

**Taiwan Semiconductor Manufacturing  
Company Limited and Subsidiaries**

**Consolidated Financial Statements for the  
Years Ended December 31, 2020 and 2019 and  
Independent Auditors' Report**

## **REPRESENTATION LETTER**

The entities that are required to be included in the combined financial statements of Taiwan Semiconductor Manufacturing Company Limited as of and for the year ended December 31, 2020, under the Criteria Governing the Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises are the same as those included in the consolidated financial statements prepared in conformity with the International Financial Reporting Standard 10, "Consolidated Financial Statements." In addition, the information required to be disclosed in the combined financial statements is included in the consolidated financial statements. Consequently, Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries do not prepare a separate set of combined financial statements.

Very truly yours,

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED

By

---

MARK LIU  
Chairman

February 9, 2021

## INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders  
Taiwan Semiconductor Manufacturing Company Limited

### Opinion

We have audited the accompanying consolidated financial statements of Taiwan Semiconductor Manufacturing Company Limited and its subsidiaries (the "Company"), which comprise the consolidated balance sheets as of December 31, 2020 and 2019, and the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2020 and 2019, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China.

### Basis for Opinion

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

### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2020. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters for the Company's consolidated financial statements for the year ended December 31, 2020 are stated as follows:

Property, plant and equipment (PP&E) – commencement of depreciation related to PP&E classified as equipment under installation and construction in progress (EUI/CIP)

Refer to Notes 4, 5 and 14 to the consolidated financial statements.

The Company's evaluation of when to commence depreciation of EUI/CIP involves determining when the assets are available for their intended use. The criteria the Company uses to determine whether EUI/CIP are available for their intended use involves subjective judgments and assumptions about the conditions necessary for the assets to be capable of operating in the intended manner. Changes in these assumptions could have a significant impact on when depreciation is recognized.

Given the subjectivity in determining the date to commence depreciation of EUI/CIP, performing audit procedures to evaluate the reasonableness of the Company's judgments and assumptions required a high degree of auditor judgment. Consequently, the validity of commencement of depreciation related to PP&E classified as EUI/CIP is identified as a key audit matter.

Our audit procedures related to the evaluation of when to commence depreciation of EUI/CIP included the following, among others:

1. We read the Company's policy and understand the criteria used to determine when to commence depreciation.
2. We tested the effectiveness of the controls over the evaluation of when to commence depreciation of EUI/CIP.
3. We sampled EUI/CIP at year end and performed the following for each selection:
  - a. Evaluated whether the selection did not meet the criteria specified by the Company for commencement of depreciation.
  - b. Observed the assets and evaluated their status at year end.
4. We sampled and evaluated whether the selection of EUI/CIP met the criteria specified by the Company for commencement of depreciation during the year.
5. We sampled and evaluated whether the selection of EUI/CIP met the criteria specified by the Company for commencement of depreciation subsequent to year end.

**Other Matter**

We have also audited the parent company only financial statements of Taiwan Semiconductor Manufacturing Company Limited as of and for the years ended December 31, 2020 and 2019 on which we have issued an unmodified opinion.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC, and SIC endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management

determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

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

Those charged with governance (including members of the Audit Committee) are responsible for overseeing the Company's financial reporting process.

### **Auditors' Responsibilities for the Audit of the Consolidated Financial Statements**

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

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

1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.
5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial

statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

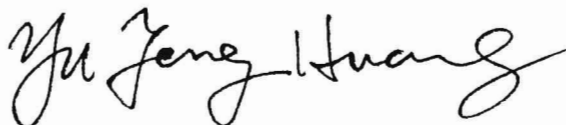
We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2020 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Mei Yen Chiang and Yu Feng Huang.



Deloitte & Touche  
Taipei, Taiwan  
Republic of China



February 9, 2021

Notice to Readers

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

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



# Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

## CONSOLIDATED BALANCE SHEETS (In Thousands of New Taiwan Dollars)

ASSETS	December 31, 2020		December 31, 2019	
	Amount	%	Amount	%
<b>CURRENT ASSETS</b>				
Cash and cash equivalents (Note 6)	\$ 660,170,647	24	\$ 455,399,336	20
Financial assets at fair value through profit or loss (Note 7)	2,259,412	-	326,839	-
Financial assets at fair value through other comprehensive income (Note 8)	122,448,453	5	127,396,577	6
Financial assets at amortized cost (Note 9)	6,597,992	-	299,884	-
Hedging financial assets (Note 10)	47	-	25,884	-
Notes and accounts receivable, net (Note 11)	145,480,272	5	138,908,589	6
Receivables from related parties (Note 33)	558,131	-	862,070	-
Other receivables from related parties (Note 33)	50,645	-	51,653	-
Inventories (Notes 5 and 12)	137,353,407	5	82,981,196	4
Other financial assets (Note 34)	10,676,111	1	11,041,091	-
Other current assets	6,590,191	-	5,320,795	-
<b>Total current assets</b>	<b>1,092,185,308</b>	<b>40</b>	<b>822,613,914</b>	<b>36</b>
<b>NONCURRENT ASSETS</b>				
Financial assets at fair value through other comprehensive income (Note 8)	4,514,940	-	4,124,337	-
Financial assets at amortized cost (Note 9)	4,372,207	-	7,348,914	-
Investments accounted for using equity method (Note 13)	18,841,061	1	18,698,788	1
Property, plant and equipment (Notes 5 and 14)	1,555,589,120	56	1,352,377,405	60
Right-of-use assets (Notes 5 and 15)	27,728,382	1	17,232,402	1
Intangible assets (Notes 5 and 16)	25,768,179	1	20,653,028	1
Deferred income tax assets (Notes 5 and 27)	25,958,184	1	17,928,358	1
Refundable deposits	1,343,001	-	2,084,968	-
Other noncurrent assets	4,411,023	-	1,742,918	-
<b>Total noncurrent assets</b>	<b>1,668,526,097</b>	<b>60</b>	<b>1,442,191,118</b>	<b>64</b>
<b>TOTAL</b>	<b>\$ 2,760,711,405</b>	<b>100</b>	<b>\$ 2,264,805,032</b>	<b>100</b>
<b>LIABILITIES AND EQUITY</b>				
<b>CURRENT LIABILITIES</b>				
Short-term loans (Notes 17 and 30)	\$ 88,559,026	3	\$ 118,522,290	5
Financial liabilities at fair value through profit or loss (Note 7)	94,128	-	982,349	-
Hedging financial liabilities (Note 10)	1,169	-	1,798	-
Accounts payable	38,987,284	1	38,771,066	2
Payables to related parties (Note 33)	2,107,718	-	1,434,900	-
Salary and bonus payable	20,071,241	1	16,272,353	1
Accrued profit sharing bonus to employees and compensation to directors and supervisors (Note 29)	35,681,046	1	23,648,903	1
Payables to contractors and equipment suppliers	157,804,961	6	140,810,703	6
Cash dividends payable (Note 22)	129,651,902	5	129,651,902	6
Income tax payable (Notes 5 and 27)	53,909,313	2	32,466,156	1
Long-term liabilities - current portion (Notes 18 and 30)	2,600,000	-	31,800,000	1
Accrued expenses and other current liabilities (Notes 5, 15, 21, 23 and 30)	87,683,260	3	56,373,281	3
<b>Total current liabilities</b>	<b>617,151,048</b>	<b>22</b>	<b>590,735,701</b>	<b>26</b>
<b>NONCURRENT LIABILITIES</b>				
Bonds payable (Notes 18 and 30)	254,105,084	9	25,100,000	1
Long-term bank loans (Notes 19 and 30)	1,967,611	-	-	-
Deferred income tax liabilities (Notes 5 and 27)	1,729,941	-	344,393	-
Lease liabilities (Notes 5, 15 and 30)	20,560,649	1	15,041,833	1
Net defined benefit liability (Note 20)	11,914,074	1	9,182,496	-
Guarantee deposits (Notes 21 and 30)	265,599	-	176,904	-
Others	2,395,400	-	2,128,279	-
<b>Total noncurrent liabilities</b>	<b>292,938,358</b>	<b>11</b>	<b>51,973,905</b>	<b>2</b>
<b>Total liabilities</b>	<b>910,089,406</b>	<b>33</b>	<b>642,709,606</b>	<b>28</b>
<b>EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE PARENT</b>				
Capital stock (Note 22)	259,303,805	9	259,303,805	11
Capital surplus (Note 22)	56,347,243	2	56,339,709	3
Retained earnings (Note 22)				
Appropriated as legal capital reserve	311,146,899	11	311,146,899	14
Appropriated as special capital reserve	42,259,146	2	10,675,106	-
Unappropriated earnings	1,235,280,036	45	1,011,512,974	45
	1,588,686,081	58	1,333,334,979	59
Others (Note 22)	(54,679,873)	(2)	(27,568,369)	(1)
<b>Equity attributable to shareholders of the parent</b>	<b>1,849,657,256</b>	<b>67</b>	<b>1,621,410,124</b>	<b>72</b>
<b>NON - CONTROLLING INTERESTS</b>	<b>964,743</b>	<b>-</b>	<b>685,302</b>	<b>-</b>
<b>Total equity</b>	<b>1,850,621,999</b>	<b>67</b>	<b>1,622,095,426</b>	<b>72</b>
<b>TOTAL</b>	<b>\$ 2,760,711,405</b>	<b>100</b>	<b>\$ 2,264,805,032</b>	<b>100</b>

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

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

### CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2020		2019	
	Amount	%	Amount	%
NET REVENUE (Notes 5, 23, 33 and 39)	\$1,339,254,811	100	\$1,069,985,448	100
COST OF REVENUE (Notes 5, 12, 29, 33 and 37)	<u>628,108,309</u>	<u>47</u>	<u>577,286,947</u>	<u>54</u>
GROSS PROFIT BEFORE REALIZED (UNREALIZED) GROSS PROFIT ON SALES TO ASSOCIATES	711,146,502	53	492,698,501	46
REALIZED (UNREALIZED) GROSS PROFIT ON SALES TO ASSOCIATES	<u>(16,382)</u>	<u>-</u>	<u>3,395</u>	<u>-</u>
GROSS PROFIT	<u>711,130,120</u>	<u>53</u>	<u>492,701,896</u>	<u>46</u>
OPERATING EXPENSES (Notes 5 , 29 and 33)				
Research and development	109,486,089	8	91,418,746	8
General and administrative	28,457,593	2	21,737,210	2
Marketing	<u>7,112,867</u>	<u>1</u>	<u>6,348,626</u>	<u>1</u>
Total operating expenses	<u>145,056,549</u>	<u>11</u>	<u>119,504,582</u>	<u>11</u>
OTHER OPERATING INCOME AND EXPENSES, NET (Notes 14, 15 and 29)	<u>710,127</u>	<u>-</u>	<u>(496,224)</u>	<u>-</u>
INCOME FROM OPERATIONS (Note 39)	<u>566,783,698</u>	<u>42</u>	<u>372,701,090</u>	<u>35</u>
NON-OPERATING INCOME AND EXPENSES				
Share of profits of associates	3,592,818	-	2,844,222	-
Interest income (Note 24)	9,018,400	1	16,189,374	1
Other income	660,607	-	417,295	-
Foreign exchange gain (loss), net (Note 36)	(3,303,298)	-	2,095,217	-
Finance costs (Note 25)	(2,081,455)	-	(3,250,847)	-
Other gains and losses, net (Note 26)	<u>10,106,410</u>	<u>1</u>	<u>(1,151,015)</u>	<u>-</u>
Total non-operating income and expenses	<u>17,993,482</u>	<u>2</u>	<u>17,144,246</u>	<u>1</u>
INCOME BEFORE INCOME TAX	584,777,180	44	389,845,336	36
INCOME TAX EXPENSE (Notes 5 and 27)	<u>66,619,098</u>	<u>5</u>	<u>44,501,527</u>	<u>4</u>
NET INCOME	<u>518,158,082</u>	<u>39</u>	<u>345,343,809</u>	<u>32</u>

(Continued)



# Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2020		2019	
	Amount	%	Amount	%
OTHER COMPREHENSIVE INCOME (LOSS)				
(Notes 5, 20, 22 and 27)				
Items that will not be reclassified subsequently to profit or loss:				
Remeasurement of defined benefit obligation	\$ (3,516,749)	(1)	\$ 253,895	-
Unrealized gain on investments in equity instruments at fair value through other comprehensive income	423,697	-	334,327	-
Gain (loss) on hedging instruments	24,085	-	(109,592)	-
Share of other comprehensive loss of associates	(11,604)	-	(18,271)	-
Income tax benefit (expense) related to items that will not be reclassified subsequently	422,663	-	(20,992)	-
	<u>(2,657,908)</u>	<u>(1)</u>	<u>439,367</u>	<u>-</u>
Items that may be reclassified subsequently to profit or loss:				
Exchange differences arising on translation of foreign operations	(29,847,196)	(2)	(14,689,107)	(1)
Unrealized gain on investments in debt instruments at fair value through other comprehensive income	2,466,711	-	2,566,373	-
Share of other comprehensive loss of associates	(283,409)	-	(140,195)	-
	<u>(27,663,894)</u>	<u>(2)</u>	<u>(12,262,929)</u>	<u>(1)</u>
Other comprehensive loss for the year, net of income tax	<u>(30,321,802)</u>	<u>(3)</u>	<u>(11,823,562)</u>	<u>(1)</u>
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	<u>\$ 487,836,280</u>	<u>36</u>	<u>\$ 333,520,247</u>	<u>31</u>
NET INCOME ATTRIBUTABLE TO:				
Shareholders of the parent	\$ 517,885,387	39	\$ 345,263,668	32
Non-controlling interests	<u>272,695</u>	<u>-</u>	<u>80,141</u>	<u>-</u>
	<u>\$ 518,158,082</u>	<u>39</u>	<u>\$ 345,343,809</u>	<u>32</u>
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:				
Shareholders of the parent	\$ 487,563,478	36	\$ 333,440,460	31
Non-controlling interests	<u>272,802</u>	<u>-</u>	<u>79,787</u>	<u>-</u>
	<u>\$ 487,836,280</u>	<u>36</u>	<u>\$ 333,520,247</u>	<u>31</u>

(Continued)

# Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

---

	<u>2020</u>	<u>2019</u>
	<b>Income Attributable to Shareholders of the Parent</b>	<b>Income Attributable to Shareholders of the Parent</b>
EARNINGS PER SHARE (NT\$, Note 28)		
Basic earnings per share	<u>\$ 19.97</u>	<u>\$ 13.32</u>
Diluted earnings per share	<u>\$ 19.97</u>	<u>\$ 13.32</u>

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

(Concluded)

**Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries**

**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**  
(In Thousands of New Taiwan Dollars)

	Equity Attributable to Shareholders of the Parent							Others							Non-controlling Interests	Total Equity
	Capital Stock - Common Stock			Retained Earnings				Foreign Currency Translation Reserve	Unrealized Gain (Loss) on Financial Assets at Fair Value Through Other Comprehensive Income	Gain (Loss) on Hedging Instruments	Unearned Stock-Based Employee Compensation	Total	Total			
	Shares (In Thousands)	Amount	Capital Surplus	Legal Capital Reserve	Special Capital Reserve	Unappropriated Earnings	Total									
BALANCE, JANUARY 1, 2019	25,930,380	\$ 259,303,805	\$ 56,315,932	\$ 276,033,811	\$ 26,907,527	\$ 1,073,706,503	\$ 1,376,647,841	\$ (12,042,347)	\$ (3,429,324)	\$ 23,601	\$ (1,843)	\$ (15,449,913)	\$ 1,676,817,665	\$ 678,731	\$ 1,677,496,396	
Appropriations of earnings	-	-	-	35,113,088	-	(35,113,088)	-	-	-	-	-	-	-	-	-	
Legal capital reserve	-	-	-	-	-	16,232,421	-	-	-	-	-	-	-	-	-	
Special capital reserve	-	-	-	-	-	(388,955,707)	(388,955,707)	-	-	-	-	-	(388,955,707)	-	(388,955,707)	
Cash dividends to shareholders	-	-	-	-	-	(407,836,374)	(388,955,707)	-	-	-	-	-	(388,955,707)	-	(388,955,707)	
Total	-	-	-	35,113,088	(16,232,421)	(407,836,374)	(388,955,707)	-	-	-	-	-	(388,955,707)	-	(388,955,707)	
Net income in 2019	-	-	-	-	-	345,263,668	345,263,668	-	-	-	-	-	345,263,668	80,141	345,343,809	
Other comprehensive income (loss) in 2019, net of income tax	-	-	-	-	-	217,059	217,059	(14,829,053)	2,898,483	(109,697)	-	(12,040,267)	(11,823,208)	(354)	(11,823,562)	
Total comprehensive income (loss) in 2019	-	-	-	-	-	345,480,727	345,480,727	(14,829,053)	2,898,483	(109,697)	-	(12,040,267)	333,440,460	79,787	333,520,247	
Disposal of investments in equity instruments at fair value through other comprehensive income	-	-	-	-	-	162,118	162,118	-	(162,118)	-	-	(162,118)	-	-	-	
Basis adjustment for gain on hedging instruments	-	-	-	-	-	-	-	-	-	82,276	-	82,276	82,276	-	82,276	
Adjustments to share of changes in equities of associates	-	-	19,414	-	-	-	-	-	-	-	1,653	1,653	21,067	192	21,259	
From share of changes in equities of subsidiaries	-	-	370	-	-	-	-	-	-	-	-	-	370	(370)	-	
Donation from shareholders	-	-	3,993	-	-	-	-	-	-	-	-	-	3,993	13	4,006	
Decrease in non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	-	-	(73,051)	(73,051)	
BALANCE, DECEMBER 31, 2019	25,930,380	259,303,805	56,339,709	311,146,899	10,675,106	1,011,512,974	1,333,334,979	(26,871,400)	(692,959)	(3,820)	(190)	(27,568,369)	1,621,410,124	685,302	1,622,095,426	
Appropriations of earnings	-	-	-	-	31,584,040	(31,584,040)	-	-	-	-	-	-	-	-	-	
Special capital reserve	-	-	-	-	-	(259,303,805)	(259,303,805)	-	-	-	-	-	(259,303,805)	-	(259,303,805)	
Cash dividends to shareholders	-	-	-	-	-	(290,887,845)	(259,303,805)	-	-	-	-	-	(259,303,805)	-	(259,303,805)	
Total	-	-	-	-	31,584,040	(290,887,845)	(259,303,805)	-	-	-	-	-	(259,303,805)	-	(259,303,805)	
Net income in 2020	-	-	-	-	-	517,885,387	517,885,387	-	-	-	-	-	517,885,387	272,695	518,158,082	
Other comprehensive income (loss) in 2020, net of income tax	-	-	-	-	-	(3,121,793)	(3,121,793)	(30,130,227)	2,906,026	24,085	-	(27,200,116)	(30,321,909)	107	(30,321,802)	
Total comprehensive income (loss) in 2020	-	-	-	-	-	514,763,594	514,763,594	(30,130,227)	2,906,026	24,085	-	(27,200,116)	487,563,478	272,802	487,836,280	
Disposal of investments in equity instruments at fair value through other comprehensive income	-	-	-	-	-	(108,687)	(108,687)	-	108,687	-	-	108,687	-	-	-	
Basis adjustment for loss on hedging instruments	-	-	-	-	-	-	-	-	-	(20,265)	-	(20,265)	(20,265)	-	(20,265)	
Adjustments to share of changes in equities of associates	-	-	292	-	-	-	-	-	-	-	190	190	482	-	482	
Donation from shareholders	-	-	7,242	-	-	-	-	-	-	-	-	-	7,242	27	7,269	
Increase in non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	-	-	6,612	6,612	
BALANCE, DECEMBER 31, 2020	25,930,380	\$ 259,303,805	\$ 56,347,243	\$ 311,146,899	\$ 42,259,146	\$ 1,235,280,036	\$ 1,588,686,081	\$ (57,001,627)	\$ 2,321,754	\$ -	\$ -	\$ (54,679,873)	\$ 1,849,657,256	\$ 964,743	\$ 1,850,621,999	

