, 2020 (Reviewed)		December 31, 2019 (Audited)		June 30, 2019 (Retrospectively Adjusted and Reviewed)	
ASSETS	**NT$**	**%**	**NT$**	**%**	**NT$**	**%**
CURRENT ASSETS						
Cash and cash equivalents (Note 6)	$ 58,222,869	11	$ 60,130,875	11	$ 55,090,380	10
Financial assets at fair value through profit or loss - current (Note 7)	4,694,250	1	4,127,566	1	7,490,233	1
Contract assets - current (Note 41)	6,166,873	1	5,897,316	1	4,710,210	1
Trade receivables, net (Note 10)	73,763,292	13	78,948,473	15	67,242,090	13
Other receivables	1,697,486	-	1,293,819	-	1,792,771	-
Current tax assets	572,079	-	553,092	-	511,617	-
Inventories (Note 11)	38,870,756	7	33,883,750	6	36,649,929	7
Inventories related to real estate business (Notes 12 and 35)	11,778,654	2	11,416,726	2	10,347,007	2
Other financial assets - current (Notes 13 and 35)	788,493	-	765,834	-	3,699,953	1
Other current assets	5,958,746	1	4,983,667	1	4,129,034	1
Total current assets	202,513,498	36	202,001,118	37	191,663,224	36
NON-CURRENT ASSETS						
Financial assets at fair value through profit or loss - non-current (Note 7)	1,305,971	-	1,161,430	-	962,545	-
Financial assets at fair value through other comprehensive income - non-current (Note 8)	1,771,311	-	1,770,775	-	1,779,046	-
Investments accounted for using the equity method (Note 14)	9,322,434	2	12,171,589	2	9,449,063	2
Property, plant and equipment (Notes 15, 25, 35 and 36)	238,756,533	43	232,093,327	42	219,799,149	41
Right-of-use assets (Note 16)	9,090,922	2	9,792,221	2	10,423,646	2
Investment properties (Notes 17, 25 and 35)	12,308,998	2	12,854,071	2	13,800,739	3
Goodwill (Notes 18 and 29)	49,522,483	9	49,542,631	9	49,477,472	9
Other intangible assets (Notes 19, 25 and 29)	27,631,921	5	29,024,392	5	30,269,286	6
Deferred tax assets	4,376,041	1	4,707,704	1	4,996,179	1
Other financial assets - non-current (Notes 13 and 35)	550,289	-	559,493	-	969,607	-
Other non-current assets	1,441,906	-	975,532	-	1,219,146	-
Total non-current assets	356,078,809	64	354,653,165	63	343,145,878	64
TOTAL	$ 558,592,307	100	$ 556,654,283	100	$ 534,809,102	100

(Continued)

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
(In Thousands of New Taiwan Dollars)

LIABILITIES AND EQUITY	June 30, 2020 (Reviewed) NT$	%	December 31, 2019 (Audited) NT$	%	June 30, 2019 (Retrospectively Adjusted and Reviewed) NT$	%
CURRENT LIABILITIES						
Short-term borrowings (Note 20)	$ 42,311,953	8	$ 37,339,028	7	$ 49,582,477	9
Financial liabilities at fair value through profit or loss - current (Note 7)	756,610	-	973,571	-	159,578	-
Financial liabilities for hedging - current (Notes 20 and 33)	3,502,467	1	3,233,301	1	3,954,589	1
Trade payables	54,399,880	10	56,065,639	10	45,294,976	9
Dividends payable	8,522,480	2	-	-	10,624,147	2
Other payables (Note 22)	41,359,442	7	39,181,690	7	35,201,358	7
Current tax liabilities	3,216,685	-	2,822,912	1	2,694,054	1
Lease liabilities - current (Note 16)	636,044	-	632,802	-	770,594	-
Current portion of bonds payable (Note 21)	7,249,130	1	250,000	-	-	-
Current portion of long-term borrowings (Notes 20 and 35)	4,117,098	1	5,112,768	1	6,290,934	1
Other current liabilities	6,552,935	1	6,652,925	1	5,920,201	1
Total current liabilities	172,624,724	31	152,264,636	28	160,492,908	31
NON-CURRENT LIABILITIES						
Bonds payable (Note 21)	39,262,484	7	36,272,155	7	27,219,491	5
Long-term borrowings (Notes 20 and 35)	115,518,197	21	135,965,830	24	112,355,180	21
Deferred tax liabilities	5,689,680	1	5,694,113	1	5,566,923	1
Lease liabilities - non-current (Note 16)	4,880,533	1	5,176,123	1	5,224,461	1
Net defined benefit liabilities (Note 23)	5,168,114	1	5,254,401	1	5,077,912	1
Other non-current liabilities	1,513,073	-	1,680,346	-	1,400,220	-
Total non-current liabilities	172,032,081	31	190,042,968	34	156,844,187	29
Total liabilities	344,656,805	62	342,307,604	62	317,337,095	60
EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY (Note 24)						
Share capital						
Ordinary shares	43,347,111	8	43,254,026	8	43,226,257	8
Shares subscribed in advance	36,460	-	51,261	-	11,532	-
Total share capital	43,383,571	8	43,305,287	8	43,237,789	8
Capital surplus	139,500,671	25	138,908,912	25	143,582,210	27
Retained earnings						
Legal reserve	3,901,384	1	2,203,895	-	2,203,895	-
Special reserve	10,847,697	2	6,902,782	1	6,902,782	1
Unappropriated earnings	18,980,254	3	22,454,651	4	10,313,252	2
Total retained earnings	33,729,335	6	31,561,328	5	19,419,929	3
Other equity	(14,245,094)	(3)	(10,847,697)	(2)	(4,979,109)	(1)
Treasury shares	(1,959,107)	-	(1,959,107)	-	(1,959,107)	-
Equity attributable to owners of the Company	200,409,376	36	200,968,723	36	199,301,712	37
NON-CONTROLLING INTERESTS (Note 24)	13,526,126	2	13,377,956	2	18,170,295	3
Total equity	213,935,502	38	214,346,679	38	217,472,007	40
TOTAL	$ 558,592,307	100	$ 556,654,283	100	$ 534,809,102	100

The accompanying notes are an integral part of the consolidated financial statements.
(With Deloitte & Touche review report dated August 5, 2020) (Concluded)

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In Thousands of New Taiwan Dollars Except Earnings Per Share)
(Reviewed, Not Audited)

	For the Three Months Ended June 30				For the Six Months Ended June 30			
	2020		2019 (Retrospectively Adjusted)		2020		2019 (Retrospectively Adjusted)	
	NT$	%	NT$	%	NT$	%	NT$	%
OPERATING REVENUES (Note 41)	$ 107,548,773	100	$ 90,740,909	100	$ 204,905,928	100	$ 179,602,355	100
OPERATING COSTS (Notes 11 and 25)	88,739,372	83	76,771,842	85	169,940,879	83	154,248,407	86
GROSS PROFIT	18,809,401	17	13,969,067	15	34,965,049	17	25,353,948	14
OPERATING EXPENSES (Note 25)								
Selling and marketing expenses	1,389,835	1	1,446,181	2	2,705,519	1	2,877,909	2
General and administrative expenses	4,155,655	4	3,865,203	4	8,323,734	4	7,569,864	4
Research and development expenses	4,837,373	4	4,514,834	5	9,446,552	5	8,470,197	6
Total operating expenses	10,382,863	9	9,826,218	11	20,475,805	10	18,917,970	12
PROFIT FROM OPERATIONS	8,426,538	8	4,142,849	4	14,489,244	7	6,435,978	2
NON-OPERATING INCOME AND EXPENSES								
Other income (Note 25)	413,283	-	482,920	1	797,709	-	791,190	-
Other gains and losses (Note 25)	855,656	1	736,114	1	701,699	-	2,023,365	1
Finance costs (Note 25)	(922,036)	(1)	(1,051,906)	(1)	(1,940,139)	(1)	(2,151,496)	(1)
Share of the profit (loss) of associates and joint ventures	105,527	-	113,976	-	66,809	-	(39,889)	-
Total non-operating income and expenses	452,430	-	281,104	1	(373,922)	(1)	623,170	-
PROFIT BEFORE INCOME TAX	8,878,968	8	4,423,953	5	14,115,322	6	7,059,148	2
INCOME TAX EXPENSE (Note 26)	1,645,553	2	1,623,590	2	2,820,578	1	2,028,481	1
NET PROFIT FOR THE YEAR	7,233,415	6	2,800,363	3	11,294,744	5	5,030,667	1
OTHER COMPREHENSIVE INCOME (LOSS)								
Items that will not be reclassified subsequently to profit or loss:								
Unrealized loss on equity investments at fair value through other comprehensive income	(26,083)	-	(101,471)	-	(144,099)	-	(104,318)	-
Share of other comprehensive income (loss) of associates and joint ventures	661,257	1	159,272	-	(228,206)	-	593,083	-
	635,174	1	57,801	-	(372,305)	-	488,765	-

(Continued)

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In Thousands of New Taiwan Dollars Except Earnings Per Share)
(Reviewed, Not Audited)

	For the Three Months Ended June 30				For the Six Months Ended June 30			
	2020		2019 (Retrospectively Adjusted)		2020		2019 (Retrospectively Adjusted)	
	NT$	%	NT$	%	NT$	%	NT$	%
Items that may be reclassified subsequently to profit or loss:								
Exchange differences on translating foreign operations	$ (2,781,550)	(3)	$ (614,906)	(1)	$ (3,265,049)	(2)	$ 1,671,793	1
Unrealized loss on debt investments at fair value through other comprehensive income	(420)	-	(424)	-	(914)	-	(878)	-
Share of other comprehensive income (loss) of associates and joint ventures	(26,261)	-	1,682	-	(27,428)	-	21,790	-
	(2,808,231)	(3)	(613,648)	(1)	(3,293,391)	(2)	1,692,705	1
Other comprehensive income (loss) for the year, net of income tax	(2,173,057)	(2)	(555,847)	(1)	(3,665,696)	(2)	2,181,470	1
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	$ 5,060,358	4	$ 2,244,516	2	$ 7,629,048	3	$ 7,212,137	2
NET PROFIT ATTRIBUTABLE TO:								
Owners of the Company	$ 6,937,596	6	$ 2,690,037	3	$ 10,836,225	5	$ 4,732,990	3
Non-controlling interests	295,819	-	110,326	-	458,519	-	297,677	-
	$ 7,233,415	6	$ 2,800,363	3	$ 11,294,744	5	$ 5,030,667	3
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:								
Owners of the Company	$ 4,961,601	5	$ 2,263,284	2	$ 7,439,167	3	$ 6,755,778	4
Non-controlling interests	98,757	-	(18,768)	-	189,881	-	456,359	(1)
	$ 5,060,358	5	$ 2,244,516	2	$ 7,629,048	3	$ 7,212,137	3
EARNINGS PER SHARE (Note 27)								
Basic	$ 1.63		$ 0.63		$ 2.54		$ 1.11	
Diluted	$ 1.60		$ 0.62		$ 2.49		$ 1.08	

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

(With Deloitte & Touche review report dated August 5, 2020) (Concluded)

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(In Thousands of New Taiwan Dollars)
(Reviewed, Not Audited)

	Equity Attributable to Owners of the Company												Non-controlling Interests	Total Equity
	Share Capital			Retained Earnings				Other Equity						
	Shares (In Thousands)	Amounts	Capital Surplus	Legal Reserve	Special Reserve	Unappropriated Earnings	Total	Exchange Differences on Translating Foreign Operations	Unrealized Gain (Loss) on Financial Assets at Fair Value Through Other Comprehensive Income	Total	Treasury Shares	Total		
BALANCE AT JANUARY 1, 2019	4,321,714	$ 43,217,144	$ 143,275,213	$ -	$ 3,353,938	$ 22,038,948	$ 25,392,886	$ (5,887,675)	$ (1,015,107)	$ (6,902,782)	$ (1,959,107)	$ 203,023,354	$ 17,647,190	$ 220,670,544
Appropriation of 2018 earnings														
Legal reserve	-	-	-	2,203,895	-	(2,203,895)	-	-	-	-	-	-	-	-
Special reserve	-	-	-	-	3,548,844	(3,548,844)	-	-	-	-	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(10,806,454)	(10,806,454)	-	-	-	-	(10,806,454)	-	(10,806,454)
	-	-	-	2,203,895	3,548,844	(16,559,193)	(10,806,454)	-	-	-	-	(10,806,454)	-	(10,806,454)
Changes from investments in associates accounted for using the equity method	-	-	744	-	-	-	-	-	-	-	-	744	-	744
Net profit for the six months ended June 30, 2019	-	-	-	-	-	4,732,990	4,732,990	-	-	-	-	4,732,990	297,677	5,030,667
Other comprehensive income for the six months ended June 30, 2019, net of income tax	-	-	-	-	-	3,070	3,070	1,532,998	486,720	2,019,718	-	2,022,788	158,682	2,181,470
Total comprehensive income for the six months ended June 30, 2019	-	-	-	-	-	4,736,060	4,736,060	1,532,998	486,720	2,019,718	-	6,755,778	456,359	7,212,137
Cash dividends received by subsidiaries from the Company	-	-	182,354	-	-	-	-	-	-	-	-	182,354	-	182,354
Disposal of interest in associates and joint ventures accounted for using the equity method (Note 14)	-	-	(75,276)	-	-	1,392	1,392	-	-	-	-	(73,884)	-	(73,884)
Differences between consideration and carrying amount arising from acquisition or disposal of subsidiaries (Notes 29 and 30) (Retrospectively Adjusted)	-	-	(82,903)	-	-	-	-	-	-	-	-	(82,903)	394,328	311,425
Changes in percentage of ownership interest in subsidiaries (Note 30)	-	-	(189,020)	-	-	-	-	-	-	-	-	(189,020)	-	(189,020)
Issue of ordinary shares under employee share options (Note 28)	2,065	20,645	471,098	-	-	-	-	-	-	-	-	491,743	-	491,743
Cash dividends distributed by subsidiaries	-	-	-	-	-	-	-	-	-	-	-	-	(360,245)	(360,245)
Additional non-controlling interest arising on issue of employee share options by subsidiaries (Note 28)	-	-	-	-	-	-	-	-	-	-	-	-	32,663	32,663
Disposal of investments in equity instruments at fair value through other comprehensive income	-	-	-	-	-	96,045	96,045	-	(96,045)	(96,045)	-	-	-	-
ADJUSTED BALANCE AT JUNE 30, 2019	4,323,779	$ 43,237,789	$ 143,582,210	$ 2,203,895	$ 6,902,782	$ 10,313,252	$ 19,419,929	$ (4,354,677)	$ (624,432)	$ (4,979,109)	$ (1,959,107)	$ 199,301,712	$ 18,170,295	$ 217,472,007
BALANCE AT JANUARY 1, 2020	4,330,528	$ 43,305,287	$ 138,908,912	$ 2,203,895	$ 6,902,782	$ 22,454,651	$ 31,561,328	$ (10,761,785)	$ (85,912)	$ (10,847,697)	$ (1,959,107)	$ 200,968,723	$ 13,377,956	$ 214,346,679
Appropriation of 2019 earnings														
Legal reserve	-	-	-	1,697,489	-	(1,697,489)	-	-	-	-	-	-	-	-
Special reserve	-	-	-	-	3,944,915	(3,944,915)	-	-	-	-	-	-	-	-
Cash dividends distributed by the Company	-	-	-	-	-	(8,668,331)	(8,668,331)	-	-	-	-	(8,668,331)	-	(8,668,331)
	-	-	-	1,697,489	3,944,915	(14,310,735)	(8,668,331)	-	-	-	-	(8,668,331)	-	(8,668,331)
Changes from investments in associates accounted for using the equity method	-	-	18,517	-	-	(340)	(340)	-	-	-	-	18,177	-	18,177
Other changes in the capital surplus	-	-	14	-	-	-	-	-	-	-	-	14	-	14

(Continued)

	Equity Attributable to Owners of the Company															
	Share Capital			Retained Earnings				Other Equity							
	Shares (In Thousands)	Amounts	Capital Surplus	Legal Reserve	Special Reserve	Unappropriated Earnings	Total	Exchange Differences on Translating Foreign Operations	Unrealized Gain (Loss) on Financial Assets at Fair Value Through Other Comprehensive Income	Total	Treasury Shares	Total	Non-controlling Interests	Total Equity
Net profit for the six months ended June 30, 2020	-	$ -	$ -	$ -	$ -	$ 10,836,225	$ 10,836,225	$ -	$ -	$ -	$ -	$ 10,836,225	$ 458,519	$ 11,294,744
Other comprehensive income (loss) for the six months ended June 30, 2020, net of income tax	-	-	-	-	-	1,396	1,396	(3,025,761)	(372,693)	(3,398,454)	-	(3,397,058)	(268,638)	(3,665,696)
Total comprehensive income (loss) for the six months ended June 30, 2020, net of income tax	-	-	-	-	-	10,837,621	10,837,621	(3,025,761)	(372,693)	(3,398,454)	-	7,439,167	189,881	7,629,048
Cash dividends received by subsidiaries from the Company	-	-	145,883	-	-	-	-	-	-	-	-	145,883	-	145,883
Disposal of interest in associates accounted for using the equity method (Note 14)	-	-	2,199	-	-	(980)	(980)	-	1,094	1,094	-	2,313	-	2,313
Differences between consideration and carrying amount arising from acquisition or disposal of subsidiaries (Note 30)	-	-	(13,502)	-	-	-	-	-	-	-	-	(13,502)	(116,738)	(130,240)
Issue of ordinary shares under employee share options (Note 28)	7,828	78,284	627,710	-	-	-	-	-	-	-	-	705,994	-	705,994
Cash dividends distributed by subsidiaries	-	-	-	-	-	-	-	-	-	-	-	-	(346,774)	(346,774)
Additional non-controlling interest arising on issue of employee share options by subsidiaries (Note 28)	-	-	(189,062)	-	-	-	-	-	-	-	-	(189,062)	421,801	232,739
Disposal of investments in equity instruments at fair value through other comprehensive income	-	-	-	-	-	37	37	-	(37)	(37)	-	-	-	-
BALANCE AT JUNE 30, 2020	4,338,356	$ 43,383,571	$ 139,500,671	$ 3,901,384	$ 10,847,697	$ 18,980,254	$ 33,729,335	$ (13,787,546)	$ (457,548)	$ (14,245,094)	$ (1,959,107)	$ 200,409,376	$ 13,526,126	$ 213,935,502

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

(With Deloitte & Touche review report dated August 5, 2020) (Concluded)

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands of New Taiwan Dollars)
(Reviewed, Not Audited)

	For the Six Months Ended June 30	
	2020	2019
	NT$	NT$
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit before income tax	$ 14,115,322	$ 7,059,148
Adjustments for:		
Depreciation expense	23,622,738	23,460,281
Amortization expense	1,849,847	1,751,917
Net gain on fair value change of financial assets and liabilities at fair value through profit or loss	(168,574)	(2,358,751)
Finance costs	1,940,139	2,151,496
Interest income	(268,378)	(266,863)
Dividend income	(49,472)	(104,018)
Compensation cost of employee share options	460,409	438,915
Share of (profit) loss of associates and joint ventures	(66,809)	39,889
Loss on disposal of property, plant and equipment	39,578	39,888
Gain on disposal of investments accounted for using the equity method	(91,297)	-
Impairment loss recognized on non-financial assets	516,639	464,015
Remeasurement gain on investments accounted for using the equity method	-	(319,712)
Net (gain) loss on foreign currency exchange	(878,754)	591,508
Others	16,357	7,970
Changes in operating assets and liabilities		
Financial assets mandatorily at fair value through profit or loss	226,142	2,198,511
Contract assets	(269,557)	(221,710)
Trade receivables	5,193,926	12,620,128
Other receivables	(160,935)	(281,507)
Inventories	(5,706,873)	(208,728)
Other current assets	(984,606)	(686,721)
Financial liabilities held for trading	(1,033,992)	(375,732)
Trade payables	(1,665,759)	(11,740,139)
Other payables	917,723	(1,179,566)
Other current liabilities	(187,838)	(69,329)
Other operating activities items	(124,754)	205,123
Cash generated from operations	37,241,222	33,216,013
Interest received	270,803	295,703
Dividend received	145,472	104,018
Interest paid	(2,061,088)	(2,167,108)
Income tax paid	(2,142,957)	(3,808,051)
Net cash generated from operating activities	33,453,452	27,640,575

(Continued)

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands of New Taiwan Dollars)
(Reviewed, Not Audited)

	For the Six Months Ended June 30	
	2020	2019
	NT$	NT$
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of financial assets at fair value through other comprehensive income	$ (159,283)	$ (289,465)
Return of capital from financial assets at fair value through other comprehensive income	9,988	4,945
Acquisition of associates and joint ventures	-	(49,497)
Proceeds from disposal of investments accounted for using the equity method	2,271,618	-
Net cash inflow on acquisition of subsidiaries	-	122,693
Return of capital from investees accounted for using the equity method	125,005	-
Payments for property, plant and equipment	(30,516,318)	(20,759,339)
Proceeds from disposal of property, plant and equipment	323,957	430,694
Payments for intangible assets	(473,076)	(809,593)
Proceeds from disposal of intangible assets	-	6,909
Payments for right-of-use assets	(4,682)	(806)
Payments for investment properties	(6,352)	-
Proceeds from disposal of investment properties	-	5
Increase in other financial assets	(356,663)	(1,817,279)
Decrease in other financial assets	330,363	4,798,568
Increase in other non-current assets	(192,381)	(1,293)
Decrease in other non-current assets	26,520	10,405
Other investing activities items	125,724	-
Net cash used in investing activities	(28,495,580)	(18,353,053)
CASH FLOWS FROM FINANCING ACTIVITIES		
Net proceeds from short-term borrowings	9,603,174	5,455,074
Proceeds from bonds offering	9,983,557	9,984,000
Proceeds from long-term borrowings	74,110,239	86,350,381
Repayment of long-term borrowings	(98,707,684)	(107,482,903)
Repayment of the principle portion of lease liabilities	(301,839)	(358,150)
Proceeds from exercise of employee share options	475,438	85,491
Decrease in non-controlling interests	(419,885)	(760,020)
Other financing activities items	(15,540)	(14,494)
Net cash generated used in financing activities	(5,272,540)	(6,740,621)

(Continued)

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands of New Taiwan Dollars)
(Reviewed, Not Audited)

	For the Six Months Ended June 30	
	2020	**2019**
	NT$	**NT$**
EFFECTS OF EXCHANGE RATE CHANGES ON THE BALANCE OF CASH AND CASH EQUIVALENTS	$ (1,593,338)	$ 1,025,043
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(1,908,006)	3,571,944
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD	60,130,875	51,518,436
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	$ 58,222,869	$ 55,090,380

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

(With Deloitte & Touche review report dated August 5, 2020) (Concluded)

1. GENERAL INFORMATION

ASE Technology Holding Co., Ltd. (the "Company") is a corporation incorporated in Nantze Export Processing Zone under the laws of Republic of China ("R.O.C.") starting from April 30, 2018 (date of incorporation). The Company and its subsidiaries (collectively referred to as the "Group") offer a comprehensive range of semiconductors packaging, testing, and electronic manufacturing services ("EMS").

The board of directors of the Company's subsidiaries, Advanced Semiconductor Engineering, Inc. (symbol "2311", "ASE") and Siliconware Precision Industries Co., Ltd. (symbol "2325", "SPIL"), approved in June 2016 to enter into and execute a joint share exchange agreement to establish the Company and the Company acquired all issued and outstanding ordinary shares of ASE and SPIL in the way of share exchange. The share exchange transaction has been approved both at ASE's and SPIL's special shareholders' meeting on February 12, 2018 and has been completed on April 30, 2018. As a result, ASE and SPIL became wholly-owned subsidiaries of the Company on April 30, 2018, and both of ASE's and SPIL's ordinary shares have been delisted while the ordinary shares of the Company were listed starting from the same date under the symbol "3711". In addition, ASE's ordinary shares that have been traded on the New York Stock Exchange (the "NYSE") under the symbol "ASX" in the form of American Depositary Shares ("ADS") starting from September 2000 were exchanged as the Company's ADSs under the same symbol "ASX" starting from April 30, 2018.

For enhancing operational flexibility through organization restructure, ASE spun off its investment department which was responsible for managing the ordinary shares and assets of USI Inc. ("USIINC") as well as relevant assets (including assets, liabilities and business) into a newly established company, USI Global Inc. (the "USI Global"), in November 2018. USI Global then issued new ordinary shares to the Company as a consideration. In January 2019, the Company further merged USI Global.

The ordinary shares of the Company's subsidiary, Universal Scientific Industrial (Shanghai) Co., Ltd. ("USISH"), have been listed on the Shanghai Stock Exchange under the symbol "601231" since February 2012.

The consolidated financial statements are presented in the Company's functional currency, New Taiwan dollar (NT$).

2. APPROVAL OF FINANCIAL STATEMENTS

The consolidated financial statements were authorized for issue by the board of directors on August 5, 2020.

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

a. Initial application of the amendments to the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) (collectively, the “IFRSs”) endorsed and issued into effect by the Financial Supervisory Commission (the “FSC”)

   Except for the following, the initial application of the IFRSs endorsed and issued into effect by the FSC did not have material impact on the Group’s accounting policies:

   1) Amendments to IFRS 3 “Definition of a Business”

      The Group applies the amendments to IFRS 3 to transactions that occur on or after January 1, 2020. The amendments require that to be considered a business, an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. To judge whether the acquired process is substantive, there will be different judgement requirements depending on whether there is output on the acquisition date. In addition, the amendments introduce an optional concentration test that permits a simplified assessment of whether or not an acquired set of activities and assets is a business.

   2) Amendments to IFRS 9, IAS 39 and IFRS 7 “Interest Rate Benchmark Reform”

      Upon retrospective application of the amendments, the Group complied with the hedge accounting requirements under the assumption that the interest rate benchmark (such as the London Interbank Offered Rate or LIBOR) on which the hedged cash flows and cash flows from the hedging instrument are based will not be altered as a result of interest rate benchmark reform.

   3) Amendments to IAS 1 and IAS 8 “Definition of Material”

      The Group adopted the amendments starting from January 1, 2020. The threshold for materiality influencing users has been changed to “could reasonably be expected to influence” and, therefore, the disclosures in the consolidated financial report have been adjusted and immaterial information that may obscure material information has been deleted.

   4) Amendment to IFRS 16 “COVID-19-Related Rent Concessions”

      The Group elected to apply the practical expedient provided in the amendment to IFRS 16 with respect to rent concessions negotiated with the lessor as a direct consequence of the COVID-19. Related accounting policies are stated in Note 4. Before the application of the amendment, the Group was required to determine whether the abovementioned rent concessions are lease modifications and thus have to be accounted for as lease modifications.

      The Group applied the amendment from January 1, 2020. Retrospective application of the amendment has no impact on the retained earnings as of January 1, 2020.

b. The IFRSs issued by International Accounting Standards Board (IASB) but not yet endorsed and issued into effect by the FSC

New, Revised or Amended Standards and Interpretations	Effective Date Announced by IASB (Note 1)
“Annual Improvements to IFRS Standards 2018–2020”	January 1, 2022 (Note 2)
Amendments to IFRS 3 “Reference to the Conceptual Framework”	January 1, 2022 (Note 3)
Amendments to IFRS 10 and IAS 28 “Sale or Contribution of Assets between an Investor and its Associate or Joint Venture”	To be determined by IASB

(Continued)

New, Revised or Amended Standards and Interpretations	Effective Date Announced by IASB (Note 1)
Amendments to IAS 1 “Classification of Liabilities as Current or Non-current”	January 1, 2023
Amendments to IAS 16 “Property, Plant and Equipment - Proceeds before Intended Use”	January 1, 2022 (Note 4)
Amendments to IAS 37 “Onerous Contracts–Cost of Fulfilling a Contract”	January 1, 2022 (Note 5)

(Concluded)

Note 1: Unless stated otherwise, the above New IFRSs are effective for annual reporting periods beginning on or after their respective effective dates.

Note 2: The amendments to IFRS 9 are applied prospectively to modifications and exchanges of financial liabilities that occur on or after the annual reporting periods beginning on or after January 1, 2022. The amendments to IFRS 1 “First-time Adoptions of IFRSs” are applied retrospectively for annual reporting periods beginning on or after January 1, 2022.

Note 3: The amendments are applicable to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2022.

Note 4: The amendments are applicable to property, plant and equipment that are brought to the location and condition necessary for them to be capable of operating in the manner intended by management on or after January 1, 2021.

Note 5: The amendments are applicable to contracts for which the entity has not yet fulfilled all its obligations on January 1, 2022.

Amendments to IAS 1 “Classification of Liabilities as Current or Non-current”

The amendments clarify that for a liability to be classified as non-current, the Group shall assess whether it has the right at the end of the reporting period to defer settlement of the liability for at least twelve months after the reporting period. If such rights are in existence at the end of the reporting period, the liability is classified as non-current regardless of whether the Group will exercise that right. The amendments also clarify that, if the right to defer settlement is subject to compliance with specified conditions, the Group must comply with those conditions at the end of the reporting period even if the lender does not test compliance until a later date.

The amendments stipulate that, for the purpose of liability classification, the aforementioned settlement refers to a transfer of cash, other economic resources or the Group’s own equity instruments to the counterparty that results in the extinguishment of the liability. However, if the terms of a liability that could, at the option of the counterparty, result in its settlement by a transfer of the Group’s own equity instruments, and if such option is recognized separately as equity in accordance with IAS 32: Financial Instruments: Presentation, the aforementioned terms would not affect the classification of the liability.

Amendments to IAS 16 “Property, Plant and Equipment: Proceeds before Intended Use”

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. The cost of those items is measured in accordance with IAS 2 “Inventories”. Any proceeds from selling those items and the cost of those items are recognized in profit or loss in accordance with applicable standards.

The amendments are applicable only to items of property, plant and equipment that are brought to the location and condition necessary for them to be capable of operating in the manner intended by management on or after January 1, 2021.

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

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Statement of Compliance

These interim consolidated financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and IAS 34 "Interim Financial Reporting" as endorsed and issued into effect by the FSC. Disclosure information included in these interim consolidated financial statements is less than the disclosure information required in a complete set of annual financial statements.

b. Basis of Preparation

The consolidated financial statements have been prepared on the historical cost basis except for financial instruments measured at fair value and net defined benefit liabilities which are measured at the present value of the defined benefit obligation less the fair value of plan assets.

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

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

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

3) Level 3 inputs are unobservable inputs for an asset or a liability.

c. Basis of Consolidation

1) Principles for preparing consolidated financial statements

The basis for the consolidated financial statements applied in these interim consolidated financial statements is consistent with those applied in the consolidated financial statements for the year ended December 31, 2019.

2) Subsidiaries included in consolidated financial statements were as follows:

Name of Investor	Name of Investee	Main Businesses	Establishment and Operating Location	Percentage of Ownership (%) June 30, 2020	December 31, 2019	June 30, 2019
The Company	ASE	Engaged in the packaging and testing of semiconductors	R.O.C.	100.0	100.0	100.0
	USIINC	Holding company	R.O.C.	100.0	100.0	100.0
	SPIL	Engaged in the assembly, testing and turnkey services of integrated circuits	R.O.C.	100.0	100.0	100.0

(Continued)

Name of Investor	Name of Investee	Main Businesses	Establishment and Operating Location	Percentage of Ownership (%) June 30, 2020	December 31, 2019	June 30, 2019
ASE	A.S.E. Holding Limited	Holding company	Bermuda	100.0	100.0	100.0
	J & R Holding Limited ("J&R Holding")	Holding company	Bermuda	100.0	100.0	100.0
	Innosource Limited	Holding company	British Virgin Islands	100.0	100.0	100.0
	Omniquest Industrial Limited	Holding company	British Virgin Islands	71.0	71.0	70.6
	ASE Marketing & Service Japan Co., Ltd.	Engaged in marketing and sales services	Japan	100.0	100.0	100.0
	ASE Test, Inc.	Engaged in the testing of semiconductors	R.O.C.	100.0	100.0	100.0
	Luchu Development Corporation	Engaged in the development of real estate properties	R.O.C.	67.1	67.1	67.1
	ASE Embedded Electronics Inc. ("ASEEE")	Merged into ASE in February 2020	R.O.C.	-	100.0	90.7
	Advanced Microelectronic Products Inc. ("AMPI")	Engaged in the manufacturing of integrated circuit	R.O.C.	7.6	7.6	7.6
ASE Test, Inc.	Alto Enterprises Limited	Holding company	British Virgin Islands	100.0	100.0	100.0
	Super Zone Holdings Limited	Holding company	Hong Kong	100.0	100.0	100.0
	Luchu Development Corporation	Engaged in the development of real estate properties	R.O.C.	19.0	19.0	19.0
	TLJ Intertech Inc.	Engaged in information software services	R.O.C.	60.0	60.0	60.0
	MingFeng Information Service Corp., Ltd.	Engaged in information software services	R.O.C.	100.0	100.0	100.0
	AMPI	Engaged in the manufacturing of integrated circuit	R.O.C.	43.4	43.4	43.4
A.S.E. Holding Limited	ASE Investment (Labuan) Inc.	Holding company	Malaysia	70.1	70.1	70.0
	ASE Test Limited ("ASE Test")	Holding company	Singapore	10.2	10.2	10.2
J&R Holding	ASE Test	Holding company	Singapore	89.8	89.8	89.8
	Omniquest Industrial Limited	Holding company	British Virgin Islands	8.4	8.4	8.5
	J&R Industrial Inc.	Engaged in leasing equipment and investing activity	R.O.C.	100.0	100.0	100.0
	ASE Japan Co., Ltd.	Engaged in the packaging and testing of semiconductors	Japan	100.0	100.0	100.0
	ASE (U.S.) Inc.	After-sales service and sales support	U.S.A.	100.0	100.0	100.0
	Global Advanced Packaging Technology Limited	Holding company	British Cayman Islands	100.0	100.0	100.0
	Anstock Limited	Engaged in financing activity	British Cayman Islands	100.0	100.0	100.0
	Anstock II Limited	Engaged in financing activity	British Cayman Islands	100.0	100.0	100.0
	Suzhou ASEN Semiconductors Co., Ltd. ("ASEN")	Engaged in the packaging and testing of semiconductors	Suzhou, China	100.0	100.0	70.0
Innosource Limited	Omniquest Industrial Limited	Holding company	British Virgin Islands	20.6	20.6	20.9
	ASE (Shanghai) Inc.	Engaged in the production of substrates	Shanghai, China	8.5	8.5	8.5
Omniquest Industrial Limited	ASE Corporation	Holding company	British Cayman Islands	100.0	100.0	100.0
Alto Enterprises Limited	ASE (Kun Shan) Inc.	Engaged in the packaging and testing of semiconductors	Kun Shan, China	22.9	22.9	22.9
	ASE Investment (Kun Shan) Limited	Holding company	Kun Shan, China	85.9	85.9	85.9
Super Zone Holdings Limited	Advanced Semiconductor Engineering (China) Ltd.	Engaged in the packaging and testing of semiconductors	Shanghai, China	100.0	100.0	100.0
ASE Investment (Labuan) Inc.	ASE (Korea) Inc.	Engaged in the packaging and testing of semiconductors	Korea	100.0	100.0	100.0
ASE (Korea) Inc.	ASE WeiHai Inc.	Engaged in the packaging and testing of semiconductors	Shandong, China	100.0	100.0	100.0
ASE Test	ASE Test Holdings, Ltd.	Holding company	British Cayman Islands	100.0	100.0	100.0
	ASE Holdings (Singapore) Pte Ltd	Holding company	Singapore	100.0	100.0	100.0
	ASE Investment (Labuan) Inc.	Holding company	Malaysia	29.9	29.9	30.0
	ASE Singapore Pte. Ltd.	Engaged in the packaging and testing of semiconductors	Singapore	100.0	100.0	100.0
ASE Test Holdings, Ltd.	ISE Labs, Inc.	Engaged in the testing of semiconductors	U.S.A.	100.0	100.0	100.0
ISE Labs, Inc.	ISE Service, Inc.	Engaged in wafer procurement and customer product management services and commenced operations in February, 2020.	U.S.A.	100.0	-	-
ASE Holdings (Singapore) Pte Ltd	ASE Electronics (M) Sdn. Bhd.	Engaged in the packaging and testing of semiconductors	Malaysia	100.0	100.0	100.0

(Continued)

Name of Investor	Name of Investee	Main Businesses	Establishment and Operating Location	Percentage of Ownership (%) June 30, 2020	December 31, 2019	June 30, 2019
Global Advanced Packaging Technology Limited	ASE Assembly & Test (Shanghai) Limited	Engaged in the packaging and testing of semiconductors	Shanghai, China	100.0	100.0	100.0
ASE Assembly & Test (Shanghai) Limited	ASE Investment (Kun Shan) Limited	Holding company	Kun Shan, China	14.1	14.1	14.1
	Wuxi Tongzhi Microelectronics Co., Ltd.	Engaged in the packaging and testing of semiconductors	Wuxi, China	100.0	100.0	100.0
	ISE Labs, China, Ltd.	Engaged in the testing of semiconductor	Shanghai, China	100.0	100.0	100.0
	Shanghai Ding Hui Real Estate Development Co., Ltd.	Engaged in the development, construction and sale of real estate properties	Shanghai, China	60.0	60.0	60.0
Shanghai Ding Hui Real Estate Development Co., Ltd.	Shanghai Ding Qi Property Management Co., Ltd.	Engaged in the management of real estate properties	Shanghai, China	100.0	100.0	100.0
	Shanghai Ding Wei Real Estate Development Co., Ltd.	Engaged in the development, construction and leasing of real estate properties	Shanghai, China	100.0	100.0	100.0
	Shanghai Ding Yu Real Estate Development Co., Ltd.	Engaged in the development, construction and leasing of real estate properties	Shanghai, China	100.0	100.0	100.0
	Kun Shan Ding Hong Real Estate Development Co., Ltd	Engaged in the development, construction and leasing of real estate properties	Kun Shan, China	100.0	100.0	100.0
	Shanghai Ding Xu Property Management Co., Ltd.	Engaged in the management of real estate properties	Shanghai, China	100.0	100.0	100.0
	Shanghai Dingyao Estate Development Co., Ltd.	Engaged in property management and was invested in April 2020.	Shanghai, China	100.0	-	-
Shanghai Ding Wei Real Estate Development Co., Ltd.	Shanghai Ding Fan Business Management Co., Ltd. (The name was changed on June 2020 and the former name was Shanghai Ding Fan Department Store Co., Ltd.)	Engaged in leasing and management of real estate properties	Shanghai, China	100.0	100.0	100.0
ASE Investment (Kun Shan) Limited	ASE (Kun Shan) Inc.	Engaged in the packaging and testing of semiconductors	Kun Shan, China	49.3	49.3	49.3
ASE Corporation	ASE Mauritius Inc.	Holding company	Mauritius	100.0	100.0	100.0
	ASE Labuan Inc.	Holding company	Malaysia	100.0	100.0	100.0
ASE Mauritius Inc.	ASE (Kun Shan) Inc.	Engaged in the packaging and testing of semiconductors	Kun Shan, China	27.8	27.8	27.8
	ASE (Shanghai) Inc.	Engaged in the production of substrates	Shanghai, China	91.5	91.5	91.5
ASE Labuan Inc.	ASE Electronics Inc.	Engaged in the production of substrates	R.O.C.	100.0	100.0	100.0
ASE (Shanghai) Inc.	Advanced Semiconductor Engineering (HK) Limited	Engaged in the trading of substrates	Hong Kong	100.0	100.0	100.0
	Shanghai Ding Hui Real Estate Development Co., Ltd.	Engaged in the development, construction and sale of real estate properties	Shanghai, China	40.0	40.0	40.0
	Universal Scientific Industrial (Shanghai) Co., Ltd. ("USISH")	Engaged in the designing, manufacturing and sale of electronic components	Shanghai, China	0.8	0.8	0.8
USIINC	Huntington Holdings International Co., Ltd.	Holding company	British Virgin Islands	100.0	100.0	100.0
Huntington Holdings International Co., Ltd.	Unitech Holdings International Co., Ltd.	Holding company	British Virgin Islands	100.0	100.0	100.0
	Real Tech Holdings Limited	Holding company	British Virgin Islands	100.0	100.0	100.0
	Universal ABIT Holding Co., Ltd.	In the process of liquidation	British Cayman Islands	100.0	100.0	100.0
	Rising Capital Investments Limited	Liquidated in November 2019	British Virgin Islands	-	-	100.0
	Rise Accord Limited	Liquidated in December 2019	British Virgin Islands	-	-	100.0
Real Tech Holdings Limited	Universal Scientific Industrial (Kunshan) Co., Ltd.	Liquidated in June 2020	Kun Shan, China	-	100.0	100.0
	USI Enterprise Limited ("USIE")	Engaged in the service of investment advisory and warehousing management	Hong Kong	95.0	95.8	95.4
USIE	USISH	Engaged in the designing, manufacturing and sale of electronic components	Shanghai, China	77.7	77.7	77.6
USISH	Universal Global Technology Co., Limited	Holding company	Hong Kong	100.0	100.0	100.0
	Universal Global Technology (Kunshan) Co., Ltd. ("UGKS")	Engaged in the designing and manufacturing of electronic components	Kun Shan, China	100.0	100.0	100.0

(Continued)

Name of Investor	Name of Investee	Main Businesses	Establishment and Operating Location	Percentage of Ownership (%) June 30, 2020	December 31, 2019	June 30, 2019
	Universal Global Technology (Shanghai) Co., Ltd.	Engaged in the processing and sales of computer and communication peripherals as well as business in import and export of goods and technology	Shanghai, China	100.0	100.0	100.0
	Universal Global Electronics (Shanghai) Co., Ltd.	Engaged in the sale of electronic components and telecommunications equipment	Shanghai, China	100.0	100.0	100.0
	USI Electronics (Shenzhen) Co., Ltd.	Engaged in the design, manufacturing and sale of motherboards and computer peripherals	Shenzhen, China	50.0	50.0	50.0
Universal Global Technology Co., Limited	Universal Global Industrial Co., Limited	Engaged in manufacturing, trading and investing activity	Hong Kong	100.0	100.0	100.0
	Universal Global Scientific Industrial Co., Ltd. ("UGTW")	Engaged in the manufacturing of components of telecomm and cars and provision of related R&D services	R.O.C.	100.0	100.0	100.0
	USI America Inc.	Engaged in the manufacturing and processing of motherboards and wireless network communication and provision of related technical service	U.S.A.	100.0	100.0	100.0
	Universal Scientific Industrial De Mexico S.A. De C.V.	Engaged in the assembling of motherboards and computer components	Mexico	100.0	100.0	100.0
	USI Japan Co., Ltd.	Engaged in the manufacturing and sale of computer peripherals, integrated chip and other related accessories	Japan	100.0	100.0	100.0
	USI Electronics (Shenzhen) Co., Ltd.	Engaged in the design, manufacturing and sale of motherboards and computer peripherals	Shenzhen, China	50.0	50.0	50.0
	Universal Global Electronics Co., Ltd.	Engaged in accepting and outsourcing orders as well as sales of electronic components and service of technical advisory	Hong Kong	100.0	100.0	100.0
	M-Universe Investments Pte. Ltd. ("MU")	Engaged in investing activities	Singapore	-	-	100.0
	Universal Scientific Industrial (France) ("USIFR")	Engaged in investing activities and was established in August 2019	France	100.0	100.0	-
UGTW	Universal Scientific Industrial Co., Ltd. ("USI")	Engaged in the manufacturing, processing and sale of computers, computer peripherals and related accessories	R.O.C.	100.0	100.0	100.0
USI Electronics (Shenzhen) Co., Ltd.	Huanrong Electronics (Huizhou) Co., Ltd.	Engaged in the research and manufacturing of new electronic applications, communications, computers and other electronics products and also provided auxiliary technical services as well as import and export services	Huizhou, China	100.0	100.0	100.0
Universal Global Electronics Co., Ltd.	Semicondutores Avancados do Brasil S.A.	Engaged in the research and manufacturing of multi-functional system-in-package products	Brasil	75.0	75.0	75.0
	Universal Scientific Industrial Poland Sp. z o.o. ("USIPL") (The name was changed on June 2020 and the former name was Chung Hong Electronics Poland Sp. z o.o.)	Engaged in the design and manufacturing of electronic components and new electronic applications.	Poland	100.0	60.0	-
SPIL	SPIL (B.V.I.) Holding Limited	Engaged in investing activities	British Virgin Islands	100.0	100.0	100.0
	Siliconware Investment Co., Ltd.	Engaged in investing activities	R.O.C.	100.0	100.0	100.0
SPIL (B.V.I.) Holding Limited	Siliconware USA, Inc.	Engaged in marketing activities	U.S.A.	100.0	100.0	100.0
	SPIL (Cayman) Holding Limited	Engaged in investing activities	British Cayman Islands	100.0	100.0	100.0
SPIL (Cayman) Holding Limited	Siliconware Technology (Suzhou) Limited	Engaged in the packaging and testing of semiconductors	Suzhou, China	100.0	100.0	70.0
	Siliconware Electronics (Fujian) Co., Limited	Engaged in the packaging and testing of semiconductors	Fujian, China	100.0	100.0	100.0

(Concluded)

d. Other significant accounting policies

Except for the following, please refer to the consolidated financial statements for the year ended December 31, 2019.

1) Retirement benefits

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

2) Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax. Interim period income taxes are assessed on an annual basis and calculated by applying to an interim period's pre-tax income the tax rate that would be applicable to expected total annual earnings.

3) Leases

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

For a contract that contains a lease component and non-lease components, the Group elects to account for the lease and non-lease components as a single lease component.

The Group as lessor

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

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

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

The Group as lessee

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

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities adjusted for lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs needed to restore the underlying assets, and less any lease incentives received. Right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented on a separate line in the consolidated balance sheets, except for those that meet the definition of investment properties. With respect to the recognition and measurement of right-of-use assets that meet the definition of investment properties, refer to the accounting policies for investment properties in the consolidated financial statements for the year ended December 31, 2019.

Right-of-use assets are depreciated using the straight-line method from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms. However, if leases transfer ownership of the underlying assets to the Group by the end of the lease terms or if the costs of right-of-use assets reflect that the Group will exercise a purchase option, the Group depreciates the right-of-use assets from the commencement dates to the end of the useful lives of the underlying assets.

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

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

The Group negotiates with the lessor for rent concessions as a direct consequence of the COVID-19 to change the lease payments originally due by June 30, 2021, that results in the revised consideration for the lease substantially less than the consideration for the lease immediately preceding the change. There is no substantive change to other terms and conditions. The Group elects to apply the practical expedient to all of these rent concessions, and therefore, does not assess whether the rent concessions are lease modifications. Instead, the Group recognizes the reduction in lease payment in profit or loss in the period in which the events or conditions that trigger the concession occurs, and makes a corresponding adjustment to the lease liability.

Variable lease payments that do not depend on an index or a rate are recognized as expenses in the periods in which they are incurred.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

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

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

The Group's management assessed that there was no critical accounting judgments or key sources of estimation uncertainty applied in the preparation of consolidated financial statements for the six months ended June 30, 2020 and 2019.

6. CASH AND CASH EQUIVALENTS

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Cash on hand	$ 5,181	$ 6,567	$ 8,140
Checking accounts and demand deposits	52,105,806	44,565,936	41,494,288
Cash equivalents	6,111,882	15,558,372	13,587,952
	$ 58,222,869	$ 60,130,875	$ 55,090,380

Cash equivalents include time deposits that are of a short maturity of three months or less from the date of acquisitions, and are highly liquid, readily convertible to known amounts in cash and the risk of changes in values is insignificant. Cash equivalents are held for the purpose of meeting short-term cash commitments rather than for investments or other purposes.

7. FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS (FVTPL)

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Financial assets mandatorily classified as at FVTPL			
Derivative instruments (not under hedge accounting)			
Swap contracts	$ 64,792	$ 56,561	$ 1,177,857
Forward exchange contracts	48,963	104,308	15,282
Call option (Note 29)	-	24,556	-
Non-derivative financial assets			
Quoted ordinary shares	3,771,011	3,460,123	5,870,352
Open-end mutual funds	1,007,189	662,290	560,622
Private-placement funds	731,876	603,718	455,485
Unquoted preferred shares	376,390	377,440	373,180
	6,000,221	5,288,996	8,452,778
Current	4,694,250	4,127,566	7,490,233
Non-current	$ 1,305,971	$ 1,161,430	$ 962,545
Financial liabilities held for trading			
Derivative instruments (not under hedge accounting)			
Swap contracts	$ 680,847	$ 862,581	$ 123,733
Forward exchange contracts	75,763	110,990	35,845
Current	$ 756,610	$ 973,571	$ 159,578

At each balance sheet date, the outstanding swap contracts not under hedge accounting were as follows:

Currency	Maturity Period	Notional Amount (In Thousands)
June 30, 2020		
Sell NT$/Buy US$	2020.07-2021.06	NT$53,751,384/US$1,798,000
Sell US$/Buy RMB	2020.11	US$48,866/RMB349,800
Sell US$/Buy JPY	2020.07-2020.08	US$42,205/JPY4,523,705
Sell US$/Buy KRW	2020.07	US$32,000/KRW38,729,600
Sell US$/Buy NT$	2020.07-2020.08	US$420,470/NT$12,467,069
December 31, 2019		
Sell NT$/Buy US$	2020.01-2020.12	NT$50,241,799/US$1,660,000
Sell US$/Buy RMB	2020.02	US$49,666/RMB349,800
Sell US$/Buy JPY	2020.02-2020.03	US$45,878/JPY5,000,000
Sell US$/Buy KRW	2020.01	US$28,000/KRW32,454,800
Sell US$/Buy MYR	2020.01	US$11,000/MYR45,507
Sell US$/Buy NT$	2020.01	US$189,960/NT$5,719,478
June 30, 2019		
Sell NT$/Buy US$	2019.07-2020.06	NT$55,680,463/US$1,845,400
Sell US$/Buy RMB	2019.07	US$50,524/RMB349,800
Sell US$/Buy JPY	2019.09	US$28,213/JPY3,000,000
Sell US$/Buy NT$	2019.07	US$205,800/NT$6,404,706

At each balance sheet date, the outstanding forward exchange contracts not under hedge accounting were as follow:

Currency	Maturity Period	Notional Amount (In Thousands)
June 30, 2020		
Sell RMB/Buy US$	2020.07	RMB2,914,700/US$410,084
Sell HKD/Buy US$	2020.07-2020.08	HKD1,244,594/US$160,496
Sell NT$/Buy US$	2020.07-2020.08	NT$2,209,665/US$75,000
Sell US$/Buy RMB	2020.07-2020.09	US$135,000/RMB958,001
Sell US$/Buy JPY	2020.07-2020.09	US$99,988/JPY10,732,046
Sell US$/Buy MYR	2020.07-2020.10	US$27,000/MYR115,566
Sell US$/Buy NT$	2020.07-2020.09	US$155,850/NT$4,642,175
Sell US$/Buy SGD	2020.07-2020.08	US$8,000/SGD11,228
December 31, 2019		
Sell RMB/Buy US$	2020.01-2020.02	RMB2,224,491/US$316,896
Sell HKD/Buy US$	2020.01	HKD1,705,281/US$218,297
Sell NT$/Buy US$	2020.01	NT$2,275,860/US$75,000
Sell US$/Buy RMB	2020.01-2020.03	US$109,000/RMB767,277
Sell US$/Buy JPY	2020.01-2020.04	US$87,398/JPY9,509,491
Sell US$/Buy MYR	2020.01-2020.05	US$26,000/MYR108,330

(Continued)

Currency	Maturity Period	Notional Amount (In Thousands)
Sell US$/Buy NT$	2020.01-2020.02	US$170,000/NT$5,142,441
Sell US$/Buy SGD	2020.01-2020.02	US$8,600/SGD11,691
June 30, 2019		
Sell NT$/Buy US$	2019.07-2019.08	NT$4,032,450/US$130,000
Sell US$/Buy RMB	2019.07-2019.09	US$94,500/RMB646,106
Sell US$/Buy JPY	2019.07-2019.09	US$67,987/JPY7,314,489
Sell US$/Buy KRW	2019.07	US$8,000/KRW9,239,800
Sell US$/Buy MYR	2019.07-2019.10	US$26,000/MYR107,869
Sell US$/Buy SGD	2019.07-2019.08	US$6,200/SGD8,453

(Concluded)

8. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME (FVTOCI)

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Investments in equity instruments at FVTOCI	$ 757,353	$ 755,903	$ 763,000
Investments in debt instruments at FVTOCI	1,013,958	1,014,872	1,016,046
	$ 1,771,311	$ 1,770,775	$ 1,779,046

a. Investments in equity instruments at FVTOCI

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Unquoted ordinary shares	$ 517,941	$ 565,028	$ 565,886
Unquoted preferred shares	194,981	158,718	164,835
Limited partnership	44,431	32,157	32,279
	$ 757,353	$ 755,903	$ 763,000

b. Investments in debt instruments at FVTOCI

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Unsecured subordinate corporate bonds	$ 1,013,958	$ 1,014,872	$ 1,016,046

In June 2016, the Group purchased 1,000 units of perpetual unsecured subordinate corporate bonds in the amount of NT$1,000,000 thousand. The corporate bonds are in denomination of NT$1,000 thousand with annual interest rate at 3.5% as well as effective interest rate at 3.2% as of June 30, 2020, December 31, 2019 and June 30, 2019.

9. CREDIT RISK MANAGEMENT FOR INVESTMENTS IN DEBT INSTRUMENTS

The Group's investment in unsecured subordinate corporate bonds is rated the equivalent of investment grade or higher and has low credit risk for impairment assessment.

There was no significant increase in credit risk of such debt instrument since initial recognition leading to changes in interest rates and terms, and there was also no significant change in bond issuer's operation affecting the ability performing debt obligation. Therefore, no expected credit losses existed. The Group reviews changes in bond yields and other public information periodically and makes an assessment whether there has been a significant increase in lifetime Expected Credit Loss ("ECL") since initial recognition.

10. TRADE RECEIVABLES, NET

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
At amortized cost			
Gross carrying amount	$ 73,043,903	$ 77,055,280	$ 67,410,551
Less: Allowance for impairment loss	127,752	136,497	168,461
	72,916,151	76,918,783	67,242,090
At FVTOCI	847,141	2,029,690	-
	$ 73,763,292	$ 78,948,473	$ 67,242,090

a. Trade receivables

1) At amortized cost

The Group's average credit terms granted to the customers were 30 to 90 days. The Group evaluates the risk and probability of credit loss of trade receivables by reference to the Group's past experiences, financial condition of each customer, impact of COVID-19, as well as competitive advantage and future development of the industry in which the customer operates. The Group then reviews the recoverable amount of each individual trade receivable at each balance sheet date to ensure that adequate allowance is made for possible irrecoverable amounts. In this regard, management believes the Group's credit risk was significantly reduced.

The Group measures the loss allowance for trade receivables at an amount equal to lifetime ECLs. The expected credit losses on trade receivables are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast direction of economic conditions at each balance sheet date. As the Group's historical credit loss experience shows significantly different loss patterns for different customer segments, the provision matrix for expected credit loss allowance based on trade receivables due status is further distinguished according to the Group's different customer base.

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

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

June 30, 2020

	Not Past Due	Overdue 1 to 30 days	Overdue 31 to 90 Days	Overdue Over 91 Days	Individually Impaired	Total
	NT$	NT$	NT$	NT$	NT$	NT$
Expected credit loss rate	0%	0%-10%	0%-70%	1%-100%	30%-100%	
Gross carrying amount	$ 67,165,314	$ 5,186,670	$ 513,662	$ 139,901	$ 38,356	$ 73,043,903
Loss allowance (Lifetime ECLs)	(18,421)	(1,776)	(28,160)	(50,765)	(28,630)	(127,752)
	$ 67,146,893	$ 5,184,894	$ 485,502	$ 89,136	$ 9,726	$ 72,916,151

December 31, 2019

	Not Past Due	Overdue 1 to 30 days	Overdue 31 to 90 Days	Overdue Over 91 Days	Individually Impaired	Total
	NT$	NT$	NT$	NT$	NT$	NT$
Expected credit loss rate	0%	0%-10%	1%-70%	1%-100%	50%-100%	
Gross carrying amount	$ 70,042,018	$ 6,111,309	$ 695,384	$ 153,458	$ 53,111	$ 77,055,280
Loss allowance (Lifetime ECLs)	(12,379)	(841)	(26,587)	(53,629)	(43,061)	(136,497)
	$ 70,029,639	$ 6,110,468	$ 668,797	$ 99,829	$ 10,050	$ 76,918,783

June 30, 2019

	Not Past Due	Overdue 1 to 30 days	Overdue 31 to 90 Days	Overdue Over 91 Days	Individually Impaired	Total
	NT$	NT$	NT$	NT$	NT$	NT$
Expected credit loss rate	0%	1%-10%	1%-70%	1%-100%	30%-100%	
Gross carrying amount	$ 61,748,441	$ 4,558,019	$ 581,403	$ 456,248	$ 66,440	$ 67,410,551
Loss allowance (Lifetime ECLs)	(8,948)	(587)	(4,538)	(89,560)	(64,828)	(168,461)
	$ 61,739,493	$ 4,557,432	$ 576,865	$ 366,688	$ 1,612	$ 67,242,090

The movements of the loss allowance of trade receivables for the six months ended June 30, 2020 and 2019 were as follows:

	For the Six Months Ended June 30	
	2020	2019
	NT$	NT$
Balance at January 1	$ 136,497	$ 155,389
Net remeasurement of loss allowance	(1,926)	(11,172)
Acquisition through business combinations	-	23,287
Effects of foreign currency exchange differences	(6,819)	957
Balance at June 30	$ 127,752	$ 168,461

2) At FVTOCI

For the trade receivables due from certain customers, the Group decides whether or not to factor these trade receivables to banks without recourse based on its level of working capital. These trade receivables are classified as at FVTOCI because they are held within a business model whose objective is achieved by both the collecting of contractual cash flows and the selling of financial assets.

The following table details the loss allowance of trade receivables at FVTOCI based on the Group's provision matrix.

June 30, 2020

	Not Past Due	Overdue 1 to 30 days	Overdue 31 to 90 Days	Overdue Over 91 Days	Individually Impaired	Total
	NT$	NT$	NT$	NT$	NT$	NT$
Expected credit loss rate	0%	0%	0%	0%	-	
Gross carrying amount	$ 843,336	$ 867	$ 2,000	$ 938	$ -	$ 847,141
Loss allowance (Lifetime ECLs)	-	-	-	-	-	-
	$ 843,336	$ 867	$ 2,000	$ 938	$ -	$ 847,141

December 31, 2019

	Not Past Due	Overdue 1 to 30 days	Overdue 31 to 90 Days	Overdue Over 91 Days	Individually Impaired	Total
	NT$	NT$	NT$	NT$	NT$	NT$
Expected credit loss rate	0%	-	0%	1%	-	
Gross carrying amount	$ 2,029,324	$ -	$ 207	$ 160	$ -	$ 2,029,691
Loss allowance (Lifetime ECLs)	-	-	-	(1)	-	(1)
	$ 2,029,324	$ -	$ 207	$ 159	$ -	$ 2,029,690

b. Transfers of financial assets

1) Financial assets that qualified for derecognition in whole and in part

The followings were the Group's outstanding trade receivables transferred but not yet due as of June 30, 2020, December 31, 2019, and June 30, 2019:

Counterparty	Receivables Factoring Proceed	Reclassified to Other Receivables	Advances Received – Unused	Advances Received – Used	Annual Interest Rates on Advances Received
	NT$	NT$	NT$	NT$	
June 30, 2020					
Citibank Taiwan Ltd.	US$ 35,598	US$ -	US$ -	US$ 32,038	0.98%-1.05%
First Commercial Bank	$ 7,025	$ -	$ -	$ 7,025	1.95%
December 31, 2019					
First Commercial Bank	$ 7,567	$ -	$ -	$ 7,567	2.2%
June 30, 2019					
First Commercial Bank	$ 3,474	$ -	$ -	$ 3,474	2.2%

The Group bears losses from credit risk with respect to the 10% of abovementioned trade receivables factored to Citibank Taiwan Ltd. and, therefore, the Group has not transferred the significant risks and rewards relating to these 10% trade receivables and has continuing involvement. The Group then did not derecognize these 10% trade receivable. As to other factored trade receivables, pursuant to the factoring agreements, losses from commercial disputes (such as sales returns and discounts) are borne by the Group, while losses from credit risk are borne by banks.

As of June 30, 2020, the Group issued promissory notes with aggregate amounts of US$2,000 thousand to Citibank Taiwan Ltd. to compensate losses from commercial disputes. As of June 30, 2020, the Group did not have material commercial dispute and is also expected to have no material commercial dispute in the foreseeable future.

2) Financial assets that do not qualified for derecognition

As of June 30, 2019, the Group's subsidiary discounted trade receivables with an aggregate carrying amount of US$2,500 thousand to banks for cash proceeds of US$1,075 thousand. According to the contract, if these trade receivables are not paid at maturity, banks have the right requesting the Group's subsidiary to repay the unsettled balance. As the Group has not transferred the significant risks and rewards relating to these trade receivables, it continues to recognize the full carrying amounts of these trade receivables and accounts these trade receivables that have been transferred to banks as collateral for borrowings. Please refer to Notes 20 and 35.

As of June 30, 2019, the carrying amount of these trade receivables that have been transferred but not derecognized was NT$39,089 thousand, and the carrying amount of the related liabilities was NT$32,503 thousand.

11. INVENTORIES

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Finished goods	$ 6,938,061	$ 7,174,716	$ 7,199,811
Work in process	3,840,084	2,952,182	3,866,937
Raw materials	24,524,106	20,996,346	22,787,865
Supplies	2,902,902	2,229,576	2,160,465
Raw materials and supplies in transit	665,603	530,930	634,851
	$ 38,870,756	$ 33,883,750	$ 36,649,929

The cost of inventories recognized as operating costs for the three months and six months ended June 30, 2020 and 2019 were NT$88,519,109 thousand, NT$76,522,713 thousand, NT$169,499,736 thousand and NT$153,747,209 thousand, respectively, which included write-downs of inventories at NT$178,971 thousand, NT$175,285 thousand, NT$420,381 thousand and NT$322,637 thousand, respectively.

12. INVENTORIES RELATED TO REAL ESTATE BUSINESS

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Land and buildings held for sale	$ 9,723	$ 9,983	$ 20,931
Construction in progress	9,981,405	9,619,217	8,538,550
Land held for construction	1,787,526	1,787,526	1,787,526
	$ 11,778,654	$ 11,416,726	$ 10,347,007

Construction in progress is mainly located on Hutai Road in Shanghai, China and Lidu Road in Kun Shan, China. The capitalized borrowing costs for the three months and six months ended June 30, 2020 and 2019 are disclosed in Note 25.

As of June 30, 2020, December 31, 2019 and June 30, 2019, inventories related to real estate business of NT$11,778,654 thousand, NT$11,416,726 thousand and NT$10,347,007 thousand, respectively, are expected to be recovered longer than twelve months.