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

# Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

## CONSOLIDATED STATEMENTS OF CASH FLOWS (In Thousands of New Taiwan Dollars)

	2020	2019
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Income before income tax	\$ 584,777,180	\$ 389,845,336
Adjustments for:		
Depreciation expense	324,538,443	281,411,832
Amortization expense	7,186,248	5,472,409
Expected credit losses recognized on investments in debt instruments	3,672	1,714
Finance costs	2,081,455	3,250,847
Share of profits of associates	(3,592,818)	(2,844,222)
Interest income	(9,018,400)	(16,189,374)
Share-based compensation	6,612	2,818
Loss (gain) on disposal or retirement of property, plant and equipment, net	(188,863)	949,965
Loss on disposal of intangible assets, net	599	2,377
Impairment loss (reversal of impairment loss) on property, plant and equipment	10,159	(301,384)
Loss (gain) on financial instruments at fair value through profit or loss, net	(3,005)	955,723
Gain on disposal of investments in debt instruments at fair value through other comprehensive income, net	(1,439,420)	(537,835)
Loss from disposal of subsidiaries	-	4,598
Unrealized (realized) gross profit on sales to associates	16,382	(3,395)
Gain on foreign exchange, net	(1,372,610)	(5,228,218)
Dividend income	(637,575)	(417,295)
Gain arising from fair value hedges, net	-	(13,091)
Gain on lease modification	(2,828)	(2,075)
Changes in operating assets and liabilities:		
Financial instruments at fair value through profit or loss	(2,965,270)	848,750
Notes and accounts receivable, net	(8,082,708)	(18,119,552)
Receivables from related parties	303,939	(277,658)
Other receivables from related parties	7,588	13,375
Inventories	(54,372,211)	20,249,780
Other financial assets	1,389,493	3,383,500
Other current assets	(1,358,129)	(76,263)
Accounts payable	404,607	5,860,068
Payables to related parties	672,818	58,401
Salary and bonus payable	3,798,888	1,800,981
Accrued profit sharing bonus to employees and compensation to directors and supervisors	12,032,143	(332,251)
Accrued expenses and other current liabilities	20,617,359	(2,372,032)
Net defined benefit liability	(785,171)	(215,014)
Cash generated from operations	874,028,577	667,182,815
Income taxes paid	(51,362,365)	(52,044,071)
Net cash generated by operating activities	<u>822,666,212</u>	<u>615,138,744</u>

(Continued)

# Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

## CONSOLIDATED STATEMENTS OF CASH FLOWS (In Thousands of New Taiwan Dollars)

	2020	2019
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Acquisitions of:		
Financial instruments at fair value through profit or loss	\$ -	\$ (124,748)
Financial assets at fair value through other comprehensive income	(262,637,496)	(257,558,240)
Financial assets at amortized cost	(4,302,770)	(313,958)
Property, plant and equipment	(507,238,722)	(460,422,150)
Intangible assets	(9,542,387)	(9,329,869)
Proceeds from disposal or redemption of:		
Financial instruments at fair value through profit or loss - debt instruments	30,049	2,418,153
Financial assets at fair value through other comprehensive income	266,931,916	230,444,486
Financial assets at amortized cost	285,210	14,349,190
Property, plant and equipment	606,732	287,318
Proceeds from return of capital of investments in equity instruments at fair value through other comprehensive income	51,052	1,107
Derecognition of hedging financial instruments	(308,776)	(436,606)
Interest received	9,775,120	16,874,985
Proceeds from government grants - property, plant and equipment	1,044,327	2,565,338
Proceeds from government grants - land use right and others	25,369	850,623
Other dividends received	735,081	320,242
Dividends received from investments accounted for using equity method	2,752,043	1,718,954
Increase in prepayments for leases	(4,693,416)	-
Refundable deposits paid	(726,883)	(1,465,766)
Refundable deposits refunded	<u>1,431,837</u>	<u>1,019,294</u>
Net cash used in investing activities	<u>(505,781,714)</u>	<u>(458,801,647)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Increase (decrease) in short-term loans	(31,571,567)	31,804,302
Proceeds from short-term bills payable	7,485,303	-
Repayments of short-term bills payable	(7,500,000)	-
Proceeds from issuance of bonds	236,725,675	-
Repayment of bonds	(31,800,000)	(34,900,000)
Proceeds from long-term bank loans	2,000,000	-
Payments for transaction costs attributable to the issuance of bonds	(390,730)	-
Repayment of the principal portion of lease liabilities	(2,615,708)	(2,930,589)
Interest paid	(1,781,097)	(3,597,145)
Guarantee deposits received	145,633	62,203
Guarantee deposits refunded	(16,060)	(701,269)
Cash dividends	(259,303,805)	(259,303,805)
Donation from shareholders	7,269	4,006
Decrease in non-controlling interests	<u>-</u>	<u>(75,869)</u>
Net cash used in financing activities	<u>(88,615,087)</u>	<u>(269,638,166)</u>

(Continued)

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

### CONSOLIDATED STATEMENTS OF CASH FLOWS (In Thousands of New Taiwan Dollars)

---

	2020	2019
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	<u>\$ (23,498,100)</u>	<u>\$ (9,114,196)</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	204,771,311	(122,415,265)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	<u>455,399,336</u>	<u>577,814,601</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 660,170,647</u>	<u>\$ 455,399,336</u>

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

(Concluded)

# Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEARS ENDED DECEMBER 31, 2020 AND 2019

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

---

### 1. GENERAL

Taiwan Semiconductor Manufacturing Company Limited (TSMC), a Republic of China (R.O.C.) corporation, was incorporated on February 21, 1987. TSMC is a dedicated foundry in the semiconductor industry which engages mainly in the manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing of masks.

On September 5, 1994, TSMC's shares were listed on the Taiwan Stock Exchange (TWSE). On October 8, 1997, TSMC listed some of its shares of stock on the New York Stock Exchange (NYSE) in the form of American Depositary Shares (ADSs).

The address of its registered office and principal place of business is No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Taiwan. The principal operating activities of TSMC's subsidiaries are described in Note 4.

### 2. THE AUTHORIZATION OF FINANCIAL STATEMENTS

The accompanying consolidated financial statements were approved and authorized for issue by the Board of Directors on February 9, 2021.

### 3. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS

- 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, "IFRSs") endorsed and issued into effect by the Financial Supervisory Commission (FSC)

The initial application of the amendments to the IFRSs endorsed and issued into effect by the FSC did not have a significant effect on TSMC and its subsidiaries' (collectively as the "Company") accounting policies.

- b. Amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers for application starting from 2021 and the IFRSs issued by International Accounting Standards Board (IASB) and endorsed by the FSC with effective date starting 2021

<u>New, Revised or Amended Standards and Interpretations</u>	<u>Effective Date Issued by IASB</u>
Amendments to IFRS 9, IAS 39, IFRS 7 and IFRS 16 "Interest Rate Benchmark Reform - Phase 2"	January 1, 2021



- c. The IFRSs issued by IASB but not yet endorsed and issued into effect by the FSC

<b>New, Revised or Amended Standards and Interpretations</b>	<b>Effective Date Issued by IASB</b>
Annual Improvements to IFRS Standards 2018–2020	January 1, 2022
Amendments to IFRS 3 “Reference to the Conceptual Framework”	January 1, 2022
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
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
Amendments to IAS 37 “Onerous Contracts–Cost of Fulfilling a Contract”	January 1, 2022

As of the date the accompanying consolidated financial statements were authorized for issue, the Company continues in evaluating the impact on its financial position and financial performance as a result of the initial adoption of the aforementioned standards or interpretations and related applicable period. The related impact will be disclosed when the Company completes the evaluation.

#### **4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

For the convenience of readers, the accompanying consolidated financial statements have been translated into English from the original Chinese version prepared and used in the R.O.C. 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 consolidated financial statements shall prevail.

##### **Statement of Compliance**

The accompanying consolidated financial statements have been prepared in conformity with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed by the FSC with the effective dates (collectively, “Taiwan-IFRSs”).

##### **Basis of Preparation**

The accompanying consolidated financial statements have been prepared on the historical cost basis except for financial instruments that are measured at fair values, as explained in the accounting policies below. Historical cost is generally based on the fair value of the consideration given in exchange for the assets.

##### **Basis of Consolidation**

###### The basis for the consolidated financial statements

The consolidated financial statements incorporate the financial statements of TSMC and entities controlled by TSMC (its subsidiaries).

Income and expenses of subsidiaries acquired or disposed of are included in the consolidated statement of comprehensive income from the effective date of acquisition and up to the effective date of disposal, as appropriate. Total comprehensive income of subsidiaries is attributed to the shareholders of the parent and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by the Company.

All intra-group transactions, balances, income and expenses are eliminated in full on consolidation.

Changes in the Company's ownership interests in subsidiaries that do not result in the Company losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Company's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to shareholders of the parent.

When the Company loses control of a subsidiary, a gain or loss is recognized in profit or loss and is calculated as the difference between:

- a. the aggregate of the fair value of consideration received and the fair value of any retained interest at the date when control is lost; and
- b. the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interest.

The Company shall account for all amounts recognized in other comprehensive income in relation to the subsidiary on the same basis as would be required if the Company had directly disposed of the related assets and liabilities.

The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the cost on initial recognition of an investment in an associate.

#### The subsidiaries in the consolidated financial statements

The detail information of the subsidiaries at the end of reporting period was as follows:

Name of Investor	Name of Investee	Main Businesses and Products	Establishment and Operating Location	Percentage of Ownership		Note
				December 31, 2020	December 31, 2019	
TSMC	TSMC North America	Selling and marketing of integrated circuits and other semiconductor devices	San Jose, California, U.S.A.	100%	100%	-
	TSMC Europe B.V. (TSMC Europe)	Customer service and supporting activities	Amsterdam, the Netherlands	100%	100%	a)
	TSMC Japan Limited (TSMC Japan)	Customer service and supporting activities	Yokohama, Japan	100%	100%	a)
	TSMC Design Technology Japan, Inc. (TSMC JDC)	Engineering support activities	Yokohama, Japan	100%	-	a), b)
	TSMC Korea Limited (TSMC Korea)	Customer service and supporting activities	Seoul, Korea	100%	100%	a)
	TSMC Partners, Ltd. (TSMC Partners)	Investing in companies involved in the design, manufacture, and other related business in the semiconductor industry and other investment activities	Tortola, British Virgin Islands	100%	100%	a)
	TSMC Global, Ltd. (TSMC Global)	Investment activities	Tortola, British Virgin Islands	100%	100%	-
	TSMC China Company Limited (TSMC China)	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	Shanghai, China	100%	100%	-
	TSMC Nanjing Company Limited (TSMC Nanjing)	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	Nanjing, China	100%	100%	d)
	VisEra Technologies Company Ltd. (VisEra Tech)	Engaged in manufacturing electronic spare parts and in researching, developing, designing, manufacturing, selling, packaging and testing of color filter	Hsin-Chu, Taiwan	87%	87%	-
	TSMC Arizona Corporation (TSMC Arizona)	Manufacturing, selling and testing of integrated circuits and other semiconductor devices	Phoenix, Arizona, U.S.A.	100%	-	a), c)
	VentureTech Alliance Fund II, L.P. (VTAF II)	Investing in new start-up technology companies	Cayman Islands	98%	98%	a)
	VentureTech Alliance Fund III, L.P. (VTAF III)	Investing in new start-up technology companies	Cayman Islands	98%	98%	a)

(Continued)

Name of Investor	Name of Investee	Main Businesses and Products	Establishment and Operating Location	Percentage of Ownership		Note
				December 31, 2020	December 31, 2019	
TSMC Partners	TSMC Development, Inc. (TSMC Development)	Investing in companies involved in the manufacturing related business in the semiconductor industry	Delaware, U.S.A.	100%	100%	-
	TSMC Technology, Inc. (TSMC Technology)	Engineering support activities	Delaware, U.S.A.	100%	100%	a)
	TSMC Design Technology Canada Inc. (TSMC Canada)	Engineering support activities	Ontario, Canada	100%	100%	a)
	InveStar Semiconductor Development Fund, Inc. (ISDF)	Investing in new start-up technology companies	Cayman Islands	-	97%	a), e)
	InveStar Semiconductor Development Fund, Inc. (II) LDC. (ISDF II)	Investing in new start-up technology companies	Cayman Islands	-	97%	a), e)
TSMC Development	WaferTech, LLC (WaferTech)	Manufacturing, selling and testing of integrated circuits and other semiconductor devices	Washington, U.S.A.	100%	100%	-
VTAF III	Growth Fund Limited (Growth Fund)	Investing in new start-up technology companies	Cayman Islands	100%	100%	a)

(Concluded)

Note a: This is an immaterial subsidiary for which the consolidated financial statements are not audited by the Company's independent auditors.

Note b: TSMC JDC has been established in January 2020.

Note c: TSMC Arizona has been established in November 2020.

Note d: Under the investment agreement entered into with the municipal government of Nanjing, China, the Company will make an investment in Nanjing in the amount of approximately US\$3 billion to establish a subsidiary operating a 300mm wafer fab with the capacity of 20,000 12-inch wafers per month, and a design service center. The aforementioned 300mm wafer fab has reached the capacity of 20,000 12-inch wafers per month.

Note e: ISDF and ISDF II have completed the liquidation procedures in November 2020.

## Foreign Currencies

The financial statements of each individual consolidated entity were expressed in the currency which reflected its primary economic environment (functional currency). The functional currency of TSMC and presentation currency of the consolidated financial statements are both New Taiwan Dollars (NT\$). In preparing the consolidated financial statements, the operating results and financial positions of each consolidated entity are translated into NT\$.

In preparing the financial statements of each individual consolidated entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Such exchange differences are recognized in profit or loss in the year in which they arise. Non-monetary items measured at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Exchange differences arising on the retranslation of non-monetary items are included in profit or loss for the year except for exchange differences arising on the retranslation of non-monetary items in respect of which gains and losses are recognized directly in other comprehensive income, in which case, the exchange differences are also recognized directly in other comprehensive income. Non-monetary items that are measured in terms of historical cost in foreign currencies are not retranslated.

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Company's foreign operations are translated into NT\$ using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in equity (attributed to non-controlling interests as appropriate).

## Classification of Current and Noncurrent Assets and Liabilities

Current assets are assets held for trading purposes and assets expected to be converted to cash, sold or consumed within one year from the end of the reporting period. Current liabilities are obligations incurred for trading purposes and obligations expected to be settled within one year from the end of the reporting period. Assets and liabilities that are not classified as current are noncurrent assets and liabilities, respectively.

## **Cash Equivalents**

Cash equivalents, for the purpose of meeting short-term cash commitments, consist of highly liquid time deposits and investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

## **Financial Instruments**

Financial assets and liabilities shall be recognized when the Company becomes a party to the contractual provisions of the instruments.

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

## **Financial Assets**

The classification of financial assets depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Regular way purchases or sales of financial assets are recognized and derecognized on a trade date or settlement date basis for which financial assets were classified in the same way, respectively. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

### **a. Category of financial assets and measurement**

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

#### **1) Financial asset at FVTPL**

For certain financial assets which include debt instruments that do not meet the criteria of amortized cost or FVTOCI, it is mandatorily required to measure them at FVTPL. Any gain or loss arising from remeasurement is recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any interest earned on the financial asset.

#### **2) Investments in debt instruments at FVTOCI**

Debt instruments with contractual terms specifying that cash flows are solely payments of principal and interest on the principal amount outstanding, together with objective of collecting contractual cash flows and selling the financial assets, are measured at FVTOCI.

Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment gains or losses on investments in debt instruments at FVTOCI are recognized in profit or loss. Other changes in the carrying amount of these debt instruments are recognized in other comprehensive income and will be reclassified to profit or loss when these debt instruments are disposed.

#### **3) Investments in equity instruments at FVTOCI**

On initial recognition, the Company may irrevocably designate investments in equity investments that is not held for trading as at FVTOCI.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity.

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

4) Measured at amortized cost

Cash and cash equivalents, debt instrument investments, notes and accounts receivable (including related parties), other receivables and refundable deposits are measured at amortized cost.

Debt instruments with contractual terms specifying that cash flows are solely payments of principal and interest on the principal amount outstanding, together with objective of holding financial assets in order to collect contractual cash flows, are measured at amortized cost.

Subsequent to initial recognition, financial assets measured at amortized cost are measured at amortized cost, which equals to carrying amount determined by the effective interest method less any impairment loss.

b. Impairment of financial assets

At the end of each reporting period, a loss allowance for expected credit loss is recognized for financial assets at amortized cost (including accounts receivable) and for investments in debt instruments that are measured at FVTOCI.

The loss allowance for accounts receivable is measured at an amount equal to lifetime expected credit losses. For financial assets at amortized cost and investments in debt instruments that are measured at FVTOCI, when the credit risk on the financial instrument has not increased significantly since initial recognition, a loss allowance is recognized at an amount equal to expected credit loss resulting from possible default events of a financial instrument within 12 months after the reporting date. If, on the other hand, there has been a significant increase in credit risk since initial recognition, a loss allowance is recognized at an amount equal to expected credit loss resulting from all possible default events over the expected life of a financial instrument.

The Company recognizes an impairment loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and does not reduce the carrying amount of the financial asset.

c. Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the financial asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the financial asset to another entity.

On derecognition of a financial asset at amortized cost in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. On derecognition of an investment in a debt instrument at FVTOCI, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognized in other comprehensive income is recognized in profit or loss. However, on derecognition of an investment in an equity instrument at FVTOCI, the cumulative gain or loss that had been recognized in other comprehensive income is transferred directly to retained earnings, without recycling through profit or loss.

## **Financial Liabilities and Equity Instruments**

### Classification as debt or equity

Debt and equity instruments issued by the Company are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

### Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognized at the proceeds received, net of direct issue costs.

### Financial liabilities

Financial liabilities are subsequently measured either at amortized cost using effective interest method or at FVTPL.

Financial liabilities are classified as at fair value through profit or loss when the financial liability is either held for trading or is designated as at fair value through profit or loss.

Financial liabilities at fair value through profit or loss are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss.

Financial liabilities other than those held for trading purposes and designated as at FVTPL are subsequently measured at amortized cost at the end of each reporting period.

### Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, the Company's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

## **Derivative Financial Instruments**

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

## **Hedge Accounting**

### a. Fair value hedge

The Company designates certain hedging instruments, such as interest rate futures contracts, to partially hedge against the fair value change caused by interest rates fluctuation in the Company's fixed income investments. Changes in the fair value of hedging instrument that are designated and qualify as fair value hedges are recognized in profit or loss immediately, together with any changes in the fair value of the hedged items that are attributable to the hedged risk.

b. Cash flow hedge

The Company designates certain hedging instruments, such as forward exchange contracts, to partially hedge its foreign exchange rate risks associated with certain highly probable forecast transactions (capital expenditures). The effective portion of changes in the fair value of hedging instruments is recognized in other comprehensive income. When the forecast transactions actually take place, the associated gains or losses that were recognized in other comprehensive income are removed from equity and included in the initial cost of the hedged items. The gains or losses from hedging instruments relating to the ineffective portion are recognized immediately in profit or loss.

The Company prospectively discontinues hedge accounting only when the hedging relationship ceases to meet the qualifying criteria; for instance, when the hedging instrument expires or is sold, terminated or exercised.

### **Inventories**

Inventories are stated at the lower of cost or net realizable value. Inventories are recorded at standard cost and adjusted to approximate weighted-average cost at the end of the reporting period. Net realizable value represents the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale.

### **Investments Accounted for Using Equity Method**

Investments accounted for using the equity method are investments in associates.

An associate is an entity over which the Company has significant influence and that is neither a subsidiary nor a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The operating results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. Under the equity method, an investment in an associate is initially recognized in the consolidated statements of financial position at cost and adjusted thereafter to recognize the Company's share of profit or loss and other comprehensive income of the associate as well as the distribution received. The Company also recognizes its share in the changes in the equities of associates.

Any excess of the cost of acquisition over the Company's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of an associate recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Company's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

When the Company subscribes to additional shares in an associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Company's proportionate interest in the net assets of the associate. The Company records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus. If the Company's ownership interest is reduced due to the additional subscription to the shares of associate by other investors, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate shall be reclassified to profit or loss on the same basis as would be required if the associate had directly disposed of the related assets or liabilities.



When a consolidated entity transacts with an associate, profits and losses resulting from the transactions with the associate are recognized in the Company's consolidated financial statements only to the extent of interests in the associate that are not owned by the Company.

### **Property, Plant and Equipment**

Property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment. Costs include any incremental costs that are directly attributable to the construction or acquisition of the item of property, plant and equipment.

Property, plant and equipment in the course of construction for production, supply or administrative purposes are carried at cost, less any recognized impairment loss. Such assets are classified to the appropriate categories of property, plant and equipment when completed and ready for intended use. Depreciation of these assets, on the same basis as other identical categories of property, plant and equipment, commences when the assets are available for their intended use.

Depreciation is recognized so as to write off the cost of the assets less their residual values over their useful lives, and it is computed using the straight-line method mainly over the following estimated useful lives: land improvements - 20 years; buildings (assets used by the Company and assets subject to operating leases) - 10 to 20 years; machinery and equipment (assets used by the Company and assets subject to operating leases) - 5 years; and office equipment - 5 years. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimates accounted for on a prospective basis. Land is not depreciated.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the assets. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognized in profit or loss.

### **Leases**

For a contract that contains a lease component and non-lease component, the Company may elect to account for the lease and non-lease components as a single lease component.

#### The Company as lessor

Rental income from operating lease is recognized on a straight-line basis over the term of the lease.

#### The Company as lessee

Except for payments for low-value asset leases and short-term leases (leases of machinery and equipment and others) which are recognized as expenses on a straight-line basis, the Company recognizes right-of-use assets and lease liabilities for all leases at the commencement date of the lease.

Right-of-use assets are measured at cost. The cost of right-of-use assets comprises the initial measurement of lease liabilities adjusted for lease payments and initial direct costs made at or before the commencement date, plus an estimate of costs needed to restore the underlying assets. Subsequent measurement is calculated as cost less accumulated depreciation and accumulated impairment loss and adjusted for changes in lease liabilities as a result of lease term modifications or other related factors. Right-of-use assets are presented separately in the consolidated balance sheets.

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. If the lease transfers ownership of the underlying assets to the Company by the end of the lease terms or if the cost of right-of-use assets reflects that the Company will exercise a purchase option, the Company depreciates the right-of-use assets from the commencement dates to the end of the useful lives of the underlying assets.

Lease liabilities are measured at the present value of the lease payments. Lease payments comprise fixed payments, variable lease payments which depend on an index or a rate and the exercise price of a purchase option if the Company is reasonably certain to exercise that option. The lease payments are discounted using the lessee's incremental borrowing rates.

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 future lease payments resulting from a change in an index or a rate used to determine those payments, or a change in the assessment of an option to purchase an underlying asset, the Company remeasures the lease liabilities with a corresponding adjustment to the right-of-use assets. Lease liabilities are presented on a separate line in the consolidated balance sheets.

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.

## **Intangible Assets**

### Goodwill

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any.

### Other intangible assets

Other separately acquired intangible assets with finite useful lives are carried at cost less accumulated amortization and accumulated impairment losses. Amortization is recognized using the straight-line method over the following estimated useful lives: Technology license fees - the estimated life of the technology or the term of the technology transfer contract; software and system design costs - 3 years or contract period; patent and others - the economic life or contract period. The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

## **Impairment of Tangible Assets, Right-of-use Assets and Intangible Assets**

### Goodwill

Goodwill is not amortized and instead is tested for impairment annually, or more frequently when there is an indication that the cash generating unit may be impaired. For the purpose of impairment testing, goodwill is allocated to each of the Company's cash-generating units or groups of cash-generating units that are expected to benefit from the synergies of the combination. If the recoverable amount of a cash-generating unit is less than its carrying amount, the difference is allocated first to reduce the carrying amount of any goodwill allocated to such cash generating unit and then to the other assets of the cash generating unit pro rata based on the carrying amount of each asset in the cash generating unit. Any impairment loss for goodwill is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

### Tangible assets, right-of-use assets and other intangible assets

At the end of each reporting period, the Company reviews the carrying amounts of its tangible assets (property, plant and equipment), right-of-use assets and other intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. When a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are

allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

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

When an impairment loss subsequently reverses, the carrying amount of the asset or a cash-generating unit is increased to the revised estimate of its recoverable amount, but the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

### **Guarantee Deposit**

Guarantee deposit mainly consists of cash received under deposit agreements with customers to ensure they have access to the Company's specified capacity. Cash received from customers is recorded as guarantee deposit upon receipt. Guarantee deposits are refunded to customers when terms and conditions set forth in the deposit agreements have been satisfied.

### **Revenue Recognition**

The Company recognizes revenue when performance obligations are satisfied. The performance obligations are satisfied when customers obtain control of the promised goods, which is generally when the goods are delivered to the customers' specified locations.

Revenue from sale of goods is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances. Estimated sales returns and other allowances is generally made and adjusted based on historical experience and the consideration of varying contractual terms to recognize refund liabilities, which is classified under accrued expenses and other current liabilities.

In principle, payment term granted to customers is due 30 days from the invoice date or 30 days from the end of the month of when the invoice is issued. Due to the short term nature of the receivables from sale of goods with the immaterial discounted effect, the Company measures them at the original invoice amounts without discounting.

### **Employee Benefits**

#### Short-term employee benefits

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

#### Retirement benefits

For defined contribution retirement benefit plans, payments to the benefit plan are recognized as an expense when the employees have rendered service entitling them to the contribution. For defined benefit retirement benefit plans, the cost of providing benefit is recognized based on actuarial calculations.

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

Net defined benefit liability represents the actual deficit in the Company's defined benefit plan.

## **Taxation**

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

### Current tax

Income tax on unappropriated earnings (excluding earnings from foreign consolidated subsidiaries) is expensed in the year the shareholders approved the appropriation of earnings which is the year subsequent to the year the earnings are generated.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

### Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences, net operating loss carryforwards and tax credits for research and development expenses to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered. The deferred tax assets which originally not recognized is also reviewed at the end of each reporting period and recognized to the extent that it is probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered.

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

### Current and deferred tax for the year

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognized in other comprehensive income or directly in equity, respectively.

## **Government Grants**

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received.

Government grants whose primary condition is that the Company should purchase, construct or otherwise acquire noncurrent assets (mainly including land use right and depreciable assets) are recognized as a deduction from the carrying amount of the related assets and recognized as a reduced depreciation or amortization charge in profit or loss over the contract period or useful lives of the related assets. Government grants that are receivables as compensation for expenses already incurred are deducted from incurred expenses in the period in which they become receivables.

## **5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION AND UNCERTAINTY**

The Company has considered the economic implications of COVID-19 on critical accounting estimates and will continue evaluating the impact on its financial position and financial performance as a result of the pandemic.

In the application of the aforementioned Company's accounting policies, the Company is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be 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 year in which the estimate is revised if the revision affects only that year, or in the year of the revision and future years if the revision affects both current and future years.

### **Critical Accounting Judgments**

#### **Revenue Recognition**

The Company recognizes revenue when the conditions described in Note 4 are satisfied.

#### **Commencement of Depreciation Related to Property, Plant and Equipment Classified as Equipment under Installation and Construction in Progress (EUI/CIP)**

As described in Note 4, commencement of depreciation related to EUI/CIP involves determining when the assets are available for their intended use. The criteria the Company uses to determine whether EUI/CIP are available for their intended use involves subjective judgments and assumptions about the conditions necessary for the assets to be capable of operating in the intended manner.

#### **Judgments on Lease Terms**

In determining a lease term, the Company considers all facts and circumstances that create an economic incentive to exercise or not to exercise an option, including any expected changes in facts and circumstances from the commencement date until the exercise date of the option. Main factors considered include contractual terms and conditions covered by the optional periods, and the importance of the underlying asset to the lessee's operations, etc. The lease term is reassessed if a significant change in circumstances that are within the control of the Company occurs.

## **Key Sources of Estimation and Uncertainty**

### **Estimation of Sales Returns and Allowances**

Sales returns and other allowance is estimated and recorded based on historical experience and in consideration of different contractual terms. The amount is deducted from revenue in the same period the related revenue is recorded. The Company periodically reviews the reasonableness of the estimates.

### **Valuation of Inventory**

Inventories are stated at the lower of cost or net realizable value, and the Company uses estimate to determine the net realizable value of inventory at the end of each reporting period.

The Company estimates the net realizable value of inventory for normal waste, obsolescence and unmarketable items at the end of reporting period and then writes down the cost of inventories to net realizable value. The net realizable value of the inventory is determined mainly based on assumptions of future demand within a specific time horizon.

### **Impairment of Tangible Assets, Right-of-use Assets and Intangible Assets Other than Goodwill**

In the process of evaluating the potential impairment of tangible assets, right-of-use assets and intangible assets other than goodwill, the Company determines the independent cash flows, useful lives, expected future revenue and expenses related to the specific asset groups with the consideration of the nature of semiconductor industry. Any change in these estimates based on changed economic conditions or business strategies could result in significant impairment charges or reversal in future years.

### **Realization of Deferred Income Tax Assets**

Deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which those deferred tax assets can be utilized. Assessment of the realization of the deferred tax assets requires subjective judgment and estimate, including the future revenue growth and profitability, tax holidays, the amount of tax credits can be utilized and feasible tax planning strategies. Any changes in the global economic environment, the industry trends and relevant laws and regulations could result in significant adjustments to the deferred tax assets.

### **Determination of Lessees' Incremental Borrowing Rates**

In determining a lessee's incremental borrowing rate used in discounting lease payments, the Company mainly takes into account the market risk-free rates, the estimated lessee's credit spreads and secured status in a similar economic environment.

## **6. CASH AND CASH EQUIVALENTS**

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Cash and deposits in banks	\$ 653,580,548	\$ 452,734,378
Government bonds	3,716,119	2,188,149
Repurchase agreements	1,750,443	-
Commercial paper	<u>1,123,537</u>	<u>476,809</u>
	<u>\$ 660,170,647</u>	<u>\$ 455,399,336</u>

Deposits in banks consisted of highly liquid time deposits that were readily convertible to known amounts of cash and were subject to an insignificant risk of changes in value.

## 7. FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31, 2020	December 31, 2019
<u>Financial assets</u>		
Mandatorily measured at FVTPL		
Forward exchange contracts	\$ 2,259,412	\$ 162,155
Convertible bonds	-	123,759
Agency mortgage-backed securities	<u>-</u>	<u>40,925</u>
	<u>\$ 2,259,412</u>	<u>\$ 326,839</u>
<u>Financial liabilities</u>		
Held for trading		
Forward exchange contracts	<u>\$ 94,128</u>	<u>\$ 982,349</u>

The Company entered into forward exchange contracts to manage exposures due to fluctuations of foreign exchange rates. These forward exchange contracts did not meet the criteria for hedge accounting. Therefore, the Company did not apply hedge accounting treatment for these forward exchange contracts.

Outstanding forward exchange contracts consisted of the following:

	Maturity Date	Contract Amount (In Thousands)
<u>December 31, 2020</u>		
Sell NT\$	January 2021 to March 2021	NT\$ 144,697,981
Sell US\$	January 2021 to March 2021	US\$ 1,176,858
<u>December 31, 2019</u>		
Sell NT\$	January 2020 to June 2020	NT\$ 108,428,027
Sell JPY	January 2020 to February 2020	JPY 57,471,581
Sell US\$	January 2020 to March 2020	US\$ 529,209

## 8. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	December 31, 2020	December 31, 2019
Investments in debt instruments at FVTOCI		
Corporate bonds	\$ 56,593,623	\$ 51,790,045
Agency bonds/Agency mortgage-backed securities	43,977,113	51,966,460
Government bonds	13,459,503	12,824,223
Asset-backed securities	<u>8,368,264</u>	<u>10,815,849</u>
	<u>122,398,503</u>	<u>127,396,577</u>

(Continued)



	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Investments in equity instruments at FVTOCI		
Non-publicly traded equity investments	\$ 4,514,940	\$ 4,124,337
Publicly traded stocks	<u>49,950</u>	<u>-</u>
	<u>4,564,890</u>	<u>4,124,337</u>
	<u>\$ 126,963,393</u>	<u>\$ 131,520,914</u>
Current	\$ 122,448,453	\$ 127,396,577
Noncurrent	<u>4,514,940</u>	<u>4,124,337</u>
	<u>\$ 126,963,393</u>	<u>\$ 131,520,914</u>
		(Concluded)

These investments in equity instruments are held for medium to long-term purposes and therefore are accounted for as FVTOCI. For dividends recognized from these investments, please refer to consolidated statements of cash flows. All the dividends are from investments held at the end of the reporting period.

For the years ended December 31, 2020 and 2019, as the Company adjusted its investment portfolio, equity investments designated at FVTOCI were divested for NT\$8 thousand and NT\$873,470 thousand, respectively. The related other equity-unrealized gain/loss on financial assets at FVTOCI of NT\$108,996 thousand and NT\$156,770 thousand were transferred to decrease and increase retained earnings, respectively.

As of December 31, 2020 and 2019, the cumulative loss allowance for expected credit loss of NT\$32,480 thousand and NT\$35,596 thousand was recognized under investments in debt instruments at FVTOCI, respectively. Refer to Note 32 for information relating to the credit risk management and expected credit loss.

## 9. FINANCIAL ASSETS AT AMORTIZED COST

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Corporate bonds	\$ 10,977,298	\$ 7,651,727
Less: Allowance for impairment loss	<u>(7,099)</u>	<u>(2,929)</u>
	<u>\$ 10,970,199</u>	<u>\$ 7,648,798</u>
Current	\$ 6,597,992	\$ 299,884
Noncurrent	<u>4,372,207</u>	<u>7,348,914</u>
	<u>\$ 10,970,199</u>	<u>\$ 7,648,798</u>

Refer to Note 32 for information relating to credit risk management and expected credit loss for financial assets at amortized cost.

## 10. HEDGING FINANCIAL INSTRUMENTS

	December 31, 2020	December 31, 2019
<u>Financial assets- current</u>		
Fair value hedges		
Interest rate futures contracts	\$ 47	\$ 22,380
Cash flow hedges		
Forward exchange contracts	<u>          -</u>	<u>      3,504</u>
	<u>\$ 47</u>	<u>\$ 25,884</u>
<u>Financial liabilities- current</u>		
Fair value hedges		
Interest rate futures contracts	\$ 1,169	\$ -
Cash flow hedges		
Forward exchange contracts	<u>          -</u>	<u>      1,798</u>
	<u>\$ 1,169</u>	<u>\$ 1,798</u>

### Fair value hedge

The Company entered into interest rate futures contracts, which are used to partially hedge against the fair value changes caused by interest rate fluctuation in the Company's fixed income investments. The hedge ratio is adjusted in response to the changes in the financial market and capped at 100%.

On the basis of economic relationships, the Company expects that the value of the interest rate futures contracts and the value of the hedged financial assets will change in opposite directions in response to movements in interest rates.

The main source of hedge ineffectiveness in these hedging relationships is the credit risk of the hedged financial assets, which is not reflected in the fair value of the interest rate futures contracts. No other sources of ineffectiveness emerged from these hedging relationships during the hedging period. Amount of hedge ineffectiveness recognized in profit or loss is classified under other gains and losses.

The following tables summarize the information relating to the hedges of interest rate risk.

### December 31, 2020

Hedging Instruments	Contract Amount (US\$ in Thousands)	Maturity
Interest rate futures contracts - US Treasury bonds	US\$88,700	March 2021
		<b>Accumulated Amount of Fair Value Hedge Adjustments</b>
Hedged Items	Asset Carrying Amount	
Financial assets at FVTOCI	\$ 6,198,683	\$ 1,122

December 31, 2019

<b>Hedging Instruments</b>	<b>Contract Amount (US\$ in Thousands)</b>	<b>Maturity</b>
Interest rate futures contracts - US Treasury bonds	US\$122,200	March 2020
		<b>Accumulated Amount of Fair Value Hedge Adjustments</b>
<b>Hedged Items</b>	<b>Asset Carrying Amount</b>	
Financial assets at FVTOCI	\$ 7,364,727	\$ (22,380)

The effect for the years ended December 31, 2020 and 2019 is detailed below:

<b>Hedging Instruments/Hedged Items</b>	<b>Increase (Decrease) in Value Used for Calculating Hedge Ineffectiveness</b>	
	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Hedging Instruments		
Interest rate futures contracts - US Treasury bonds	\$ (353,611)	\$ (164,740)
Hedged Items		
Financial assets at FVTOCI	<u>353,611</u>	<u>177,831</u>
	<u>\$ -</u>	<u>\$ 13,091</u>

#### Cash flow hedge

The Company entered into forward exchange contracts to partially hedge foreign exchange rate risks associated with certain highly probable forecast transactions (capital expenditures). The hedge ratio is adjusted in response to the changes in the financial market and capped at 100%. The forward exchange contracts have maturities of 12 months or less.

On the basis of economic relationships, the Company expects that the value of forward exchange contracts and the value of hedged transactions will change in opposite directions in response to movements in foreign exchange rates.

The main source of hedge ineffectiveness in these hedging relationships is driven by the effect of the counterparty's own credit risk on the fair value of forward exchange contracts. No other sources of ineffectiveness emerged from these hedging relationships. For the years ended December 31, 2020 and 2019, refer to Note 22(d) for gain or loss arising from changes in the fair value of hedging instruments and the amount transferred to initial carrying amount of hedged items.

The following tables summarize the information relating to the hedges for foreign currency risk.