Refer to Note 35 for the carrying amount of inventories related to real estate business that had been pledged by the Group to secure bank borrowings.

13. OTHER FINANCIAL ASSETS

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Guarantee deposits	$ 607,004	$ 661,667	$ 721,594
Pledged time deposits (Note 35)	397,178	620,817	380,880
Time deposits with original maturity over three months	205,657	25,885	1,764,650
Others (Note 35)	128,943	16,958	1,802,436
	1,338,782	1,325,327	4,669,560
Current	788,493	765,834	3,699,953
Non-current	$ 550,289	$ 559,493	$ 969,607

14. INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Investments in associates	$ 9,055,576	$ 11,891,887	$ 9,400,343
Investments in joint ventures	266,858	279,702	48,720
	$ 9,322,434	$ 12,171,589	$ 9,449,063

a. Investments in associates

1) Investments in associates accounted for using the equity method that was not individually material consisted of the following:

Name of Associate	Main Business	Operating Location	Carrying Amount June 30, 2020 NT$	Carrying Amount December 31, 2019 NT$	Carrying Amount June 30, 2019 NT$
Yann Yuan Investment Co., Ltd. (“Yann Yuan”)	Engaged in investing activities	R.O.C.	$ 3,868,339	$ 3,995,862	$ 3,298,576
ChipMOS Technologies Inc. (“ChipMOS”)	Engaged in the packaging and testing of semiconductors	R.O.C.	2,285,615	4,383,903	4,222,277
M-Universe Invest-ments Pte. Ltd. (“MU”)	Investment company	Singapore	1,737,333	1,814,699	-
Hung Ching Development & Construction Co. (“HC”)	Engaged in the development, construction and leasing of real estate properties	R.O.C.	1,101,679	1,391,044	1,102,316
Hung Ching Kwan Co. (“HCK”)	Engaged in the leasing of real estate properties	R.O.C.	277,537	283,105	291,075
Deca Technologies Inc.(“DECA”)	Holding company and the group engaged in manufacturing, development and marketing of wafer level packaging and interconnect technology	British Cayman Islands	85,222	323,423	786,248
			9,355,725	12,192,036	9,700,492
	Less: Deferred gain on transfer of land		300,149	300,149	300,149
			$ 9,055,576	$ 11,891,887	$ 9,400,343

2) At each balance sheet date, the total percentages of ownership held by the Group were as follows:

	June 30, 2020	December 31, 2019	June 30, 2019
Yann Yuan	32.21%	32.21%	32.21%
ChipMOS	10.85%	20.48%	20.48%
MU	42.23%	42.23%	-
HC	26.22%	26.22%	26.22%
HCK	27.31%	27.31%	27.31%
DECA	17.85%	22.02%	22.04%

3) The Group evaluated the recoverable amount of its investment in DECA's preferred shares using the fair value less costs of disposal in 2019. The recoverable amount was lower than the carrying amount and, therefore, the Group recognized an impairment loss of NT$400,201 thousand under the line item of other gains and losses. The fair value was the estimated transaction price of DECA's preferred shares, of which the fair value hierarchy was Level 3. In 2019, the exercise of employee share options issued by DECA led the Group's percentage of ownership in DECA decreased to 22.02%. In the first quarter of 2020, due to the partial disposal of ownership in DECA and the issuance of preferred shares by DECA, the Group's percentage of ownership in DECA decreased to 17.85% and a gain on disposal of NT$17,180 thousand was recognized under the line item of other gains and losses (Note 25). The Group considered it still has significant influence over DECA since the Group continuously involves in making significant decisions by participating in DECA's board meeting.

4) In July 2019, the Group's subsidiary, Universal Global Technology Co., Limited, invested SGD79,863 thousand (equivalent to NT$1,824,608 thousand) in MU, and then MU acquired the ordinary shares of Memtech International Ltd. ("Memtech"), a listed company in Singapore, from the public market. At the same time, MU issued new ordinary shares to the former shareholder of Memtech, Keytech Investment Pte. Ltd. ("Keytech"), in exchange for Memtech's ordinary shares held by Keytech. The aforementioned share exchange resulted the Group's percentage of ownership in MU decreased to 42.23%.

5) In June 2020, the Group's subsidiary, SPIL, disposed 70,000 thousand ordinary shares of ChipMOS at NT$32 per share, which resulted the Group's percentage of ownership in ChipMOS decreasing to 10.85% and a gain on disposal of NT$74,117 thousand was recognized under the line item of other gains and losses (Note 25). The Group considered it still has significant influence over ChipMOS since the Group continuously involves in making significant decisions by participating in ChipMOS's board meeting.

6) Fair values (Level 1) of investments in associates with available published price quotation are summarized as follows:

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
ChipMOS	$ 2,667,171	$ 5,100,181	$ 3,551,513
HC	$ 1,448,088	$ 1,551,033	$ 1,537,307

7) Aggregate information of associates that are not individually material

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
The Group's share of:				
Net income	$ 110,361	$ 151,492	$ 72,408	$ 98,867
Other comprehensive income (loss)	610,228	160,952	(278,360)	614,871
Total comprehensive income (loss)	$ 720,589	$ 312,444	$ (205,952)	$ 713,738

8) Except DECA and MU, investments accounted for using the equity method and the share of profit or loss and other comprehensive income or loss as of and for the three months and six months ended June 30, 2020 and 2019 were based on the associates' financial statements reviewed by auditors for the same periods. The Group's management evaluates that DECA's and MU's financial statements not reviewed by auditors would not have material impact on the Group's consolidated financial statements.

b. Investments in joint ventures

1) Investments in joint ventures that were not individually material and accounted for using the equity method consisted of the following:

Name of Joint Venture	Main Business	Operating Location	Carrying Amount June 30, 2020	Carrying Amount December 31, 2019	Carrying Amount June 30, 2019
			NT$	NT$	NT$
SUMA-USI Electronics Co., Ltd. ("SUMA-USI")	Engaged in the design and production of electronic products	China	$ 266,858	$ 279,702	$ 48,720

2) At each balance sheet date, the total percentages of ownership held by the Group were as follows:

	June 30, 2020	December 31, 2019	June 30, 2019
SUMA-USI	49.00%	49.00%	49.00%

3) In March 2019, UGKS entered into a joint venture agreement with Cancon Information Industry Co., Ltd. to establish SUMA-USI with an estimated total consideration of RMB107,800 thousand and obtained 49.00% ownership of SUMA-USI. As of June 30, 2020, the Group has invested RMB65,170 thousand (equivalent to NT$283,236 thousand) in SUMA-USI. Based on the joint venture agreement, both investors jointly lead the relevant operation activities of SUMA-USI, which resulted in that the investment in SUMA-USI was accounted for using the equity method.

4) As disclosed in Note 29, the Group obtained control over ASEEE in April 2019.

5) Aggregate information of joint ventures that were not individually material

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
The Group's share of:				
Net loss	$ (4,834)	$ (37,516)	$ (5,599)	$ (138,756)
Other comprehensive loss	(5,203)	-	(7,245)	-
Total comprehensive loss	$ (10,037)	$ (37,516)	$ (12,844)	$ (138,756)

6) The investment accounted for using the equity method and the share of loss and other comprehensive loss for the three months and six months ended June 30, 2020 and 2019 were based on ASEEE's financial statements reviewed by auditors for the same period. The Group's management evaluates that SUMA-USI's financial statements not reviewed by auditors would not have material impact on the Group's consolidated financial statements.

15. PROPERTY, PLANT AND EQUIPMENT

The carrying amounts of each class of property, plant and equipment were as follows:

	June 30, 2020	December 31, 2019	June 30, 2019 (Retrospectively Adjusted)
	NT$	NT$	NT$
Land	$ 10,322,589	$ 10,333,822	$ 10,328,098
Buildings and improvements	85,720,775	85,409,580	78,573,569
Machinery and equipment	118,420,069	112,996,670	105,399,760
Other equipment	5,572,332	6,715,694	6,071,203
Construction in progress and machinery in transit	18,720,768	16,637,561	19,426,519
	$ 238,756,533	$ 232,093,327	$ 219,799,149

For the six months ended June 30, 2020

	Land	Buildings and improvements	Machinery and equipment	Other equipment	Construction in progress and machinery in transit	Total
	NT$	NT$	NT$	NT$	NT$	NT$
Cost						
Balance at January 1, 2020	$ 10,333,822	$ 153,972,960	$ 376,745,448	$ 18,755,116	$ 16,637,561	$ 576,444,907
Additions	-	37,765	139,965	14,748	31,309,305	31,501,783
Disposals	-	(300,727)	(3,197,808)	(1,269,435)	(116,896)	(4,884,866)
Reclassification	-	4,690,629	24,934,782	(92,636)	(29,324,023)	208,752
Effect of foreign currency exchange differences	(11,233)	(1,257,874)	(3,716,634)	(209,758)	214,821	(4,980,678)
Balance at June 30, 2020	$ 10,322,589	$ 157,142,753	$ 394,905,753	$ 17,198,035	$ 18,720,768	$ 598,289,898
Accumulated depreciation and impairment						
Balance at January 1, 2020	$ -	$ 68,563,380	$ 263,748,778	$ 12,039,422	$ -	$ 344,351,580
Depreciation expense	-	3,694,943	17,961,729	1,182,572	-	22,839,244
Impairment losses recognized	-	-	91,009	5,249	-	96,258
Disposals	-	(260,537)	(3,015,586)	(1,265,505)	-	(4,541,628)
Reclassification	-	-	299,934	(188,082)	-	111,852
Effect of foreign currency exchange differences	-	(575,808)	(2,600,180)	(147,953)	-	(3,323,941)
Balance at June 30, 2020	$ -	$ 71,421,978	$ 276,485,684	$ 11,625,703	$ -	$ 359,533,365

For the six months ended June 30, 2019 (Retrospectively Adjusted)

	Land	Buildings and improvements	Machinery and equipment	Other equipment	Construction in progress and machinery in transit	Total
	NT$	NT$	NT$	NT$	NT$	NT$
Cost						
Balance at January 1, 2019	$ 10,165,969	$ 141,708,011	$ 353,838,390	$ 18,380,122	$ 10,911,552	$ 535,004,044
Additions	-	25,241	221,415	33,248	25,450,787	25,730,691
Disposals	-	(503,807)	(8,098,707)	(790,385)	-	(9,392,899)
Reclassification	-	2,613,083	13,965,872	1,089,279	(17,276,695)	391,539
Acquisitions through business combinations (Note 29)	152,357	859,775	5,073,829	11,325	116,711	6,213,997
Effect of foreign currency exchange differences	9,772	360,818	683,214	78,657	224,164	1,356,625
Balance at June 30, 2019	$ 10,328,098	$ 145,063,121	$ 365,684,013	$ 18,802,246	$ 19,426,519	$ 559,303,997
Accumulated depreciation and impairment						
Balance at January 1, 2019	$ -	$ 62,744,074	$ 245,750,420	$ 12,194,041	$ -	$ 320,688,535
Depreciation expense	-	3,478,755	17,888,504	1,241,032	-	22,608,291
Impairment losses recognized	-	119,403	1,664	20,311	-	141,378
Disposals	-	(422,398)	(7,717,961)	(790,172)	-	(8,930,531)
Reclassification	-	74,477	1,475	(103)	-	75,849
Acquisitions through business combinations (Note 29)	-	416,161	3,745,852	7,205	-	4,169,218
Effect of foreign currency exchange differences	-	79,080	614,299	58,729	-	752,108
Balance at June 30, 2019	$ -	$ 66,489,552	$ 260,284,253	$ 12,731,043	$ -	$ 339,504,848

Based on the future operation plans and the capacity evaluation, the Group assessed that a portion of plant and equipment in the packaging segment and the testing segment were not qualified for the production needs and, therefore, recognized an impairment loss of NT$9,940 thousand, NT$78,878 thousand, NT$96,258 thousand and NT$141,378 thousand, respectively, under the line item of other gains and losses for the three months and six months ended June 30, 2020 and 2019 (Note 25). The recoverable amounts of impaired plant and equipment were determined by their fair value less costs of disposal, of which the fair value was based on the recent quoted prices of assets with similar age and obsolescence provided by vendors in secondary market or the disposal price, and both of which represented Level 3 inputs because the secondary market was not active and the disposal price was negotiated with counter-parties.

Each class of property, plant and equipment was depreciated on a straight-line basis over the following useful lives:

Buildings and improvements	
Main plant buildings	10-55 years
Cleanrooms	10-20 years
Others	3-20 years
Machinery and equipment	2-10 years
Other equipment	2-20 years

The capitalized borrowing costs for the three months and six months ended June 30, 2020 and 2019 are disclosed in Note 25.

16. LEASE ARRANGEMENTS

a. Right-of-use assets

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Carrying amounts			
Land	$ 6,657,668	$ 7,036,887	$ 7,074,748
Buildings and improvements	2,050,416	2,121,797	2,350,658
Machinery and equipment	337,974	588,443	947,509
Other equipment	44,864	45,094	50,731
	$ 9,090,922	$ 9,792,221	$ 10,423,646

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020 NT$	2019 NT$	2020 NT$	2019 NT$
Additions to right-of-use assets	$ 75,393	$ 106,214	$ 198,713	$ 129,306
Depreciation charge for right-of-use assets				
Land	$ 56,575	$ 64,276	$ 109,020	$ 109,292
Buildings and improvements	86,146	79,167	174,643	156,082
Machinery and equipment	101,830	133,264	206,651	268,826
Other equipment	6,565	6,085	13,536	11,173
	$ 251,116	$ 282,792	$ 503,850	$ 545,373

The amounts disclosed above with respect to the right-of-use assets did not include the right-of-use assets that meet the definition of investment properties.

b. Lease liabilities

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Carrying amounts			
Current	$ 636,044	$ 632,802	$ 770,594
Non-current	$ 4,880,533	$ 5,176,123	$ 5,224,461

The Group's lease liabilities were mainly from land and buildings and improvements. The range of discount rates for lease liabilities was as follows:

	June 30, 2020	December 31, 2019	June 30, 2019
Land (%)	0.54-4.90	0.54-4.90	0.54-4.90
Buildings and improvements (%)	0.54-8.62	0.30-8.62	0.54-8.62

c. Material lease-in activities and terms

The Group leases land and buildings for the use of plants and offices with remaining lease terms of 1-69 years and 1-31 years, respectively. For the leasehold land located in the R.O.C., the Group has extension options at the expiry of the lease periods. However, the government has the right to adjust the lease payments on the basis of changes in announced land value prices and also has the right to terminate the lease contract under certain circumstances. The Group does not have bargain purchase options to acquire the leasehold land and buildings at the expiry of the lease periods. In addition, the Group is prohibited from subleasing or transferring all or any portion of the underlying assets without the lessor's consent.

d. Subleases

In addition to the sublease transactions described in Note 17, the Group did not have other sublease transactions.

e. Other lease information

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Expenses relating to short-term leases	$ 188,724	$ 59,188	$ 386,063	$ 132,331
Expenses relating to low-value assets leases	$ 1,596	$ 542	$ 2,683	$ 1,333
Expenses relating to variable lease payments not included in the measurement of lease liabilities	$ 13,117	$ 11,271	$ 26,929	$ 18,047
Total cash outflow for leases	$ (402,913)	$ (316,923)	$ (767,346)	$ (578,914)

The Group elected to apply the recognition exemption for qualifying short-term leases and low-value asset leases, and thus, did not recognize right-of-use assets and lease liabilities for these leases.

17. INVESTMENT PROPERTIES

For the six months ended June 30, 2020

	Land	Buildings and improvements	Right-of-use assets	Total
	NT$	NT$	NT$	NT$
Cost				
Balance at January 1, 2020	$ 35,965	$ 7,710,369	$ 6,567,792	$ 14,314,126
Additions	-	6,352	-	6,352
Disposals	-	(1,274)	-	(1,274)
Reclassification	-	-	39,774	39,774
Effects of foreign currency exchange differences	-	(195,764)	(145,757)	(341,521)
Balance at June 30, 2020	$ 35,965	$ 7,519,683	$ 6,461,809	$ 14,017,457

(Continued)

	Land	Buildings and improvements	Right-of-use assets	Total
	NT$	NT$	NT$	NT$
Accumulated depreciation				
Balance at January 1, 2020	$ -	$ 972,571	$ 487,484	$ 1,460,055
Depreciation expenses	-	176,059	103,585	279,644
Disposals	-	(979)	-	(979)
Reclassification	-	-	10,423	10,423
Effects of foreign currency exchange differences	-	(25,719)	(14,965)	(40,684)
Balance at June 30, 2020	$ -	$ 1,121,932	$ 586,527	$ 1,708,459
Carrying amount at June 30, 2020	$ 35,965	$ 6,397,751	$ 5,875,282	$ 12,308,998

(Concluded)

For the six months ended June 30, 2019

	Land	Buildings and improvements	Right-of-use assets	Total
	NT$	NT$	NT$	NT$
Cost				
Balance at January 1, 2019	$ 35,965	$ 8,409,790	$ 6,891,947	$ 15,337,702
Transfers to property, plant and equipment and right-of-use assets	-	(379,448)	(52,512)	(431,960)
Disposals	-	(1,380)	-	(1,380)
Effects of foreign currency exchange differences	-	68,065	65,175	133,240
Balance at June 30, 2019	$ 35,965	$ 8,097,027	$ 6,904,610	$ 15,037,602
Accumulated depreciation				
Balance at January 1, 2019	$ -	$ 707,376	$ 292,722	$ 1,000,098
Depreciation expenses	-	180,720	125,897	306,617
Transfers to property, plant and equipment and right-of-use assets	-	(74,374)	(405)	(74,779)
Disposals	-	(803)	-	(803)
Effects of foreign currency exchange differences	-	19,993	(14,263)	5,730
Balance at June 30, 2019	$ -	$ 832,912	$ 403,951	$ 1,236,863
Carrying amount at June 30, 2019	$ 35,965	$ 7,264,115	$ 6,500,659	$ 13,800,739

Right-of-use assets included in investment properties were leasehold land located in Shanghai and were subleased under operating leases.

The abovementioned investment properties were leased out for 1 to 15 years, with an option to extend for an additional lease term. The lease contracts contain market review clauses in the event that the lessees exercise their options to extend. The lessees do not have bargain purchase options to acquire the investment properties at the expiry of the lease term.

In addition to fixed lease payments, some of the lease contracts also indicated that the lessees should make variable payments determined at a specific percentage of the excess of respective lessee's monthly revenues over a specific amount.

The maturity analysis of lease payments receivable under operating leases of investment properties was as follows:

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Year 1	$ 744,309	$ 921,649	$ 906,925
Year 2	635,444	744,366	771,397
Year 3	475,781	623,326	686,474
Year 4	359,952	408,634	545,482
Year 5	299,891	320,611	390,566
Year 6 and thereafter	687,787	830,091	1,026,565
	$ 3,203,164	$ 3,848,677	$ 4,327,409

The investment properties were depreciated on a straight-line basis over the following useful lives:

Main buildings	10-40 years
Right-of-use assets	15-50 years

Because of the market conditions severely affected by COVID-19 in 2020, some of the Group's subsidiaries agreed to provide unconditional rent reduction. The rent concessions were accounted for as adjustments to related income over the remaining lease term. For the six months ended June 30, 2020, total amount is NT$47,655 thousand.

The fair value of the investment properties was measured using the market approach and the income approach based on level 3 inputs by independent professional appraisers. The significant unobservable inputs were discount rates. The fair value of the investment properties was as follows:

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Fair value	$ 19,258,139	$ 19,586,287	$ 20,511,774

Refer to Note 35 for the carrying amount of the investment properties that had been pledged by the Group to secure borrowings.

18. GOODWILL

	Cost	Accumulated impairment	Carrying amount
	NT$	NT$	NT$
For the six months ended June 30, 2020			
Balance at January 1, 2020	$ 51,956,744	$ 2,414,113	$ 49,542,631
Effect of foreign currency exchange differences	(20,148)	-	(20,148)
Balance at June 30, 2020	$ 51,936,596	$ 2,414,113	$ 49,522,483
For the six months ended June 30, 2019 (Retrospectively Adjusted)			
Balance at January 1, 2019	$ 51,732,754	$ 2,414,113	$ 49,318,641
Acquisition through business combinations (Note 29)	140,618	-	140,618
Effect of foreign currency exchange differences	18,213	-	18,213
Balance at June 30, 2019	$ 51,891,585	$ 2,414,113	$ 49,477,472

19. OTHER INTANGIBLE ASSETS

The carrying amounts of each class of other intangible assets were as follows:

	June 30, 2020	December 31, 2019	June 30, 2019 (Retrospectively Adjusted)
	NT$	NT$	NT$
Customer relationships	$ 8,833,333	$ 9,333,333	$ 9,833,333
Computer software	1,985,646	1,929,539	1,635,238
Patents and acquired specific technology	16,718,342	17,718,523	18,709,542
Others	94,600	42,997	91,173
	$ 27,631,921	$ 29,024,392	$ 30,269,286

For the six months ended June 30, 2020

	Customer relationships	Computer software	Patents and acquired specific technology	Others	Total
	NT$	NT$	NT$	NT$	NT$
Cost					
Balance at January 1, 2020	$ 11,000,001	$ 4,606,878	$ 21,318,696	$ 68,300	$ 36,993,875
Additions	-	417,863	171	55,042	473,076
Disposals or derecognization	-	(10,477)	-	-	(10,477)

(Continued)

	Customer relationships NT$	Computer software NT$	Patents and acquired specific technology NT$	Others NT$	Total NT$
Effect of foreign currency exchange differences	$ -	$ (37,796)	$ (1,444)	$ (1,590)	$ (40,830)
Balance at June 30, 2020	$ 11,000,001	$ 4,976,468	$ 21,317,423	$ 121,752	$ 37,415,644
Accumulated amortization					
Balance at January 1, 2020	$ 1,666,668	$ 2,677,339	$ 3,600,173	$ 25,303	$ 7,969,483
Amortization expense	500,000	347,792	1,000,017	2,038	1,849,847
Disposals or derecognization	-	(2,938)	-	-	(2,938)
Effect of foreign currency exchange differences	-	(31,371)	(1,109)	(189)	(32,669)
Balance at June 30, 2020	$ 2,166,668	$ 2,990,822	$ 4,599,081	$ 27,152	$ 9,783,723

(Concluded)

For the six months ended June 30, 2019 (Retrospectively Adjusted)

	Customer relationships NT$	Computer software NT$	Patents and acquired specific technology NT$	Others NT$	Total NT$
Cost					
Balance at January 1, 2019	$ 11,915,636	$ 4,401,045	$ 20,588,356	$ 83,657	$ 36,988,694
Additions	-	732,570	-	36,917	769,487
Disposals	-	(1,075,635)	-	(6,315)	(1,081,950)
Acquisition through business combinations (Note 29)	-	13,938	723,834	-	737,772
Effect of foreign currency exchange differences	-	14,805	518	525	15,848
Balance at June 30, 2019	$ 11,915,636	$ 4,086,723	$ 21,312,708	$ 114,784	$ 37,429,851
Accumulated amortization					
Balance at January 1, 2019	$ 1,548,839	$ 3,241,363	$ 1,332,687	$ 27,772	$ 6,150,661
Amortization expense	533,464	259,661	956,708	2,084	1,751,917
Disposals	-	(1,068,632)	-	(6,315)	(1,074,947)
Acquisition through business combinations (Note 29)	-	4,693	313,422	-	318,115
Effect of foreign currency exchange differences	-	14,400	349	70	14,819
Balance at June 30, 2019	$ 2,082,303	$ 2,451,485	$ 2,603,166	$ 23,611	$ 7,160,565

Each class of other intangible assets was amortized on the straight-line basis over the following useful lives:

Customer relationships	11 years
Computer software	2-10 years
Patents and acquired specific technology	5-17 years
Others	5-32 years

20. BORROWINGS

a. Short-term borrowings

1) Bank loans mainly represented unsecured revolving loans and letters of credit.

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Secured bank loans, annual interest rates was 1.64%-2.83% and 3.75%-3.85% as of June 30, 2020 and June 30, 2019, respectively	$ 182,102	$ -	$ 32,503
Unsecured bank loans, annual interest rates were 0.63%-4.99%, 0.70%-5.40% and 0.71%-5.10% as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively	41,129,888	37,339,028	49,549,974
	$ 41,311,990	$ 37,339,028	$ 49,582,477

Short-term borrowings designated as hedging instruments and recognized under the line item of financial liabilities for hedging – current represented bank loans with annual interest rates at 1.96%-3.39%, 3.33%-5.24% and 2.89%-4.20% as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively.

2) Short-term bills payable – only as of June 30, 2020

Commercial papers	$ 1,000,000
Less: Unamortized discounts	37
	$ 999,963
Annual interest rate (%)	0.67

b. Long-term borrowings

1) Bank loans

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Revolving bank loans			
Syndicated bank loans - repayable through April 2021 to October 2022, annual interest rates were 2.08%, 1.80% and 1.80% as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively	$ 3,407,450	$ 20,000,000	$ 20,000,000
Others - repayable through July 2020 to July 2029, annual interest rates were 0.50%-4.28%, 0.82%-4.13% and 0.84%-3.28% as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively	104,796,035	105,214,824	83,082,980
Mortgage loans			
Repayable through July 2020 to December 2033, annual interest rates were 1.44%-4.90%, 2.43%-4.90% and 2.43%-5.39% as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively	5,960,666	4,880,822	4,507,831
	114,164,151	130,095,646	107,590,811
Less: unamortized arrangement fee	58,598	10,292	13,062
	114,105,553	130,085,354	107,577,749
Less: current portion	4,086,606	5,017,970	6,150,438
	$ 110,018,947	$ 125,067,384	$ 101,427,311

Pursuant to some of the above revolving bank loans agreements, the Company and its subsidiaries should meet certain financial covenants which are calculated based on each of their annual audited consolidated financial statements or semi-annual reviewed consolidated financial statements. The Company and its subsidiaries were in compliance with all of the financial covenants.

2) Long-term bills payable

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
China Bills Finance Corporation, repayable through March 2022, annual interest rates were 0.90%, 1.02%-1.05% and 1.02%-1.04% as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively	$ 1,500,000	$ 2,800,000	$ 2,800,000

(Continued)

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
International Bills Finance Corporation, annual interest rates were 1.02%-1.05% and 1.02%-1.04% as of December 31, 2019 and June 30, 2019, respectively, and has been repaid in March 2020	$ -	$ 3,000,000	$ 3,000,000
Ta Ching Bills Finance Corporation, repayable through January 2022 to March 2022, annual interest rates were 0.93%, 1.01%-1.03% and 1.02% as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively	2,000,000	3,100,000	3,100,000
Mega Bills Finance Corporation, repayable in March 2022, annual interest rates were 0.94%-0.95%, 1.04% and 1.03% as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively	2,000,000	2,000,000	2,000,000
	5,500,000	10,900,000	10,900,000
Less: unamortized discounts	750	4,635	2,622
	$ 5,499,250	$ 10,895,365	$ 10,897,378

(Concluded)

3) Long-term notes payable

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Commercial papers	$ 30,901	$ 100,016	$ 176,536
Less: unamortized discounts	409	2,137	5,548
	30,492	97,879	170,988
Less: current portion	30,492	94,798	140,496
	$ -	$ 3,081	$ 30,492
Annual interest rate (%)	5.02-6.74	5.02-6.89	5.02-6.89

The Company's subsidiary funded from leasing companies by after-sales repurchasing its inventories and machinery. The subsidiary issued notes to those leasing companies for monthly installments through February 2021.

21. BONDS PAYABLE

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
Unsecured domestic bonds			
Repayable at maturity in January 2021 and interest due annually with annual interest rate at 1.30%	$ 7,000,000	$ 7,000,000	$ 7,000,000
Repayable at maturity in January 2023 and interest due annually with annual interest rate at 1.50%	2,000,000	2,000,000	2,000,000
Repayable at maturity in January 2022 and interest due annually with annual interest rate at 1.25%	3,700,000	3,700,000	3,700,000
Repayable at maturity in January 2024 and interest due annually with annual interest rate at 1.45%	4,300,000	4,300,000	4,300,000
Repayable at maturity in April 2024 and interest due annually with annual interest rate at 0.90%	6,500,000	6,500,000	6,500,000
Repayable at maturity in April 2026 and interest due annually with annual interest rate at 1.03%	3,500,000	3,500,000	3,500,000
Repayable at maturity in April 2025 and interest due annually with annual interest rate at 0.90%	10,000,000	-	-
Unsecured international bonds			
US$200,000 thousand (linked to New Taiwan dollar), repayable at maturity in October 2022 and interest due quarterly with annual interest rate at 2.15%	6,204,800	6,204,800	-
US$100,000 thousand (linked to New Taiwan dollar), repayable at maturity in October 2024 and interest due quarterly with annual interest rate at 2.50%	3,102,400	3,102,400	-
Secured domestic bonds			
Repayable at maturity in December 2020 and interest due annually with nil annual interest rate	250,000	250,000	250,000
	46,557,200	36,557,200	27,250,000
Less: discounts on bonds payable	45,586	35,045	30,509
	46,511,614	36,522,155	27,219,491
Less: current portion of bonds payable	7,249,130	250,000	-
	$ 39,262,484	$ 36,272,155	$ 27,219,491

a. In December 2017, AMPI offered the fifth secured domestic convertible bonds in NT$250,000 thousand with nil coupon rate and a maturity of 3 years. Each holder of the bonds has the right to convert the bonds into ordinary shares of AMPI at the conversion price at any time from the 3 months after the offering date to the maturity date. The initial conversion price was NT$4.8 per share at offering date and the conversion price will be subject to adjustment in the event of the conversion provisions due to anti-dilution clause. As of June 30, 2020, December 31, 2019 and June 30, 2019, the conversion prices were all NT$4.8 per share. The bonds may be early redeemed at the option of AMPI, in whole or in part, at any time provided that (1) if the closing price of the AMPI's ordinary shares on the Taipei Exchange exceeds the conversion price by 30% or more for 30 consecutive business days in the period starting from 3 months after the offering to 40 days before the maturity or (2) the outstanding amount of the bonds falls below 10% of the originally offered in the period aforementioned.

b. In October 2019, the Company offered the second unsecured international bonds in the aggregate amount of US$300,000 thousand with par value of US$1,000 thousand. These unsecured international bonds were divided into tranche A, in the amount of US$200,000 thousand with maturity of 3 years, and tranche B, in the amount of US$100,000 thousand with maturity of 5 years. The annual interest rates of tranche A and tranche B were 2.15% and 2.50%, respectively. All the proceeds from bonds offering were used to support ASE's green investments by subscribing for ASE's newly issued ordinary shares from its private placement.

22. OTHER PAYABLES

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Payables for property, plant and equipment	$ 15,642,343	$ 14,282,564	$ 13,357,548
Accrued salary and bonus	8,750,769	10,384,089	8,670,142
Accrued employees' compensation and remuneration to directors	5,045,693	3,206,036	3,911,639
Accrued employee insurance	870,551	900,367	896,319
Accrued utilities	627,110	504,866	578,478
Others	10,422,976	9,903,768	7,787,232
	$ 41,359,442	$ 39,181,690	$ 35,201,358

23. RETIREMENT BENEFIT PLANS

The Group's retirement benefit plans consisted of defined contribution retirement plan and defined benefit retirement plan. Employee benefit expenses in respect of the Group's defined benefit retirement plans were calculated using the projected pension cost stated in 2019 and 2018 actuarial reports.

24. EQUITY

a. Share capital

Ordinary shares

	June 30, 2020	December 31, 2019	June 30, 2019
Numbers of shares authorized (in thousands)	5,500,000	5,000,000	5,000,000
Numbers of shares reserved (in thousands)			
Employee share options	400,000	400,000	400,000

(Continued)

	June 30, 2020	December 31, 2019	June 30, 2019
Shares capital authorized	$ 55,000,000	$ 50,000,000	$ 50,000,000
Shares capital reserved			
Employee share options	$ 4,000,000	$ 4,000,000	$ 4,000,000
Number of shares issued and fully paid (in thousands)	4,338,356	4,330,528	4,323,779

(Concluded)

American Depositary Receipts

The Company's ADS represents 2 ordinary shares of the Company. As of June 30, 2020, December 31, 2019 and June 30, 2019, 118,577 thousand, 125,542 thousand and 131,751 thousand ADSs were outstanding and represented approximately 237,154 thousand, 251,084 thousand and 263,502 thousand ordinary shares of the Company, respectively.

b. Capital surplus

	June 30, 2020 NT$	December 31, 2019 NT$	June 30, 2019 NT$
May be used to offset a deficit, distributed as cash dividends, or transferred to share capital (1)			
Issuance of ordinary shares	$ 13,429,662	$ 13,070,330	$ 12,983,650
Merger by share exchange	117,693,658	117,693,658	117,693,658
Difference between consideration and the carrying amount of the subsidiaries' net assets during actual disposal or acquisition	3,240,987	3,254,489	5,951,199
	134,364,307	134,018,477	136,628,507
May be used to offset a deficit only			
Changes in percentage of ownership interest in subsidiaries (2)	701,363	890,425	3,536,865
Treasury share transactions	510,591	364,708	364,708
Exercised employee share options	1,568,074	1,443,995	1,407,916
Expired share options (Note 28)	645,903	645,903	645,903
Share of changes in capital surplus of associates	36,982	16,266	13,407
Dividends that the claim period has elapsed and unclaimed by shareholders	1,956	1,942	872
	3,464,869	3,363,239	5,969,671
May not be used for any purpose			
Employee share options	1,558,855	1,304,250	947,663
Others (3)	112,640	222,946	36,369
	1,671,495	1,527,196	984,032
	$ 139,500,671	$ 138,908,912	$ 143,582,210

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

2) Such capital surplus arises from the effects of changes in ownership interests in subsidiaries resulting from equity transactions other than actual disposals or acquisitions, or from changes in capital surplus of subsidiaries accounted for using the equity method.

3) Such capital surplus represents the excess of the carrying amount of related accounts over the par value due to employee share options exercised and the Company has not completed registration formalities.

c. Retained earnings and dividend policy

The Articles of Incorporation of the Company (the "Articles") provides that annual net income shall be distributed in the following order:

1) Replenishment of deficits;

2) 10.0% as legal reserve;

3) Special reserve appropriated or reversed in accordance with laws or regulations set forth by the authorities concerned;

For the policies on the distribution of employees' compensation and remuneration of directors, refer to employees' compensation and remuneration of directors in Note 25(g).

The Company is currently in the mature growth stage. To meet the capital needs for business development now and in the future and satisfy the shareholders' demand for cash inflows, the Company shall use residual dividend policy to distribute dividends, of which the cash dividend is not lower than 30% of the total dividend distribution, with the remainder to be distributed in shares. A distribution plan is also to be made by the board of directors and passed for resolution in the shareholders' meeting.

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

Items referred to under Rule No. 1010012865 and Rule No. 1010047490 issued by the FSC and in the directive titled "Questions and Answers for Special Reserves Appropriated Following Adoption of IFRSs" should be appropriated to or reversed from a special reserve by the Company.

The appropriation of earnings for 2019 and 2018 resolved at the Company's annual shareholders' meetings in June 2020 and June 2019, respectively, were as follows:

	Appropriation of Earnings		**Dividends Per Share**	
	For Year 2019	**For Year 2018**	**For Year 2019**	**For Year 2018**
	NT$	**NT$**	**NT$ (in dollars)**	**NT$ (in dollars)**
Legal reserve	$ 1,697,489	$ 2,203,895		
Special reserve	3,944,915	3,548,844		
Cash dividends	8,668,331	10,806,454	$ 2.0	$ 2.5
	$ 14,310,735	$ 16,559,193		

d. Others equity

1) Exchange differences on translating foreign operations

	For the Six Months Ended June 30	
	2020	2019
	NT$	NT$
Balance at January 1	$ (10,761,785)	$ (5,887,675)
Exchange differences on translation	(2,998,333)	1,511,208
Share from associates and joint venture accounted for using the equity method	(57,399)	21,790
Share from the disposal of associates and joint venture accounted for using the equity method	29,971	-
Balance at June 30	$ (13,787,546)	$ (4,354,677)

2) Unrealized gain (loss) on financial assets at FVTOCI

	For the Six Months Ended June 30	
	2020	2019
	NT$	NT$
Balance at January 1	$ (85,912)	$ (1,015,107)
Unrealized gain (loss) recognized during the period		
Debt instruments	(914)	(878)
Equity instruments	(142,177)	(102,415)
Share from associates and joint ventures accounted for using the equity method	(229,602)	590,013
Realized loss (gain) recognized during the period		
Share from the disposal of associates and joint venture accounted for using the equity method	1,094	-
Share from associates and joint ventures accounted for using the equity method	(37)	(96,045)
Balance at June 30	$ (457,548)	$ (624,432)

e. Treasury shares

The Company's shares held by subsidiaries were both 72,941 thousand shares for each of the six months ended June 30, 2020 and 2019.

The related information regarding the Company's ordinary shares held by its subsidiaries at each balance sheet date was as follows:

	Shares Held by Subsidiaries (in thousand shares)	Carrying Amount NT$	Fair Value NT$
June 30, 2020			
ASE Test	44,100	$ 1,380,721	$ 2,981,176
J&R Holding	23,352	381,709	1,578,587
ASE Test, Inc.	5,489	196,677	371,083
	72,941	$ 1,959,107	$ 4,930,846
December 31, 2019			
ASE Test	44,100	$ 1,380,721	$ 3,669,140
J&R Holding	23,352	381,709	1,942,876
ASE Test, Inc.	5,489	196,677	456,717
	72,941	$ 1,959,107	$ 6,068,733
June 30, 2019			
ASE Test	44,100	$ 1,380,721	$ 2,712,165
J&R Holding	23,352	381,709	1,436,141
ASE Test, Inc.	5,489	196,677	337,597
	72,941	$ 1,959,107	$ 4,485,903

Fair value (Level 1) of the Company's shares held by subsidiaries is based on the closing price from an available published price quotation.

The subsidiaries holding the aforementioned treasury shares are bestowed shareholders' rights, except the rights to participate in any capital increase by cash and to vote.

f. Non-controlling interests

	For the Six Months Ended June 30	
	2020 NT$	2019 (Retrospectively Adjusted) NT$
Balance at January 1	$ 13,377,956	$ 17,647,190
Share of profit for the period	458,519	297,677
Other comprehensive income (loss) for the period		
Exchange difference on translation	(266,716)	160,585
Unrealized loss on equity instruments at FVTOCI	(1,922)	(1,903)
Non-controlling interests from acquisition of subsidiaries (Note 29)	-	524,156
Subscribing for ordinary shares form subsidiaries' cash capital increase	-	83,044

(Continued)

	For the Six Months Ended June 30	
	2020	2019 (Retrospectively Adjusted)
	NT$	NT$
Acquisition of non-controlling interests in subsidiaries (Note 30)	$ (116,738)	$ (8,335)
Subsidiaries' buy back of their own outstanding ordinary shares (Note 30)	-	(204,537)
Non-controlling interest from expired employee share options granted by subsidiaries	421,801	32,663
Cash dividends to non-controlling interests	(346,774)	(360,245)
Balance at June 30	$ 13,526,126	$ 18,170,295

(Concluded)

25. PROFIT BEFORE INCOME TAX

a. Other income

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Government subsidy	$ 183,756	$ 199,268	$ 403,673	$ 330,815
Bank interest income	148,487	136,983	268,378	266,863
Dividends income	42,963	101,393	49,472	104,018
Rental income	38,077	45,276	76,186	89,494
	$ 413,283	$ 482,920	$ 797,709	$ 791,190

b. Other gains and losses

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Remeasurement gain on investments accounted for using the equity method due to step acquisition (Note 29)	$ -	$ 319,712	$ -	$ 319,712
Net gains on financial assets mandatorily at FVTPL	774,900	1,166,867	985,605	2,851,896
Net losses arising on financial instruments held for trading	(792,264)	(364,449)	(817,031)	(493,145)
Foreign exchange gains (losses), net	718,024	(340,117)	393,743	(520,251)

(Continued)

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
(Losses) gains on disposal of property, plant and equipment	$ (65,729)	$ 14,276	$ (39,578)	$ (39,888)
Impairment losses	(9,940)	(78,878)	(96,258)	(141,378)
Gain on disposal of investments accounted for using the equity method (Note 14)	74,117	-	91,297	-
Others	156,548	18,703	183,921	46,419
	$ 855,656	$ 736,114	$ 701,699	$ 2,023,365

(Concluded)

c. Finance costs

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Interest on lease liabilities	$ 21,333	$ 33,373	$ 43,395	$ 68,247
Interest on borrowings and bonds payable	934,649	1,036,141	1,966,244	2,119,246
Total interest expense for financial liabilities measured at amortized cost	955,982	1,069,514	2,009,639	2,187,493
Less: Amounts included in the cost of qualifying assets				
Inventories related to real estate business	(21,753)	(8,210)	(41,741)	(15,001)
Property, plant and equipment	(14,901)	(15,245)	(36,108)	(30,153)
	919,328	1,046,059	1,931,790	2,142,339
Other finance costs	2,708	5,847	8,349	9,157
	$ 922,036	$ 1,051,906	$ 1,940,139	$ 2,151,496

Information relating to the capitalized borrowing costs was as follows:

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
Annual interest capitalization rates				
Inventories related to real estate business (%)	4.35-4.75	4.35	4.35-4.75	4.35
Property, plant and equipment (%)	1.00-3.30	2.28-3.83	0.95-3.47	2.14-4.03

d. Depreciation and amortization

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Property, plant and equipment	$ 11,468,745	$ 11,292,181	$ 22,839,244	$ 22,608,291
Right-of-use assets	251,116	282,792	503,850	545,373
Investment properties	138,897	151,355	279,644	306,617
Other intangible assets	926,351	910,395	1,849,847	1,751,917
Total	$ 12,785,109	$ 12,636,723	$ 25,472,585	$ 25,212,198
Summary of depreciation by function				
Operating costs	$ 10,971,355	$ 10,951,522	$ 21,904,754	$ 21,947,033
Operating expenses	887,403	774,806	1,717,984	1,513,248
	$ 11,858,758	$ 11,726,328	$ 23,622,738	$ 23,460,281
Summary of amortization by function				
Operating costs	$ 555,245	$ 513,308	$ 1,107,538	$ 1,019,556
Operating expenses	371,106	397,087	742,309	732,361
	$ 926,351	$ 910,395	$ 1,849,847	$ 1,751,917

e. Operating expenses directly related to investment properties

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Direct operating expenses from investment properties generating rental income	$ 267,540	$ 316,400	$ 554,061	$ 634,564

f. Employee benefits expense

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Post-employment benefits				
Defined contribution plans	$ 655,055	$ 779,420	$ 1,380,351	$ 1,572,627
Defined benefit plans	59,729	69,533	120,805	139,829
	714,784	848,953	1,501,156	1,712,456
Equity-settled share-based payments	227,647	216,795	460,409	438,915
Other employee benefits	18,659,107	16,952,879	36,794,286	33,112,310
	$ 19,601,538	$ 18,018,627	$ 38,755,851	$ 35,263,681

(Continued)

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Summary of employee benefits expense by function				
Operating costs	$ 12,904,875	$ 11,917,969	$ 25,723,515	$ 23,536,123
Operating expenses	6,696,663	6,100,658	13,032,336	11,727,558
	$ 19,601,538	$ 18,018,627	$ 38,755,851	$ 35,263,681

(Concluded)

g. Employees' compensation and remuneration to directors

The Articles stipulates to distribute employees' compensation and remuneration to directors at the rates of 0.01%-1.00% and no higher than 0.75%, respectively, of net profit before income tax, employees' compensation and remuneration to directors.

	For the Three Months Ended June 30, 2020		For the Three Months Ended June 30, 2019	
	Accrual rate	Accrual amount	Accrual rate	Accrual amount
		NT$		NT$
Employees' compensation	0.20%	$ 13,487	0.20%	$ 6,668
Remuneration to directors	0.40%	26,972	0.15%	5,003

	For the Six Months Ended June 30, 2020		For the Six Months Ended June 30, 2019	
	Accrual rate	Accrual amount	Accrual rate	Accrual amount
		NT$		NT$
Employees' compensation	0.20%	$ 21,305	0.20%	$ 10,050
Remuneration to directors	0.40%	42,610	0.15%	7,540

If there is a change in the amounts after the annual consolidated financial statement are authorized for issue, the differences are recorded as a change in accounting estimate and will be adjusted in the following year.

In March 2020 and March 2019, the board of directors resolved the appropriations of employees' compensation and remuneration to directors in cash for 2019 and 2018, respectively. The differences between the resolved amounts and the accrued amounts reflected in the annual consolidated financial statements for the years ended December 31, 2019 and 2018 were deemed changes in estimates. The differences were both NT$3 thousand and were adjusted in net profit for each of the year ended December 31, 2020 and 2019, respectively.

	For Year 2019		For Year 2018	
	Employees' compensation	Remuneration to directors	Employees' compensation	Remuneration to directors
	NT$	NT$	NT$	NT$
Resolved by the board of directors	$ 34,400	$ 68,800	$ 45,430	$ 34,070
Recognized in the consolidated financial statements	$ 34,400	$ 68,803	$ 45,430	$ 34,073

Information on the employees' compensation and the remuneration to directors resolved by the board of directors is available at the Market Observation Post System website of the Taiwan Stock Exchange (the "TWSE").

26. INCOME TAX

The Company and its subsidiaries have filed a consolidated tax return for corporate income tax starting from 2019 and for unappropriated earnings starting from 2018.

a. Income tax recognized in profit or loss

The major components of income tax expense were as follows:

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Current income tax				
In respect of the current period	$ 1,634,335	$ 1,317,377	$ 2,763,559	$ 2,032,582
Income tax on unappropriated earnings	25,488	299,065	46,029	335,944
Changes in estimate for prior periods	(273,665)	210,490	(291,845)	(301,565)
	1,386,158	1,826,932	2,517,743	2,066,961
Deferred income tax				
In respect of the current period	343,788	(125,952)	424,388	(2,057)
Changes in estimate for prior periods	(97,158)	(67,062)	(97,158)	(66,867)
Effect of foreign currency exchange differences	12,765	(10,328)	(24,395)	30,444
	259,395	(203,342)	302,835	(38,480)
Income tax recognized in profit or loss	$ 1,645,553	$ 1,623,590	$ 2,820,578	$ 2,028,481

In July 2019, the President of the R.O.C. announced the amendments to the Statute for Industrial Innovation, which stipulate that the amounts of unappropriated earnings in 2018 and thereafter that are reinvested in the construction or purchase of certain assets or technologies are allowed as deduction when computing the income tax on unappropriated earnings. When calculating the tax on unappropriated earnings, the Group only deducts the amount of the unappropriated earnings that has been reinvested in capital expenditure.

In addition, in accordance with Rule No.10904558730 issued by the Ministry of Finance of Taiwan (MOF), the Group has deducted the amount of dividends distributed in 2020 attributable to the increase in the beginning retained earnings for 2018 as a result of initial adoption of IFRS 9 and IFRS 15 when calculating the tax on unappropriated earnings for 2018.

b. Income tax assessments

The income tax returns of the Company and its R.O.C. subsidiaries through 2017 and 2018 have been assessed by the tax authorities.

27. EARNINGS PER SHARE

The earnings and weighted average number of ordinary shares outstanding in the computation of earnings per share were as follows:

Net profit for the period

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Profit for the period attributable to owners of the Company	$ 6,937,596	$ 2,690,037	$ 10,836,225	$ 4,732,990
Effect of potentially dilutive ordinary shares:				
Employee share options issued by subsidiaries	(97,280)	(50,350)	(166,928)	(149,875)
Earnings used in the computation of diluted earnings per share	$ 6,840,316	$ 2,639,687	$ 10,669,297	$ 4,583,115

Weighted average number of ordinary shares outstanding (in thousand shares):

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
Weighted average number of ordinary shares in the computation of basic earnings per share	4,265,408	4,250,830	4,262,840	4,250,205
Effect of potentially dilutive ordinary shares:				
Employee share options	8,047	5,805	15,636	5,581
Employees' compensation	315	163	596	479
Weighted average number of ordinary shares in the computation of diluted earnings per share	4,273,770	4,256,798	4,279,072	4,256,265

The Group is able to settle the employees' compensation by cash or shares. The Group assumed that the entire amount of the employees' compensation would be settled in shares and the resulting potential shares were included in the weighted average number of ordinary shares outstanding used in the computation of diluted earnings per share if the effect is dilutive. Such dilutive effect of the potential shares was included in the computation of diluted earnings per share until shareholders approve the number of shares to be distributed to employees at their meeting in the following year.

28. SHARE-BASED PAYMENT ARRANGEMENTS

a. Employee share option plans of the Company

In order to attract, retain and reward employees, the Company and its subsidiary have their employee share option plans for the Group's full-time employees. As disclosed in Note 1, the Company assumed ASE's obligations of outstanding employee share option plans starting from April 30, 2018 and each share option represents the right to purchase 0.5 ordinary share of the Company when exercised. Under the terms of the plan, share options are granted at an exercise price equal to or not less than the closing price of the ordinary shares listed on the TWSE at the issue date. The right of those share options granted under the plan is valid for 10 years, non-transferable and exercisable at certain percentages subsequent to the second anniversary of the grant date. For any subsequent changes in the Company's capital structure or when cash dividend per ordinary share exceeds 1.5% of the market price per ordinary share, the exercise price is accordingly adjusted.

Information about the share option plans that the Company granted and assumed for the six months ended June 30, 2020 and 2019 was as follows:

	For the Six Months Ended June 30			
	2020		2019	
	Number of Options (In Thousands)	Weighted Average Exercise Price Per Share (NT$)	Number of Options (In Thousands)	Weighted Average Exercise Price Per Share (NT$)
Balance at January 1	170,786	$ 57.0	183,814	$ 58.1
Options expired	(1,006)	40.8	-	-
Options forfeited	(1,855)	59.5	(2,072)	63.2
Options exercised	(7,828)	41.8	(2,065)	41.4
Balance at June 30	160,097	57.8	179,677	58.3
Options exercisable, end of period	28,176	71.4	37,526	60.3

The weighted average share price at exercise dates for the six months ended June 30, 2020 and 2019 were NT$69.4 and NT$63.2, respectively.

Information about the outstanding share options at each balance sheet date was as follows:

	Exercise Price Per Share (NT$)	Weighted Average Remaining Contractual Life (Years)
June 30, 2020		
ASE 4th share options	$ 45.2	0.8
ASE 5th share options	73.0	5.2
The Company 1st share options	54.4	8.4
December 31, 2019		
ASE 4th share options	40.8-45.2	0.5
ASE 5th share options	73.0	5.7
The Company 1st share options	54.4	8.9
June 30, 2019		
ASE 4th share options	40.8-45.2	1.0
ASE 5th share options	73.0	6.2
The Company 1st share options	56.4	9.4

b. Employee share option plans of subsidiaries

USIE's Option Plans

The terms of the plans issued by USIE were the same with those option plans previously granted by ASE.

Information about share options was as follows:

	For the Six Months Ended June 30			
	2020		2019	
	Number of Options (In Thousands)	Weighted Average Exercise Price Per Share (US$)	Number of Options (In Thousands)	Weighted Average Exercise Price Per Share (US$)
Balance at January 1 and June 30	8,349	$ 2.3	16,711	$ 2.1
Options exercisable, end of period	8,349	2.3	16,711	2.1

Information about USIE's outstanding share options at each balance sheet date was as follows:

	Exercise Price Per Share (US$)	Weighted Average Remaining Contractual Life (Years)
June 30, 2020		
1st share options	$ 1.5	0.5
3rd share options	2.9	0.9
December 31, 2019		
1st share options	1.5	1.0
3rd share options	2.9	1.4
June 30, 2019		
1st share options	1.5	1.5
2nd and 3rd share options	2.4-2.9	1.6

The Group's shareholdings in USIE decreased because USIE's share options were exercised during the three months ended March 31, 2020. The transaction was accounted for as an equity transaction since the Group did not cease to have control over USIE and, as a result, capital surplus decreased by NT$261,653 thousand.

USISH

Under the share option plan issued in 2015 ("2015 share options"), each unit represents the right to purchase one ordinary share of USISH when exercised. The options are valid for 10 years, non-transferable and exercisable at certain percentages subsequent to the second anniversary of the grant date incorporated with certain performance conditions. For any subsequent changes in USISH's capital structure, the exercise price is accordingly adjusted.

In November 2019, USISH adopted a share option plan ("2019 share options") and granted 17,167 thousand share options to its employees. Each unit represents the right to purchase one ordinary share of USISH when exercised. The options are valid for 5.0 years and are exercisable at certain percentages within 12 months subsequent to the second, the third and the fourth anniversary of the grant date with the satisfaction of certain performance conditions within each respective vesting period. In the event that USISH increases share capital by capital surplus and by cash, and distributes share dividends and cash dividends, the exercisable share option units and the exercise price are accordingly adjusted.

In addition, in November 2019, USISH adopted a restricted share plan ("2019 restricted shares") and granted 6,156 thousand ordinary shares to its directors (excluding independent directors), supervisors and employees. In April 2020, the board of directors further resolved to grant 6,403 thousand ordinary shares instead, while other terms remain constant. The plan was of 3 phases starting from 2019 and each phase lasts for 1 year with a valid period of 4.5 years, 3.5 years and 2.5 years, respectively. Upon satisfaction of certain performance conditions in each phase, participants are entitled to subscribe a certain percentage of the total USISH's ordinary shares issued under the plan with a lock-up period of 1 year. In the event that USISH increases share capital by capital surplus and by cash, and distributes share dividends and cash dividends, the exercise price is accordingly adjusted.

Information about share options was as follows:

	For the Six Months Ended June 30			
	2020		2019	
	Number of Options (In Thousands)	Exercise Price Per Share (RMB)	Number of Options (In Thousands)	Exercise Price Per Share (RMB)
Balance at January 1	41,233	$ 14.3	21,537	$ 15.5
Options granted	247	13.3	-	-
Options exercised	(2,195)	15.5	-	-
Options forfeited	(301)	13.9	(206)	15.5
Balance at June 30	38,984	14.2	21,331	15.5
Options exercisable, end of period	12,747	15.3	12,764	15.5

Information about USISH's outstanding share options at each balance sheet date was as follows:

	Exercise Price Per Share (RMB)	Remaining Contractual Life (Years)
June 30, 2020		
2015 share options	$ 15.5	5.4
2019 share options	13.3	4.4
2019 restricted shares	13.3	3.8
December 31, 2019		
2015 share options	15.5	5.9
2019 share options	13.3	4.9
2019 restricted shares	13.3	4.3
June 30, 2019		
2015 share options	15.5	6.4

The Group's shareholdings in USISH decreased because the abovementioned 2015 share options were exercised during the six months ended June 30, 2020. The transaction was accounted for as an equity transaction since the Group did not cease to have control over USISH and, as a result, capital surplus increased by NT$72,591 thousand.

c. Fair value of share option plans

For the fair values at the grant date of USISH's 2020 and 2019 plans, 2019 share options were measured by using the trinomial tree model, while 2019 restricted shares before and after the amendment in 2020 were measured by using the Black-Scholes Option Pricing Model incorporating the effect of the lock-up period. The inputs to the models were as follows:

	USISH 2019 share options	USISH 2019 restricted shares	USISH 2019 restricted shares amended in 2020
Share price at the grant date	RMB15.84 per share	RMB16.30 per share	RMB16.60 per share
Exercise price	RMB13.34 per share	RMB13.34 per share	RMB13.34 per share
Expected volatility (%)	45.07-51.80	47.77	57.21
Expected lives (years)	3.0-5.0	-	-
Expected dividend yield	-	-	-
Risk free interest rate (%)	2.80-2.97	2.70	1.55

Expected volatilities were based on USISH's historical share prices annualized volatilities.

For the three months and six months ended June 30, 2020 and 2019, employee benefit expense recognized on the aforementioned employee share option plans and the restricted share plan were NT$227,647 thousand, NT$216,795 thousand, NT$460,409 and NT$438,915 thousand, respectively.

29. BUSINESS COMBINATIONS

a. Subsidiaries acquired

Subsidiary	Principal Activity	Date of Acquisition	Proportion of Voting Equity Interests Acquired (%)	Consideration Transferred
AMPI	Engaged in the manufacturing of integrated circuit	April 30, 2019	50.97	$ 250,000
ASEEE	Engaged in the production of embedded substrate	April 26, 2019	51.00	$ -
USIPL	Engaged in the design and manufacturing of electronic components and new electronic applications	October 31, 2019	60.00	$ 313,057

In April 2019, the Group's subsidiary, ASE Test, Inc., subscribed for 100,000 thousand ordinary shares of AMPI from its private placement with NT$250,000 thousand in cash. The percentage of the Group's ownership in AMPI then increased to 50.97% and, therefore, the Group obtained control over AMPI. The investments in ordinary shares of AMPI originally accounted for using the equity method were remeasured to the fair value at the acquisition date and the Group recognized remeasurement gain of NT$243,057 thousand under the line item of other gains and losses (Note 25).

In April 2019, ASE entered into a memorandum of understanding with TDK Corporation ("TDK") in relation to ASEEE that was incorporated by a joint venture agreement entered into by the Group and TDK. In addition to a reduction of one legal representative director of TDK, which resulted in that the Group obtained control over ASEEE starting from April 2019 and the investments in ASEEE originally accounted for using the equity method was remeasured to its fair value at the acquisition date with a remeasurement gain of NT$76,655 thousand under the line item of other gains and losses (Note 25), the memorandum of understanding set out that, after ASEEE offset its accumulated deficits against its capital in an amount of NT$1,147,595 thousand, ASE subscribed all of 150,000 thousand ordinary shares newly issued by ASEEE through its capital increase by cash in an amount of NT$1,500,000 thousand in May 2019 and then repurchased all of ASEEE's ordinary shares held by TDK in an amount of US$6,000 thousand in July 2019. As a result, the Group eventually held 100.00% of ownership in ASEEE (Note 30). Furthermore, ASE merged ASEEE in February 2020.

In October 2019, the Group's subsidiary, Universal Global Electronics Co., Ltd., acquired 60% shareholdings of USIPL with a total consideration based on independent professional appraisal reports.

b. Assets acquired and liabilities assumed at the date of acquisition

	AMPI	ASEEE	USIPL
	NT$	NT$	NT$
Assets			
Cash and cash equivalents	$ 349,496	$ 23,197	$ 108,718
Trade and other receivables	371,144	5,732	58,713
Inventories	403,887	11,033	229
Property, plant and equipment	683,207	1,361,572	525,048
Intangible assets	128,900	290,757	11,704
Others	237,766	317,888	99,112
Liabilities			
Trade and other payables	(224,295)	(133,278)	(217,887)
Borrowings and bonds payables	(951,519)	(1,371,395)	(190,737)
Others	(148,723)	(290,273)	(63,708)
Fair value of identifiable net assets acquired	$ 849,863	$ 215,233	$ 331,192

A call option on the remaining 40% non-controlling interests of USIPL was stipulated in the equity transfer agreement and recognized by the Group under the line item of financial assets at FVTPL in 2019. The Group exercised the call option in May 2020 (Note 30).

c. Non-controlling interest

Non-controlling interests of AMPI and ASEEE were measured at their proportionate share of the fair value of AMPI's and ASEEE's identifiable net assets, respectively.

Non-controlling interests of USIPL were measured at fair value at the acquisition date by using market approach incorporating transaction prices of comparable companies and the discount rate for lack of control. The significant unobservable inputs is the discount rate for lack of control of 31%.

d. Goodwill recognized on acquisitions

	AMPI	ASEEE	USIPL
	NT$	NT$	NT$
Consideration transferred	$ 250,000	$ -	$ 313,057
Add: Fair value of investments previously owned	315,925	117,609	-
Add: Non-controlling interests	416,716	105,464	142,494
Less: Fair value of identifiable net assets acquired	(849,863)	(215,233)	(331,192)
Goodwill recognized on acquisition	$ 132,778	$ 7,840	$ 124,359

The goodwill form acquisitions mainly represents the control premium. In addition, the consideration paid for acquisitions effectively included amounts attributed to the benefits of expected synergies, such as revenue growth and future market expansions. These benefits are not recognized separately from goodwill because they do not meet the recognition criteria for identifiable intangible assets.

The goodwill recognized on acquisitions is not expected to be deductible for tax purpose.

The Group has completed the identification of the difference between the cost of the investment and the Group's share of the net fair value of identifiable assets and liabilities of AMPI and ASEEE in 2019, and has retrospectively adjusted the comparative consolidated financial statements for the six months ended June 30, 2019. The Group has also completed the identification of the difference between the cost of the investment and its share of the net fair value of identifiable assets and liabilities of USIPL as of June 30, 2020.

e. Net cash outflow (inflow) on acquisition of subsidiaries

	AMPI	ASEEE	USIPL
	NT$	NT$	NT$
Consideration paid in cash	$ 250,000	$ -	$ 313,057
Less: Cash and cash equivalent acquired	(349,496)	(23,197)	(108,718)
Net cash outflow (inflow) on acquisition of subsidiaries	$ (99,496)	$ (23,197)	$ 204,339

f. Impact of acquisitions on the results of the Group

The results of operations since the acquisition date were included in the consolidated statements of comprehensive income and were as follows:

	AMPI (For the Period from April 30, 2019 through June 30, 2019)	ASEEE (For the Period from April 26, 2019 through June 30, 2019)	Total
	NT$	NT$	NT$
Operating revenue	$ 195,060	$ 4,303	$ 199,363
Net loss	$ (33,330)	$ (136,771)	$ (170,101)

Had AMPI, ASEEE and USIPL business combinations been in effect at the beginning of each annual reporting period and the investments originally accounted for using the equity method been remeasured to their fair value as of January 1 of each respective annual reporting period, the Group's operating revenue for the three months and six months ended June 30, 2019 would have been NT$90,910,586 thousand and NT$180,123,376 thousand, respectively; and profit from continuing operations for the three months and six months ended June 30, 2019 would have been NT$2,766,659 thousand and NT$4,845,571 thousand, respectively. This pro-forma information is for illustrative purposes only and is not necessarily an indication of the operating revenue and results of operations of the Group that actually would have been achieved had the acquisition been completed at the beginning of each annual reporting period, nor is it intended to be a projection of future results.

In determining the pro-forma operating revenue and profit for the period had each subsidiary been acquired at the beginning of each respective annual reporting period, the Group has calculated the depreciation of property, plant and equipment and the amortization of intangible assets acquired on the basis of the fair values at the initial accounting for the business combination rather than the carrying amounts recognized in the respective pre-acquisition financial statements.

30. EQUITY TRANSACTION WITH NON-CONTROLLING INTERESTS

In July 2018, UGTW's board of directors have approved to acquire the outstanding ordinary shares of USI at NT$18 per ordinary shares. In the first quarter of 2019, UGTW completed the acquisition and recognized an increase in capital surplus by NT$142 thousand.