December 31, 2019

<b>Hedging Instruments</b>	<b>Contract Amount (In Thousands)</b>	<b>Maturity</b>	<b>Balance in Other Equity (Continuing Hedges)</b>
Forward exchange contracts	Sell NT\$ 1,342,392	January 2020	\$ (3,820)

The effect for the years ended December 31, 2020 and 2019 is detailed below:

Hedging Instruments/Hedged Items	Increase (Decrease) in Value Used for Calculating Hedge Ineffectiveness	
	Years Ended December 31	
	2020	2019
Hedging Instruments		
Forward exchange contracts	\$ 24,085	\$ (109,592)
Hedged Items		
Forecast transaction (capital expenditures)	\$ (24,085)	\$ 109,592

## 11. NOTES AND ACCOUNTS RECEIVABLE, NET

	December 31, 2020	December 31, 2019
At amortized cost		
Notes and accounts receivable	\$ 142,771,597	\$ 135,978,049
Less: Loss allowance	<u>(246,626)</u>	<u>(325,325)</u>
	142,524,971	135,652,724
At FVTOCI	<u>2,955,301</u>	<u>3,255,865</u>
	<u>\$ 145,480,272</u>	<u>\$ 138,908,589</u>

The Company signed a contract with the bank to sell certain accounts receivable without recourse and transaction cost required. These accounts receivable are classified as at FVTOCI because they are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets.

In principle, the payment term granted to customers is due 30 days from the invoice date or 30 days from the end of the month when the invoice is issued. Aside from recognizing impairment loss for credit-impaired accounts receivable, the Company recognizes loss allowance based on the expected credit loss ratio of customers by different risk levels with consideration of factors of historical loss ratios and customers' financial conditions, competitiveness and business outlook. For accounts receivable past due over 90 days without collaterals or guarantees, the Company recognizes loss allowance at full amount.

### Aging analysis of notes and accounts receivable

	December 31, 2020	December 31, 2019
Not past due	\$ 140,933,622	\$ 126,134,762
Past due		
Past due within 30 days	4,784,425	13,082,080
Past due 31-60 days	8,708	12,794
Past due 61-120 days	48	1,033
Past due over 121 days	95	3,245
Less: Loss allowance	<u>(246,626)</u>	<u>(325,325)</u>
	<u>\$ 145,480,272</u>	<u>\$ 138,908,589</u>

All of the Company's accounts receivable classified as at FVTOCI were not past due.

Movements of the loss allowance for accounts receivable

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Balance, beginning of year	\$ 325,325	\$ 7,253
Provision (Reversal)	(78,474)	318,290
Effect of exchange rate changes	<u>(225)</u>	<u>(218)</u>
Balance, end of year	<u>\$ 246,626</u>	<u>\$ 325,325</u>

For the years ended December 31, 2020 and 2019, the changes in loss allowance were mainly due to the variations in the balance of accounts receivable of different risk levels.

**12. INVENTORIES**

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Finished goods	\$ 21,705,625	\$ 8,924,541
Work in process	91,672,870	51,969,105
Raw materials	14,715,963	16,552,275
Supplies and spare parts	<u>9,258,949</u>	<u>5,535,275</u>
	<u>\$ 137,353,407</u>	<u>\$ 82,981,196</u>

Write-down of inventories to net realizable value and reversal of write-down of inventories resulting from the increase in net realizable value were included in the cost of revenue, as illustrated below:

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Inventory losses (reversal of write-down of inventories)	<u>\$ 3,664,513</u>	<u>\$ (1,983,048)</u>

The aforementioned reversal of write-down of inventories for the year ended December 31, 2019 excluded wafer contamination losses. Please refer to related losses in Note 37.

**13. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD**

Associates consisted of the following:

Name of Associate	Principal Activities	Place of Incorporation and Operation	<b>Carrying Amount</b>		<b>% of Ownership and Voting Rights Held by the Company</b>	
			December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
Vanguard International Semiconductor Corporation (VIS)	Manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing and design service of masks	Hsinchu, Taiwan	\$ 9,029,890	\$ 9,027,572	28%	28%
Systems on Silicon Manufacturing Company Pte Ltd. (SSMC)	Manufacturing and selling of integrated circuits and other semiconductor devices	Singapore	5,900,245	6,502,174	39%	39%

(Continued)

Name of Associate	Principal Activities	Place of Incorporation and Operation	Carrying Amount		% of Ownership and Voting Rights Held by the Company	
			December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
Xintec Inc. (Xintec)	Wafer level chip size packaging and wafer level post passivation interconnection service	Taoyuan, Taiwan	\$ 2,554,123	\$ 1,846,145	41%	41%
Global Unichip Corporation (GUC)	Researching, developing, manufacturing, testing and marketing of integrated circuits	Hsinchu, Taiwan	1,328,620	1,284,377	35%	35%
Mutual-Pak	Manufacturing of electronic parts, wholesaling and retailing of electronic materials, and researching, developing and testing of RFID	New Taipei, Taiwan	<u>28,183</u>	<u>38,520</u>	28%	28%
			<u>\$ 18,841,061</u>	<u>\$ 18,698,788</u>		

(Concluded)

As of December 31, 2020 and 2019, no investments in associates are individually material to the Company. Please refer to the consolidated statements of comprehensive income for recognition of share of both profit (loss) and other comprehensive income (loss) of associates that are not individually material.

The market prices of the investments accounted for using the equity method in publicly traded stocks calculated by the closing price at the end of the reporting period are summarized as follows. The closing price represents the quoted price in active markets, the level 1 fair value measurement.

Name of Associate	December 31, 2020	December 31, 2019
VIS	<u>\$ 53,849,925</u>	<u>\$ 36,812,923</u>
Xintec	<u>\$ 20,420,233</u>	<u>\$ 8,958,195</u>
GUC	<u>\$ 15,827,184</u>	<u>\$ 11,251,774</u>

#### 14. PROPERTY, PLANT AND EQUIPMENT

	December 31, 2020	December 31, 2019
Assets used by the Company	\$ 1,554,585,938	\$ 1,352,313,861
Assets subject to operating leases	<u>1,003,182</u>	<u>63,544</u>
	<u>\$ 1,555,589,120</u>	<u>\$ 1,352,377,405</u>

##### a. Assets used by the Company

	Land and Land Improvements	Buildings	Machinery and Equipment	Office Equipment	Equipment under Installation and Construction in Progress	Total
<u>Cost</u>						
Balance at January 1, 2020	\$ 3,991,798	\$ 438,075,063	\$ 2,886,622,968	\$ 54,611,364	\$ 528,295,086	\$ 3,911,596,279
Additions (deductions)	-	84,882,543	729,943,300	15,112,949	(304,218,044)	525,720,748
Disposals or retirements	-	(41,568)	(6,397,279)	(734,129)	-	(7,172,976)
Transfers from assets subject to operating leases	-	23,142	-	-	-	23,142
Transfers to assets subject to operating leases	-	-	(1,199,011)	-	-	(1,199,011)
Effect of exchange rate changes	<u>(49,173)</u>	<u>(491,706)</u>	<u>(1,964,246)</u>	<u>(127,536)</u>	<u>(111,682)</u>	<u>(2,744,343)</u>
Balance at December 31, 2020	<u>\$ 3,942,625</u>	<u>\$ 522,447,474</u>	<u>\$ 3,607,005,732</u>	<u>\$ 68,862,648</u>	<u>\$ 223,965,360</u>	<u>\$ 4,426,223,839</u>

(Continued)

	Land and Land Improvements	Buildings	Machinery and Equipment	Office Equipment	Equipment under Installation and Construction in Progress	Total
<u>Accumulated depreciation and impairment</u>						
Balance at January 1, 2020	\$ 538,690	\$ 243,059,390	\$ 2,278,265,943	\$ 37,418,395	\$ -	\$ 2,559,282,418
Additions	1,479	29,209,096	285,393,637	7,216,921	-	321,821,133
Disposals or retirements	-	(27,990)	(6,012,942)	(732,403)	-	(6,773,335)
Transfers from assets subject to operating leases	-	8,215	-	-	-	8,215
Transfers to assets subject to operating leases	-	-	(202,593)	-	-	(202,593)
Impairment	-	-	10,159	-	-	10,159
Effect of exchange rate changes	(34,040)	(449,240)	(1,924,235)	(100,581)	-	(2,508,096)
Balance at December 31, 2020	<u>\$ 506,129</u>	<u>\$ 271,799,471</u>	<u>\$ 2,555,529,969</u>	<u>\$ 43,802,332</u>	<u>\$ -</u>	<u>\$ 2,871,637,901</u>
Carrying amounts at December 31, 2020	<u>\$ 3,436,496</u>	<u>\$ 250,648,003</u>	<u>\$ 1,051,475,763</u>	<u>\$ 25,060,316</u>	<u>\$ 223,965,360</u>	<u>\$ 1,554,585,938</u>
<u>Cost</u>						
Balance at January 1, 2019	\$ 4,011,353	\$ 418,151,675	\$ 2,728,760,127	\$ 48,382,279	\$ 172,910,989	\$ 3,372,216,423
Additions	-	21,448,528	179,798,420	7,415,036	355,621,089	564,283,073
Disposals or retirements	-	(158,970)	(17,381,538)	(1,043,398)	-	(18,583,906)
Transfers from right-of-use assets	-	-	619,779	-	-	619,779
Effect of disposal of subsidiary	-	-	-	(508)	-	(508)
Effect of exchange rate changes	(19,555)	(1,366,170)	(5,173,820)	(142,045)	(236,992)	(6,938,582)
Balance at December 31, 2019	<u>\$ 3,991,798</u>	<u>\$ 438,075,063</u>	<u>\$ 2,886,622,968</u>	<u>\$ 54,611,364</u>	<u>\$ 528,295,086</u>	<u>\$ 3,911,596,279</u>
<u>Accumulated depreciation and impairment</u>						
Balance at January 1, 2019	\$ 550,575	\$ 217,899,243	\$ 2,049,278,908	\$ 32,525,129	\$ -	\$ 2,300,253,855
Additions	1,633	26,026,642	246,724,229	6,012,497	-	278,765,001
Disposals or retirements	-	(144,402)	(12,880,817)	(1,042,131)	-	(14,067,350)
Transfers from right-of-use assets	-	-	20,659	-	-	20,659
Reversal of impairment	-	-	(301,384)	-	-	(301,384)
Effect of disposal of subsidiary	-	-	-	(508)	-	(508)
Effect of exchange rate changes	(13,518)	(722,093)	(4,575,652)	(76,592)	-	(5,387,855)
Balance at December 31, 2019	<u>\$ 538,690</u>	<u>\$ 243,059,390</u>	<u>\$ 2,278,265,943</u>	<u>\$ 37,418,395</u>	<u>\$ -</u>	<u>\$ 2,559,282,418</u>
Carrying amounts at December 31, 2019	<u>\$ 3,453,108</u>	<u>\$ 195,015,673</u>	<u>\$ 608,357,025</u>	<u>\$ 17,192,969</u>	<u>\$ 528,295,086</u>	<u>\$ 1,352,313,861</u>

(Concluded)

The significant part of the Company's buildings includes main plants, mechanical and electrical power equipment and clean rooms, and the related depreciation is calculated using the estimated useful lives of 20 years, 10 years and 10 years, respectively.

In the first quarter of 2019, the Company recognized a reversal of impairment loss of NT\$301,384 thousand due to redeployment of certain idle machinery and equipment. Such reversal of impairment loss was recognized in other operating income and expenses.



b. Assets subject to operating leases

	<b>Buildings</b>	<b>Machinery and Equipment</b>	<b>Total</b>
<u>Cost</u>			
Balance at January 1, 2020	\$ 562,610	\$ -	\$ 562,610
Disposals or retirements	(311,939)	-	(311,939)
Transfers to assets used by the Company	(23,142)	-	(23,142)
Transfers from assets used by the Company	<u>-</u>	<u>1,199,011</u>	<u>1,199,011</u>
Balance at December 31, 2020	<u>\$ 227,529</u>	<u>\$1,199,011</u>	<u>\$1,426,540</u>
<u>Accumulated depreciation</u>			
Balance at January 1, 2020	\$ 499,066	\$ -	\$ 499,066
Additions	16,281	19,399	35,680
Disposals or retirements	(305,766)	-	(305,766)
Transfers to assets used by the Company	(8,215)	-	(8,215)
Transfers from assets used by the Company	<u>-</u>	<u>202,593</u>	<u>202,593</u>
Balance at December 31, 2020	<u>\$ 201,366</u>	<u>\$ 221,992</u>	<u>\$ 423,358</u>
Carrying amounts at December 31, 2020	<u>\$ 26,163</u>	<u>\$ 977,019</u>	<u>\$1,003,182</u>
<u>Cost</u>			
Balance at January 1, 2019	<u>\$ 562,610</u>	<u>\$ -</u>	<u>\$ 562,610</u>
Balance at December 31, 2019	<u>\$ 562,610</u>	<u>\$ -</u>	<u>\$ 562,610</u>
<u>Accumulated depreciation</u>			
Balance at January 1, 2019	\$ 474,899	\$ -	\$ 474,899
Additions	<u>24,167</u>	<u>-</u>	<u>24,167</u>
Balance at December 31, 2019	<u>\$ 499,066</u>	<u>\$ -</u>	<u>\$ 499,066</u>
Carrying amounts at December 31, 2019	<u>\$ 63,544</u>	<u>\$ -</u>	<u>\$ 63,544</u>

Operating leases relate to leases of buildings and leases of machinery and equipment with lease terms approximately between 1 to 5 years. The lessees do not have purchase options to acquire the assets at the expiry of the lease periods.

The maturity analysis of operating lease payments receivable from the buildings and machinery and equipment is as follows:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Year 1	\$ 149,120	\$ 18,450
Year 2	16,992	16,992
Year 3	<u>-</u>	<u>16,992</u>
	<u>\$ 166,112</u>	<u>\$ 52,434</u>

## 15. LEASE ARRANGEMENTS

### a. Right-of-use assets

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
<u>Carrying amounts</u>		
Land	\$ 25,141,908	\$ 14,064,036
Buildings	2,544,742	2,351,809
Machinery and equipment	-	775,809
Office equipment	<u>41,732</u>	<u>40,748</u>
	<u>\$ 27,728,382</u>	<u>\$ 17,232,402</u>
	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Additions to right-of-use assets	<u>\$ 13,481,172</u>	<u>\$ 1,032,985</u>
Depreciation of right-of-use assets		
Land	\$ 1,312,888	\$ 957,065
Buildings	569,531	458,772
Machinery and equipment	775,809	1,184,374
Office equipment	<u>23,402</u>	<u>22,453</u>
	<u>\$ 2,681,630</u>	<u>\$ 2,622,664</u>
Income from subleasing right-of-use assets (classified under other operating income and expenses, net)	<u>\$ 79,624</u>	<u>\$ 55,026</u>

### b. Lease liabilities

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
<u>Carrying amounts</u>		
Current portion (classified under accrued expenses and other current liabilities)	\$ 1,828,025	\$ 2,275,084
Noncurrent portion	<u>20,560,649</u>	<u>15,041,833</u>
	<u>\$ 22,388,674</u>	<u>\$ 17,316,917</u>

Ranges of discount rates for lease liabilities are as follows:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Land	0.48%-2.14%	0.67%-2.14%
Buildings	0.54%-3.88%	0.67%-3.88%
Machinery and equipment	-	3.24%
Office equipment	0.28%-3.88%	0.64%-3.88%

c. Material terms of right-of-use assets

The Company leases land and buildings mainly for the use of plants and offices with lease terms of 1 to 36 years. The lease contracts for land located in the R.O.C. specify that lease payments will be adjusted every 2 years on the basis of changes in announced land value prices. The Company does not have purchase options to acquire the leasehold land and buildings at the end of the lease terms.

The Company leases machinery and equipment for use in operation with lease terms of 2 years. The Company has purchase options to acquire leasehold machinery and equipment at the end of the lease terms. As of September 30, 2020, the aforementioned lease contract has been expired.

d. Subleases

The Company subleases the right to use its buildings and machinery and equipment under operating leases with lease terms of 1 to 6 years.

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

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Year 1	\$ 144,099	\$ 58,569
Year 2	<u>-</u>	<u>1,885</u>
	<u>\$ 144,099</u>	<u>\$ 60,454</u>

e. Other lease information

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Expenses relating to short-term leases	<u>\$ 3,153,451</u>	<u>\$ 5,007,057</u>
Expenses relating to low-value asset leases	<u>\$ 300</u>	<u>\$ 492</u>
Expenses relating to variable lease payments not included in the measurement of lease liabilities	<u>\$ 256,996</u>	<u>\$ 195,062</u>
	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Total cash outflow for leases	<u>\$ 6,354,610</u>	<u>\$ 7,724,421</u>

## 16. INTANGIBLE ASSETS

	<b>Goodwill</b>	<b>Technology License Fees</b>	<b>Software and System Design Costs</b>	<b>Patent and Others</b>	<b>Total</b>
<u>Cost</u>					
Balance at January 1, 2020	\$ 5,693,376	\$ 15,854,951	\$ 33,024,010	\$ 8,302,996	\$ 62,875,333
Additions	-	6,308,926	3,275,757	2,974,784	12,559,467
Disposals or retirements	-	-	(60,467)	-	(60,467)
Effect of exchange rate changes	<u>(256,774)</u>	<u>(2,165)</u>	<u>(333)</u>	<u>(79)</u>	<u>(259,351)</u>
Balance at December 31, 2020	<u>\$ 5,436,602</u>	<u>\$ 22,161,712</u>	<u>\$ 36,238,967</u>	<u>\$ 11,277,701</u>	<u>\$ 75,114,982</u>

(Continued)

	Goodwill	Technology License Fees	Software and System Design Costs	Patent and Others	Total
<u>Accumulated amortization and impairment</u>					
Balance at January 1, 2020	\$ -	\$ 9,823,770	\$ 26,502,067	\$ 5,896,468	\$ 42,222,305
Additions	-	2,404,461	3,669,257	1,112,530	7,186,248
Disposals or retirements	-	-	(59,868)	-	(59,868)
Effect of exchange rate changes	-	(2,165)	303	(20)	(1,882)
Balance at December 31, 2020	<u>\$ -</u>	<u>\$ 12,226,066</u>	<u>\$ 30,111,759</u>	<u>\$ 7,008,978</u>	<u>\$ 49,346,803</u>
Carrying amounts at December 31, 2020	<u>\$ 5,436,602</u>	<u>\$ 9,935,646</u>	<u>\$ 6,127,208</u>	<u>\$ 4,268,723</u>	<u>\$ 25,768,179</u>
<u>Cost</u>					
Balance at January 1, 2019	\$ 5,795,488	\$ 10,974,458	\$ 29,594,483	\$ 7,656,524	\$ 54,020,953
Additions	-	4,879,562	3,710,381	647,755	9,237,698
Disposals or retirements	-	-	(260,904)	-	(260,904)
Effect of exchange rate changes	(102,112)	931	(19,950)	(1,283)	(122,414)
Balance at December 31, 2019	<u>\$ 5,693,376</u>	<u>\$ 15,854,951</u>	<u>\$ 33,024,010</u>	<u>\$ 8,302,996</u>	<u>\$ 62,875,333</u>
<u>Accumulated amortization and impairment</u>					
Balance at January 1, 2019	\$ -	\$ 8,756,005	\$ 23,023,498	\$ 5,239,313	\$ 37,018,816
Additions	-	1,066,834	3,747,343	658,232	5,472,409
Disposals or retirements	-	-	(258,527)	-	(258,527)
Effect of exchange rate changes	-	931	(10,247)	(1,077)	(10,393)
Balance at December 31, 2019	<u>\$ -</u>	<u>\$ 9,823,770</u>	<u>\$ 26,502,067</u>	<u>\$ 5,896,468</u>	<u>\$ 42,222,305</u>
Carrying amounts at December 31, 2019	<u>\$ 5,693,376</u>	<u>\$ 6,031,181</u>	<u>\$ 6,521,943</u>	<u>\$ 2,406,528</u>	<u>\$ 20,653,028</u>

(Concluded)

The Company's goodwill has been tested for impairment at the end of the annual reporting period and the recoverable amount is determined based on the value in use. The value in use was calculated based on the cash flow forecast from the financial budgets covering the future five-year period, and the Company used annual discount rates of 8.0% in both years in its test of impairment as of December 31, 2020 and 2019, to reflect the relevant specific risk in the cash-generating unit.