As disclosed in Note 29, ASE purchased ASEEE's ordinary shares through its capital increase in May 2019 and then repurchased all of ASEEE's ordinary shares held by TDK in July 2019. As a result, the Group eventually held 100% of ownership in ASEEE and capital surplus was decreased by NT$128,805 thousand.

USISH repurchased its own 7,611 thousand outstanding ordinary shares for the six months ended June 30, 2019 and, as a result, the Group's shareholdings in USISH increased from 74.6% to 74.9%. The transaction was accounted for as an equity transaction since the Group did not cease to have control over USISH and capital surplus was decreased by NT$189,020 thousand.

In May 2020, the board of directors of Universal Global Electronics Co., Ltd. resolved to acquire 40% shareholdings of USIPL from Chung Hong Electronics (Suzhou) Co., Ltd. at RMB24,500 thousand. The aforementioned transaction resulted the Group's shareholdings in USIPL to increase from 60% to 100%, and such transactions were accounted for as an equity transaction since the Group did not cease to have control over USIPL. The Group recognized a decrease in capital surplus by NT$13,502 thousand in the second quarter of 2020.

31. CASH FLOW TRANSACTIONS

a. Non-cash investing activities

In addition to other notes, the Group entered into the following investing activities affecting both cash and non-cash items for the six months ended June 30, 2020 and 2019:

	For the Six Months Ended June 30	
	2020	2019
	NT$	NT$
Payments for property, plant and equipment		
Purchase of property, plant and equipment	$ 31,501,783	$ 25,730,691
Increase in other non-current assets	410,422	388,363
Increase in other payables	(1,359,779)	(5,329,562)
Capitalized borrowing costs	(36,108)	(30,153)
	$ 30,516,318	$ 20,759,339
Proceeds from disposal of property, plant and equipment		
Consideration from disposal of property, plant and equipment	$ 303,660	$ 427,872
Decrease in other receivables	20,297	2,822
	$ 323,957	$ 430,694
Payments for other intangible assets		
Purchase of other intangible assets	$ 473,076	$ 769,487
Decrease in other payables	-	40,106
	$ 473,076	$ 809,593

b. Changes in liabilities arising from financing activities

For the six months ended June 30, 2020

	Short-term borrowings (including financial liabilities for hedging)	Bonds payable	Long-term borrowings	Lease liabilities	Total
	NT$	NT$	NT$	NT$	NT$
Balance at January 1, 2020	$ 40,572,329	$ 36,522,155	$ 141,078,598	$ 5,808,924	$ 223,982,006
Net financing cash flows	9,603,174	9,983,557	(24,597,445)	(301,839)	(5,312,553)
Interest under operating activities	-	-	-	27	27
Rental under operating activities	-	-	-	(1,557)	(1,557)
Non-cash changes					
Lease liabilities	-	-	-	194,031	194,031
Amortization of issuance cost	-	5,902	81,659	-	87,561
Lease modifications	-	-	-	(176,993)	(176,993)
Short-term borrowings transferred to long-term borrowings	(3,850,000)	-	3,850,000	-	-
Adjustments for government subsidy	-	-	41,650	-	41,650
Effects of foreign currency exchange	(511,083)	-	(819,167)	(6,016)	(1,336,266)
Balance at June 30, 2020	$ 45,814,420	$ 46,511,614	$ 119,635,295	$ 5,516,577	$ 217,477,906

For the six months ended June 30, 2019

	Short-term borrowings (including financial liabilities for hedging)	Bonds payable	Long-term borrowings	Lease liabilities	Total
	NT$	NT$	NT$	NT$	NT$
Balance at January 1, 2019	$ 43,263,469	$ 16,985,936	$ 137,898,329	$ 6,084,729	$ 204,232,463
Net financing cash flows	5,455,074	9,984,000	(21,132,522)	(358,150)	(6,051,598)
Interest under operating activities	-	-	-	1,617	1,617
Non-cash changes					
Lease liabilities	-	-	-	128,500	128,500
Reclassification of foreign currency borrowings assigned to hedge foreign currency equity instruments	3,899,634	-	-	-	3,899,634
Acquisition through business combinations (Note 29)	656,820	245,664	1,333,230	77,439	2,313,153
Amortization of issuance cost	-	3,891	142,235	-	146,126
Effects of foreign currency exchange	262,069	-	404,842	60,920	727,831
Balance at June 30, 2019	$ 53,537,066	$ 27,219,491	$ 118,646,114	$ 5,995,055	$ 205,397,726

32. CAPITAL MANAGEMENT

The capital structure of the Group consists of debt and equity. The Group manages its capital to ensure that entities in the Group will be able to continue as going concerns while maximizing the return to shareholders through the optimization of the debt and equity balance. Key management personnel of the Group periodically reviews the cost of capital and the risks associated with each class of capital. In order to balance the overall capital structure, the Group may adjust the amount of dividends paid to shareholders, the number of new shares issued or repurchased, and the amount of new debt issued or existing debt redeemed.

The Group is not subject to any externally imposed capital requirements except those discussed in Note 20.

33. FINANCIAL INSTRUMENTS

a. Fair value of financial instruments that are not measured at fair value

1) Fair value of financial instruments not measured at fair value but for which fair value is disclosed

Except bonds payable measured at amortized cost, the management considered that the carrying amounts of financial assets and financial liabilities not measured at fair value approximate their fair values. The carrying amounts and fair value of bonds payable as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively, were as follows:

	Carrying Amount	**Fair Value**
	NT$	**NT$**
June 30, 2020	$ 46,511,614	$ 46,699,753
December 31, 2019	36,522,155	36,766,117
June 30, 2019	27,219,491	27,350,710

2) Fair value hierarchy

The aforementioned fair value hierarchy of bonds payable was Level 3 which was determined based on discounted cash flow analysis with the applicable yield curve for the duration. The significant unobservable inputs is discount rates that reflected the credit risk.

b. Fair value of financial instruments that are measured at fair value on a recurring basis

1) Fair value hierarchy

	Level 1	**Level 2**	**Level 3**	**Total**
	NT$	**NT$**	**NT$**	**NT$**
June 30, 2020				
Financial assets at FVTPL				
Derivative financial assets				
Swap contracts	$ -	$ 64,792	$ -	$ 64,792
Forward exchange contracts	-	48,963	-	48,963
Non-derivative financial assets				
Quoted ordinary shares	3,771,011	-	-	3,771,011
Open-end mutual funds	1,007,189	-	-	1,007,189
Private-placement funds	-	-	731,876	731,876
Unquoted preferred shares	-	-	376,390	376,390
	$ 4,778,200	$ 113,755	$ 1,108,266	$ 6,000,221
Financial assets at FVTOCI				
Investments in equity instruments				
Unquoted ordinary shares	$ -	$ -	$ 517,941	$ 517,941
Unquoted preferred shares	-	-	194,981	194,981
Limited partnership	-	-	44,431	44,431

(Continued)

	Level 1	Level 2	Level 3	Total
	NT$	NT$	NT$	NT$
Investments in debt instruments				
Unsecured subordinate corporate bonds	$ -	$ -	$ 1,013,958	$ 1,013,958
Trade receivables, net	-	-	847,141	847,141
	$ -	$ -	$ 2,618,452	$ 2,618,452
Financial liabilities at FVTPL				
Derivative financial liabilities				
Swap contracts	$ -	$ 680,847	$ -	$ 680,847
Forward exchange contracts	-	75,763	-	75,763
	$	$ 756,610	$ -	$ 756,610
December 31, 2019				
Financial assets at FVTPL				
Derivative financial assets				
Forward exchange contracts	$ -	$ 104,308	$ -	$ 104,308
Swap contracts	-	56,561	-	56,561
Call option	-	-	24,556	24,556
Non-derivative financial assets				
Quoted ordinary shares	3,460,123	-	-	3,460,123
Open-end mutual funds	662,290	-	-	662,290
Private-placement funds	-	-	603,718	603,718
Unquoted preferred shares	-	-	377,440	377,440
	$ 4,122,413	$ 160,869	$ 1,005,714	$ 5,288,996
Financial assets at FVTOCI				
Investments in equity instruments				
Unquoted ordinary shares	$ -	$ -	$ 565,028	$ 565,028
Unquoted preferred shares	-	-	158,718	158,718
Limited partnership	-	-	32,157	32,157
Investments in debt instruments				
Unsecured subordinate corporate bonds	-	-	1,014,872	1,014,872
Trade receivables, net	-	-	2,029,690	2,029,690
	$ -	$ -	$ 3,800,465	$ 3,800,465
Financial liabilities at FVTPL				
Derivative financial liabilities				
Swap contracts	$ -	$ 862,581	$ -	$ 862,581
Forward exchange contracts	-	110,990	-	110,990
	$ -	$ 973,571	$ -	$ 973,571

(Continued)

June 30, 2019	Level 1 NT$	Level 2 NT$	Level 3 NT$	Total NT$
Financial assets at FVTPL				
Derivative financial assets				
Swap contracts	$ -	$ 1,177,857	$ -	$ 1,177,857
Forward exchange contracts	-	15,282	-	15,282
Non-derivative financial assets				
Quoted ordinary shares	5,870,352	-	-	5,870,352
Open-end mutual funds	560,622	-	-	560,622
Private-placement funds	-	-	455,485	455,485
Unquoted preferred shares	-	-	373,180	373,180
	$ 6,430,974	$ 1,193,139	$ 828,665	$ 8,452,778
Financial assets at FVTOCI				
Investments in equity instruments				
Unquoted ordinary shares	$ -	$ -	$ 565,886	$ 565,886
Unquoted preferred shares	-	-	164,835	164,835
Limited partnership	-	-	32,279	32,279
Investments in debt instruments				
Unsecured subordinate corporate bonds	-	-	1,016,046	1,016,046
	$ -	$ -	$ 1,779,046	$ 1,779,046
Financial liabilities at FVTPL				
Derivative financial liabilities				
Swap contracts	$ -	$ 123,733	$ -	$ 123,733
Forward exchange contracts	-	35,845	-	35,845
	$ -	$ 159,578	$ -	$ 159,578

(Concluded)

For the financial assets and liabilities that were measured at fair value on a recurring basis, there were no transfers between Level 1 and Level 2 of the fair value hierarchy during the six months ended June 30, 2020 and 2019.

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

For the six months ended June 30, 2020

Financial Assets	Financial Assets at FVTPL	Financial Assets at FVTOCI		
	Equity Instruments	Equity Instruments	Debt Instruments	Total
	NT$	NT$	NT$	NT$
Balance at January 1	$ 1,005,714	$ 755,903	$ 3,044,562	$ 4,806,179
Recognized in profit or loss	(441)	-	-	(441)
Recognized in other comprehensive income				
Included in unrealized losses on financial assets at FVTOCI	-	(144,099)	(914)	(145,013)
Effects of foreign currency exchange	(11,374)	(3,746)	-	(15,120)
Net decrease in trade receivables	-	-	(86,494)	(86,494)
Trade receivables factored	-	-	(1,096,055)	(1,096,055)
Purchases	140,355	159,283	-	299,638
Disposals	-	(9,988)	-	(9,988)
Exercise of call option	(25,988)	-	-	(25,988)
Balance at June 30	$ 1,108,266	$ 757,353	$ 1,861,099	$ 3,726,718

For the six months ended June 30, 2019

Financial Assets	Financial Assets at FVTPL	Financial Assets at FVTOCI		
	Equity Instruments	Equity Instruments	Debt Instruments	Total
	NT$	NT$	NT$	NT$
Balance at January 1	$ 475,123	$ 580,399	$ 1,016,924	$ 2,072,446
Recognized in profit or loss	4,186	-	-	4,186
Recognized in other comprehensive income (included in unrealized losses on financial assets at FVTOCI)	-	(104,318)	(878)	(105,196)
Effects of foreign currency exchange	-	2,399	-	2,399
Purchases	349,356	289,465	-	638,821
Disposals	-	(4,945)	-	(4,945)
Balance at June 30	$ 828,665	$ 763,000	$ 1,016,046	$ 2,607,711

3) Valuation techniques and assumptions applied for the purpose of measuring fair value

a) Valuation techniques and inputs applied for the purpose of measuring Level 2 fair value measurement

Financial Instruments	Valuation Techniques and Inputs
Derivatives - swap contracts and forward exchange contracts	Discounted cash flows - Future cash flows are estimated based on observable forward exchange rates at balance sheet dates and contract forward exchange rates, discounted at rates that reflected the credit risk of various counterparties.

b) Valuation techniques and inputs applied for the purpose of measuring Level 3 fair value measurement

The fair value of unquoted ordinary shares, unquoted preferred shares, limited partnership and private-placement funds were determined by using market approach and asset-based approach. The significant unobservable inputs were the discount for lack of marketability of 20% to 30%. If the discount for lack of marketability to the valuation model increased by 1% to reflect reasonably possible alternative assumptions while all other variables held constant, the fair value of those investments would have decreased approximately by NT$5,700 thousand, NT$7,200 thousand and NT$6,200 thousand as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively.

The fair values of the unsecured subordinate corporate bonds were determined using income approach based on a discounted cash flow analysis. The significant unobservable input was the discount rate that reflects the credit risk of the counterparty. If the discount rate was increased by 0.1% while all other variables were held constant, the fair value of the bonds would have decreased approximately by NT$5,000 thousand, NT$6,000 thousand and NT$6,000 thousand as of June 30, 2020, December 31, 2019 and June 30, 2019, respectively.

The fair value of accounts receivables measured at FVTOCI are determined based on the present value of future cash flows that reflect the credit risk of counterparties. Since the discount effect was not significant, the Group measured its fair value by using the nominal value.

The fair value of the call option was determined using Black-Scholes Options Pricing Model, of which the significant unobservable input was the discount for lack of marketability of 20%. If the discount increased by 1% while all other variables held constant, the fair value of the call option would have decreased approximately by NT$855 thousand as of December 31, 2019.

c. Categories of financial instruments

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Financial assets			
FVTPL			
Mandatorily at FVTPL	$ 6,000,221	$ 5,288,996	$ 8,452,778
Measured at amortized cost (Note 1)	134,175,288	139,668,804	128,794,801
FVTOCI			
Equity instrument	757,353	755,903	763,000
Debt instrument	1,013,958	1,014,872	1,016,046
Trade receivables, net	847,141	2,029,690	-
Financial liabilities			
FVTPL			
Held for trading	756,610	973,571	159,578
Financial liabilities for hedging	3,502,467	3,233,301	3,954,589
Measured at amortized cost (Note 2)	304,218,184	310,187,110	275,944,416

Note 1: The balances included financial assets measured at amortized cost which comprised cash and cash equivalents, trade and other receivables and other financial assets.

Note 2: The balances included financial liabilities measured at amortized cost which comprised short-term borrowings, trade and other payables, bonds payable and long-term borrowings.

d. Financial risk management objectives and policies

The derivative instruments used by the Group were to mitigate risks arising from ordinary business operations. All derivative transactions entered into by the Group were designated as either hedging or trading. Derivative transactions entered into for hedging purposes must hedge risk against fluctuations in foreign exchange rates and interest rates arising from operating activities. The currencies and the amount of derivative instruments held by the Group must match its hedged assets and liabilities denominated in foreign currencies.

The Group’s risk management department monitored risks to mitigate risk exposures, reported unsettled position, transaction balances and related gains or losses to the Group’s chief financial officer on monthly basis.

1) Market risk

The Group’s activities exposed it primarily to the financial risks of changes in foreign currency exchange rates and interest rates. Gains or losses arising from fluctuations in foreign currency exchange rates of a variety of derivative financial instruments were approximately offset by those of hedged items. Interest rate risk was not significant due to the cost of capital was expected to be fixed.

There had been no change to the Group’s exposure to market risks or the manner in which these risks were managed and measured.

a) Foreign currency exchange rate risk

The Group had sales and purchases as well as financing activities denominated in foreign currency which exposed the Group to foreign currency exchange rate risk. The Group entered into a variety of derivative financial instruments to hedge foreign currency exchange rate risk to minimize the fluctuations of assets and liabilities denominated in foreign currencies.

The carrying amounts of the Group’s foreign currency denominated monetary assets and liabilities (including those eliminated upon consolidation) as well as derivative instruments which exposed the Group to foreign currency exchange rate risk at each balance sheet date are presented in Note 39.

The Group was mainly subject to the impact from the exchange rate fluctuation in US$, JPY and HKD against NT$ or RMB. 1% fluctuation is used when reporting foreign currency exchange rate risk internally to key management personnel and represents management’s assessment of the reasonably possible change in foreign currency exchange rates. The sensitivity analysis included financial assets and liabilities and inter-company receivables and payables within the Group. The changes in profit before income tax due to a 1% change in US$, JPY, and HKD against NT$ and RMB would be NT$89,000 thousand and NT$90,000 thousand for the six months ended June 30, 2020 and 2019, respectively. Hedging contracts and hedged items have been taken into account while measuring the changes in profit before income tax. The abovementioned sensitivity analysis mainly focused on the foreign currency monetary items at each balance sheet date. As the period-end exposure did not reflect the exposure for the six months ended June 30, 2020 and 2019, the abovementioned sensitivity analysis was unrepresentative of those respective periods.

Hedge accounting

The Group’s hedging strategy was to lift foreign currency borrowings to avoid exchange rate exposure from its equity instruments denominated in foreign currency, which was designated as fair value hedges. Hedge adjustments were made to totally offset the foreign exchange gains or losses from those equity instruments denominated in foreign currency when they were evaluated based on the exchange rates on each balance sheet date.

The source of hedge ineffectiveness in these hedging relationships was the material difference between the notional amounts of borrowings denominated in foreign currency and the cost of those equity instruments denominated in foreign currency. No other sources of ineffectiveness is expected to emerge from these hedging relationships

b) Interest rate risk

Except a portion of long-term borrowings and bonds payable at fixed interest rates, the Group was exposed to interest rate risk because group entities borrowed funds at floating interest rates. Changes in market interest rates will lead to variances in effective interest rates of borrowings from which the future cash flow fluctuations arise. The Group utilized financing instruments with low interest rates and favorable terms to maintain low financing cost, adequate banking facilities, as well as to hedge interest rate risk.

The carrying amounts of the Group's financial assets and financial liabilities with exposure to interest rates at each balance sheet date were as follows:

	June 30, 2020	**December 31, 2019**	**June 30, 2019**
	NT$	**NT$**	**NT$**
Fair value interest rate risk			
Financial liabilities	$ 46,118,493	$ 41,952,056	$ 32,957,344
Cash flow interest rate risk			
Financial assets	51,741,447	46,467,663	40,519,456
Financial liabilities	148,659,552	169,709,237	160,270,654

For assets and liabilities with floating interest rates, a 100 basis point increase or decrease was used when reporting interest rate risk internally to key management personnel. If interest rates had been 100 basis points (1%) higher or lower and all other variables held constant, the Group's profit before income tax for the six months ended June 30, 2020 and 2019 would have decreased or increased approximately by NT$484,500 thousand and NT$599,000 thousand, respectively. Hedging contracts and hedged items have been taken into account while measuring the changes in profit before income tax. The abovementioned sensitivity analysis mainly focused on the interest rate items at the end of each reporting period. As the period-end exposure did not reflect the exposure for the six months ended June 30, 2020 and 2019, the abovementioned sensitivity analysis was unrepresentative of those respective periods.

c) Other price risk

The Group was exposed to equity price risk through its investments in non-derivative financial assets at FVTPL and investments in equity instruments at FVTOCI. If equity price was 1% higher or lower, profit before income tax for the six months ended June 30, 2020 and 2019 would have increased or decreased approximately by NT$58,900 thousand and NT$73,000 thousand, respectively, and other comprehensive income before income tax for the six months ended June 30, 2020 and 2019 would have increased or decreased approximately by NT$8,000 thousand and NT$18,000 thousand, respectively.

2) Credit risk

Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in financial loss to the Group. The Group's credit risk arises from cash and cash equivalents, trade and other receivables and other financial assets. The Group's maximum exposure to credit risk was the carrying amounts of financial assets in the consolidated balance sheets.

As of June 30, 2020, December 31, 2019 and June 30, 2019, the Group's five largest customers accounted for 37%, 37% and 33% of trade receivables, respectively. The Group transacts with a large number of unrelated customers and, thus, no concentration of credit risk was observed.

3) Liquidity risk

The Group manages liquidity risk by maintaining adequate working capital and banking facilities to fulfill the demand for cash flow used in the Group's operation and capital expenditure. The Group also monitors its compliance with all the loan covenants. Liquidity risk is not considered to be significant.

In the table below, financial liabilities with a repayment on demand clause were included in the earliest time band regardless of the probability of counter-parties choosing to exercise their rights. The maturity dates for other non-derivative financial liabilities were based on the agreed repayment dates.

To the extent that interest flows are floating rate, the undiscounted amounts were derived from the interest rates at each balance sheet date.

June 30, 2020

	On Demand or Less than 1 Month	1 to 3 Months	3 Months to 1 Year	1 to 5 Years	More than 5 Years
	NT$	NT$	NT$	NT$	NT$
Non-derivative financial liabilities					
Non-interest bearing	$ 34,037,205	$ 48,061,159	$ 8,712,526	$ 31,472	$ 179,230
Obligation under leases	170,640	89,364	474,949	1,476,662	4,141,302
Floating interest rate liabilities	9,186,781	15,134,098	11,887,126	109,456,157	8,203,646
Fixed interest rate liabilities	9,272,598	5,236,741	8,819,814	38,845,988	3,617,881
	$ 52,667,224	$ 68,521,362	$ 29,894,415	$ 149,810,279	$ 16,142,059

Further information for maturity analysis of obligation under leases was as follows:

	Less than 1 Year	1 to 5 Years	5 to 10 Years	10 to 15 Years	15 to 20 Years	More than 20 Years
	NT$	NT$	NT$	NT$	NT$	NT$
Obligation under leases	$ 734,953	$ 1,476,662	$ 1,369,115	$ 810,218	$ 687,010	$ 1,274,959

December 31, 2019

	On Demand or Less than 1 Month	1 to 3 Months	3 Months to 1 Year	1 to 5 Years	More than 5 Years
	NT$	NT$	NT$	NT$	NT$
Non-derivative financial liabilities					
Non-interest bearing	$ 35,283,757	$ 38,803,904	$ 7,989,256	$ 33,797	$ 184,338
Obligation under leases	75,388	115,297	532,747	1,536,600	4,412,859
Floating interest rate liabilities	10,740,844	6,708,303	18,868,999	133,341,087	7,190,891
Fixed interest rate liabilities	6,819,585	3,712,979	2,281,375	34,405,594	3,689,219
	$ 52,919,574	$ 49,340,483	$ 29,672,377	$ 169,317,078	$ 15,477,307

Further information for maturity analysis of obligation under leases was as follows:

	Less than 1 Year	1 to 5 Years	5 to 10 Years	10 to 15 Years	15 to 20 Years	More than 20 Years
	NT$	NT$	NT$	NT$	NT$	NT$
Obligation under leases	$ 723,432	$ 1,536,600	$ 1,454,128	$ 856,825	$ 712,696	$ 1,389,210

June 30, 2019

Non-derivative financial liabilities	On Demand or Less than 1 Month NT$	1 to 3 Months NT$	3 Months to 1 Year NT$	1 to 5 Years NT$	More than 5 Years NT$
Non-interest bearing	$ 31,382,204	$ 41,576,476	$ 5,975,334	$ 43,089	$ 194,609
Obligation under leases	90,839	108,878	662,442	1,609,670	4,494,650
Floating interest rate liabilities	15,025,240	16,726,111	18,545,830	114,490,591	-
Fixed interest rate liabilities	6,839,277	4,707,617	758,994	24,801,066	3,717,620
	$ 53,337,560	$ 63,119,082	$ 25,942,600	$ 140,944,416	$ 8,406,879

Further information for maturity analysis of obligation under leases was as follows:

	Less than 1 Year NT$	1 to 5 Years NT$	5 to 10 Years NT$	10 to 15 Years NT$	15 to 20 Years NT$	More than 20 Years NT$
Obligation under leases	$ 862,159	$ 1,609,670	$ 1,318,825	$ 893,892	$ 723,122	$ 1,558,811

The amounts included above for floating interest rate instruments for non-derivative financial liabilities were subject to change if changes in floating interest rates differ from those estimates of interest rates determined at each balance sheet date.

The following table detailed the Group's liquidity analysis for its derivative financial instruments. The table was based on the undiscounted contractual net cash inflows and outflows on derivative instruments settled on a net basis, and the undiscounted gross cash inflows and outflows on those derivatives that require gross settlement. When the amounts payable or receivable are not fixed, the amounts disclosed have been determined by reference to the projected interest rates as illustrated by the yield curves at each balance sheet date.

June 30, 2020	On Demand or Less than 1 Month NT$	1 to 3 Months NT$	3 Months to 1 Year NT$
Net settled			
Forward exchange contracts	$ (44,628)	$ 3,920	$ -
Gross settled			
Forward exchange contracts			
Inflows	$ 7,717,005	$ 5,743,625	$ 237,245
Outflows	(7,696,031)	(5,738,069)	(237,040)
	20,974	5,556	205
Swap contracts			
Inflows	19,804,837	12,726,067	36,871,876
Outflows	(19,924,129)	(12,928,450)	(37,003,922)
	(119,292)	(202,383)	(132,046)
	$ (98,318)	$ (196,827)	$ (131,841)

(Continued)

	On Demand or Less than 1 Month NT$	1 to 3 Months NT$	3 Months to 1 Year NT$
December 31, 2019			
Net settled			
Forward exchange contracts	$ (74,864)	$ (13,246)	$ -
Gross settled			
Forward exchange contracts			
Inflows	$ 9,296,123	$ 4,420,233	$ 230,354
Outflows	(9,248,333)	(4,392,070)	(227,848)
	47,790	28,163	2,506
Swap contracts			
Inflows	10,187,215	15,025,154	34,327,100
Outflows	(10,163,964)	(15,032,603)	(34,773,848)
	23,251	(7,449)	(446,748)
	$ 71,041	$ 20,714	$ (444,242)
June 30, 2019			
Net settled			
Forward exchange contracts	$ (370)	$ 5,720	$ -
Gross settled			
Forward exchange contracts			
Inflows	$ 4,008,231	$ 2,221,964	$ 62,556
Outflows	(4,018,770)	(2,214,578)	(62,120)
	(10,539)	7,386	436
Swap contracts			
Inflows	$ 13,669,087	$ 12,202,700	$ 40,297,244
Outflows	(13,522,696)	(11,923,048)	(39,072,429)
	146,391	279,652	1,224,815
	$ 135,852	$ 287,038	$ 1,225,251

(Concluded)

34. RELATED PARTY TRANSACTIONS

Balances and transactions within the Group had been eliminated upon consolidation. Details of transactions between the Group and other related parties were disclosed as follows:

a. Related parties

In addition to those disclosed in Note 14, the related parties were as follows:

Related Parties	Relationship with the Company
ASE Cultural and Educational Foundation	Substantial related party

b. The Group contributed NT$100,000 thousand to ASE Cultural and Educational Foundation in each of the first quarter of 2020 and 2019, respectively, for environmental charity in promoting the related domestic environmental protection and public service activities (Note 36).

c. The subsidiaries, ASE and HC, entered into a joint development agreement in June 2020 under the concept of joint construction. The agreement stipulates that HC will build the plant on the leasehold land and, after the completion of the plant construction, ASE and its affiliates will have the priority to purchase the plant. The final transaction price will be the purchase price less an amount based on the ratio calculated by independent professional appraisers.

d. Compensation to key management personnel

	For the Three Months Ended June 30		For the Six Months Ended June 30	
	2020	2019	2020	2019
	NT$	NT$	NT$	NT$
Short-term employee benefits	$ 293,423	$ 286,245	$ 548,245	$ 530,638
Post-employment benefits	549	989	1,049	2,025
Share-based payments	33,528	31,044	66,995	62,112
	$ 327,500	$ 318,278	$ 616,289	$ 594,775

The compensation to the Group's key management personnel was determined according to personal performance and market trends.

35. ASSETS PLEDGED AS COLLATERAL OR FOR SECURITY

The following assets were provided as collateral for bank borrowings, tariff guarantees of imported raw materials or collateral:

	June 30, 2020	December 31, 2019	June 30, 2019
	NT$	NT$	NT$
Inventories related to real estate business	$ 8,980,140	$ 6,063,303	$ 5,013,590
Property, plant and equipment	473,567	138,831	146,627
Investment properties	11,605,102	12,167,772	13,056,856
Trade receivables	-	-	39,089
Other financial assets (including current and non-current)	526,121	637,775	383,862
	$ 21,584,930	$ 19,007,681	$ 18,640,024

36. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

In addition to those disclosed in other notes, significant commitments and contingencies of the Group as of each balance sheet date were as follows:

a. As of June 30, 2020, December 31, 2019 and June 30, 2019, unused letters of credit of the Group were approximately NT$37,000 thousand, NT$394,000 thousand and NT$409,000 thousand, respectively.

b. As of June 30, 2020, December 31, 2019 and June 30, 2019, the Group’s outstanding commitments to purchase property, plant and equipment were approximately NT$23,883,639 thousand, NT$25,119,371 thousand and NT$19,619,751 thousand, respectively, of which NT$5,095,414 thousand, NT$5,145,345 thousand and NT$3,401,156 thousand had been prepaid, respectively. As of June 30, 2020, December 31, 2019 and June 30, 2019, the commitment that the Group has contracted for the construction related to our real estate business were approximately NT$1,100,016 thousand, NT$1,393,859 thousand and NT$1,933,915 thousand, respectively.

c. As of June 30, 2020 and December 31, 2019, letters of credits were provided to customs by banks for the importation of goods, and the banking facilities granted to the Group were approximately NT$732,288 thousand and NT$952,001 thousand, respectively.

d. In consideration of corporate social responsibility for environmental protection, the board of directors of ASE, in December 2013, approved contributions to be made in the next 30 years, at a total amount of NT$3,000,000 thousand, at the minimum, to environmental protection efforts in Taiwan.

37. SIGNIFICANT EVENTS AFTER THE REPORTING PERIOD

a. In July 2020, the Company’s board of directors resolved to issue the second unsecured corporate bonds in an aggregate amount up to NT$10,000,000 thousand at par value of NT$1,000 thousand with a maturity up to 7 years and an interest rate not more than 1.20%.

b. The board of directors of the subsidiary, UGTW, resolved in July 2020 to participate in investment in Merry-USI Co., Ltd. (tentative name), a new joint venture in Taiwan with Merry Electronics Co., Ltd.. The registered capital of this joint venture is expected to be NT$390,000,000, and UGTW will invest NT$191,100 thousand, accounting for 49% of the registered capital of joint venture.

38. OTHERS

a. There were five employees and a waste disposal supplier of a subsidiary in China accused by China People’s Procuratorate (the “Procuratorate”) for committing the crime of environmental pollution in 2018. During the trial, the Procuratorate claimed that the subsidiary should also be charged with corporate crime which caused the subsidiary received a change and addition indictment in October 2019. In June 2020, in the first trial, the court of first instance ruled that the subsidiary shall be imposed a fine of RMB400 thousand and return the benefit (RMB344 thousand) generated from such violation, both of which losses were recognized by the subsidiary under the line item of other gains and losses. Because some of co-defendants have filed an appeal against the judgment, and, pursuant to local applicable law, the whole case will be deemed appealed, this case has not been final and will be moved to the court of second instance for trial. As of the date that the consolidated financial statements were authorized for issue, final results of the indemnification could not be reliably measured.

b. On December 20, 2013, the Kaohsiung Environmental Protection Bureau (the “KEPB”) imposed an administrative fine of NT$102,014 thousand (the “Original Fine”) upon ASE for violation of the Water Pollution Control Act. After ASE sought administrative remedies against the Original Fine, the Original Fine has been revoked by final judgment of Supreme Administrative Court on June 8, 2017, and KEPB is ordered to refund the Original Fine to ASE. On December 27, 2019, KEPB has refunded NT$55,062 thousand to ASE. On February 10, 2020, KEPB re-imposed an administrative fine of NT$46,952 thousand (the “New Fine”) upon ASE and offset the New Fine by the remaining amount which shall be refunded to ASE. Therefore, no additional payment that ASE should make for the New Fine. In March 2020, ASE has filed an administrative appeal against the New Fine.

c. In December 2019, USISH entered into a share purchase agreement with Financiere AFG S.A.S. (“FAFG”). USISH contemplates, through USIFR, to pay approximately US$403,125 thousand (the final consideration will be adjusted according to the equity acquisition agreement) and issue approximately its own 25,596 thousand new ordinary shares to acquire 100% shareholdings (79,848 thousand ordinary shares outstanding) of FAFG. In addition to the approval from China Securities Regulatory Commission in April 2020, the aforementioned transaction is still pending for other related authorities' approval.

39. SIGNIFICANT ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

The following information was aggregated by the foreign currencies other than functional currencies of the group entities and the exchange rates between foreign currencies and respective functional currencies were disclosed. The significant financial assets and liabilities denominated in foreign currencies were as follows:

	Foreign Currencies (In Thousand)	Exchange Rate	Carrying Amount (In Thousand)
June 30, 2020			
Monetary financial assets			
US$	$ 4,367,578	US$1=NT$29.63	$ 129,411,346
US$	1,152,480	US$1=RMB7.0795	34,147,997
JPY	14,649,475	JPY1=NT$0.2751	4,030,070
JPY	758,388	JPY1=US$0.0093	208,633
HKD	1,551,717	HKD1=NT$3.8230	5,932,215
Monetary financial liabilities			
US$	4,080,735	US$1=NT$29.63	120,912,187
US$	1,134,420	US$1=RMB7.0795	33,612,858
JPY	15,641,625	JPY1=NT$0.2751	4,303,011
JPY	858,053	JPY1=US$0.0093	236,050
HKD	1,507,974	HKD1=NT$3.8230	5,764,986
December 31, 2019			
Monetary financial assets			
US$	4,125,872	US$1=NT$29.98	123,693,628
US$	1,189,539	US$1=RMB6.9762	35,662,384
JPY	13,889,872	JPY1=NT$0.2760	3,833,605
JPY	771,392	JPY1=US$0.0092	212,904
Monetary financial liabilities			
US$	3,823,359	US$1=NT$29.98	114,624,313
US$	1,211,472	US$1=RMB6.9762	36,319,926
JPY	14,628,543	JPY1=NT$0.2760	4,037,478
JPY	815,929	JPY1=US$0.0092	225,197
June 30, 2019			
Monetary financial assets			
US$	3,836,273	US$1=NT$31.06	119,154,639
US$	933,526	US$1=RMB6.8747	28,995,317
JPY	10,500,955	JPY1=NT$0.2886	3,030,576
JPY	541,329	JPY1=US$0.0093	156,227

(Continued)

	Foreign Currencies (In Thousand)	Exchange Rate	Carrying Amount (In Thousand)
Monetary financial liabilities			
US$	$ 3,545,222	US$1=NT$31.06	$ 110,114,596
US$	900,587	US$1=RMB6.8747	27,972,232
JPY	13,881,037	JPY1=NT$0.2886	4,006,067
JPY	740,901	JPY1=US$0.0093	213,824

(Concluded)

The significant realized and unrealized foreign exchange gains (loss) were as follows:

	For the Three Months Ended June 30, 2020		For the Three Months Ended June 30, 2019	
Foreign Currencies	Exchange Rate	Net Foreign Exchange Gain (Loss)	Exchange Rate	Net Foreign Exchange Gain (Loss)
US$	US$1=NT$29.63	$ (24,481)	US$1=NT$31.06	$ (59,285)
NT$		756,596		(302,962)
RMB	RMB1=NT$4.1853	(18,343)	RMB1=NT$4.518	20,516
		$ 713,772		$ (341,731)

	For the Six Months Ended June 30, 2020		For the Six Months Ended June 30, 2019	
Foreign Currencies	Exchange Rate	Net Foreign Exchange Gain (Loss)	Exchange Rate	Net Foreign Exchange Gain (Loss)
US$	US$1=NT$29.63	$ (82,574)	US$1=NT$31.06	$ (87,329)
NT$		537,568		(395,335)
RMB	RMB1=NT$4.1853	(89,148)	RMB1=NT$4.518	(33,921)
		$ 365,846		$ (516,585)

40. ADDITIONAL DISCLOSURES

Following are the additional disclosures required by the Securities and Futures Bureau for the Group:

a. Financial provided: Please see Table 1 attached;

b. Endorsement/guarantee provided: Please see Table 2 attached;

c. Marketable securities held (excluding investments in subsidiaries, associates and joint venture): Please see Table 3 attached;

d. Marketable securities acquired and disposed of at costs or prices of at least NT$300 million or 20% of the paid-in capital: Please see Table 4 attached;

e. Acquisition of individual real estate properties at costs of at least NT$300 million or 20% of the paid-in capital: Please see Table 5 attached;

f. Disposal of individual real estate properties at prices of at least NT$300 million or 20% of the paid-in capital: None;

g. Total purchase from or sales to related parties of at least NT$100 million or 20% of the paid-in capital: Please see Table 6 attached;

h. Receivables from related parties amounting to at least NT$100 million or 20% of the paid-in capital: Please see Table 7 attached;

i. Information about the derivative financial instruments transaction: Please see Note 7;

j. Others: The business relationship between the parent and the subsidiaries and significant transactions between them: Please see Table 10 attached;

k. Names, locations, and related information of investees over which the Group exercises significant influence (excluding information on investment in Mainland China): Please see Table 8 attached;

l. Information of major shareholders: List all shareholders with ownership of 5% or greater showing the name of the shareholder, the number of shares owned, and percentage of ownership of each shareholder: Please see Table 11 attached;

m. Information on investment in Mainland China

1) The name of the investee in Mainland China, the main businesses and products, its issued capital, method of investment, information on inflow or outflow of capital, percentage of ownership, income (losses) of the investee, share of profits/losses of investee, ending balance, amount received as dividends from the investee, and the limitation on investee: Please see Table 9 attached;

2) Any of the following significant transactions with investee companies in mainland China, either directly or indirectly through a third party, and their prices, payment terms, and unrealized gains or losses:

a) The amount and percentage of purchases and the balance and percentage of the related payables at the end of the period: Please see Table 6 attached;

b) The amount and percentage of sales and the balance and percentage of the related receivables at the end of the period: Please see Table 6 attached;

c) The amount of property transactions and the amount of the resultant gains or losses: No significant transactions;

d) The balance of negotiable instrument endorsements or guarantees or pledges of collateral at the end of the period and the purposes: None;

e) The highest balance, the end of period balance, the interest rate range, and total current period interest with respect to financing of funds: Please see Table 1 attached;

f) Other transactions that have a material effect on the profit or loss for the period or on the financial position, such as the rendering or receiving of services: None.

41. OPERATING SEGMENTS INFORMATION

The Group has the following reportable segments: Packaging, Testing and EMS. The Group packages bare semiconductors into finished semiconductors with enhanced electrical and thermal characteristics; provides testing services, including front-end engineering testing, wafer probing and final testing services; engages in the designing, assembling, manufacturing and sale of electronic components and telecommunications equipment motherboards. Information about other business activities and operating segments that are not reportable are combined and disclosed in “Others.” The Group engages in other activities such as substrate production as well as sale and leasing of real estate properties.

The accounting policies for segments are the same as those described in Note 4. The measurement basis for resources allocation and performance evaluation is based on profit before income tax.

Segment revenues and operating results

	Packaging	Testing	EMS	Others	Adjustment and Elimination	Total
	NT$	NT$	NT$	NT$	NT$	NT$
For the six months ended June 30, 2020						
Revenue from external customers	$ 105,234,466	$ 24,253,312	$ 72,423,993	$ 2,994,157	$ -	$ 204,905,928
Inter-segment revenues (Note 1)	$ 4,328,647	$ 204,591	$ 9,759,212	$ 3,478,941	$ (17,771,391)	$ -
Segment profit before income tax	$ 6,867,849	$ 5,207,149	$ 2,356,200	$ (315,876)	$ -	$ 14,115,322
For the six months ended June 30, 2019						
Revenue from external customers	$ 91,459,574	$ 19,235,720	$ 66,471,092	$ 2,435,969	$ -	$ 179,602,355
Inter-segment revenues (Note 1)	$ 1,411,998	$ 93,339	$ 30,225,978	$ 3,617,107	$ (35,348,422)	$ -
Segment profit before income tax	$ 1,139,918	$ 4,160,380	$ 1,955,141	$ (196,291)	$ -	$ 7,059,148

Note 1: Inter-group revenues were eliminated upon consolidation.

Note 2: The disaggregated product and service type from the Group's contract with customer is the same as those disclosed in above reportable segment.

Contract assets – current

	Packaging	Testing	EMS	Others	Adjustment and Elimination	Total
	NT$	NT$	NT$	NT$	NT$	NT$
As of June 30, 2020	$ 4,094,367	$ 2,072,506	$ -	$ -	$ -	$ 6,166,873
As of December 31, 2019	$ 4,162,124	$ 1,735,192	$ -	$ -	$ -	$ 5,897,316
As of June 30, 2019	$ 3,709,015	$ 1,001,195	$ -	$ -	$ -	$ 4,710,210

TABLE 1

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

FINANCINGS PROVIDED
FOR THE SIX MONTHS ENDED JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars)

No.	Financing Company	Counter-party	Financial Statement Account	Related Party	Maximum Balance for the Period	Ending Balance	Amount Actual Drawn	Interest Rate (%)	Nature for Financing	Transaction Amounts	Reason for Financing	Allowance for Bad Debt	Collateral Item	Collateral Value	Financing Limits for Each Borrowing Company (Note 1)	Financing Company's Total Financing Amount Limits (Note 2)
1	ASE	The Company	Other receivables from related parties	Yes	$ 40,500,000	$ 28,250,000	$ 15,850,000	0.83~0.89	The need for short-term financing	$ -	Operating capital	$ -	-	$ -	$ 40,948,108	$ 40,948,108
2	ASE Test, Inc.	The Company	Other receivables from related parties	Yes	4,980,000	2,990,000	2,590,000	0.58~0.75	The need for short-term financing	-	Operating capital	-	-	-	11,048,581	11,048,581
		USI Enterprise Limited	Other receivables from related parties	Yes	974,500	-	-	2.86~4.03	The need for short-term financing	-	Operating capital	-	-	-	11,048,581	11,048,581
3	J&R Industrial Inc.	The Company	Other receivables from related parties	Yes	400,000	400,000	400,000	0.59~0.75	The need for short-term financing	-	Operating capital	-	-	-	405,660	405,660
4	ASE Electronics Inc.	The Company	Other receivables from related parties	Yes	1,000,000	1,000,000	1,000,000	0.58~0.75	The need for short-term financing	-	Operating capital	-	-	-	1,343,664	1,343,664
5	ASE Test Limited	ASE	Long-term receivables from related parties	Yes	6,078,570	5,528,040	5,528,040	0.55~2.70	The need for short-term financing	-	Operating capital	-	-	-	10,653,169	10,653,169
6	ISE Labs, Inc.	ASE	Long-term receivables from related parties	Yes	907,500	888,900	888,900	0.73~2.70	The need for short-term financing	-	Operating capital	-	-	-	984,684	984,684
		ASE Test Limited	Long-term receivables from related parties	Yes	605,000	592,600	592,600	0.69~2.54	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
7	ASE (Korea) Inc.	ASE	Other receivables from related parties Long-term receivables from related parties	Yes	3,471,850	3,407,450	3,407,450	2.18~3.76	The need for short-term financing	-	Operating capital	-	-	-	6,521,111	6,521,111
8	ASE Japan Co., Ltd.	ASE	Other receivables from related parties	Yes	840,300	660,240	660,240	0.49~0.53	The need for short-term financing	-	Operating capital	-	-	-	872,952	872,952
		ASE Test Limited	Other receivables from related parties	Yes	560,200	550,200	550,200	0.44~0.48	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
9	ASE Singapore Pte. Ltd.	ASE	Other receivables from related parties Long-term receivables from related parties	Yes	1,777,800	1,777,800	1,777,800	0.73~2.70	The need for short-term financing	-	Operating capital	-	-	-	2,187,371	2,187,371
		ASE Test Limited	Other receivables from related parties	Yes	449,700	-	-	2.19	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
10	ASE Electronics (M) Sdn. Bhd.	ASE	Other receivables from related parties	Yes	329,780	-	-	4.76	The need for short-term financing	-	Operating capital	-	-	-	2,185,807	2,185,807
11	ASE (Kun Shan) Inc.	ASE Investment (Kun Shan) Limited	Other receivables from related parties	Yes	1,972	1,883	1,883	4.35	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
		ASE Assembly & Test (Shanghai) Limited	Other receivables from related parties	Yes	657,480	-	-	3.83	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
		ASE (Shanghai) Inc.	Other receivables from related parties	Yes	438,320	418,532	-	3.83	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
		Siliconware Technology (Suzhou) Limited	Other receivables from related parties	Yes	1,053,549	1,046,331	1,046,331	3.24	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
12	Shanghai Ding Hui Real Estate Development Co., Ltd.	Kun Shan Ding Hong Real Estate Development Co., Ltd.	Other receivables from related parties	Yes	350,656	-	-	4.35	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
		Shanghai Ding Yu Real Development Co., Ltd.	Other receivables from related parties	Yes	219,160	209,266	209,266	4.35	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
		Shanghai Ding Wei Real Development Co., Ltd.	Other receivables from related parties	Yes	2,092,662	2,092,662	1,883,396	4.35	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
13	Advanced Semiconductor Engineering (China) Ltd.	ASE Assembly & Test (Shanghai) Limited	Other receivables from related parties	Yes	1,210,000	1,185,200	400,005	2.53~2.56	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
		Suzhou ASEN Co., Ltd.	Other receivables from related parties	Yes	907,500	-	-	1.86~2.36	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
		Siliconware Technology (Suzhou) Limited	Other receivables from related parties	Yes	1,891,260	1,866,690	-	-	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406

(Continued)

No.	Financing Company	Counter-party	Financial Statement Account	Related Party	Maximum Balance for the Period	Ending Balance	Amount Actual Drawn	Interest Rate (%)	Nature for Financing	Transaction Amounts	Reason for Financing	Allowance for Bad Debt	Collateral		Financing Limits for Each Borrowing Company (Note 1)	Financing Company's Total Financing Amount Limits (Note 2)
													Item	Value		
14	ASE WeiHai Inc.	ASE Assembly & Test (Shanghai) Limited	Other receivables from related parties	Yes	$ 438,320	$ -	$ -	3.83	The need for short-term financing	$ -	Operating capital	$ -	-	$ -	$ 20,040,938	$ 30,061,406
		Siliconware Technology (Suzhou) Limited	Other receivables from related parties	Yes	505,703	502,239	502,239	3.24	The need for short-term financing	-	Operating capital	-	-	-	20,040,938	30,061,406
15	USI Enterprise Limited	ASE	Other receivables from related parties	Yes	10,192,720	10,192,720	10,192,720	0.73~2.70	The need for short-term financing	-	Operating capital	-	-	-	19,124,455	19,124,455
		USIINC	Other receivables from related parties	Yes	2,057,000	2,014,840	1,777,800	0.73~2.70	The need for short-term financing	-	Operating capital	-	-	-	19,124,455	19,124,455
16	Huntington Holdings International Co.Ltd.	ASE	Other receivables from related parties	Yes	453,750	177,780	177,780	-	The need for short-term financing	-	Operating capital	-	-	-	19,148,433	19,148,433
17	Real Tech Holdings Limited	ASE	Other receivables from related parties	Yes	1,663,750	1,540,760	1,540,760	-	The need for short-term financing	-	Operating capital	-	-	-	18,858,180	18,858,180
18	Universal Scientific Industrial (Shanghai) Co., Ltd.	Universal Global Technology (Shanghai) Co., Ltd.	Other receivables from related parties	Yes	876,640	837,065	-	1.75	The need for short-term financing	-	Operating capital	-	-	-	17,575,809	17,575,809
19	USI Electronics (Shenzhen) Co., Ltd.	Universal Global Technology (Shanghai) Co., Ltd.	Other receivables from related parties	Yes	1,534,120	837,065	-	1.75	The need for short-term financing	-	Operating capital	-	-	-	5,787,223	5,787,223
		Universal Scientific Industrial (Shanghai) Co., Ltd.	Other receivables from related parties	Yes	2,132,997	2,092,662	2,092,662	1.75	The need for short-term financing	-	Operating capital	-	-	-	5,787,223	5,787,223
20	Universal Global Technology (Kunshan) Co., Ltd.	Universal Global Technology Co., Limited	Other receivables from related parties	Yes	1,753,280	1,674,130	-	-	The need for short-term financing	-	Operating capital	-	-	-	1,982,031	1,982,031
21	Universal Global Scientific Industrial Co., Ltd.	Universal Scientific Industrial De Mexico S.A.De C.V.	Other receivables from related parties	Yes	544,500	533,340	533,340	0.65~2.40	The need for short-term financing	-	Operating capital	-	-	-	2,675,726	2,675,726
		Universal Scientific Industrial Co., Ltd.	Other receivables from related parties	Yes	1,057,875	1,037,050	1,037,050	0.58~1.38	The need for short-term financing	-	Operating capital	-	-	-	2,675,726	2,675,726
22	Universal Global Technology Co., Limited	Universal Scientific Industrial De Mexico S.A.De C.V.	Other receivables from related parties	Yes	3,025,000	2,963,000	1,481,500	0.65~2.40	The need for short-term financing	-	Operating capital	-	-	-	6,111,359	6,111,359
		Universal Scientific Industrial Poland Sp. z o.o	Other receivables from related parties	Yes	363,000	355,560	355,560	0.73~2.70	The need for short-term financing	-	Operating capital	-	-	-	6,111,359	6,111,359
23	Universal Scientific Industrial Co., Ltd.	Universal Scientific Industrial De Mexico S.A.De C.V.	Other receivables from related parties	Yes	423,500	414,820	414,820	0.65~2.40	The need for short-term financing	-	Operating capital	-	-	-	1,158,544	1,158,544
		Universal Global Scientific Industrial Co., Ltd.	Other receivables from related parties	Yes	500,000	500,000	500,000	0.58~0.74	The need for short-term financing	-	Operating capital	-	-	-	1,158,544	1,158,544
24	Universal Global Technology (Shanghai) Co., Ltd.	Universal Global Technology Co., Limited	Other receivables from related parties	Yes	1,227,296	1,171,891	-	-	The need for short-term financing	-	Operating capital	-	-	-	2,519,350	2,519,350
25	SPIL	Siliconware Electronics (Fujian) Co., Limited	Other receivables from related parties	Yes	1,490,288	1,423,010	1,423,010	2.28~3.79	The need for short-term financing	-	Operating capital	-	-	-	29,271,853	29,271,853
		Siliconware Technology (Suzhou) Limited	Other receivables from related parties	Yes	1,314,960	1,255,597	1,255,597	2.28~3.78	The need for short-term financing	-	Operating capital	-	-	-	29,271,853	29,271,853
		The Company	Other receivables from related parties	Yes	3,500,000	3,500,000	3,500,000	0.59	The need for short-term financing	-	Operating capital	-	-	-	29,271,853	29,271,853

(Concluded)

Note 1: A subsidiaries' limit amount of lending to a company shall not exceed 40% of the lender's net worth.

Note 2: Where an inter-company or inter-firm short-term financing facility is necessary, the total amount of such financing facility shall not exceed 40% of the lender's net worth. Foreign subsidiaries whose voting shares are 100% owned, directly or indirectly, by the Company as a lender, the aggregate lending amount and the amount lending to a single company shall not exceed 15% and 10%, respectively, of the Company's net worth as stated in its latest financial statement.

Note 3: The transactions had been eliminated when preparing consolidated financial statements.

TABLE 2

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

ENDORSEMENTS/GUARANTEES PROVIDED
FOR THE SIX MONTHS ENDED JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

No.	Endorsement/ Guarantee Provider Name	Guaranteed Party Name	Guaranteed Party Nature of Relationship	Limits on Endorsement /Guarantee Amount Provided to Each Guaranteed Party (Note 1)	Maximum Balance for the Period (Note 3)	Ending Balance (Note 3)	Amount Actually Drawn (Note 3)	Amount of Endorsement/ Guarantee Collateralized by Properties	Ratio of Accumulated Endorsement/Guarantee to Net Equity per Latest Financial Statement (%)	Maximum Endorsement /Guarantee Amount Allowable (Note 2)	Guarantee Provided by Parent Company	Guarantee Provided by A Subsidiary	Guarantee Provided to Subsidiaries in Mainland China
1	ASE	The Company	100% voting shares directly owned by the Company	$ 143,318,379	$ 20,057,110	$ -	$ -	$ -	-	$ 153,555,407	No	Yes	No
2	USI Enterprise Limited	Universal Scientific Industrial (France)	More than 50% voting shares indirectly owned by the Company	66,935,592	13,915,000	13,629,800	13,629,800	-	28.51	71,716,706	Yes	No	No

Note 1: The ceilings on the amounts a subsidiary permitted to make endorsements/guarantees for any single entity shall not exceed 140% of the subsidiary's net worth as stated in its latest financial statement according to "The Process of make in endorsements/guarantees" of the Company.

Note 2: The ceilings on the aggregate amounts a subsidiary permitted to make endorsements/guarantees shall not exceed 150% of the subsidiary's net worth as stated in its latest financial statement according to "The Process of make in endorsements/guarantees" of the Company.

Note 3: Amount includes principal and interest.

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

MARKETABLE SECURITIES HELD
JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	June 30, 2020				Note
				Shares/ Units	Carrying Value	Percentage of Ownership (%)	Fair Value	
ASE	Stock							
	H&D Venture Capital Investment Corporation	-	Financial assets at fair value through other comprehensive income - non current	25,862	$ 6,425	13	$ 6,425	
	MiTAC Information Technology Corp	-	Financial assets at fair value through other comprehensive income - non current	2,521	12	-	12	
	Asia Pacifical Emerging Industry Venture Capital Co, Ltd.	-	Financial assets at fair value through other comprehensive income - non current	6,000,000	41,088	7	41,088	
	StarChips Technology Inc.	-	Financial assets at fair value through other comprehensive income - non current	333,334	-	6	-	
	Limited Liability Partnership							
	Ripley Cable Holdings I, L.P.	-	Financial assets at fair value through other comprehensive income - non current	-	8,500	4	8,500	
ASE Test, Inc.	Stock							
	The Company	Ultimate parent company	Financial assets at fair value through other comprehensive income - non current	5,489,388	371,083	-	371,083	
	Powtec ElectroChemical Corporation	-	Financial assets at fair value through other comprehensive income - non current	33,560,184	-	2	-	
	MiTAC Information Technology Corp.	-	Financial assets at fair value through other comprehensive income - non current	680,017	3,200	-	3,200	
	Ainos Inc.	-	Financial assets at fair value through other comprehensive income - non current	100,000,000	120,080	15	120,080	
	Neolink Capital Corp.	-	Financial assets at fair value through other comprehensive income - non current	10,000,000	67,847	16	67,847	
	HSBC Holdings Ltd	-	Financial assets at fair value through profit or loss - current	400,000	55,357	-	55,357	
	Tencent Holdings Ltd	-	Financial assets at fair value through profit or loss - current	194,000	369,793	-	369,793	
	Industrial and Commercial Bank of China Limited	-	Financial assets at fair value through profit or loss - current	11,000,000	197,649	-	197,649	
	Ping An Insurance (Group) Company of China, Ltd.	-	Financial assets at fair value through profit or loss - current	1,000,000	296,283	-	296,283	
	China Construction Bank Corporation	-	Financial assets at fair value through profit or loss - current	10,402,000	249,338	-	249,338	
	AIA Group Limited	-	Financial assets at fair value through profit or loss - current	300,000	82,921	-	82,921	
	China Merchants Bank Co., Ltd.	-	Financial assets at fair value through profit or loss - current	2,200,000	299,838	-	299,838	
	China Life Insurance Company Limited	-	Financial assets at fair value through profit or loss - current	1,000,000	59,639	-	59,639	
	BYD Company Limited	-	Financial assets at fair value through profit or loss - current	162,000	37,067	-	37,067	
	Geely Automobile Holdings Ltd.	-	Financial assets at fair value through profit or loss - current	400,000	18,656	-	18,656	
	AAC Technologies Holdings Inc.	-	Financial assets at fair value through profit or loss - current	480,000	87,256	-	87,256	
	BOC Hong Kong (Holdings) Ltd.	-	Financial assets at fair value through profit or loss - current	1,900,000	179,050	-	179,050	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	June 30, 2020 Shares/ Units	Carrying Value	Percentage of Ownership (%)	Fair Value	Note
	China Mobile Ltd.	-	Financial assets at fair value through profit or loss - current	600,000	$ 119,966	-	$ 119,966	
	CK Hutchison Holdings Limited	-	Financial assets at fair value through profit or loss - current	200,000	38,077	-	38,077	
	Agricultural Bank of China Limited	-	Financial assets at fair value through profit or loss - current	16,300,000	194,422	-	194,422	
	Bank of China Ltd.	-	Financial assets at fair value through profit or loss - current	16,700,000	183,233	-	183,233	
	CITIC Securities Company Limited	-	Financial assets at fair value through profit or loss - current	200,000	11,209	-	11,209	
	Alibaba Group Holding Ltd.	-	Financial assets at fair value through profit or loss - current	360,000	288,468	-	288,468	
	Preferred share							
	HanTech Venture Capital Corporation	-	Financial assets at fair value through profit or loss - non current	25,000,000	287,500	25	287,500	
	Corporate bond							
	Nan Shan Life Insurance Co., Ltd. 1st Perpetual Unsecured Subordinate Corporate Bond Issue in 2016	-	Financial assets at fair value through other comprehensive income - non current	1,000	1,013,958	-	1,013,958	
	Fund							
	Nomura Taiwan Money Market Fund	-	Financial assets at fair value through profit or loss - current	9,562,789	99,975	-	99,975	
	Yuanta Taiwan High-yield Leading Company Fund	-	Financial assets at fair value through profit or loss - current	5,000,000	53,500	-	53,500	
J&R Industrial Inc.	Fund							
	Taishin Ta Chong Money Market Fund	-	Financial assets at fair value through profit or loss - current	30,754,983	439,664	-	439,664	
	Jih Sun Money Market Fund	-	Financial assets at fair value through profit or loss - current	6,165,250	91,970	-	91,970	
	Hua Nan Kirin Money Market Fund	-	Financial assets at fair value through profit or loss - current	1,369,450	16,495	-	16,495	
	Taishin 1699 Money Market Fund	-	Financial assets at fair value through profit or loss - current	1,574,849	21,448	-	21,448	
Luchu Development Corporation	Stock							
	Powerchip Technology Corporation	-	Financial assets at fair value through other comprehensive income - non current	2,358,011	24,354	-	24,354	
AMPI	Stock							
	United Microelectronics Corp.	-	Financial assets at fair value through profit or loss - current	89,659	1,426	-	1,426	
	Hon Hai Precision Industry Co., Ltd.	-	Financial assets at fair value through profit or loss - current	568	49	-	49	
	Winbond Electronics Corporation	-	Financial assets at fair value through profit or loss - current	10,893	145	-	145	
A.S.E. Holding Limited	Stock							
	Global Strategic Investment Inc.	-	Financial assets at fair value through other comprehensive income - non current	490,000	US$ 321 thousand	3	US$ 321 thousand	
	SiPhoton, Inc.	-	Financial assets at fair value through other comprehensive income - non current	544,800	-	4	-	
	Global Strategic Investment, Inc. (Samoa)	-	Financial assets at fair value through other comprehensive income - non current	869,891	US$ 201 thousand	2	US$ 201 thousand	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	June 30, 2020 Shares/ Units	Carrying Value	Percentage of Ownership (%)	Fair Value	Note
J & R Holding Limited	Stock							
	The Company	Ultimate parent company	Financial assets at fair value through other comprehensive income - non current	23,351,881	US$ 53,277 thousand	1	US$ 53,277 thousand	
	Limited Liability Partnership							
	Crimson Velocity Fund, L.P.	-	Financial assets at fair value through other comprehensive income - non current	-	US$ 332 thousand	-	US$ 332 thousand	
	H&QAP Greater China Growth Fund, L.P.	-	Financial assets at fair value through other comprehensive income - non current	-	US$ 880 thousand	8	US$ 880 thousand	
	Beneficiary Certificate							
	Wise Road Industry Investment Fund I, L.P.	-	Financial assets at fair value through profit or loss - non current	-	US$ 4,376 thousand	13	US$ 4,376 thousand	
ASE Test Limited	Stock							
	The Company	Ultimate parent company	Financial assets at fair value through other comprehensive income - non current	44,100,236 (Note)	US$ 100,613 thousand	1	US$ 100,613 thousand	
	Preferred share							
	Silicon Valley X-Ray, Inc.	-	Financial assets at fair value through other comprehensive income - non current	8,831,377	US$ 6,245 thousand	13	US$ 6,245 thousand	
ASE Corporation	Preferred share							
	Bee Computing (HK) Limited	-	Financial assets at fair value through profit or loss - non current	400,000	US$ 3,000 thousand	1	US$ 3,000 thousand	
USIINC	Stock							
	Universal Venture Capital Investment Corporation	-	Financial assets at fair value through other comprehensive income - non current	6,200,000	$ 29,719	5	$ 29,719	
	Gapertise Inc.	-	Financial assets at fair value through other comprehensive income - non current	275,000	-	4	-	
	WellySun Inc.	-	Financial assets at fair value through other comprehensive income - non current	374,000	4,425	1	4,425	
	Plasmag Technology Inc.	-	Financial assets at fair value through other comprehensive income - non current	733,000	-	2	-	
	Preferred Stock							
	iWEECARE Co., Ltd.	-	Financial assets at fair value through other comprehensive income - non current	200,000	1,150	1	1,150	
Huntington Holdings International Co. Ltd.	Stock							
	Superactive Group Company Limited	-	Financial assets at fair value through profit or loss - current	5,548,800	US$ 143 thousand	-	US$ 143 thousand	
	Cadence Design SYS Inc.	-	Financial assets at fair value through profit or loss - current	9,633	US$ 924 thousand	-	US$ 924 thousand	
	Solid Gain Invenstments Ltd.	-	Financial assets at fair value through other comprehensive income - non current	1,291,400	US$ 474 thousand	20	US$ 474 thousand	
	Preferred Stock							
	Techgains I Corporation	-	Financial assets at fair value through other comprehensive income - non current	518,316	US$ 170 thousand	10	US$ 170 thousand	
	Techgains II Corporation	-	Financial assets at fair value through other comprehensive income - non current	653,998	US$ 105 thousand	4	US$ 105 thousand	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	June 30, 2020 Shares/ Units	Carrying Value		Percentage of Ownership (%)	Fair Value		Note
Unitech Holdings International Co., Ltd.	Stock									
	Superactive Group Company Limited	-	Financial assets at fair value through profit or loss - current	5,613,600	US$	145 thousand	-	US$	145 thousand	
	WacomCo., Ltd.	-	Financial assets at fair value through profit or loss - non-current	1,200,000	US$	6,117 thousand	1	US$	6,117 thousand	
	Sequans Communications SA	-	Financial assets at fair value through profit or loss - non-current	370,554	US$	556 thousand	-	US$	556 thousand	
	Asia Global Venture Co., Ltd.	-	Financial assets at fair value through other comprehensive income - non current	850,000	US$	540 thousand	10	US$	540 thousand	
	Preferred Stock									
	MoBagel, Inc.	-	Financial assets at fair value through other comprehensive income - non current	117,000	US$	22 thousand	1	US$	22 thousand	
USI Enterprise Limited	Beneficiary Certificate									
	All-Stars Investment Private Partners Fund L.P.	-	Financial assets at fair value through profit or loss - non-current	9,684,732	US$	10,273 thousand	-	US$	10,273 thousand	
	Stock									
	Alibaba Group Holding Ltd.	-	Financial assets at fair value through profit or loss - current	320,000	US$	8,654 thousand	-	US$	8,654 thousand	
	Ping An Insurance (Group) Company of China, Ltd.	-	Financial assets at fair value through profit or loss - current	640,000	US$	6,400 thousand	-	US$	6,400 thousand	
	Alibaba Group Holding Limited	-	Financial assets at fair value through profit or loss - current	22,000	US$	4,745 thousand	-	US$	4,745 thousand	
	Microsoft Corporation	-	Financial assets at fair value through profit or loss - current	30,000	US$	6,105 thousand	-	US$	6,105 thousand	
	Fund									
	JPMorgan Funds-Income Fund	-	Financial assets at fair value through profit or loss - current	1,048,218	US$	9,476 thousand	-	US$	9,476 thousand	
Universal Scientific Industrial (Shanghai) Co., Ltd.	Fund									
	Hwabao WP Fund	-	Financial assets at fair value through profit or loss - current	400,000	RMB	402 thousand	-	RMB	402 thousand	
USI Electronics (Shenzhen) Co., Ltd	Fund									
	Hwabao WP Fund	-	Financial assets at fair value through profit or loss - current	400,000	RMB	402 thousand	-	RMB	402 thousand	
Universal Global Electronics Co., Ltd.	Beneficiary Certificate									
	PHI FUND, L.P.	-	Financial assets at fair value through profit or loss - non current	10,775,062	US$	10,052 thousand	39	US$	10,052 thousand	
UGTW	Stock									
	TriKnight Capital Corporation	-	Financial assets at fair value through other comprehensive income - non current	29,625,000	$	175,305	5	$	175,305	

(Concluded)

Note: The Company's stocks held by ASE Test Limited, 44,100,236 shares, are all trusted without power to decide the allocation of the trust assets.