For the years ended December 31, 2020 and 2019, the Company did not recognize any impairment loss on goodwill.

## 17. SHORT-TERM LOANS

	December 31, 2020	December 31, 2019
Unsecured loans		
Amount	<u>\$ 88,559,026</u>	<u>\$ 118,522,290</u>
Loan content		
US\$ (in thousands)	\$ 200,000	\$ 2,370,000
EUR (in thousands)	2,398,000	1,410,000
Annual interest rate	(0.54)%-0.33%	0.01%-2.22%
Maturity date	Due by February 2021	Due by May 2020

## 18. BONDS PAYABLE

	December 31, 2020	December 31, 2019
Domestic unsecured bonds	\$ 173,197,000	\$ 56,900,000
Overseas unsecured bonds	84,291,000	-
Less: Discounts on bonds payable	(782,916)	-
Less: Current portion	<u>(2,600,000)</u>	<u>(31,800,000)</u>
	<u>\$ 254,105,084</u>	<u>\$ 25,100,000</u>

The major terms of domestic unsecured bonds are as follows:

Issuance	Tranche	Issuance Period	Total Amount	Coupon Rate	Repayment and Interest Payment
<u>NT\$ unsecured bonds</u>					
100-2	B	January 2012 to January 2019	\$ 7,000,000	1.46%	Bullet repayment; interest payable annually
101-1	B	August 2012 to August 2019	9,000,000	1.40%	The same as above
101-2	B	September 2012 to September 2019	9,000,000	1.39%	The same as above
101-3	-	October 2012 to October 2022	4,400,000	1.53%	The same as above
101-4	B	January 2013 to January 2020	10,000,000	1.35%	The same as above
	C	January 2013 to January 2023	3,000,000	1.49%	The same as above
102-1	B	February 2013 to February 2020	11,600,000	1.38%	The same as above
	C	February 2013 to February 2023	3,600,000	1.50%	The same as above
102-2	A	July 2013 to July 2020	10,200,000	1.50%	The same as above
	B	July 2013 to July 2023	3,500,000	1.70%	The same as above
102-3	B	August 2013 to August 2019	8,500,000	1.52%	The same as above
102-4	C	September 2013 to March 2019	1,400,000	1.60%	Bullet repayment; interest payable annually (interest for the six months prior to maturity will accrue on the basis of actual days and be repayable at maturity)

(Continued)

<b>Issuance</b>	<b>Tranche</b>	<b>Issuance Period</b>	<b>Total Amount</b>	<b>Coupon Rate</b>	<b>Repayment and Interest Payment</b>
102-4	D	September 2013 to March 2021	\$ 2,600,000	1.85%	Bullet repayment; interest payable annually (interest for the six months prior to maturity will accrue on the basis of actual days and be repayable at maturity)
	E	September 2013 to March 2023	5,400,000	2.05%	The same as above
	F	September 2013 to September 2023	2,600,000	2.10%	Bullet repayment; interest payable annually
109-1	A	March 2020 to March 2025	3,000,000	0.58%	The same as above
	B	March 2020 to March 2027	10,500,000	0.62%	The same as above
	C	March 2020 to March 2030	10,500,000	0.64%	The same as above
109-2	A	April 2020 to April 2025	5,900,000	0.52%	The same as above
	B	April 2020 to April 2027	10,400,000	0.58%	The same as above
	C	April 2020 to April 2030	5,300,000	0.60%	The same as above
109-3	A	May 2020 to May 2025	4,500,000	0.55%	The same as above
	B	May 2020 to May 2027	7,500,000	0.60%	The same as above
	C	May 2020 to May 2030	2,400,000	0.64%	The same as above
109-4	A	July 2020 to July 2025	5,700,000	0.58%	Two equal installments in last two years; interest payable annually
	B	July 2020 to July 2027	6,300,000	0.65%	The same as above
	C	July 2020 to July 2030	1,900,000	0.67%	The same as above
109-5	A	September 2020 to September 2025	4,800,000	0.50%	The same as above
	B	September 2020 to September 2027	8,000,000	0.58%	The same as above
	C	September 2020 to September 2030	2,800,000	0.60%	The same as above

(Continued)

<b>Issuance</b>	<b>Tranche</b>	<b>Issuance Period</b>	<b>Total Amount</b>	<b>Coupon Rate</b>	<b>Repayment and Interest Payment</b>
109-6 (green bond)	A	December 2020 to December 2025	\$ 1,600,000	0.40%	Two equal installments in last two years; interest payable annually
	B	December 2020 to December 2027	5,600,000	0.44%	The same as above
	C	December 2020 to December 2030	4,800,000	0.48%	The same as above
109-7	A	December 2020 to December 2025	1,900,000	0.36%	The same as above
	B	December 2020 to December 2027	10,200,000	0.41%	The same as above
	C	December 2020 to December 2030	6,400,000	0.45%	The same as above

(Concluded)

<b>Issuance</b>	<b>Tranche</b>	<b>Issuance Period</b>	<b>Total Amount (US\$ in Thousands)</b>	<b>Coupon Rate</b>	<b>Repayment and Interest Payment</b>
<u>US\$ unsecured bonds</u>					
109-1	-	September 2020 to September 2060	US\$ 1,000,000	2.70%	Bullet repayment (callable on the 5th anniversary of the issue date and every anniversary thereafter); interest payable annually

The major terms of overseas unsecured bonds are as follows:

<b>Issuance Period</b>	<b>Total Amount (US\$ in Thousands)</b>		<b>Coupon Rate</b>	<b>Repayment and Interest Payment</b>
September 2020 to September 2025	US\$	1,000,000	0.75%	Bullet repayment (callable at any time, in whole or in part, at the relevant redemption price according to relevant agreements); interest payable semi-annually
September 2020 to September 2027		750,000	1.00%	The same as above
September 2020 to September 2030		1,250,000	1.375%	The same as above

## 19. LONG-TERM BANK LOANS

	<b>December 31, 2020</b>
Unsecured loans	\$ 2,000,000
Less: Discounts on government grants	<u>(32,389)</u>
	<u>\$ 1,967,611</u>
Loan content	
Annual interest rate	0.4%
Maturity date	Due by September 2025

The long-term bank loans of the Company are with preferential interest rates subsidized by the government, and the loan proceeds are used to fund qualifying capital expenditure.

## 20. RETIREMENT BENEFIT PLANS

### a. Defined contribution plans

The plan under the R.O.C. Labor Pension Act (the "Act") is deemed a defined contribution plan. Pursuant to the Act, TSMC and VisEra Tech have made monthly contributions equal to 6% of each employee's monthly salary to employees' pension accounts. Furthermore, TSMC North America, TSMC China, TSMC Nanjing, TSMC Europe, TSMC Canada and TSMC Technology also make monthly contributions at certain percentages of the basic salary of their employees. Accordingly, the Company recognized expenses of NT\$2,809,484 thousand and NT\$2,609,733 thousand for the years ended December 31, 2020 and 2019, respectively.

### b. Defined benefit plans

TSMC has defined benefit plans under the R.O.C. Labor Standards Law that provide benefits based on an employee's length of service and average monthly salary for the six-month period prior to retirement. The Company contributes an amount equal to 2% of salaries paid each month to their respective pension funds (the Funds), which are administered by the Labor Pension Fund Supervisory Committee (the Committee) and deposited in the Committee's name in the Bank of Taiwan. Before the end of each year, the Company assesses the balance in the Funds. If the amount of the balance in the Funds is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Company is required to fund the difference in one appropriation that should be made before the end of March of the next year. The Funds are operated and managed by the government's designated authorities; as such, the Company does not have any right to intervene in the investments of the Funds.

Amounts recognized in respect of these defined benefit plans were as follows:

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Current service cost	\$ 123,311	\$ 135,645
Net interest expense	<u>81,604</u>	<u>123,951</u>
Components of defined benefit costs recognized in profit or loss	<u>204,915</u>	<u>259,596</u>
Remeasurement on the net defined benefit liability:		
Return on plan assets (excluding amounts included in net interest expense)	(139,212)	(124,344)

(Continued)



	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Actuarial loss (gain) arising from experience adjustments	\$ 494,051	\$ (438,009)
Actuarial gain arising from changes in demographic assumptions	-	(233,239)
Actuarial loss arising from changes in financial assumptions	<u>3,161,910</u>	<u>541,697</u>
Components of defined benefit costs recognized in other comprehensive income	<u>3,516,749</u>	<u>(253,895)</u>
Total	<u>\$ 3,721,664</u>	<u>\$ 5,701</u> (Concluded)

The pension costs of the aforementioned defined benefit plans were recognized in profit or loss by the following categories:

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Cost of revenue	\$ 126,274	\$ 157,845
Research and development expenses	57,306	72,686
General and administrative expenses	18,248	25,063
Marketing expenses	<u>3,087</u>	<u>4,002</u>
	<u>\$ 204,915</u>	<u>\$ 259,596</u>

The amounts arising from the defined benefit obligation of the Company were as follows:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Present value of defined benefit obligation	\$ 16,980,277	\$ 13,484,090
Fair value of plan assets	<u>(5,066,203)</u>	<u>(4,301,594)</u>
Net defined benefit liability	<u>\$ 11,914,074</u>	<u>\$ 9,182,496</u>

Movements in the present value of the defined benefit obligation were as follows:

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Balance, beginning of year	\$ 13,484,090	\$ 13,662,684
Current service cost	123,311	135,645
Interest expense	118,808	175,401
Remeasurement:		
Actuarial loss (gain) arising from experience adjustments	494,051	(438,009)
Actuarial gain arising from changes in demographic assumptions	-	(233,239)
Actuarial loss arising from changes in financial assumptions	3,161,910	541,697
Benefits paid from plan assets	(398,986)	(344,131)
Benefits paid directly by the Company	<u>(2,907)</u>	<u>(15,958)</u>
Balance, end of year	<u>\$ 16,980,277</u>	<u>\$ 13,484,090</u>

Movements in the fair value of the plan assets were as follows:

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Balance, beginning of year	\$ 4,301,594	\$ 4,011,279
Interest income	37,204	51,450
Remeasurement:		
Return on plan assets (excluding amounts included in net interest expense)	139,212	124,344
Contributions from employer	987,179	458,652
Benefits paid from plan assets	<u>(398,986)</u>	<u>(344,131)</u>
Balance, end of year	<u>\$ 5,066,203</u>	<u>\$ 4,301,594</u>

The fair value of the plan assets by major categories at the end of reporting period was as follows:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Cash	\$ 632,769	\$ 713,204
Equity instruments	2,926,745	2,313,828
Debt instruments	<u>1,506,689</u>	<u>1,274,562</u>
	<u>\$ 5,066,203</u>	<u>\$ 4,301,594</u>

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The principal assumptions of the actuarial valuation were as follows:

	<b>Measurement Date</b>	
	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Discount rate	0.40%	0.90%
Future salary increase rate	3.00%(Note)	3.00%

Note: The Company has an additional 20 percent pay raise in 2021.

Through the defined benefit plans under the R.O.C. Labor Standards Law, the Company is exposed to the following risks:

- 1) Investment risk: The pension funds are invested in equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the government's designated authorities or under the mandated management. However, under the R.O.C. Labor Standards Law, the rate of return on assets shall not be less than the average interest rate on a two-year time deposit published by the local banks and the government is responsible for any shortfall in the event that the rate of return is less than the required rate of return.
- 2) Interest risk: A decrease in the government bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the debt investments of the plan assets.

Assuming a hypothetical decrease in interest rate at the end of the reporting period contributed to a decrease of 0.5% (and not below 0.0%) in the discount rate and all other assumptions were held constant, the present value of the defined benefit obligation would increase by NT\$694,732 thousand and NT\$724,963 thousand as of December 31, 2020 and 2019, respectively.

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

Assuming the expected salary rate increases by 0.5% at the end of the reporting period and all other assumptions were held constant, the present value of the defined benefit obligation would increase by NT\$835,964 thousand and NT\$706,502 thousand as of December 31, 2020 and 2019, respectively.

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

Furthermore, in presenting the above sensitivity analysis, the present value of the defined benefit obligation has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the defined benefit obligation liability.

The Company expects to make contributions of NT\$229,934 thousand to the defined benefit plans in the next year starting from December 31, 2020. The weighted average duration of the defined benefit obligation is 9 years.

## 21. GUARANTEE DEPOSITS

	December 31, 2020	December 31, 2019
Capacity guarantee	\$ -	\$ 1,499,400
Others	<u>349,999</u>	<u>230,481</u>
	<u>\$ 349,999</u>	<u>\$ 1,729,881</u>
Current portion (classified under accrued expenses and other current liabilities)	\$ 84,400	\$ 1,552,977
Noncurrent portion	<u>265,599</u>	<u>176,904</u>
	<u>\$ 349,999</u>	<u>\$ 1,729,881</u>

Some of guarantee deposits were refunded to customers by offsetting related accounts receivable.

## 22. EQUITY

### a. Capital stock

	December 31, 2020	December 31, 2019
Authorized shares (in thousands)	<u>28,050,000</u>	<u>28,050,000</u>
Authorized capital	<u>\$ 280,500,000</u>	<u>\$ 280,500,000</u>
Issued and paid shares (in thousands)	<u>25,930,380</u>	<u>25,930,380</u>
Issued capital	<u>\$ 259,303,805</u>	<u>\$ 259,303,805</u>

A holder of issued common shares with par value of NT\$10 per share is entitled to vote and to receive dividends.

The authorized shares include 500,000 thousand shares allocated for the exercise of employee stock options.

As of December 31, 2020, 1,064,364 thousand ADSs of TSMC were traded on the NYSE. The number of common shares represented by the ADSs was 5,321,819 thousand shares (one ADS represents five common shares).

b. Capital surplus

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Additional paid-in capital	\$ 24,184,939	\$ 24,184,939
From merger	22,804,510	22,804,510
From convertible bonds	8,892,847	8,892,847
From share of changes in equities of subsidiaries	121,843	121,843
From share of changes in equities of associates	302,526	302,234
Donations	<u>40,578</u>	<u>33,336</u>
	<u>\$ 56,347,243</u>	<u>\$ 56,339,709</u>

Under the relevant laws, the capital surplus generated from donations and the excess of the issuance price over the par value of capital stock (including the stock issued for new capital, mergers and convertible bonds) 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 stock dividends up to a certain percentage of TSMC's paid-in capital. The capital surplus from share of changes in equities of subsidiaries and associates and dividend of a claim extinguished by a prescription may be used to offset a deficit; however, when generated from issuance of restricted shares for employees, such capital surplus may not be used for any purpose.

c. Retained earnings and dividend policy

The amendments to TSMC's Articles of Incorporation had been approved by TSMC's shareholders in its meeting held on June 5, 2019, which stipulate that earnings distribution may be made on a quarterly basis after the close of each quarter. Distribution of earnings by way of cash dividends should be approved by TSMC's Board of Directors and reported to TSMC's shareholders in its meeting.

TSMC's amended Articles of Incorporation provide that, when allocating earnings, TSMC shall first estimate and reserve the taxes to be paid, offset its losses, set aside a legal capital reserve at 10% of the remaining earnings (until the accumulated legal capital reserve equals TSMC's paid-in capital), then set aside a special capital reserve in accordance with relevant laws or regulations or as requested by the authorities in charge. Any balance left over shall be allocated according to relevant laws and the TSMC's Articles of Incorporation.

TSMC's Articles of Incorporation also provide that profits of TSMC may be distributed by way of cash dividend and/or stock dividend. However, distribution of earnings shall be made preferably by way of cash dividend. Distribution of earnings may also be made by way of stock dividend, provided that the ratio for stock dividend shall not exceed 50% of the total distribution.

The reserve may be used to offset a deficit, or be distributed as dividends in cash or stocks for the portion in excess of 25% of the paid-in capital if the Company incurs no loss.

Pursuant to existing regulations, the Company is required to set aside additional special capital reserve equivalent to the net debit balance of the other components of stockholders' equity, such as the accumulated balance of foreign currency translation reserve, unrealized valuation gain or loss from fair value through other comprehensive income financial assets, gain or loss from changes in fair value of hedging instruments in cash flow hedges, etc. For the subsequent decrease in the deduction amount to

stockholders' equity, any special reserve appropriated may be reversed to the extent that the net debit balance reverses.

The appropriations of 2020 and 2019 quarterly earnings have been approved by TSMC's Board of Directors in its meeting, respectively. The appropriations and cash dividends per share were as follows:

Resolution Date of TSMC's Board of Directors in its meeting	Fourth Quarter of 2020	Third Quarter of 2020	Second Quarter of 2020	First Quarter of 2020
	February 9, 2021	November 10, 2020	August 11, 2020	May 12, 2020
Special capital reserve	\$ 12,420,727	\$ 5,501,351	\$ 11,884,457	\$ (2,694,841)
Cash dividends to shareholders	\$ 64,825,951	\$ 64,825,951	\$ 64,825,951	\$ 64,825,951
Cash dividends per share (NT\$)	\$ 2.5	\$ 2.5	\$ 2.5	\$ 2.5

Resolution Date of TSMC's Board of Directors in its meeting	Fourth Quarter of 2019	Third Quarter of 2019	Second Quarter of 2019	First Quarter of 2019
	February 11, 2020	November 12, 2019	August 13, 2019	June 5, 2019
Special capital reserve	\$ 16,893,073	\$ 3,289,166	\$ (3,338,190)	\$ (4,723,939)
Cash dividends to shareholders	\$ 64,825,951	\$ 64,825,951	\$ 64,825,951	\$ 51,860,761
Cash dividends per share (NT\$)	\$ 2.5	\$ 2.5	\$ 2.5	\$ 2.0

The special capital reserve for 2020 is to be presented for approval in the TSMC's shareholders' meeting to be held on June 8, 2021 (expected).

The appropriation of 2018 earnings has been approved by TSMC's shareholders in its meeting held on June 5, 2019. The appropriation and cash dividends per share were as follows:

	Appropriation of Earnings	Cash Dividends Per Share (NT\$)
Legal capital reserve	\$ 35,113,088	
Special capital reserve	\$ (11,459,458)	
Cash dividends to shareholders	\$ 207,443,044	\$ 8.0

d. Others

Changes in others were as follows:

	Year Ended December 31, 2020				
	Foreign Currency Translation Reserve	Unrealized Gain (Loss) on Financial Assets at FVTOCI	Gain (Loss) on Hedging Instruments	Unearned Stock-Based Employee Compensation	Total
Balance, beginning of year	\$ (26,871,400)	\$ (692,959)	\$ (3,820)	\$ (190)	\$ (27,568,369)
Exchange differences arising on translation of foreign operations	(29,846,818)	-	-	-	(29,846,818)
Unrealized gain (loss) on financial assets at FVTOCI					
Equity instruments	-	423,212	-	-	423,212
Debt instruments	-	3,907,022	-	-	3,907,022
Cumulative unrealized gain (loss) of equity instruments transferred to retained earnings due to disposal	-	108,687	-	-	108,687

(Continued)

<b>Year Ended December 31, 2020</b>					
	<b>Foreign Currency Translation Reserve</b>	<b>Unrealized Gain (Loss) on Financial Assets at FVTOCI</b>	<b>Gain (Loss) on Hedging Instruments</b>	<b>Unearned Stock-Based Employee Compensation</b>	<b>Total</b>
Cumulative unrealized gain (loss) of debt instruments transferred to profit or loss due to disposal	\$ -	\$ (1,439,420)	\$ -	\$ -	\$ (1,439,420)
Loss allowance adjustments from debt instruments	-	(891)	-	-	(891)
Gain (loss) arising on changes in the fair value of hedging instruments	-	-	24,085	-	24,085
Transferred to initial carrying amount of hedged items	-	-	(20,265)	-	(20,265)
Share of other comprehensive income (loss) of associates	(283,409)	15,450	-	-	(267,959)
Share of unearned stock-based employee compensation of associates	-	-	-	190	190
Income tax effect	-	653	-	-	653
Balance, end of year	<u>\$ (57,001,627)</u>	<u>\$ 2,321,754</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (54,679,873)</u> (Concluded)

<b>Year Ended December 31, 2019</b>					
	<b>Foreign Currency Translation Reserve</b>	<b>Unrealized Gain (Loss) on Financial Assets at FVTOCI</b>	<b>Gain (Loss) on Hedging Instruments</b>	<b>Unearned Stock-Based Employee Compensation</b>	<b>Total</b>
Balance, beginning of year	\$ (12,042,347)	\$ (3,429,324)	\$ 23,601	\$ (1,843)	\$ (15,449,913)
Exchange differences arising on translation of foreign operations	(14,693,561)	-	-	-	(14,693,561)
Unrealized gain (loss) on financial assets at FVTOCI					
Equity instruments	-	334,537	-	-	334,537
Debt instruments	-	3,097,329	-	-	3,097,329
Cumulative unrealized gain (loss) of equity instruments transferred to retained earnings due to disposal	-	(162,118)	-	-	(162,118)
Cumulative unrealized gain (loss) of debt instruments transferred to profit or loss due to disposal	-	(537,835)	-	-	(537,835)
Loss allowance adjustments from debt instruments	-	6,879	-	-	6,879
Other comprehensive income transferred to profit or loss due to disposal of subsidiary	4,598	-	-	-	4,598
Gain (loss) arising on changes in the fair value of hedging instruments	-	-	(109,592)	-	(109,592)
Transferred to initial carrying amount of hedged items	-	-	82,276	-	82,276
Share of other comprehensive income (loss) of associates	(140,090)	(11,903)	(105)	-	(152,098)
Share of unearned stock-based employee compensation of associates	-	-	-	1,653	1,653
Income tax effect	-	9,476	-	-	9,476
Balance, end of year	<u>\$ (26,871,400)</u>	<u>\$ (692,959)</u>	<u>\$ (3,820)</u>	<u>\$ (190)</u>	<u>\$ (27,568,369)</u>

The aforementioned other equity includes the changes in other equities of TSMC and TSMC's share of its subsidiaries and associates.

## 23. NET REVENUE

### a. Disaggregation of revenue from contracts with customers

<b>Product</b>	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Wafer	\$ 1,178,456,273	\$ 927,317,351
Others	<u>160,798,538</u>	<u>142,668,097</u>
	<u>\$ 1,339,254,811</u>	<u>\$ 1,069,985,448</u>

<b>Geography</b>	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Taiwan	\$ 129,082,884	\$ 84,255,256
United States	817,910,976	634,713,043
China	233,783,358	208,101,401
Europe, the Middle East and Africa	70,213,432	67,568,157
Japan	63,299,176	57,468,605
Others	<u>24,964,985</u>	<u>17,878,986</u>
	<u>\$ 1,339,254,811</u>	<u>\$ 1,069,985,448</u>

The Company categorized the net revenue mainly based on the countries where the customers are headquartered.

<b>Platform</b>	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Smartphone	\$ 645,303,613	\$ 523,612,863
High Performance Computing	439,809,984	315,822,311
Internet of Things	110,355,188	86,342,707
Automotive	44,367,562	47,914,518
Digital Consumer Electronics	54,555,665	53,733,395
Others	<u>44,862,799</u>	<u>42,559,654</u>
	<u>\$ 1,339,254,811</u>	<u>\$ 1,069,985,448</u>

<b>Resolution</b>	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
5-nanometer	\$ 90,934,485	\$ -
7-nanometer	394,836,964	249,548,139
10-nanometer	3,403,151	23,266,355
16-nanometer	197,959,003	186,700,858
20-nanometer	8,450,865	9,535,831
28-nanometer	149,367,729	149,578,719
40/45-nanometer	103,176,542	93,366,285
65-nanometer	61,226,671	69,250,008
90-nanometer	29,380,358	25,624,251
0.11/0.13 micron	33,197,137	22,947,287
0.15/0.18 micron	86,008,475	77,564,492
0.25 micron and above	<u>20,514,893</u>	<u>19,935,126</u>
Wafer revenue	<u>\$ 1,178,456,273</u>	<u>\$ 927,317,351</u>

b. Contract balances

	<b>December 31, 2020</b>	<b>December 31, 2019</b>	<b>January 1, 2019</b>
Contract liabilities (classified under accrued expenses and other current liabilities)	<u>\$ 13,775,088</u>	<u>\$ 6,784,323</u>	<u>\$ 4,684,024</u>

The changes in the contract liability balances primarily result from the timing difference between the satisfaction of performance obligation and the customer's payment.

The Company recognized revenue from the beginning balance of contract liability, which amounted to NT\$4,737,915 thousand and NT\$3,876,603 thousand for the years ended December 31, 2020 and 2019, respectively.

c. Refund liabilities

Estimated sales returns and other allowances is made and adjusted based on historical experience and the consideration of varying contractual terms, which amounted to NT\$40,453,153 thousand and NT\$36,211,421 thousand for the years ended December 31, 2020 and 2019, respectively. As of December 31, 2020 and 2019, the aforementioned refund liabilities amounted to NT\$33,194,765 thousand and NT\$19,620,159 thousand (classified under accrued expenses and other current liabilities), respectively.

## 24. INTEREST INCOME

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Interest income		
Bank deposits	\$ 5,139,149	\$ 11,454,032
Financial assets at FVTPL	2,522	339,480
Financial assets at FVTOCI	3,121,856	3,476,192
Financial assets at amortized cost	<u>754,873</u>	<u>919,670</u>
	<u>\$ 9,018,400</u>	<u>\$ 16,189,374</u>

## 25. FINANCE COSTS

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Interest expense		
Corporate bonds	\$ 1,337,347	\$ 1,139,935
Bank loans	500,875	1,869,335
Lease liabilities	227,752	240,927
Others	<u>15,481</u>	<u>650</u>
	<u>\$ 2,081,455</u>	<u>\$ 3,250,847</u>



## 26. OTHER GAINS AND LOSSES, NET

	<u>Years Ended December 31</u>	
	<u>2020</u>	<u>2019</u>
Gain on disposal of financial assets, net		
Investments in debt instruments at FVTOCI	\$ 1,439,420	\$ 537,835
Loss on disposal of subsidiaries	-	(4,598)
Gain (loss) on financial instruments at FVTPL, net		
Mandatorily measured at FVTPL	8,244,491	(2,360,699)
Gain arising from fair value hedges, net	-	13,091
The reversal (accrual) of expected credit loss of financial assets		
Investments in debt instruments at FVTOCI	891	(6,879)
Financial assets at amortized cost	(4,563)	5,165
Other gains, net	<u>426,171</u>	<u>665,070</u>
	<u>\$ 10,106,410</u>	<u>\$ (1,151,015)</u>

## 27. INCOME TAX

### a. Income tax expense recognized in profit or loss

Income tax expense consisted of the following:

	<u>Years Ended December 31</u>	
	<u>2020</u>	<u>2019</u>
Current income tax expense		
Current tax expense recognized in the current year	\$ 72,705,385	\$ 45,411,178
Income tax adjustments on prior years	38,701	196,882
Other income tax adjustments	<u>150,204</u>	<u>(41,465)</u>
	72,894,290	45,566,595
Deferred income tax benefit		
The origination and reversal of temporary differences	<u>(6,275,192)</u>	<u>(1,065,068)</u>
Income tax expense recognized in profit or loss	<u>\$ 66,619,098</u>	<u>\$ 44,501,527</u>

A reconciliation of income before income tax and income tax expense recognized in profit or loss was as follows:

	<u>Years Ended December 31</u>	
	<u>2020</u>	<u>2019</u>
Income before tax	<u>\$ 584,777,180</u>	<u>\$ 389,845,336</u>
Income tax expense at the statutory rate	\$ 118,837,423	\$ 79,053,188
Tax effect of adjusting items:		
Nondeductible (deductible) items in determining taxable income	1,009,758	(4,180,168)
Tax-exempt income	(65,988,096)	(39,808,121)
Additional income tax under the Alternative Minimum Tax Act	18,872,837	10,367,916
Additional income tax on unappropriated earnings	-	5,903,794

(Continued)

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
The origination and reversal of temporary differences	\$ (6,275,192)	\$ (1,065,068)
Income tax credits	<u>(26,537)</u>	<u>(5,925,431)</u>
	66,430,193	44,346,110
Income tax adjustments on prior years	38,701	196,882
Other income tax adjustments	<u>150,204</u>	<u>(41,465)</u>
Income tax expense recognized in profit or loss	<u>\$ 66,619,098</u>	<u>\$ 44,501,527</u> (Concluded)

Under the amendment to the R.O.C Statute of Industrial Innovation in 2019, the amounts of unappropriated earnings in 2018 and thereafter used for building or purchasing specific assets or technologies can qualify for deduction when computing the income tax on unappropriated earnings.

For other jurisdictions, taxes are calculated using the applicable tax rate for each individual jurisdiction.

b. Income tax expense recognized in other comprehensive income

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Deferred income tax benefit (expense)		
Related to remeasurement of defined benefit obligation	\$ 422,010	\$ (30,468)
Related to unrealized gain/loss on investments in equity instruments at FVTOCI	<u>653</u>	<u>9,476</u>
	<u>\$ 422,663</u>	<u>\$ (20,992)</u>

c. Deferred income tax balance

The analysis of deferred income tax assets and liabilities was as follows:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
<u>Deferred income tax assets</u>		
Temporary differences		
Depreciation	\$ 19,354,383	\$ 13,547,220
Refund liability	3,755,131	2,150,352
Net defined benefit liability	1,341,960	1,016,248
Unrealized loss on inventories	858,463	469,430
Deferred compensation cost	330,340	323,093
Investments in equity instruments at FVTOCI	66,393	65,740
Others	<u>251,514</u>	<u>356,275</u>
	<u>\$ 25,958,184</u>	<u>\$ 17,928,358</u> (Continued)

	December 31, 2020	December 31, 2019
<u>Deferred income tax liabilities</u>		
Temporary differences		
Unrealized exchange gains	\$ (866,495)	\$ (333,606)
Others	<u>(863,446)</u>	<u>(10,787)</u>
	<u>\$ (1,729,941)</u>	<u>\$ (344,393)</u> (Concluded)

	Year Ended December 31, 2020				Balance, End of Year
	Balance, Beginning of Year	Recognized in		Effect of Exchange Rate Changes	
		Profit or Loss	Other Comprehensive Income		
<u>Deferred income tax assets</u>					
Temporary differences					
Depreciation	\$ 13,547,220	\$ 5,823,956	\$ -	\$ (16,793)	\$ 19,354,383
Refund liability	2,150,352	1,606,140	-	(1,361)	3,755,131
Net defined benefit liability	1,016,248	(96,298)	422,010	-	1,341,960
Unrealized loss on inventories	469,430	391,095	-	(2,062)	858,463
Deferred compensation cost	323,093	27,437	-	(20,190)	330,340
Investments in equity instruments at FVTOCI	65,740	-	653	-	66,393
Others	<u>356,275</u>	<u>(91,590)</u>	<u>-</u>	<u>(13,171)</u>	<u>251,514</u>
	<u>\$ 17,928,358</u>	<u>\$ 7,660,740</u>	<u>\$ 422,663</u>	<u>\$ (53,577)</u>	<u>\$ 25,958,184</u>
<u>Deferred income tax liabilities</u>					
Temporary differences					
Unrealized exchange gains	\$ (333,606)	\$ (532,889)	\$ -	\$ -	\$ (866,495)
Others	<u>(10,787)</u>	<u>(852,659)</u>	<u>-</u>	<u>-</u>	<u>(863,446)</u>
	<u>\$ (344,393)</u>	<u>\$ (1,385,548)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (1,729,941)</u>

	Year Ended December 31, 2019				Balance, End of Year
	Balance, Beginning of Year	Recognized in		Effect of Exchange Rate Changes	
		Profit or Loss	Other Comprehensive Income		
<u>Deferred income tax assets</u>					
Temporary differences					
Depreciation	\$ 11,839,221	\$ 1,727,762	\$ -	\$ (19,763)	\$ 13,547,220
Refund liability	2,594,003	(443,194)	-	(457)	2,150,352
Net defined benefit liability	1,084,874	(38,158)	(30,468)	-	1,016,248
Unrealized loss on inventories	750,995	(280,734)	-	(831)	469,430
Deferred compensation cost	271,711	59,365	-	(7,983)	323,093
Investments in equity instruments at FVTOCI	56,191	73	9,476	-	65,740
Others	<u>209,392</u>	<u>151,063</u>	<u>-</u>	<u>(4,180)</u>	<u>356,275</u>
	<u>\$ 16,806,387</u>	<u>\$ 1,176,177</u>	<u>\$ (20,992)</u>	<u>\$ (33,214)</u>	<u>\$ 17,928,358</u>
<u>Deferred income tax liabilities</u>					
Temporary differences					
Unrealized exchange gains	\$ (61,677)	\$ (271,929)	\$ -	\$ -	\$ (333,606)
Others	<u>(171,607)</u>	<u>160,820</u>	<u>-</u>	<u>-</u>	<u>(10,787)</u>
	<u>\$ (233,284)</u>	<u>\$ (111,109)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (344,393)</u>

- d. The deductible temporary differences for which no deferred income tax assets have been recognized

As of December 31, 2020 and 2019, the aggregate deductible temporary differences for which no deferred income tax assets have been recognized amounted to NT\$55,521,034 thousand and NT\$33,445,504 thousand, respectively.

- e. Unused tax-exemption information

As of December 31, 2020, the profits generated from the following projects of TSMC are exempt from income tax for a five-year period:

	<b>Tax-exemption Period</b>
Construction and expansion of 2009 by TSMC	2018 to 2022

- f. The information of unrecognized deferred income tax liabilities associated with investments

As of December 31, 2020 and 2019, the aggregate taxable temporary differences associated with investments in subsidiaries not recognized as deferred income tax liabilities amounted to NT\$152,827,360 thousand and NT\$131,085,673 thousand, respectively.

- g. Income tax examination

The tax authorities have examined income tax returns of TSMC through 2018. All investment tax credit adjustments assessed by the tax authorities have been recognized accordingly.

## 28. EARNINGS PER SHARE

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Basic EPS	<u>\$ 19.97</u>	<u>\$ 13.32</u>
Diluted EPS	<u>\$ 19.97</u>	<u>\$ 13.32</u>

EPS is computed as follows:

	<b>Amounts (Numerator)</b>	<b>Number of Shares (Denominator) (In Thousands)</b>	<b>EPS (NT\$)</b>
<u>Year Ended December 31, 2020</u>			
Basic/Diluted EPS			
Net income available to common shareholders of the parent	<u>\$ 517,885,387</u>	<u>25,930,380</u>	<u>\$ 19.97</u>
<u>Year Ended December 31, 2019</u>			
Basic/Diluted EPS			
Net income available to common shareholders of the parent	<u>\$ 345,263,668</u>	<u>25,930,380</u>	<u>\$ 13.32</u>

## 29. ADDITIONAL INFORMATION OF EXPENSES BY NATURE

	<u>Years Ended December 31</u>	
	<u>2020</u>	<u>2019</u>
a. Depreciation of property, plant and equipment and right-of-use assets		
Recognized in cost of revenue	\$ 299,311,405	\$ 256,530,964
Recognized in operating expenses	25,191,358	24,856,701
Recognized in other operating income and expenses	<u>35,680</u>	<u>24,167</u>
	<u>\$ 324,538,443</u>	<u>\$ 281,411,832</u>
b. Amortization of intangible assets		
Recognized in cost of revenue	\$ 4,837,728	\$ 3,069,901
Recognized in operating expenses	<u>2,348,520</u>	<u>2,402,508</u>
	<u>\$ 7,186,248</u>	<u>\$ 5,472,409</u>
c. Employee benefits expenses		
Post-employment benefits		
Defined contribution plans	\$ 2,809,484	\$ 2,609,733
Defined benefit plans	<u>204,915</u>	<u>259,596</u>
	3,014,399	2,869,329
Other employee benefits	<u>137,803,038</u>	<u>107,115,281</u>
	<u>\$ 140,817,437</u>	<u>\$ 109,984,610</u>
Employee benefits expense summarized by function		
Recognized in cost of revenue	\$ 83,098,994	\$ 64,701,955
Recognized in operating expenses	<u>57,718,443</u>	<u>45,282,655</u>
	<u>\$ 140,817,437</u>	<u>\$ 109,984,610</u>

According to TSMC's Articles of Incorporation, TSMC shall allocate compensation to directors and profit sharing bonus to employees of TSMC not more than 0.3% and not less than 1% of annual profits during the period, respectively.

TSMC accrued profit sharing bonus to employees based on a percentage of net income before income tax, profit sharing bonus to employees and compensation to directors during the period; compensation to directors was expensed based on estimated amount payable. If there is a change in the proposed amounts after the annual consolidated financial statements are authorized for issue, the differences are recorded as a change in accounting estimate. Accrued profit sharing bonus to employees is illustrated below:

	<u>Years Ended December 31</u>	
	<u>2020</u>	<u>2019</u>
Profit sharing bonus to employees	<u>\$ 34,753,184</u>	<u>\$ 23,165,745</u>

TSMC's profit sharing bonus to employees and compensation to directors for 2020, 2019 and 2018 had been approved by the Board of Directors of TSMC, as illustrated below:

Resolution Date of TSMC's Board of Directors in its meeting	Years Ended December 31		
	2020	2019	2018
	February 9, 2021	February 11, 2020	February 19, 2019
Profit sharing bonus to employees	\$ 34,753,184	\$ 23,165,745	\$ 23,570,040
Compensation to directors	\$ 509,753	\$ 360,404	\$ 349,272

There is no significant difference between the aforementioned approved amounts and the amounts charged against earnings of 2020, 2019 and 2018, respectively.

The information about the appropriations of TSMC's profit sharing bonus to employees and compensation to directors is available at the Market Observation Post System website.