TABLE 4

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

MARKETABLE SECURITIES ACQUIRED AND DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT$300 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE SIX MONTHS ENDED JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counter-party	Nature of Relationship	Beginning Balance		Acquisition		Disposal				Ending Balance	
					Shares/Units	Amount (Note 1)	Shares/Units	Amount	Shares/Units	Amount	Carrying Value	Gain/Loss on Disposal	Shares/Units	Amount (Note 1)
J&R Industrial Inc.	Fund													
	Taishin 1699 Money Market Fund	Financial assets at fair value through profit or loss - current	-	-	1,574,849	$ 21,393	29,379,577	$ 400,000	29,379,577	$ 400,041	$ 400,000	$ 41	1,574,849	$ 21,448
USI Enterprise Limited	Fund													
	JPMorgan Funds -Income Fund	Financial assets at fair value through profit or loss - current	J.P. Morgan Asset Management	-	-	US$ -	1,048,218	US$ 10,000 thousand	-	US$ -	US$ -	US$ -	1,048,218	US$ 9,476 thousand
Universal Global Technology Co., Limited	Stock													
	Universal Scientific Industrial De Mexico S.A. De C.V.	Investments accounted for using the equity method	(Note 2)	-	281,085,326	US$ 39,189 thousand	976,992,000	US$ 40,000 thousand	-	US$ -	US$ -	US$ -	1,258,077,326	US$ 69,057 thousand
SPIL	Stock													
	ChipMOS Technologies Inc.	Investments accounted for using the equity method	(Note 3)	(Note 3)	148,910,390	$ 4,383,903	-	$ -	70,000,000	$ 2,232,384 (Note 4)	$ 2,135,450	$ 74,117 (Note 5)	78,910,390	$ 2,285,615

Note 1: The balance of investment accounted for using the equity method including share of profits/losses of investees and other adjustment related to equity.

Note 2: Capital increase by cash.

Note 3: Sell on open market.

Note 4: The disposal price has deducted related transaction costs.

Note 5: The disposal gain comprised of a loss of $22,993 thousand transferred from exchange differences on translating foreign operations accounted for using the equity method and a gain of $176 thousand transferred from capital surplus.

TABLE 5

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

ACQUISITION OF INDIVIDUAL REAL ESTATE PROPERTIES AT COSTS OF AT LEAST NT$300 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE SIX MONTHS ENDED JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars)

Company Name	Types of Property	Transaction Date	Transaction Amount (Tax excluded)	Payment Term	Counter-party	Nature of Relationships	Prior Transaction of Related Counter-party				Price Reference	Purpose of Acquisition	Other Terms
							Owner	Relationships	Transfer Date	Amount			
SPIL	Facility engineering	January 1, 2020 - June 30, 2020	$ 570,982	Based on the terms agreed upon by both parties	Acter Group Corporation Limited	None	-	-	-	$ -	Request for quotation, price comparison and price negotiation	For operating purpose	None
		January 1, 2020 - June 30, 2020	455,538	Based on the terms agreed upon by both parties	Chung Yuang Electrical Consulting Co., Ltd.	None	-	-	-	-	Request for quotation, price comparison and price negotiation	For operating purpose	None
Siliconware Electronics (Fujian) Co., Limited	Facility engineering	January 1, 2020 - June 30, 2020	301,493	Based on the terms agreed upon by both parties	China MCC20 Group Corp. Ltd.	None	-	-	-	-	Request for quotation, price comparison and price negotiation	For operating purpose	None

TABLE 6

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES OF AT LEAST NT$100 MILLION OR 20% OF THE PAID-IN CAPITAL
FOR THE SIX MONTHS ENDED JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars)

Buyer	Related Party	Relationships	Transaction Details				Abnormal Transaction		Notes/Accounts Payable or Receivable		Note
			Purchases/ Sales	Amount	% to Total	Payment Terms	Unit Price	Payment Terms	Ending Balance	% to Total	
ASE	ASE (Shanghai) Inc.	Subsidiary	Purchases	$ 770,565	3	Net 60 days from the end of the month of when invoice is issued	$ -	-	$ (461,380)	(4)	Note
	ASE Electronics Inc.	Subsidiary	Purchases	738,361	3	Net 60 days from the end of the month of when invoice is issued	-	-	(403,084)	(3)	Note
	Universal Scientific Industrial Co., Ltd.	Consolidated subsidiary	Sales	(3,761,331)	(7)	Net 60 days from the end of the month of when invoice is issued	-	-	2,078,286	11	Note
ASE Assembly & Test (Shanghai) Limited	ASE (Shanghai) Inc.	Consolidated subsidiary	Purchases	141,549	14	Net 60 days from the end of the month of when invoice is issued	-	-	(60,683)	(16)	Note
Advanced Semiconductor Engineering (HK) Limited	ASE (Shanghai) Inc.	Parent company	Purchases	476,579	100	Net 90 days from the end of the month of when invoice is issued	-	-	(234,696)	(100)	Note
ASE Electronics (M) Sdn. Bhd.	ASE Electronics Inc.	Consolidated subsidiary	Purchases	130,233	15	Net 60 days from invoice date	-	-	(48,634)	(11)	Note
Universal Scientific Industrial Co., Ltd.	ASE	Consolidated subsidiary	Purchases	3,761,331	35	Net 60 days from the end of the month of when invoice is issued	-	-	(2,067,950)	(45)	Note
	Universal Global Scientific Industrial Co., Ltd.	Parent company	Purchases	216,875	3	T/T 75 days	-	-	(207,324)	(5)	Note
ASE (Shanghai) Inc.	ASE	Parent company	Sales	(770,565)	(36)	Net 60 days from the end of the month of when invoice is issued	-	-	462,623	43	Note
	Advanced Semiconductor Engineering (HK) Limited	Subsidiary	Sales	(476,579)	(23)	Net 90 days from the end of the month of when invoice is issued	-	-	240,266	23	Note
	ASE Assembly & Test (Shanghai) Limited	Consolidated subsidiary	Sales	(141,549)	(7)	Net 60 days from the end of the month of when invoice is issued	-	-	60,683	6	Note
ASE Electronics Inc.	ASE	Parent company	Sales	(738,361)	(40)	Net 60 days from the end of the month of when invoice is issued	-	-	422,092	43	Note
	ASE Electronics (M) Sdn. Bhd.	Consolidated subsidiary	Sales	(130,233)	(7)	Net 60 days from invoice date	-	-	48,867	5	Note

(Continued)

Buyer	Related Party	Relationships	Transaction Details				Abnormal Transaction		Notes/Accounts Payable or Receivable		Note
			Purchases/ Sales	Amount	% to Total	Payment Terms	Unit Price	Payment Terms	Ending Balance	% to Total	
Universal Scientific Industrial (Shanghai) Co., Ltd.	Universal Global Technology (Shanghai) Co., Limited	Subsidiary	Purchases	$ 704,755	3	T/T 75 days	$ -	-	$ -	-	Note
	Universal Global Scientific Industrial Co., Ltd.	Subsidiary	Purchases	150,226	1	T/T 75 days	-	-	-	-	Note
Universal Global Technology (Kunshan) Co., Ltd.	Universal Global Scientific Industrial Co., Ltd.	Consolidated subsidiary	Purchases	144,366	2	T/T 75 days	-	-	-	-	Note
			Sales	(5,408,957)	(63)	T/T 75 days	-	-	-	-	Note
Universal Global Technology (Shanghai) Co., Limited	Universal Scientific Industrial (Shanghai) Co., Ltd.	Parent company	Sales	(704,755)	(6)	T/T 75 days	-	-	-	-	Note
USI Electronics (Shenzhen) Co., Ltd.	Universal Global Scientific Industrial Co., Ltd.	Consolidated subsidiary	Purchases	154,943	2	T/T 75 days	-	-	-	-	Note
			Sales	(3,780,257)	(45)	T/T 75 days	-	-	-	-	Note
	Universal Scientific Industrial De Mexico S.A. De C.V.	Consolidated subsidiary	Sales	(204,601)	(2)	T/T 75 days	-	-	132,162	3	Note
Universal Global Scientific Industrial Co., Ltd.	Universal Global Technology (Kunshan) Co., Ltd.	Consolidated subsidiary	Purchases	5,408,957	42	T/T 75 days	-	-	-	-	Note
			Sales	(144,366)	(1)	T/T 75 days	-	-	-	-	Note
	USI Electronics (Shenzhen) Co., Ltd.	Consolidated subsidiary	Purchases	3,780,257	29	T/T 75 days	-	-	-	-	Note
			Sales	(154,943)	(1)	T/T 75 days	-	-	62,259	1	Note
	Universal Scientific Industrial (Shanghai) Co., Ltd.	Parent company	Sales	(150,226)	(1)	T/T 75 days	-	-	71,172	1	Note
	Universal Scientific Industrial Co., Ltd.	Subsidiary	Sales	(216,875)	(1)	T/T 75 days	-	-	207,324	3	Note
Universal Scientific Industrial De Mexico S.A. De C.V.	USI Electronics (Shenzhen) Co., Ltd.	Consolidated subsidiary	Purchases	204,601	8	T/T 75 days	-	-	(132,162)	(24)	Note

(Concluded)

Note: All the transactions had been eliminated when preparing consolidated financial statements.

TABLE 7

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT$100 MILLION OR 20% OF THE PAID-IN CAPITAL
JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Related Party	Relationships	Ending Balance (Note 1)		Turnover Rate (Note 2)	Overdue (Note 1)		Amounts Received in Subsequent Period	Allowance for Bad Debts
						Amount	Actions Taken		
ASE	Universal Scientific Industrial Co., Ltd.	Consolidated subsidiary	$ 2,078,286	(Note 5)	3	$ 148,616	Continued collection	$ 569,682	$ -
	The Company	Ultimate parent company	15,850,166	(Notes 3,5)	-	-	-	55	-
	ASE (Korea) Inc.	Subsidiary	2,315,657	(Notes 3,5)	-	-	-	-	-
ASE Electronics Inc.	ASE	Parent company	422,654	(Note 5)	4	-	-	116,243	-
	The Company	Ultimate parent company	1,000,000	(Notes 3,5)	-	-	-	50,000	-
ASE Singapore Pte. Ltd.	ASE	Parent company	1,778,103	(Notes 3,5)	2	-	-	-	-
ISE Labs, Inc.	ASE	Parent company	892,803	(Notes 3,5)	7	-	-	-	-
	ASE Test Limited	Parent company	592,600	(Notes 3,5)	-	-	-	-	-
ASE Test, Inc.	ASE	Parent company	2,814,858	(Notes 4,5)	-	1,526	Continued collection	1,026,801	-
	The Company	Ultimate parent company	2,600,979	(Notes 3,5)	-	-	-	160,000	-
ASE Test Limited	ASE	Parent company	5,528,040	(Notes 3,5)	-	-	-	-	-
ASE (Korea) Inc.	ASE	Parent company	1,185,200	(Notes 3,5)	-	-	-	1,185,200	-
J&R Industrial Inc.	The Company	Ultimate parent company	400,000	(Notes 3,5)	-	-	-	-	-
ASE Japan Co., Ltd.	ASE	Parent company	660,240	(Notes 3,5)	-	-	-	-	-
	ASE Test Limited	Consolidated subsidiary	550,200	(Notes 3,5)	-	-	-	-	-
ASE (Shanghai) Inc.	ASE	Parent company	462,623	(Note 5)	4	-	-	21,338	-
	Advanced Semiconductor Engineering (HK) Limited	Subsidiary	240,266	(Note 5)	4	-	-	-	-
ASE (Kun Shan) Inc.	Siliconware Technology (Suzhou) Limited	Consolidated subsidiary	1,048,779	(Notes 3,5)	-	-	-	-	-
Advanced Semiconductor Engineering (China) Ltd.	ASE Assembly & Test (Shanghai) Limited	Consolidated subsidiary	408,646	(Notes 3,5)	-	-	-	-	-
ASE (Weihai) Inc.	Siliconware Technology (Suzhou) Limited	Consolidated subsidiary	503,414	(Notes 3,5)	-	-	-	-	-
Shanghai Ding Hui Real Estate Development Co., Ltd.	Shanghai Ding Wei Real Estate Development Co., Ltd.	Subsidiary	1,936,841	(Notes 3,5)	-	-	-	-	-
	Shanghai Ding Yu Real Estate Development Co., Ltd.	Subsidiary	215,799	(Notes 3,5)	-	-	-	-	-

(Continued)

Company Name	Related Party	Relationships	Ending Balance（Note 1）	Turnover Rate（Note 2）	Overdue（Note 1）		Amounts Received in Subsequent Period	Allowance for Bad Debts
					Amount	Actions Taken		
Huntington Holdings International Co. Ltd.	ASE	Consolidated subsidiary	$ 177,780 (Notes 3,5)	-	$ -	-	$ -	$ -
Real Tech Holdings Limited	ASE	Consolidated subsidiary	1,540,760 (Notes 3,5)	-	-	-	-	-
USI Enterprise Limited	ASE	Consolidated subsidiary	10,192,720 (Notes 3,5)	-	-	-		-
	USI Inc.	Parent company	1,779,780 (Notes 3,5)	-	-	-	-	-
Universal Scientific Industrial Co., Ltd	Universal Scientific Industrial De Mexico S.A. De C.V.	Consolidated subsidiary	414,820 (Notes 3,5)	-	-	-	-	-
	Universal Global Scientific Industrial Co., Ltd.	Parent company	501,621 (Notes 3,5)	-	-	-	408	-
Universal Global Scientific Industrial Co., Ltd.	Universal Scientific Industrial Co., Ltd.	Subsidiary	1,244,503 (Notes 3,5)	1	29,797	Continued collection	29,864	-
	Universal Scientific Industrial De Mexico S.A. De C.V.	Consolidated subsidiary	537,427 (Notes 3,5)	-	-	-	1,591	-
USI Electronics (Shenzhen) Co., Ltd.	Universal Scientific Industrial (Shanghai) Co., Ltd.	Parent company	2,101,989 (Notes 3,5)	-	-	-	-	-
	Universal Global Industrial Co., Limited	Consolidated subsidiary	1,737,084 (Note 5)	4	-	-	148,150	-
	Universal Scientific Industrial De Mexico S.A. De C.V.	Consolidated subsidiary	132,162 (Note 5)	3	-	-	54,965	-
Universal Global Industrial Co., Limited	Universal Global Scientific Industrial Co., Ltd.	Consolidated subsidiary	3,885,028 (Note 5)	4	148,111	Continued collection	592,603	-
	USI Electronics (Shenzhen) Co., Ltd.	Consolidated subsidiary	407,320 (Note 5)	7	-	-	208,346	-
Universal Global Technology Co., Limited	Universal Scientific Industrial De Mexico S.A. De C.V.	Subsidiary	1,481,500 (Notes 3,5)	-	-	-	-	-
	Universal Global Technology (Kunshan) Co., Ltd.	Consolidated subsidiary	554,859 (Note 5)	3	456,722	Continued collection	134,049	-
	Universal Scientific Industrial (Shanghai) Co., Ltd.	Parent company	900,609 (Note 5)	3	582,397	Continued collection	165,356	-
	Universal Scientific Industrial Poland Sp. z o.o.	Consolidated subsidiary	355,560 (Notes 3,5)	-	-	-	-	-
Universal Global Technology (Kunshan) Co., Ltd.	Universal Global Industrial Co., Limited	Consolidated subsidiary	2,580,609 (Note 5)	4	-	-	533,340	-
Universal Global Technology (Shanghai) Co., Ltd	Universal Global Technology Co., Limited	Consolidated subsidiary	258,843 (Notes 3,5)	2	-	-	12,533	-
USI Inc.	Universal Global Scientific Industrial Co., Ltd.	Subsidiary	253,234 (Note 5)	-	-	-	12,399	-
SPIL	Siliconware Technology (Suzhou) Limited	Subsidiary	2,120,678 (Notes 3,5)	3	598,958	Continued collection	225,779	-
	Siliconware Electronics (Fujiam) Co., Limited	Subsidiary	2,355,858 (Notes 3,5)	4	617,729	Continued collection	406,737	-
	ChipMOS Technologies Inc.	Associate accounted for using the equity method	144,151	-	-	-	-	-
	The Company	Ultimate parent company	3,500,000 (Notes 3,5)	-	-	-	-	-

(Concluded)

Note 1: Include trade receivables and other receivables.

Note 2: Exclude other receivables.

Note 3: Intercompany loan (refer to Table 1) and receivables of selling machinery and equipment.

Note 4: Turnkey transaction.

Note 5: All the transactions had been eliminated when preparing consolidated financial statements.

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

NAMES, LOCATION, AND RELATED INFORMATION OF INVESTEES OVER WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE
FOR THE SIX MONTHS ENDED JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of June 30, 2020			Net Income (Losses) of the Investee	Share of Profits/Losses of Investee (Note 1)	Note
				June 30, 2020	December 31, 2019	Shares	Percentage of Ownership	Carrying Value			
The Company	ASE	Taiwan	Engaged in the packaging and testing of semiconductors	$ 183,660,039	$ 183,660,039	5,994,143,764	100	$ 97,130,127	$ 7,384,934	$ 7,073,679	Subsidiary
	SPIL	Taiwan	Engaged in assembly, testing and turnkey services of integrated circuits	173,657,530	173,657,530	3,391,748,878	100	150,979,172	5,267,786	2,780,842	Subsidiary
	USI Inc.	Taiwan	Investment activities	33,362,556	33,362,556	2,119,854,880	100	32,318,513	1,464,513	1,437,874	Subsidiary
ASE	A.S.E. Holding Limited	Bermuda	Investment activities	US$ 283,966 thousand	US$ 283,966 thousand	243,966	100	16,246,231	242,551	(Note 2)	Subsidiary
	J & R Holding Limited	Bermuda	Investment activities	US$ 479,693 thousand	US$ 479,693 thousand	435,128	100	58,876,479	1,150,635	(Note 2)	Subsidiary
	ASE Marketing & Service Japan Co., Ltd.	Japan	Engaged in marketing and customer service of packaging and testing of semiconductors	JPY 60,000 thousand	JPY 60,000 thousand	1,200	100	39,072	1,197	(Note 2)	Subsidiary
	Omniquest Industrial Limited	British Virgin Islands	Investment activities	US$ 254,604 thousand	US$ 254,604 thousand	254,604,067	71	11,243,453	(22,755)	(Note 2)	Subsidiary
	Innosource Limited	British Virgin Islands	Investment activities	US$ 86,100 thousand	US$ 86,100 thousand	86,100,000	100	4,301,028	1,241	(Note 2)	Subsidiary
	HCK	Taiwan	Engaged in the leasing of real estate properties	$ 390,470	$ 390,470	35,497,273	27	277,537	(20,389)	(Note 2)	Associate
	HC	Taiwan	Engaged in the development, construction and leasing of real estate properties	2,845,913	2,845,913	68,629,782	26	1,101,679	79,330	(Note 2)	Associate
	ASE Test, Inc.	Taiwan	Engaged in the testing of semiconductors	20,698,867	20,698,867	1,131,452,502	100	27,624,542	1,043,828	(Note 2)	Subsidiary
	Luchu Development Corporation	Taiwan	Engaged in the development of real estate properties	1,366,238	1,366,238	138,013,151	67	1,388,555	5,013	(Note 2)	Subsidiary
	ASEEE	Taiwan	Engaged in the production of embedded substrate	-	2,450,940	-	-	-	(52,247)	(Note 2)	Subsidiary
	Deca Technologies Inc.	British Cayman Islands	Holding company and the group engaged in manufacturing, development and marketing of wafer level packaging and interconnect technology	US$ 54,402 thousand	US$ 59,882 thousand	85,921,292	18	85,222	(576,948)	(Note 2)	Associate
	AMPI	Taiwan	Engaged in integrated circuit	$ 178,861	$ 178,861	33,308,452	8	69,451	(111,911)	(Note 2)	Subsidiary
ASE Test, Inc.	Alto Enterprises Limited	British Virgin Islands	Investment activities	US$ 188,000 thousand	US$ 188,000 thousand	188,000,000	100	4,208,582	30,292	(Note 2)	Subsidiary
	Super Zone Holdings Limited	Hong Kong	Investment activities	US$ 100,000 thousand	US$ 100,000 thousand	100,000,000	100	2,961,106	33,935	(Note 2)	Subsidiary
	Luchu Development Corporation	Taiwan	Engaged in the development of real estate properties	$ 372,504	$ 372,504	38,958,734	19	391,874	5,013	(Note 2)	Subsidiary
	TLJ Intertech Inc.	Taiwan	Engaged in information software services	89,998	89,998	2,119,080	60	59,286	4,996	(Note 2)	Subsidiary
	MF	Taiwan	Engaged in information software services	30,000	30,000	3,000,000	100	34,539	2,102	(Note 2)	Subsidiary
	AMPI	Taiwan	Engaged in integrated circuit	475,000	475,000	190,000,000	43	292,097	(111,911)	(Note 2)	Subsidiary
A.S.E. Holding Limited	ASE Test Limited	Singapore	Investment activities	US$ 84,889 thousand	US$ 84,889 thousand	11,148,000	10	US$ 100,158 thousand	US$ 19,099 thousand	(Note 2)	Subsidiary
	ASE Investment (Labuan) Inc.	Malaysia	Investment activities	US$ 169,643 thousand	US$ 169,643 thousand	169,642,842	70	US$ 390,879 thousand	US$ 8,449 thousand	(Note 2)	Subsidiary
J & R Holding Limited	ASE Test Limited	Singapore	Investment activities	US$ 964,524 thousand	US$ 964,524 thousand	98,276,087	90	US$ 998,734 thousand	US$ 19,099 thousand	(Note 2)	Subsidiary
	Omniquest Industrial Limited	British Virgin Islands	Investment activities	US$ 30,200 thousand	US$ 30,200 thousand	30,200,000	8	US$ 45,469 thousand	(US$ 759 thousand)	(Note 2)	Subsidiary
	J&R Industrial Inc.	Taiwan	Engaged in leasing equipment	US$ 51,344 thousand	US$ 51,344 thousand	170,000,006	100	US$ 34,227 thousand	US$ 69 thousand	(Note 2)	Subsidiary
	ASE Japan Co., Ltd.	Japan	Engaged in the packaging and testing of semiconductors	US$ 25,606 thousand	US$ 25,606 thousand	7,200	100	US$ 74,375 thousand	US$ 70 thousand	(Note 2)	Subsidiary
	ASE (U.S.) Inc.	U.S.A	After-sales service and sales support	US$ 4,600 thousand	US$ 4,600 thousand	1,000	100	US$ 18,205 thousand	US$ 780 thousand	(Note 2)	Subsidiary
	Global Advanced Packaging Technology Limited	British Cayman Islands	Investment activities	US$ 207,370 thousand	US$ 207,370 thousand	207,370,000	100	US$ 521,042 thousand	US$ 8,172 thousand	(Note 2)	Subsidiary
	Anstock Limited	British Cayman Islands	Investment activities	US$ 10 thousand	US$ 10 thousand	10,000	100	US$ 1,117 thousand	US$ 1 thousand	(Note 2)	Subsidiary
	Anstock II Limited	British Cayman Islands	Investment activities	US$ 10 thousand	US$ 10 thousand	10,000	100	US$ 170 thousand	(US$ 2 thousand)	(Note 2)	Subsidiary
ASE Investment (Labuan) Inc.	ASE (Korea) Inc.	Korea	Engaged in the manufacturing of substrates and components of telecomm	US$ 160,000 thousand	US$ 160,000 thousand	20,741,363	100	US$ 556,548 thousand	US$ 8,327 thousand	(Note 2)	Subsidiary
ASE Test Limited	ASE Holdings (Singapore) Pte Ltd	Singapore	Investment activities	US$ 65,520 thousand	US$ 65,520 thousand	71,428,902	100	US$ 184,425 thousand	US$ 5,646 thousand	(Note 2)	Subsidiary
	ASE Test Holdings, Ltd.	British Cayman Islands	Investment activities	US$ 222,399 thousand	US$ 222,399 thousand	5	100	US$ 103,728 thousand	(US$ 442 thousand)	(Note 2)	Subsidiary
	ASE Investment (Labuan) Inc.	Malaysia	Investment activities	US$ 72,304 thousand	US$ 72,304 thousand	72,304,040	30	US$ 166,564 thousand	US$ 8,449 thousand	(Note 2)	Subsidiary
	ASE Singapore Pte. Ltd.	Singapore	Engaged in the testing of semiconductors	US$ 55,815 thousand	US$ 55,815 thousand	30,100,000	100	US$ 184,557 thousand	US$ 8,013 thousand	(Note 2)	Subsidiary

(Continued)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount: June 30, 2020	Original Investment Amount: December 31, 2019	Balance as of June 30, 2020: Shares	Balance as of June 30, 2020: Percentage of Ownership	Balance as of June 30, 2020: Carrying Value	Net Income (Losses) of the Investee	Share of Profits/Losses of Investee (Note 1)	Note
ASE Test Holdings, Ltd.	ISE Labs, Inc.	U.S.A	Engaged in the testing of semiconductors	US$ 221,145 thousand	US$ 221,145 thousand	26,250,000	100	US$ 103,727 thousand	(US$ 442 thousand)	(Note 2)	Subsidiary
ISE Labs, Inc.	ISE Service, Inc.	U.S.A		US$ 0.001 thousand	US$ - thousand	1,000	100	US$ 166 thousand	US$ 166 thousand	(Note 2)	Subsidiary
ASE Holdings (Singapore) Pte Ltd.	ASE Electronics (M) Sdn. Bhd.	Malaysia	Engaged in the packaging and testing of integrated circuits	US$ 60,000 thousand	US$ 60,000 thousand	159,715,000	100	US$ 184,425 thousand	US$ 5,646 thousand	(Note 2)	Subsidiary
Omniquest Industrial Limited	ASE Corporation	British Cayman Islands	Investment activities	US$ 356,284 thousand	US$ 356,284 thousand	356,284,067	100	US$ 539,668 thousand	(US$ 759 thousand)	(Note 2)	Subsidiary
ASE Corporation	ASE Mauritius Inc.	Mauritius	Investment activities	US$ 217,800 thousand	US$ 217,800 thousand	217,800,000	100	US$ 422,269 thousand	US$ 2,559 thousand	(Note 2)	Subsidiary
	ASE Labuan Inc.	Malaysia	Investment activities	US$ 126,184 thousand	US$ 126,184 thousand	126,184,067	100	US$ 113,923 thousand	(US$ 3,305 thousand)	(Note 2)	Subsidiary
ASE Labuan Inc.	ASE Electronics Inc.	Taiwan	Engaged in the production of substrates	US$ 125,813 thousand	US$ 125,813 thousand	398,981,900	100	US$ 113,370 thousand	(US$ 3,297thousand)	(Note 2)	Subsidiary
Innosource Limited	Omniquest Industrial Limited	British Virgin Islands	Investment activities	US$ 74,000 thousand	US$ 74,000 thousand	74,000,000	21	US$ 111,351 thousand	(US$ 759 thousand)	(Note 2)	Subsidiary
ASE (Shanghai) Inc.	Advanced Semiconductor Engineering (HK) Limited	Hong Kong	Engaged in the trading of substrates	US$ 1,000 thousand	US$ 1,000 thousand	-	100	US$ 9,646 thousand	US$ 20 thousand	(Note 2)	Subsidiary
USI Inc.	Huntington Holdings International Co. Ltd.	British Virgin Islands	Holding company	$ 8,370,606	$ 8,370,606	255,856,840	100	$ 47,871,083	$ 1,636,676	(Note 2)	Subsidiary
Huntington Holdings International Co., Ltd.	Unitech Holdings International Co. Ltd.	British Virgin Islands	Holding company	US$ 3,000 thousand	US$ 3,000 thousand	3,000,000	100	US$ 9,796 thousand	US$ 1,473 thousand	(Note 2)	Subsidiary
	Real Tech Holdings Limited	British Virgin Islands	Holding company	US$ 149,151 thousand	US$ 149,151 thousand	149,151,000	100	US$ 1,591,139 thousand	US$ 55,692 thousand	(Note 2)	Subsidiary
	Universal ABIT Holding Co., Ltd.	British Cayman Islands	Holding company	US$ 28,125 thousand	US$ 28,125 thousand	90,000,000	100	US$ 13 thousand	US$ - thousand	(Note 2)	Subsidiary
Real Tech Holdings Limited	USI Enterprise Limited	Hong Kong	Engaged in the services of investment advisory and warehousing management	US$ 210,900 thousand	US$ 210,900 thousand	210,900,000	95	US$ 1,532,925 thousand	US$ 60,170 thousand	(Note 2)	Subsidiary
Universal Scientific Industrial (Shanghai) Co., Ltd.	Universal Global Technology Co., Limited	Hong Kong	Holding company	RMB 1,149,624 thousand	RMB 1,149,624 thousand	1,330,965,535	100	RMB 3,650,355 thousand	RMB 3,727 thousand	(Note 2)	Subsidiary
Universal Global Technology Co., Limited	Universal Global Industrial Co., Limited	Hong Kong	Engaged in trading and investing activity	US$ 11,000 thousand	US$ 11,000 thousand	85,800,000	100	US$ 13,200 thousand	US$ 378 thousand	(Note 2)	Subsidiary
	Universal Global Electronics Co., Ltd.	Hong Kong	Engaging in ordering and outsourcing, selling electronic products, and providing technical consulting services	US$ 27,000 thousand	US$ 27,000 thousand	27,000,000	100	US$ 23,122 thousand	(US$ 1,420 thousand)	(Note 2)	Subsidiary
	M-Universe Investments Pte. Ltd.	Singapore	Holding company	US$ 58,688 thousand	US$ 58,688 thousand	59,157,419	42	US$ 58,634 thousand	(US$ 2,180 thousand)	(Note 2)	Associate
	Universal Global Scientific Industrial Co., Ltd.	Taiwan	Engaged in the manufacturing of components of telecomm and cars and provision of related R&D services	US$ 62,235 thousand	US$ 62,235 thousand	198,000,000	100	US$ 225,762 thousand	US$ 9,021 thousand	(Note 2)	Subsidiary
	USI Japan Co., Ltd.	Japan	Engaged in the manufacturing and sale of computer peripherals, integrated chip and other related accessories	US$ 885 thousand	US$ 885 thousand	6,400	100	US$ 1,097 thousand	US$ 34 thousand	(Note 2)	Subsidiary
	Universal Scientific Industrial De Mexico S.A. De C.V.	Mexico	Engaged in the assembling of motherboards and computer components	US$ 63,963 thousand	US$ 23,963 thousand	1,258,077,325	100	US$ 69,057 thousand	(US$ 10,132 thousand)	(Note 2)	Subsidiary
	USI America Inc.	U.S.A	Engaged in the manufacturing and processing of motherboards and wireless network communication and provision of related technical service	US$ 9,500 thousand	US$ 9,500 thousand	250,000	100	US$ 6,628 thousand	US$ 150 thousand	(Note 2)	Subsidiary
	Universal Scientific Industrial (France)	France	Holding company	US$ 1,423 thousand	US$ 11 thousand	1,310,000	100	(US$ 538 thousand)	(US$ 1,992 thousand)	(Note 2)	Subsidiary
Universal Global Industrial Co., Limited	Universal Scientific Industrial De Mexico S.A. De C.V.	Mexico	Engaged in the assembling of motherboards and computer components	US$ - thousand	US$ - thousand	1	-	US$ - thousand	US$ 10,132 thousand	(Note 2)	Subsidiary
Universal Global Scientific Industrial Co., Ltd.	Universal Scientific Industrial Co., Ltd.	Taiwan	Engaged in the manufacturing, processing and sale of computers, computer peripherals	$ 1,791,208	$ 1,791,208	139,972,740	100	$ 2,896,359	$ 151,089	(Note 2)	Subsidiary
Universal Global Electronics Co., Ltd.	Semicondutores Avancados do Brasil S.A.	Brazil	Developed and manufactured system-in-package module products with all-in-one functions for smart phones, Internet of Things and other related devices.	US$ 188 thousand	US$ 188 thousand	746,137	75	US$ 33 thousand	(US$ 30 thousand)	(Note 2)	Subsidiary
	Universal Scientific Industrial Poland Sp. z o.o.	Poland	Engaged in the design,manufacturing and processing of electronic products	RMB 102,500 thousand	RMB 78,000 thousand	67,686	100	US$ 6,396 thousand	(US$ 1,159 thousand)	(Note 2)	Subsidiary
SPIL	SPIL (B.V.I.) Holding Limited	British Virgin Islands	Investment activities	US$ 289,400 thousand	US$ 289,400 thousand	289,400,000	100	$ 14,662,176	$ 990,048	(Note 2)	Subsidiary
	Siliconware Investment Co., Ltd.	Taiwan	Investment activities	$ 2,401,000	$ 2,401,000	109,523,000	100	3,966,206	10,218	(Note 2)	Subsidiary
	ChipMOS Technologies Inc.	Taiwan	Engaged in the packaging and testing of semiconductors	1,309,699	2,471,509	78,910,390	11	2,285,615	(Note 3)	(Note 2)	Associate
	Vertical Circuits, Inc.	U.S.A	Engaged in the packaging of semiconductors	US$ 5,000 thousand	US$ 5,000 thousand	15,710,000	31	-	-	(Note 2)	Associate
Siliconware Investment Co., Ltd.	Yann Yuan Investment Co., Ltd.	Taiwan	Investment activities	$ 2,400,000	$ 2,400,000	48,000,000	32	3,868,339	31,722	(Note 2)	Associate