### 30. CASH FLOW INFORMATION

#### a. Non-cash transactions

	Years Ended December 31	
	2020	2019
Additions of financial assets at FVTOCI	\$ 268,653,527	\$ 257,824,493
Conversion of convertible bonds into equity securities	(120,548)	-
Changes in accrued expenses and other current liabilities	<u>(5,895,483)</u>	<u>(266,253)</u>
Payments for acquisition of financial assets at FVTOCI	\$ <u>262,637,496</u>	\$ <u>257,558,240</u>
Disposal of financial assets at FVTOCI	\$ 269,011,852	\$ 229,525,134
Changes in other financial assets	<u>(2,079,936)</u>	<u>919,352</u>
Proceeds from disposal of financial assets at FVTOCI	\$ <u>266,931,916</u>	\$ <u>230,444,486</u>
Additions of property, plant and equipment	\$ 525,720,748	\$ 564,283,073
Changes in other financial assets	584,782	472,504
Exchange of assets	(1,148)	(3,287,138)
Changes in payables to contractors and equipment suppliers	(19,085,925)	(100,964,013)
Transferred to initial carrying amount of hedged items	<u>20,265</u>	<u>(82,276)</u>
Payments for acquisition of property, plant and equipment	\$ <u>507,238,722</u>	\$ <u>460,422,150</u>
Additions of intangible assets	\$ 12,559,467	\$ 9,237,698
Changes in other financial assets	10,457	22,236
Changes in account payable	191,429	69,935
Changes in accrued expenses and other current liabilities	<u>(3,218,966)</u>	<u>-</u>
Payments for acquisition of intangible assets	\$ <u>9,542,387</u>	\$ <u>9,329,869</u>

b. Reconciliation of liabilities arising from financing activities

	Balance as of January 1, 2020	Financing Cash Flow	Non-cash changes			Balance as of December 31, 2020
			Foreign Exchange Movement	Leases Modifications	Other Changes (Note)	
Short-term loans	\$ 118,522,290	\$ (31,571,567)	\$ 1,608,303	\$ -	\$ -	\$ 88,559,026
Bonds payable	56,900,000	204,534,945	(4,758,550)	-	28,689	256,705,084
Long-term bank loans	-	2,000,000	-	-	(32,389)	1,967,611
Lease liabilities	17,316,917	(2,819,733)	(78,493)	7,742,231	227,752	22,388,674
Guarantee deposits	1,729,881	129,573	1,795	-	(1,511,250)	349,999
Total	<u>\$ 194,469,088</u>	<u>\$ 172,273,218</u>	<u>\$ (3,226,945)</u>	<u>\$ 7,742,231</u>	<u>\$ (1,287,198)</u>	<u>\$ 369,970,394</u>

	Balance as of January 1, 2019	Financing Cash Flow	Non-cash changes			Balance as of December 31, 2019
			Foreign Exchange Movement	Leases Modifications	Other Changes (Note)	
Short-term loans	\$ 88,754,640	\$ 31,804,302	\$ (2,036,652)	\$ -	\$ -	\$ 118,522,290
Bonds payable	91,800,000	(34,900,000)	-	-	-	56,900,000
Lease liabilities	19,903,615	(3,174,032)	(73,290)	419,697	240,927	17,316,917
Guarantee deposits	10,189,045	(639,066)	4,474	-	(7,824,572)	1,729,881
Total	<u>\$ 210,647,300</u>	<u>\$ (6,908,796)</u>	<u>\$ (2,105,468)</u>	<u>\$ 419,697</u>	<u>\$ (7,583,645)</u>	<u>\$ 194,469,088</u>

Note: Other changes include amortization of bonds payable, amortization of long-term bank loan interest subsidy, financial cost of lease liabilities and guarantee deposits refunded to customers by offsetting related accounts receivable.

### 31. CAPITAL MANAGEMENT

The Company requires significant amounts of capital to build and expand its production facilities and acquire additional equipment. In consideration of the industry dynamics, the Company manages its capital in a manner to ensure that it has sufficient and necessary financial resources to fund its working capital needs, capital asset purchases, research and development activities, dividend payments, debt service requirements and other business requirements associated with its existing operations over the next 12 months.

### 32. FINANCIAL INSTRUMENTS

a. Categories of financial instruments

	December 31, 2020	December 31, 2019
Financial assets		
FVTPL (Note 1)	\$ 2,259,412	\$ 326,839
FVTOCI (Note 2)	129,918,694	134,776,779
Hedging financial assets	47	25,884
Amortized cost (Note 3)	<u>826,293,705</u>	<u>612,740,640</u>
	<u>\$ 958,471,858</u>	<u>\$ 747,870,142</u>
Financial liabilities		
FVTPL (Note 4)	\$ 94,128	\$ 982,349
Hedging financial liabilities	1,169	1,798
Amortized cost (Note 5)	<u>748,129,332</u>	<u>533,581,640</u>
	<u>\$ 748,224,629</u>	<u>\$ 534,565,787</u>

Note 1: Financial assets mandatorily measured at FVTPL.

Note 2: Including notes and accounts receivable (net), equity and debt investments.

Note 3: Including cash and cash equivalents, financial assets at amortized cost, notes and accounts receivable (including related parties), other receivables and refundable deposits.

Note 4: Held for trading.

Note 5: Including short-term loans, accounts payable (including related parties), payables to contractors and equipment suppliers, cash dividends payable, accrued expenses and other current liabilities, bonds payable, long-term bank loans and guarantee deposits.

b. Financial risk management objectives

The Company manages its exposure to foreign currency risk, interest rate risk, equity price risk, credit risk and liquidity risk with the objective to reduce the potentially adverse effects the market uncertainties may have on its financial performance.

The plans for material treasury activities are reviewed by Audit Committees and/or Board of Directors in accordance with procedures required by relevant regulations or internal controls. During the implementation of such plans, the Company must comply with certain treasury procedures that provide guiding principles for overall financial risk management and segregation of duties.

c. Market risk

The Company is exposed to the financial market risks, primarily changes in foreign currency exchange rates, interest rates and equity investment prices. A portion of these risks is hedged.

Foreign currency risk

The majority of the Company's revenue is denominated in U.S. dollar and over one-half of its capital expenditures are denominated in currencies other than NT dollar, primarily in U.S. dollar, Japanese yen and Euro. As a result, any significant fluctuations to its disadvantage in exchanges rate of NT dollar against such currencies, in particular a weakening of U.S. dollar against NT dollar, would have an adverse impact on the revenue and operating profit as expressed in NT dollar. The Company uses foreign currency derivative contracts, such as currency forwards or currency swaps, to protect against currency exchange rate risks associated with non-NT dollar-denominated assets and liabilities and certain forecasted transactions. These hedges reduce, but do not entirely eliminate, the effect of foreign currency exchange rate movements on the assets and liabilities.

Based on a sensitivity analysis performed on the Company's total monetary assets and liabilities for the years ended December 31, 2020 and 2019, a hypothetical adverse foreign currency exchange rate change of 10% would have decreased its net income by NT\$897,722 thousand and NT\$2,137,338 thousand, respectively, and decreased its other comprehensive income NT\$107,690 thousand for the year ended December 31, 2019, after taking into account hedges and offsetting positions.

Interest rate risk

The Company is exposed to interest rate risks primarily related to its investment portfolio and outstanding debt. Changes in interest rates affect the interest earned on the Company's cash and cash equivalents and fixed income securities, the fair value of those securities, as well as the interest paid on its debt.

The Company's cash and cash equivalents as well as fixed income investments in both fixed- and floating-rate securities carry a degree of interest rate risk. The majority of the Company's fixed income investments are fixed-rate securities, which are classified as financial assets at FVTOCI, and may have their fair value adversely affected due to a rise in interest rates. At the same time, if interest rate fall, cash



and cash equivalents as well as floating-rate securities may generate less interest income than expected. The Company has entered and may in the future enter into interest rate futures to partially hedge the interest rate risk on its fixed income investments. However, these hedges can offset only a small portion of the financial impact from movements in interest rates.

Based on a sensitivity analysis performed on the Company's fixed income investments at the end of the reporting period, interest rates increase of 100 basis points (1.00%) across all maturities would have decreased the fair value by NT\$3,143,569 thousand and NT\$3,517,424 thousand for the years ended December 31, 2020 and 2019, respectively. The decreases were composed of NT\$3,143,569 thousand decrease and NT\$3,516,604 thousand decrease in other comprehensive income for the years ended December 31, 2020 and 2019, respectively, and NT\$820 thousand decrease in net income for the year ended December 31, 2019.

The majority of the Company's short-term debt is floating-rate, hence a rise in interest rates may result in higher interest expense than predicted. The majority of the Company's long-term debt is fixed-rate and measured at amortized cost and as such, changes in interest rates would not affect the future cash flows and the carrying amount.

#### Other price risk

The Company is exposed to equity price risk arising from financial assets at FVTOCI.

Assuming a hypothetical decrease of 10% in prices of the equity investments at the end of the reporting period for the years ended December 31, 2020 and 2019, the other comprehensive income would have decreased by NT\$446,470 thousand and NT\$401,879 thousand, respectively.

#### d. Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial losses to the Company. The Company is exposed to credit risks from operating activities, primarily accounts receivable, and from investing activities, primarily deposits, fixed-income investments and other financial instruments with banks. Credit risk is managed separately for business related and financial related exposures. As of the end of the reporting period, the Company's maximum credit risk exposure is equal to the carrying amount of financial assets.

#### Business related credit risk

The Company's accounts receivable are from its customers worldwide. The majority of the Company's outstanding accounts receivable are not covered by collaterals or guarantees. While the Company has procedures to monitor and manage credit risk exposure on accounts receivable, there is no assurance such procedures will effectively eliminate losses resulting from its credit risk. This risk is heightened during periods when economic conditions worsen.

As of December 31, 2020 and 2019, the Company's ten largest customers accounted for 79% of accounts receivable in both years. The Company considers the concentration of credit risk for the remaining accounts receivable not material.

#### Financial credit risk

The Company mitigates its financial credit risk by selecting counterparties with investment grade credit ratings and by limiting the exposure to any individual counterparty. The Company regularly monitors and reviews the limit applied to counterparties and adjusts the limit according to market conditions and the credit standing of the counterparties.

The objective of the Company's investment policy is to achieve a return that will allow the Company to preserve principal and support liquidity requirements. The policy generally requires securities to be

investment grade and limits the amount of credit exposure to any one issuer. The Company assesses whether there has been a significant increase in credit risk in the invested securities since initial recognition by reviewing changes in external credit ratings, financial market conditions and material information of the issuers.

The Company assesses the 12-month expected credit loss and lifetime expected credit loss based on the probability of default and loss given default provided by external credit rating agencies. The current credit risk assessment policies are as follows:

Category	Description	Basis for Recognizing Expected Credit Loss	Expected Credit Loss Ratio
Performing	Credit rating is investment grade on valuation date	12 months expected credit loss	0-0.1%
Doubtful	Credit rating is non-investment grade on valuation date	Lifetime expected credit loss-not credit impaired	-
In default	Credit rating is CC or below on valuation date	Lifetime expected credit loss-credit impaired	-
Write-off	There is evidence indicating that the debtor is in severe financial difficulty and the Company has no realistic prospect of recovery	Amount is written off	-

For the years ended December 31, 2020 and 2019, the expected credit loss increases NT\$1,054 thousand and NT\$655 thousand, respectively. The changes are mainly due to investment portfolio adjustment and changes in credit rating of investment securities.

e. Liquidity risk management

The objective of liquidity risk management is to ensure the Company has sufficient liquidity to fund its business operations over the next 12 months. The Company manages its liquidity risk by maintaining adequate cash and cash equivalents, fixed income investments at FVTPL, financial assets at FVTOCI-current, financial assets at amortized cost-current and sufficient cost-efficient funding.

The table below summarizes the maturity profile of the Company's financial liabilities based on contractual undiscounted payments, including principal and interest.

	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years	Total
<u>December 31, 2020</u>					
<u>Non-derivative financial liabilities</u>					
Short-term loans	\$ 88,557,526	\$ -	\$ -	\$ -	\$ 88,557,526
Accounts payable (including related parties)	41,095,002	-	-	-	41,095,002
Payables to contractors and equipment suppliers	157,804,961	-	-	-	157,804,961
Accrued expenses and other current liabilities	71,995,747	-	-	-	71,995,747
Bonds payable	5,327,971	27,631,589	59,986,812	207,152,135	300,098,507
Long-term bank loans	8,000	847,389	1,170,944	-	2,026,333
					(Continued)

	<b>Less Than 1 Year</b>	<b>1-3 Years</b>	<b>3-5 Years</b>	<b>More Than 5 Years</b>	<b>Total</b>
Lease liabilities (including those classified under accrued expenses and other current liabilities)	\$ 2,024,212	\$ 3,566,719	\$ 3,198,845	\$ 15,067,857	\$ 23,857,633
Guarantee deposits (including those classified under accrued expenses and other current liabilities)	<u>84,400</u>	<u>113,520</u>	<u>151,746</u>	<u>333</u>	<u>349,999</u>
	<u>366,897,819</u>	<u>32,159,217</u>	<u>64,508,347</u>	<u>222,220,325</u>	<u>685,785,708</u>
<u>Derivative financial instruments</u>					
Forward exchange contracts					
Outflows	177,764,155	-	-	-	177,764,155
Inflows	<u>(181,457,960)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(181,457,960)</u>
	<u>(3,693,805)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(3,693,805)</u>
	<u>\$ 363,204,014</u>	<u>\$ 32,159,217</u>	<u>\$ 64,508,347</u>	<u>\$ 222,220,325</u>	<u>\$ 682,091,903</u>

December 31, 2019

Non-derivative financial liabilities

Short-term loans	\$ 118,562,641	\$ -	\$ -	\$ -	\$ 118,562,641
Accounts payable (including related parties)	40,205,966	-	-	-	40,205,966
Payables to contractors and equipment suppliers	140,810,703	-	-	-	140,810,703
Accrued expenses and other current liabilities	45,760,898	-	-	-	45,760,898
Bonds payable	32,338,853	7,777,715	18,203,601	-	58,320,169
Lease liabilities (including those classified under accrued expenses and other current liabilities)	2,475,177	2,782,860	2,484,478	10,947,730	18,690,245
Guarantee deposits (including those classified under accrued expenses and other current liabilities)	<u>1,552,977</u>	<u>121,047</u>	<u>55,501</u>	<u>356</u>	<u>1,729,881</u>
	<u>381,707,215</u>	<u>10,681,622</u>	<u>20,743,580</u>	<u>10,948,086</u>	<u>424,080,503</u>

Derivative financial instruments

Forward exchange contracts					
Outflows	141,450,762	-	-	-	141,450,762
Inflows	<u>(141,128,914)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(141,128,914)</u>
	<u>321,848</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>321,848</u>
	<u>\$ 382,029,063</u>	<u>\$ 10,681,622</u>	<u>\$ 20,743,580</u>	<u>\$ 10,948,086</u>	<u>\$ 424,402,351</u> (Concluded)

Information about the maturity analysis for lease liabilities more than 5 years:

	<b>5-10 Years</b>	<b>10-15 Years</b>	<b>15-20 Years</b>	<b>More Than 20 Years</b>	<b>Total</b>
<u>December 31, 2020</u>					
Lease liabilities	<u>\$ 7,401,969</u>	<u>\$ 5,253,877</u>	<u>\$ 2,255,185</u>	<u>\$ 156,826</u>	<u>\$ 15,067,857</u>
<u>December 31, 2019</u>					
Lease liabilities	<u>\$ 5,581,116</u>	<u>\$ 3,691,272</u>	<u>\$ 1,600,962</u>	<u>\$ 74,380</u>	<u>\$ 10,947,730</u>

f. Fair value of financial instruments

1) Fair value measurements recognized in the consolidated balance sheets

Fair value measurements are grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The timing of transfers between levels within the fair value hierarchy is at the end of reporting period.

2) Fair value of financial instruments that are measured at fair value on a recurring basis

Fair value hierarchy

The following table presents the Company's financial assets and liabilities measured at fair value on a recurring basis:

	<b>December 31, 2020</b>			
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<u>Financial assets at FVTPL</u>				
Mandatorily measured at FVTPL				
Forward exchange contracts	\$ -	\$ 2,259,412	\$ -	\$ 2,259,412
<u>Financial assets at FVTOCI</u>				
Investments in debt instruments				
Corporate bonds	\$ -	\$ 56,593,623	\$ -	\$ 56,593,623
Agency bonds/Agency mortgage-backed securities	-	43,977,113	-	43,977,113
Government bonds	13,279,154	180,349	-	13,459,503
Asset-backed securities	-	8,368,264	-	8,368,264
Investments in equity instruments				
Non-publicly traded equity investments	-	-	4,514,940	4,514,940
Publicly traded stocks	49,950	-	-	49,950
Notes and accounts receivable, net	-	2,955,301	-	2,955,301
	<u>\$ 13,329,104</u>	<u>\$ 112,074,650</u>	<u>\$ 4,514,940</u>	<u>\$ 129,918,694</u>
<u>Hedging financial assets</u>				
Fair value hedges				
Interest rate futures contracts	\$ 47	\$ -	\$ -	\$ 47

(Continued)

	<b>December 31, 2020</b>			
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<u>Financial liabilities at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ -	\$ 94,128	\$ -	\$ 94,128
<u>Hedging financial liabilities</u>				
Fair value hedges				
Interest rate futures contracts	\$ 1,169	\$ -	\$ -	\$ 1,169
				(Concluded)

The transfer from Level 2 to Level 1 is because quoted prices (unadjusted) in active markets became available for such equity investment.

	<b>December 31, 2019</b>			
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<u>Financial assets at FVTPL</u>				
Mandatorily measured at FVTPL				
Forward exchange contracts	\$ -	\$ 162,155	\$ -	\$ 162,155
Convertible bonds	-	-	123,759	123,759
Agency mortgage-backed securities	-	40,925	-	40,925
	\$ -	\$ 203,080	\$ 123,759	\$ 326,839
<u>Financial assets at FVTOCI</u>				
Investments in debt instruments				
Agency bonds/Agency mortgage-backed securities	\$ -	\$ 51,966,460	\$ -	\$ 51,966,460
Corporate bonds	-	51,790,045	-	51,790,045
Government bonds	12,678,086	146,137	-	12,824,223
Asset-backed securities	-	10,815,849	-	10,815,849
Investments in equity instruments				
Non-publicly traded equity investments	-	39,196	4,085,141	4,124,337
Notes and accounts receivable, net	-	3,255,865	-	3,255,865
	\$ 12,678,086	\$ 118,013,552	\$ 4,085,141	\$ 134,776,779
<u>Hedging financial assets</u>				
Fair value hedges				
Interest rate futures contracts	\$ 22,380	\$ -	\$ -	\$ 22,380
Cash flow hedges				
Forward exchange contracts	-	3,504	-	3,504
	\$ 22,380	\$ 3,504	\$ -	\$ 25,884
<u>Financial liabilities at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ -	\$ 982,349	\$ -	\$ 982,349
<u>Hedging financial liabilities</u>				
Cash flow hedges				
Forward exchange contracts	\$ -	\$ 1,798	\$ -	\$ 1,798

### Reconciliation of Level 3 fair value measurements of financial assets

The financial assets measured at Level 3 fair value were financial assets at FVTPL and equity investments classified as financial assets at FVTOCI. Reconciliations for the years ended December 31, 2020 and 2019 were as follows:

	<u>Years Ended December 31</u>	
	<u>2020</u>	<u>2019</u>
Balance, beginning of year	\$ 4,208,900	\$ 3,910,681
Additions	175,202	372,315
Recognized in profit or loss	(3,821)	-
Recognized in other comprehensive income	409,014	129,497
Disposals and proceeds from return of capital of investments	(51,060)	(76,532)
Transfers out of level 3 (Note)	-	(43,610)
Effect of exchange rate changes	<u>(223,295)</u>	<u>(83,451)</u>
Balance, end of year	<u>\$ 4,514,940</u>	<u>\$ 4,208,900</u>

Note: The transfer from Level 3 to Level 2 is because observable market data became available for such equity investment.