(Continued)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount June 30, 2020		Original Investment Amount December 31, 2019		Balance as of June 30, 2020 Shares	Balance as of June 30, 2020 Percentage of Ownership	Balance as of June 30, 2020 Carrying Value		Net Income (Losses) of the Investee		Share of Profits/Losses of Investee (Note 1)	Note
SPIL (B.V.I.) Holding Limited	Siliconware USA, Inc.	U.S.A	Communications and relationship maintenance with companies headquartered in North America	US$	1,250 thousand	US$	1,250 thousand	1,250,000	100	$	257,073	$	8,718	(Note 2)	Subsidiary
	SPIL (Cayman) Holding Limited	British Cayman Islands	Investment activities	US$	291,200 thousand	US$	291,200 thousand	291,200,000	100		14,527,574		981,408	(Note 2)	Subsidiary

(Concluded)

Note 1: The share of profits/losses of investee includes the effect of unrealized gross profit on intercompany transaction.

Note 2: The share of profits/losses of investee company is not reflected herein as such amount is already included in the share of profits/losses of the investor company.

Note 3: Please refer to the Market Observation Post System website.

TABLE 9

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

INFORMATION ON INVESTMENT IN MAINLAND CHINA
FOR THE SIX MONTHS ENDED JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Investee Company	Main Business Activities	Paid-in Capital	Investment Method	Accumulated amount of remittance from Taiwan to Mainland China as of January 1, 2020	Amount remitted from Taiwan to Mainland China/Amount remitted back to Taiwan for the period ended June 30, 2020		Accumulated amount of remittance from Taiwan to Mainland China as of June 30, 2020	Net income of investee for the period ended June 30, 2020	Ownership held by the Company (direct or indirect)	Investment income (loss) recognised by the Company for the period ended June 30, 2020	Book value of investments in Mainland China as of June 30, 2020	Accumulated amount of investment income remitted back to Taiwan as of June 30, 2020
					Remitted to Mainland China	Remitted back to Taiwan						
ASE (Shanghai) Inc.	Engaged in the production of substrates	$ 4,349,312 (US$ 148,496 thousand) (Note 8)	Note 1 (1)	$ 4,782,216 (US$ 149,800 thousand) (Note 8)	$ -	$ -	$ 4,782,216 (US$ 149,800 thousand)	$ 70,124 (US$ 2,332 thousand) (Note 4)	100	$ 70,124 (US$ 2,332 thousand) (Note 4)	$ 11,664,941 (US$ 393,687 thousand)	None
ASE (Kun Shan) Inc.	Engaged in the packaging and testing of semiconductors	8,945,404 (US$ 288,000 thousand) (Note 10)	Note 1 (2)	8,350,204 (US$ 268,000 thousand) (Note 9)	-	-	8,350,204 (US$ 268,000 thousand)	46,459 (US$ 1,554 thousand) (Note 3)	100	46,459 (US$ 1,554 thousand) (Note 3)	6,449,551 (US$ 217,670 thousand)	None
ASE Assembly & Test (Shanghai) Limited	Engaged in the packaging and testing of semiconductors	6,501,336 (US$ 203,580 thousand)	Note 1 (3)	5,792,530 (US$ 180,000 thousand)	-	-	5,792,530 (US$ 180,000 thousand)	245,282 (US$ 8,184 thousand) (Note 3)	100	245,282 (US$ 8,184 thousand) (Note 3)	15,061,489 (US$ 508,319 thousand)	None
Suzhou ASEN Semiconductors Co., Ltd.	Engaged in the packaging and testing of semiconductors	1,568,467 (US$ 48,672 thousand) (Note 8)	Note 1 (4)	711,180 (US$ 21,600 thousand)	-	-	711,180 (US$ 21,600 thousand)	337,975 (US$ 11,269 thousand) (Note 4)	100	337,975 (US$ 11,269 thousand) (Note 4)	6,462,163 (US$ 218,095 thousand)	None
ASE WeiHai Inc.	Engaged in the packaging and testing of semiconductors	5,115,481 (US$ 172,200 thousand)	Note 1 (5)	1,295,307 (US$ 40,000 thousand)	-	-	1,295,307 (US$ 40,000 thousand)	251,970 (US$ 8,407 thousand) (Note 4)	100	251,970 (US$ 8,407 thousand) (Note 4)	3,565,928 (US$ 120,349 thousand)	None
Shanghai Ding Hui Real Estate Development Co., Ltd.	Engaged in the development, construction and sale of real estate properties	16,345,070 (RMB 3,600,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	(213,108) (RMB -49,992 thousand) (Note 4)	100	(213,405) (RMB -50,062 thousand) (Note 4)	19,799,812 (RMB 4,730,772 thousand)	None
Shanghai Ding Wei Real Estate Development Co., Ltd.	Engaged in the development, construction and sale of real estate properties	8,061,489 (RMB 1,798,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	(175,670) (RMB -41,195 thousand) (Note 4)	100	(175,670) (RMB -41,195 thousand) (Note 4)	6,122,353 (RMB 1,462,815 thousand)	None
Shanghai Ding Yu Real Estate Development Co., Ltd.	Engaged in the development, construction and sale of real estate properties	4,936,538 (RMB 1,100,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	(21,513) (RMB -5,039 thousand) (Note 4)	100	(21,513) (RMB -5,039 thousand) (Note 4)	4,499,200 (RMB 1,074,995 thousand)	None
Kun Shan Ding Hong Real Estate Development Co., Ltd.	Engaged in the development, construction and sale of real estate properties	3,139,662 (RMB 670,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	(3,518) (RMB -824 thousand) (Note 4)	100	(3,518) (RMB -824 thousand) (Note 4)	2,884,557 (RMB 689,208 thousand)	None
Advanced Semiconductor Engineering (China) Ltd.	Engage in the packaging and testing of semiconductors	3,149,000 (US$ 100,000 thousand)	Note 1 (6)	3,149,000 (US$ 100,000 thousand)	-	-	3,149,000 (US$ 100,000 thousand)	33,935 (US$ 1,130 thousand) (Note 3)	100	33,935 (US$ 1,130 thousand) (Note 3)	2,960,993 (US$ 99,932 thousand)	None
ASE Investment (Kun Shan) Limited	Holding company	4,312,518 (US$ 142,000 thousand) (Note 10)	Note 1 (7)	3,717,318 (US$ 122,000 thousand) (Note 9)	-	-	3,717,318 (US$ 122,000 thousand)	22,862 (US$ 764 thousand) (Note 3)	100	22,862 (US$ 764 thousand) (Note 3)	3,177,775 (US$ 107,249 thousand)	None
Wuxi Tongzhi Microelectronics Co., Ltd.	Engage in the packaging and testing of semiconductors	356,682 (RMB 73,461 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	8,220 (RMB 1,928 thousand) (Note 3)	100	8,220 (RMB 1,928 thousand) (Note 3)	373,340 (RMB 89,202 thousand)	None

(Continued)

Investee Company	Main Business Activities	Paid-in Capital	Investment Method	Accumulated amount of remittance from Taiwan to Mainland China as of January 1, 2020	Amount remitted from Taiwan to Mainland China/Amount remitted back to Taiwan for the period ended June 30, 2020: Remitted to Mainland China	Amount remitted from Taiwan to Mainland China/Amount remitted back to Taiwan for the period ended June 30, 2020: Remitted back to Taiwan	Accumulated amount of remittance from Taiwan to Mainland China as of June 30, 2020	Net income of investee for the period ended June 30, 2020	Ownership held by the Company (direct or indirect)	Investment income (loss) recognised by the Company for the period ended June 30, 2020	Book value of investments in Mainland China as of June 30, 2020	Accumulated amount of investment income remitted back to Taiwan as of June 30, 2020
Shanghai Ding Qi Property Management Co., Ltd.	Engaged in the management of real estate properties	$ 5,078 (RMB 1,000 thousand)	(Note 2)	$ - (Note 2)	$ -	$ -	$ - (Note 2)	$ 5,069 (RMB 1,156 thousand) (Note 4)	100	$ 5,069 (RMB 1,156 thousand) (Note 4)	$ (293) (RMB -70 thousand)	None
Shanghai Dingfan Business Management Co., Ltd	Commercial complex management services and department store trading	9,487 (RMB 2,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	(655) (RMB -154 thousand) (Note 4)	100	(655) (RMB -154 thousand) (Note 4)	4,653 (RMB 1,112 thousand)	None
Shanghai Ding Xu Property Management Co., Ltd.	Engaged in the management of real estate properties	22,860 (RMB 5,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	2,720 (RMB 642 thousand) (Note 4)	100	2,720 (RMB 642 thousand) (Note 4)	29,035 (RMB 6,937 thousand)	None
ISE labs, China. Ltd.	Engage in the packaging and testing of semiconductors	432,703 (RMB 100,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	(4,673) (RMB -1,082 thousand) (Note 3)	100	(4,673) (RMB -1,082 thousand) (Note 3)	403,568 (RMB 96,424 thousand)	None
Shanghai Dingyao Estate Development Co.,Ltd.	Engaged in the management of real estate properties	42,142 (RMB 10,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	8 (RMB 2 thousand) (Note 4)	100	8 (RMB 2 thousand) (Note 4)	41,861 (RMB 10,002 thousand)	None
USI Electronics (Shenzhen) Co., Ltd	Engaged in the processing and sales of computer and communication peripherals as well as business in import and export of goods and technology	2,270,625 (US$ 75,000 thousand)	Note 1 (8)	1,180,746	-	-	1,180,746	657,413 (RMB 154,334 thousand) (Note 5)	75	482,297 (US$ 16,074 thousand) (Note 5)	10,776,369 (US$ 363,698 thousand)	$ 1,842,387 (US$ 62,297 thousand)
Universal Scientific Industrial (Shanghai) Co., Ltd.	Engaged in the designing, manufacturing and sale of electronic components	10,672,263 (RMB 2,181,283 thousand)	Note 1 (8)	1,668,233	-	-	1,668,233	2,143,879 (US$ 71,414 thousand) (Note 5)	75	1,600,492 (US$ 53,313 thousand) (Note 5)	32,777,785 (US$ 1,106,236 thousand)	349,290 (US$ 10,955 thousand)
Universal Scientific Industrial (Kunshan) Co., Ltd.	Engaged in the manufacturing and sale of computer assistance system and related peripherals	- (US$ - thousand) (Note 13)	Note 1 (8)	383,201	-	383,201	-	6,417 (US$ 214 thousand) (Note 5)	-	6,417 (US$ 214 thousand) (Note 5)	- (US$ - thousand) (Note 13)	None
Universal Global Technology (Kunshan) Co., Ltd.	Engaged in the designing and manufacturing of electronic components	2,488,323 (RMB 550,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	633,610 (RMB 148,907 thousand) (Note 5)	75	477,721 (RMB 112,260 thousand) (Note 5)	3,691,296 (RMB 881,967 thousand)	None
Universal Global Technology (Shanghai) Co., Ltd.	Engaged in the processing and sales of computer and communication peripherals as well as business in import and export of goods and technology	6,652,140 (RMB 1,330,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	452,365 (RMB 106,266 thousand) (Note 5)	75	338,071 (RMB 79,415 thousand) (Note 5)	4,695,655 (RMB 1,121,940 thousand)	None
Universal Global Electronics (Shanghai) Co., Ltd.	Engaged in the sale of electronic components and telecommunications equipment	240,850 (RMB 50,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	3,039 (RMB 713 thousand) (Note 5)	75	2,275 (RMB 533 thousand) (Note 5)	184,662 (RMB 44,121 thousand)	None
SUMA-USI	Engaged in the design and production of electronic products	571,629 (RMB 133,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	(11,427) (RMB -2,704 thousand)	37	(4,180) (RMB -989 thousand)	199,068 (RMB 47,564 thousand)	None
Universal Global Technology (Huizhou) Co., Ltd	Engaged in the processing and sales of computer and communication peripherals as well as business in import and export of goods and technology	229,050 (RMB 50,000 thousand)	(Note 2)	- (Note 2)	-	-	- (Note 2)	(9,352) (RMB -2,202 thousand) (Note 5)	75	(6,992) (RMB -1,646 thousand) (Note 5)	146,915 (RMB 35,103 thousand)	None
Siliconware Technology (Suzhou) Limited	Engage in the packaging and testing of semiconductors	5,608,532 (US$ 159,577 thousand)	Note 1 (9)	8,028,663 (US$ 240,000 thousand)	-	-	8,028,663 (US$ 240,000 thousand)	1,079,929 (Note 12)	100	1,081,458 (Note 12)	11,105,608	None
Siliconware Electronics (Fujiam) Co., Limited	Engage in the packaging and testing of semiconductors	4,136,275 (US$ 135,000 thousand)	Note 1 (9)	1,358,200 (US$ 45,000 thousand)	-	-	1,358,200 (US$ 45,000 thousand)	(99,171) (Note 12)	100	(99,171) (Note 12)	3,245,580	None

(Continued)

Investee Company	Accumulated Investment in Mainland China as of June 30, 2020	Investment Amounts Authorized by Investment Commission, MOEA	Upper Limit on Investment
ASE	$ 15,203,097 (US$471,400 thousand)	$ 26,215,010 (US$ 828,745 thousand) (Note 8)	$ - (Note 6)
ASE Test, Inc.	8,878,838 (US$288,000 thousand)	8,878,838 (US$ 288,000 thousand)	16,572,872 (Note 7)
USI Inc.	2,848,979	32,402,388 (US$ 1,027,237 thousand)	- (Note 6)
SPIL	9,386,863 (US$285,000 thousand)	11,051,682 (US$ 359,577 thousand) (Note 11)	- (Note 6)

Note 1: Investments through a holding company registered in a third region. The holding companies are as follow:

(1) ASE Mauritius Inc., ASE Corporation, Omniquest Industrial Limited, Innosource Limited and J&R Holding Limited.

(2) ASE Mauritius Inc., Alto Enterprises Limited, Innosource Limited, ASE Corporation, Omniquest Industrial Limited and J&R Holding Limited.

(3) Global Advanced Packaging Technology Limited and J&R Holding Limited.

(4) J&R Holding Limited.

(5) ASE (Korea) Inc., ASE Test Limited, ASE Investment (Labuan) Inc., A.S.E. Holding Limited and J&R Holding Limited.

(6) Super Zone Holdings Limited.

(7) Alto Enterprises Limited.

(8) Real Tech Holdings Limited and Huntington Holdings International Co. Ltd.

(9) SPIL (Cayman) Holding Limited.

Note 2: Invested by companies in mainland China.

Note 3: The basis for investment income (loss) recognition is from the financial statements reviewed and attested by R.O.C. parent company's CPA.

Note 4: The basis for investment income (loss) recognition is from the financial statements reviewed and attested by international accounting firm which has cooperative relationship with accounting firm in R.O.C.

Note 5: The basis for investment income (loss) recognition is from the financial statements reviewed and attested by other CPA in the same accounting firm with R.O.C. parent company's CPA.

Note 6: Pursuant to the Jing-Shen-Zi Letter No. 09704604680 of the Ministry of Economic Affairs, R.O.C amended 'Guidelines Governing the Review of Investment or Technical Cooperation in the Mainland Area' dated August 29, 2008 and effective August 1 of the same year, as the Company has obtained the certificate of being qualified for operating headquarters, issued by the Industrial Development Bureau, MOEA, and meet the criteria of multinational enterprise, the ceiling amount of the investment in Mainland China is not applicable to the Company.

Note 7: The upper limit on investment of ASE Test, Inc. is calculated as follow: $27,621,453 × 60% =16,572,872.

Note 8: US$357,345 thousand difference between MOEA approved investment amount and accumulated outflow of investment from Taiwan includes:

(1) US$100,000 thousand was directly remitted by the subsidiary, ASE (Korea) Inc.;

(2) US$25,000 thousand was by means of Debt for Equity Swap;

(3) US$707 thousand and US$6,777 thousand were recognized by the MOEA as an increase in net investment due to transferring of ASE (Shanghai) Inc.'s equity from ASE Assembly & Test (Shanghai) Limited and ASE Module (Shanghai) Inc. to ASE Mauritius Inc. and due to the merger of ASE Module (Shanghai) Inc. by ASE (Shanghai) Inc., respectively.

(4) US$127,113 thousand for acquiring 40% shareholdings of ASEN from NXP B.V. by the subsidiary, J&R Holding Limited, was approved by MOEA on May 30, 2018.

(Continued)

(5) US$97,748 thousand for acquiring 30% shareholdings of ASEN from Beijing Unis Capital Management Co., Ltd. by the subsidiary, J&R Holding Limited, was approved by the MOEA on October 30, 2019.

Note 9: It was the same fund that ASE Test, Inc. indirectly invested to ASE Investment (Kun Shan) Limited through another company in 3rd area and then invested to ASE (Kun Shan) Inc.

Note 10: ASE Assembly & Test (Shanghai) Limited invested US$20,000 thousand to ASE Investment (Kun Shan) Limited and then re-invested to ASE (Kun Shan) Inc.

Note 11: The difference of US$74,577 thousand between the MOEA approved investment amount and accumulated outflow of investment from Taiwan includes:

(1) Capital increase by earnings of US$29,577 thousand;

(2) Investment that has been approved by the MOEA but not yet remitted.

Note 12: The basis for investment income (loss) recognition is from the financial statements reviewed and attested by other CPA.

Note 13: Universal Scientific Industrial (Kunshan) Co., Ltd. has been deregistered in June 2020.

(Concluded)

<u>TABLE 10</u>

ASE TECHNOLOGY HOLDING CO., LTD. AND SUBSIDIARIES

INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT INTERCOMPANY TRANSACTIONS
FOR THE SIX MONTHS ENDED JUNE 30, 2020
(Amounts In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

				Intercompany Transactions (Note)			
No.	Company Name	Related Party	Nature of Relationships	Financial Statement Account	Amount (Note)	Terms	Percentage of Consolidated Net Revenue or Total Assets
0	The Company	ASE	Parent company to subsidiary	Other payables	$ 15,850,166		3
		ASE Test, Inc.	Parent company to subsidiary	Other payables	2,590,000		-
		ASE Electronics Inc.	Parent company to subsidiary	Other payables	1,000,000		-
		J&R Industrial Inc.	Parent company to subsidiary	Other payables	400,000		-
		SPIL	Parent company to subsidiary	Other payables	3,500,000		1
1	ASE	ASE Test, Inc.	Subsidiary to subsidiary	Other payables	2,814,703		1
		ASE Singapore Pte. Ltd.	Subsidiary to subsidiary	Other liabilities	1,481,500		-
				Other payables	296,603		-
		Universal Scientific Industrial Co., Ltd.	Subsidiary to subsidiary	Trade receivables	2,078,286		-
			Subsidiary to subsidiary	Operating revenues	3,761,331	The transacation has the same terms with other companies	2
		ASE (Shanghai) Inc.	Subsidiary to subsidiary	Trade payables	461,380		-
			Subsidiary to subsidiary	Operating costs	770,565	The transacation has the same terms with other companies	-
		ASE (U.S.) Inc.	Subsidiary to subsidiary	Operating expenses	432,269	It is calculated by fixed ratio based on actual expenses. There is an upper limit to expenses	-
		ASE Electronics Inc.	Subsidiary to subsidiary	Trade payables	403,084		-
			Subsidiary to subsidiary	Operating costs	738,361	The transacation has the same terms with other companies	-
		ASE (Korea) Inc.	Subsidiary to subsidiary	Other payables	1,185,200		-
			Subsidiary to subsidiary	Other liabilities	2,222,250		-
		ASE Japan Co., Ltd.	Subsidiary to subsidiary	Other payables	660,240		-
		ISE Labs,Inc.	Subsidiary to subsidiary	Other liabilities	888,900		-
		Huntington Holdings International Co. Ltd.	Subsidiary to subsidiary	Other payables	177,780		-
		USI Enterprise Limited	Subsidiary to subsidiary	Other payables	10,192,720		2
		Real Tech Holdings Limited	Subsidiary to subsidiary	Other payables	1,540,760		-
		ASE Test Limited	Subsidiary to subsidiary	Other liabilities	5,528,040		1
2	ASE (Shanghai) Inc.	Advanced Semiconductor Engineering (HK) Limited	Subsidiary to subsidiary	Trade receivables	240,528		-
			Subsidiary to subsidiary	Operating revenues	476,579	The transacation has the same terms with other companies	-
		ASE Assembly & Test (Shanghai) Limited	Subsidiary to subsidiary	Operating revenues	141,549	The transacation has the same terms with other companies	-
3	ASE Japan Co., Ltd.	ASE Test Limited	Subsidiary to subsidiary	Other receivables	550,200		-
4	Shanghai Ding Hui Real Estate Development Co., Ltd.	Shanghai Ding Yu Real Estate Development Co., Ltd.	Subsidiary to subsidiary	Other receivables	215,799		-
		Shanghai Ding Wei Real Estate Development Co., Ltd.	Subsidiary to subsidiary	Other receivables	1,936,841		-
5	ASE Assembly & Test (Shanghai) Limited	Advanced Semiconductor Engineering (China) Ltd.	Subsidiary to subsidiary	Other payables	408,646		-
							-
6	ISE Labs, Inc.	ASE Test Limited	Subsidiary to subsidiary	Other assets	592,600		-
7	ASE Electronics (M) Sdn. Bhd.	ASE Electronics Inc.	Subsidiary to subsidiary	Operating costs	130,233	The transacation has the same terms with other companies	-
8	USI Inc.	Universal Global Scientific Industrial Co., Ltd.	Subsidiary to subsidiary	Other receivables	253,234		-
9	Universal Scientific Industrial (Shanghai) Co., Ltd.	Universal Global Technology Co., Limited	Subsidiary to subsidiary	Trade payables	679,865		-
		USI Electronics (Shenzhen) Co., Ltd.	Subsidiary to subsidiary	Other payables	219,589		-
			Subsidiary to subsidiary	Other payables	2,092,662		-

(Continued)

				Intercompany Transactions (Note)			
No.	Company Name	Related Party	Nature of Relationships	Financial Statement Account	Amount (Note)	Terms	Percentage of Consolidated Net Revenue or Total Assets
10	Universal Global Industrial Co., Limited	USI Electronics (Shenzhen) Co., Ltd.	Subsidiary to subsidiary	Trade receivables	$ 403,268		-
			Subsidiary to subsidiary	Trade payables	1,720,584		-
		Universal Global Scientific Industrial Co., Ltd.	Subsidiary to subsidiary	Trade receivables	3,852,979		1
		Universal Global Technology (Kunshan) Co., Ltd.	Subsidiary to subsidiary	Trade payables	2,551,756		-
11	Universal Global Technology Co., Limited	Universal Global Technology (Kunshan) Co., Ltd.	Subsidiary to subsidiary	Trade receivables	554,474		-
		Universal Global Technology (Shanghai) Co., Ltd.	Subsidiary to subsidiary	Other payables	219,589		-
		Universal Scientific Industrial De Mexico S.A. De C.V.	Subsidiary to subsidiary	Other receivables	1,481,500		-
		Universal Scientific Industrial Poland Sp. z o.o.	Subsidiary to subsidiary	Other receivables	355,560		-
12	Universal Global Scientific Industrial Co., Ltd.	USI Electronics (Shenzhen) Co., Ltd.	Subsidiary to subsidiary	Operating revenues	154,943	The transacation has the same terms with other companies	-
		Universal Scientific Industrial (Shanghai) Co., Ltd.	Subsidiary to subsidiary	Operating revenues	150,226	The transacation has the same terms with other companies	-
		Universal Global Technology (Kunshan) Co., Ltd.	Subsidiary to subsidiary	Operating revenues	144,366	The transacation has the same terms with other companies	-
		Universal Scientific Industrial Co., Ltd.	Subsidiary to subsidiary	Operating revenues	216,875	The transacation has the same terms with other companies	-
			Subsidiary to subsidiary	Trade receivables	207,324		-
			Subsidiary to subsidiary	Other receivables	1,037,178		-
		Universal Scientific Industrial De Mexico S.A. De C.V.	Subsidiary to subsidiary	Other receivables	537,074		-
13	USI Electronics (Shenzhen) Co., Ltd.	Universal Global Scientific Industrial Co., Ltd.	Subsidiary to subsidiary	Operating revenues	3,780,257	The transacation has the same terms with other companies	2
		Universal Scientific Industrial De Mexico S.A. De C.V.	Subsidiary to subsidiary	Operating revenues	204,601	The transacation has the same terms with other companies	-
			Subsidiary to subsidiary	Trade receivables	132,162		-
14	Universal Global Technology (Kunshan) Co., Ltd.	Universal Global Scientific Industrial Co., Ltd.	Subsidiary to subsidiary	Operating revenues	5,408,957	The transacation has the same terms with other companies	3
15	Universal Global Technology (Shanghai) Co., Ltd.	Universal Scientific Industrial (Shanghai) Co., Ltd.	Subsidiary to subsidiary	Operating revenues	704,755	The transacation has the same terms with other companies	-
16	Universal Scientific Industrial Co., Ltd.	Universal Scientific Industrial De Mexico S.A. De C.V.	Subsidiary to subsidiary	Other receivables	414,820		-
		Universal Global Scientific Industrial Co., Ltd.	Subsidiary to subsidiary	Other receivables	501,621		-
17	USI Enterprise Limited	USI Inc.	Subsidiary to subsidiary	Other receivables	1,779,780		-
18	SPIL	Siliconware Technology (Suzhou) Limited	Subsidiary to subsidiary	Other receivables	2,046,209		-
			Subsidiary to subsidiary	Sales of property, plant and equipment	484,357		-
			Subsidiary to subsidiary	Trade receivables	137,906		-
		Siliconware Electronics (Fujian) Co., Limited	Subsidiary to subsidiary	Other receivables	2,217,952		-
			Subsidiary to subsidiary	Sales of property, plant and equipment	1,031,450		-
		Siliconware USA. Inc.	Subsidiary to subsidiary	Operating expenses	222,686	Based on contracts	-
19	Siliconware Technology (Suzhou) Limited	ASE (Kun Shan) Inc.	Subsidiary to subsidiary	Other payables	1,046,331		-
		ASE WeiHai Inc.	Subsidiary to subsidiary	Other payables	502,239		-

(Concluded)

Note: All the transactions had been eliminated when preparing consolidated financial statements.

TABLE 11

ASE TECHNOLOGY HOLDING CO., LTD.

INFORMATION OF MAJOR SHAREHOLDERS
JUNE 30, 2020

Name of Major Shareholder	Shares	
	Number of Shares	Percentage of Ownership (%)
A.S.E. Enterprises Limited	684,327,886	15.77
HSBC: custody of the Company's investment account of value investing company	260,188,142	5.99
Citibank Taiwan: custody of ASE Depository Certificates	237,153,976	5.46

Note 1: The information of major shareholders presented in this table is provided by the Taiwan Depository & Clearing Corporation based on the number of ordinary shares and preferred shares held by shareholders with ownership of 5% or greater, that have been issued without physical registration (included treasury shares) by the Company as of the last business day for the current quarter. The share capital in the consolidated financial statements may differ from the actual number of shares that have been issued without physical registration because of different preparation basis.

Note 2: If a shareholder delivers their shareholdings to the trust, the above information will be disclosed by the individual trustee who opened the trust account. For shareholders who declare insider shareholdings with ownership greater than 10% in accordance with Security and Exchange Act, the shareholdings include shares held by shareholders and those delivered to the trust over which shareholders have rights to determine the use of trust property. For information relating to insider shareholding declaration, please refer to Market Observation Post System.