### Valuation techniques and assumptions used in Level 2 fair value measurement

The fair values of financial assets and financial liabilities are determined as follows:

- The fair values of corporate bonds, agency bonds, agency mortgage-backed securities, asset-backed securities, government bonds and non-publicly traded equity investments - equity investments trading on the Emerging Stock Board are determined by quoted market prices provided by third party pricing services.
- Forward exchange contracts are measured using forward exchange rates and discount rates derived from quoted market prices.
- The fair value of accounts receivable classified as at FVTOCI is determined by the present value of future cash flows based on the discount rate that reflects the credit risk of counterparties.

### Valuation techniques and assumptions used in Level 3 fair value measurement

The fair values of non-publicly traded equity investments (excluding those trading on the Emerging Stock Board) are mainly determined by using the asset approach and market approach.

The asset approach takes into account the net asset value measured at the fair value by independent parties. On December 31, 2020 and 2019, the Company uses unobservable inputs derived from discount for lack of marketability by 10%. When other inputs remain equal, the fair value will decrease by NT\$39,006 thousand and NT\$34,843 thousand if discounts for lack of marketability increase by 1%.

For the remaining few investments, the market approach is used to arrive at their fair values, for which the recent financing activities of investees, the market transaction prices of the similar companies and market conditions are considered.

In addition, the fair values of convertible bonds are determined by the present value of future cash flow based on a discount rate reflecting issuer's credit spread and market conditions, combined with the fair value of conversion option estimated by the option pricing model considering recent financing activities of the investee and market transaction prices of the similar companies.

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

Except as detailed in the following table, the Company considers that the carrying amounts of financial instruments in the consolidated financial statements that are not measured at fair value approximate their fair values.

Fair value hierarchy

The table below sets out the fair value hierarchy for the Company's financial assets and liabilities which are not required to measure at fair value:

	<b>December 31, 2020</b>	
	<b>Carrying Amount</b>	<b>Level 2 Fair Value</b>
<u>Financial assets</u>		
Financial assets at amortized costs		
Corporate bonds	\$ 10,970,199	\$ 11,053,550
<u>Financial liabilities</u>		
Financial liabilities at amortized costs		
Bonds payable	\$ 256,705,084	\$ 257,551,196
	<b>December 31, 2019</b>	
	<b>Carrying Amount</b>	<b>Level 2 Fair Value</b>
<u>Financial assets</u>		
Financial assets at amortized costs		
Corporate bonds	\$ 7,648,798	\$ 7,718,731
<u>Financial liabilities</u>		
Financial liabilities at amortized costs		
Bonds payable	\$ 56,900,000	\$ 57,739,115

Valuation techniques and assumptions used in Level 2 fair value measurement

The fair values of corporate bonds and the Company's bonds payable are determined by quoted market prices provided by third party pricing services.

### 33. RELATED PARTY TRANSACTIONS

Intercompany balances and transactions between TSMC and its subsidiaries, which are related parties of TSMC, have been eliminated upon consolidation; therefore those items are not disclosed in this note. The following is a summary of significant transactions between the Company and other related parties:

a. Related party name and categories

<u>Related Party Name</u>	<u>Related Party Categories</u>
GUC	Associates
VIS	Associates
SSMC	Associates
Xintec	Associates
TSMC Education and Culture Foundation	Other related parties
TSMC Charity Foundation	Other related parties

b. Net revenue

		<u>Years Ended December 31</u>	
		<u>2020</u>	<u>2019</u>
<u>Item</u>	<u>Related Party Categories</u>		
Net revenue from sale of goods	Associates	\$ 8,129,764	\$ 6,253,895
Net revenue from royalties	Associates	\$ 195,111	\$ 183,583

c. Purchases

		<u>Years Ended December 31</u>	
		<u>2020</u>	<u>2019</u>
<u>Related Party Categories</u>			
	Associates	\$ 7,606,421	\$ 6,301,417

d. Receivables from related parties

		<u>December 31,</u>	<u>December 31,</u>
		<u>2020</u>	<u>2019</u>
<u>Item</u>	<u>Related Party Name/Categories</u>		
Receivables from related parties	GUC	\$ 370,643	\$ 741,898
	Xintec	<u>187,488</u>	<u>120,172</u>
		<u>\$ 558,131</u>	<u>\$ 862,070</u>
Other receivables from related parties	SSMC	\$ 45,291	\$ 46,506
	VIS	4,311	3,920
	Other associates	<u>1,043</u>	<u>1,227</u>
		<u>\$ 50,645</u>	<u>\$ 51,653</u>



e. Payables to related parties

		<b>December 31, 2020</b>	<b>December 31, 2019</b>
<u>Item</u>	<u>Related Party Name/Categories</u>		
Payables to related parties	Xintec	\$ 1,358,624	\$ 736,860
	SSMC	400,819	487,944
	VIS	311,406	153,977
	Other associates	<u>36,869</u>	<u>56,119</u>
		<u>\$ 2,107,718</u>	<u>\$ 1,434,900</u>

f. Others

		<b>Years Ended December 31</b>	
		<b>2020</b>	<b>2019</b>
<u>Item</u>	<u>Related Party Categories</u>		
Manufacturing expenses	Associates	<u>\$ 5,439,978</u>	<u>\$ 2,822,989</u>
Research and development expenses	Associates	<u>\$ 256,496</u>	<u>\$ 163,425</u>
General and administrative expenses	Other related parties	<u>\$ 120,000</u>	<u>\$ 120,000</u>

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

The Company leased factory and office from associates. The lease terms and prices were both determined in accordance with mutual agreements. The rental expenses were paid to associates monthly; the related expenses were both classified under manufacturing expenses.

g. Compensation of key management personnel

The compensation to directors and other key management personnel were as follows:

	<b>Years Ended December 31</b>	
	<b>2020</b>	<b>2019</b>
Short-term employee benefits	\$ 2,666,696	\$ 1,922,191
Post-employment benefits	<u>2,334</u>	<u>2,686</u>
	<u>\$ 2,669,030</u>	<u>\$ 1,924,877</u>

The compensation to directors and other key management personnel were determined by the Compensation Committee of TSMC in accordance with the individual performance and the market trends.

### 34. PLEDGED ASSETS

The Company provided certificate of deposits recorded in other financial assets as collateral mainly for building lease agreements. As of December 31, 2020 and 2019, the aforementioned other financial assets amounted to NT\$135,375 thousand and NT\$114,467 thousand, respectively.

### 35. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

Significant contingent liabilities and unrecognized commitments of the Company as of the end of the reporting period, excluding those disclosed in other notes, were as follows:

- a. Under a technical cooperation agreement with Industrial Technology Research Institute, the R.O.C. Government or its designee approved by TSMC can use up to 35% of TSMC's capacity provided TSMC's outstanding commitments to its customers are not prejudiced. The term of this agreement is for five years beginning from January 1, 1987 and is automatically renewed for successive periods of five years unless otherwise terminated by either party with one year prior notice. As of December 31, 2020, the R.O.C. Government did not invoke such right.
- b. Under a Shareholders Agreement entered into with Philips and EDB Investments Pte Ltd. on March 30, 1999, the parties formed a joint venture company, SSMC, which is an integrated circuit foundry in Singapore. TSMC's equity interest in SSMC was 32%. Nevertheless, in September 2006, Philips spun-off its semiconductor subsidiary which was renamed as NXP B.V. Further, TSMC and NXP B.V. purchased all the SSMC shares owned by EDB Investments Pte Ltd. pro rata according to the Shareholders Agreement on November 15, 2006. After the purchase, TSMC and NXP B.V. currently own approximately 39% and 61% of the SSMC shares, respectively. TSMC and NXP B.V. are required, in the aggregate, to purchase at least 70% of SSMC's capacity, but TSMC alone is not required to purchase more than 28% of the capacity. If any party defaults on the commitment and the capacity utilization of SSMC falls below a specific percentage of its capacity, the defaulting party is required to compensate SSMC for all related unavoidable costs. There was no default from the aforementioned commitment as of December 31, 2020.
- c. On September 28, 2017, TSMC was contacted by the European Commission (the "Commission"), which asked us for information and documents concerning alleged anti-competitive practices in relation to semiconductor sales. We cooperated continuously with the Commission to provide the requested information and documents. The Commission subsequently decided to close the investigation in May 2020.
- d. TSMC entered into long-term purchase agreements of materials and supplies with multiple suppliers. The relative minimum purchase quantity and price are specified in the agreements.
- e. TSMC entered into a long-term purchase agreement of equipment. The relative purchase quantity and price are specified in the agreement.
- f. TSMC entered into long-term energy purchase agreements with multiple suppliers. The relative purchase period, quantity and price are specified in the agreements.
- g. Amounts available under unused letters of credit as of December 31, 2020 and 2019 were NT\$56,194 thousand and NT\$59,976 thousand, respectively.

### 36. EXCHANGE RATE INFORMATION OF FOREIGN-CURRENCY FINANCIAL ASSETS AND LIABILITIES

The following information was summarized according to the foreign currencies other than the functional currency of the Company. The exchange rates disclosed were used to translate the foreign currencies into the functional currency. The significant financial assets and liabilities denominated in foreign currencies were as follows:

	Foreign Currencies (In Thousands)	Exchange Rate (Note 1)	Carrying Amount (In Thousands)
<u>December 31, 2020</u>			
<u>Financial assets</u>			
Monetary items			
USD	\$ 6,984,545	28.097	\$ 196,244,748
USD	785,171	6.540(Note 2)	22,060,962
EUR	13,820	34.587	478,002
JPY	83,593,234	0.2729	22,812,594
<u>Financial liabilities</u>			
Monetary items			
USD	6,966,889	28.097	195,748,671
EUR	4,150,215	34.587	143,543,499
JPY	105,112,663	0.2729	28,685,246
<u>December 31, 2019</u>			
<u>Financial assets</u>			
Monetary items			
USD	\$ 4,725,056	29.988	\$ 141,694,967
USD	455,984	6.966(Note 2)	13,674,047
EUR	3,638	33.653	122,418
JPY	72,369,239	0.2751	19,908,778
<u>Financial liabilities</u>			
Monetary items			
USD	6,018,287	29.988	180,476,401
EUR	2,551,824	33.653	85,876,547
JPY	101,455,514	0.2751	27,910,412

Note 1: Except as otherwise noted, exchange rate represents the number of NT dollar for which one foreign currency could be exchanged.

Note 2: The exchange rate represents the number of RMB for which one U.S. dollar could be exchanged.

Please refer to the consolidated statements of comprehensive income for the total of realized and unrealized foreign exchange gain and loss for the years ended December 31, 2020 and 2019, respectively. Since there were varieties of foreign currency transactions and functional currencies within the subsidiaries of the Company, the Company was unable to disclose foreign exchange gain (loss) towards each foreign currency with significant impact.

### 37. SIGNIFICANT OPERATION LOSSES

On January 19, 2019, the Company discovered a wafer contamination issue in a fab in Taiwan caused by a batch of unqualified photoresist materials. After investigation, the Company immediately stopped using the unqualified materials. An estimated loss of NT\$3,400,000 thousand related to this event was recognized in cost of revenue for the three months ended March 31, 2019.

### 38. ADDITIONAL DISCLOSURES

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

- a. Financings provided: See Table 1 attached;
- b. Endorsement/guarantee provided: See Table 2 attached;
- c. Marketable securities held (excluding investments in subsidiaries and associates): 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: 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: 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 purchases from or sales to related parties of at least NT\$100 million or 20% of the paid-in capital: See Table 6 attached;
- h. Receivables from related parties amounting to at least NT\$100 million or 20% of the paid-in capital: See Table 7 attached;
- i. Information about the derivative financial instruments transaction: See Notes 7 and 10;
- j. Others: The business relationship between the parent and the subsidiaries and significant transactions between them: See Table 8 attached;
- k. Names, locations, and related information of investees over which TSMC exercises significant influence (excluding information on investment in mainland China): See Table 9 attached;
- l. 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: See Table 10 attached.
  - 2) Significant direct or indirect transactions with the investee, its prices and terms of payment, unrealized gain or loss, and other related information which is helpful to understand the impact of investment in mainland China on financial reports: See Table 8 attached.

m. Information of major shareholder

List of all shareholders with ownership of 5 percent or greater showing the names and the number of shares and percentage of ownership held by each shareholder: See Table 11 attached.

### 39. OPERATING SEGMENTS INFORMATION

a. Operating segments, segment revenue and operating results

TSMC's chief operating decision makers periodically review operating results, focusing on operating income generated by foundry segment. Operating results are used for resource allocation and/or performance assessment. As a result, the Company has only one operating segment, the foundry segment. The foundry segment engages mainly in the manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing of masks.

The basis for the measurement of income from operations is the same as that for the preparation of financial statements. Please refer to the consolidated statements of comprehensive income for the related segment revenue and operating results.

b. Geographic and major customers information were as follows:

1) Geographic information

<b>Noncurrent Assets</b>	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Taiwan	\$1,569,080,378	\$1,344,352,664
United States	9,455,505	8,850,099
China	34,456,406	38,586,614
Europe, the Middle East and Africa	174,169	186,238
Japan	327,250	27,074
Others	<u>2,996</u>	<u>3,064</u>
	<b><u>\$1,613,496,704</u></b>	<b><u>\$1,392,005,753</u></b>

Noncurrent assets include property, plant and equipment, right-of-use assets, intangible assets and other noncurrent assets.

2) Major customers representing at least 10% of net revenue

	<b>Years Ended December 31</b>			
	<b>2020</b>		<b>2019</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Customer A	\$ 336,775,511	25	\$ 247,213,291	23
Customer B	167,390,758	12	152,876,885	14

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

FINANCINGS PROVIDED  
FOR THE YEAR ENDED DECEMBER 31, 2020  
(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

No.	Financing Company	Counterparty	Financial Statement Account	Related Party	Maximum Balance for the Period (Foreign Currencies in Thousands) (Note 3)	Ending Balance (Foreign Currencies in Thousands) (Note 3)	Amount Actually Drawn (Foreign Currencies in Thousands)	Interest Rate	Nature for Financing	Transaction Amounts	Reason for Financing	Allowance for Bad Debt	Collateral		Financing Limits for Each Borrowing Company (Notes 1 and 2)	Financing Company's Total Financing Amount Limits (Notes 1 and 2)
													Item	Value		
1	TSMC China	TSMC Nanjing	Other receivables from related parties	Yes	\$ 38,028,092 (RMB 6,000,000) & (US\$ 436,000)	\$ 34,752,490 (RMB 5,800,000) & (US\$ 350,000)	\$ 20,622,240 (RMB 4,800,000)	1.50%	The need for long-term financing	\$ -	Operating capital	\$ -	-	\$ -	\$ 64,492,719	\$ 64,492,719
2	TSMC Global	TSMC	Other receivables from related parties	Yes	87,100,700 (US\$ 3,100,000)	87,100,700 (US\$ 3,100,000)	87,100,700 (US\$ 3,100,000)	0.00%	The need for short-term financing	-	Operating capital	-	-	-	382,229,039	382,229,039

Note 1: The aggregate amount available for lending to TSMC Nanjing from TSMC China shall not exceed the net worth of TSMC China.

Note 2: The aggregate amount available for lending to TSMC from TSMC Global shall not exceed the net worth of TSMC Global.

Note 3: The maximum balance for the period and ending balance represent the amounts approved by the Board of Directors.

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

ENDORSEMENTS/GUARANTEES PROVIDED  
FOR THE YEAR ENDED DECEMBER 31, 2020

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

No.	Endorsement/ Guarantee Provider	Guaranteed Party		Limits on Endorsement/ Guarantee Amount Provided to Each Guaranteed Party (Notes 1 and 2)	Maximum Balance for the Period (Foreign Currencies in Thousands) (Note 3)	Ending Balance (Foreign Currencies in Thousands) (Note 3)	Amount Actually Drawn (US\$ in Thousands)	Amount of Endorsement/ Guarantee Collateralized by Properties	Ratio of Accumulated Endorsement/ Guarantee to Net Equity per Latest Financial Statements	Maximum Endorsement/ Guarantee Amount Allowable (Note 1 and 2)	Guarantee Provided by Parent Company	Guarantee Provided by A Subsidiary	Guarantee Provided to Subsidiaries in Mainland China
		Name	Nature of Relationship										
0	TSMC	TSMC North America	Subsidiary	\$ 462,414,314	\$ 2,338,044 (US\$ 83,213)	\$ 2,338,044 (US\$ 83,213)	\$ 2,338,044 (US\$ 83,213)	\$ -	0.13%	\$ 462,414,314	Yes	No	No
		TSMC Global	Subsidiary	462,414,314	84,291,000 (US\$ 3,000,000)	84,291,000 (US\$ 3,000,000)	84,291,000 (US\$ 3,000,000)	-	4.56%	462,414,314	Yes	No	No
1	TSMC Japan	TSMC JDC	The same parent company	184,965,726	360,228 (JPY 1,320,000)	360,228 (JPY 1,320,000)	360,228 (JPY 1,320,000)	-	0.02%	184,965,726	No	No	No

Note 1: The total amount of the endorsement/guarantee provided by TSMC to TSMC North America and TSMC Global shall not exceed twenty-five percent (25%) of TSMC's net worth.

Note 2: The total amount of the endorsement/guarantee provided by TSMC Japan to TSMC JDC shall not exceed ten percent (10%) of TSMC's net worth.

Note 3: The maximum balance for the period and ending balance represent the amounts approved by the Board of Directors.

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

## MARKETABLE SECURITIES HELD

DECEMBER 31, 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	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC	<u>Non-publicly traded equity investments</u>							
	United Industrial Gases Co., Ltd.	-	Financial assets at fair value through other comprehensive income	21,230	\$ 427,665	10	\$ 427,665	
	Shin-Etsu Handotai Taiwan Co., Ltd.	-	"	10,500	313,992	7	313,992	
	Global Investment Holding Co., Ltd.	-	"	10,442	87,059	6	87,059	
	W.K. Technology Fund IV	-	"	806	5,944	2	5,944	
	Horizon Ventures Fund	-	"	-	170	12	170	
	Crimson Asia Capital	-	"	-	-	1	-	
TSMC Partners	<u>Non-publicly traded equity investments</u>							
	Shanghai Walden Venture Capital Enterprise	-	Financial assets at fair value through other comprehensive income	-	US\$ 22,944	6	US\$ 22,944	
	China Walden Venture Investments II, L.P.	-	"	-	US\$ 12,551	9	US\$ 12,551	
	China Walden Venture Investments III, L.P.	-	"	-	US\$ 4,978	4	US\$ 4,978	
	Inpria Corporation	-	"	1,778	US\$ 3,600	4	US\$ 3,600	
	Tela Innovations	-	"	10,440	-	25	-	
	Mcube Inc.	-	"	6,333	-	10	-	
TSMC Global	<u>Corporate bond</u>							
	Bank of America Corp	-	Financial assets at fair value through other comprehensive income	-	US\$ 59,845	N/A	US\$ 59,845	
	Citigroup Inc	-	"	-	US\$ 44,484	N/A	US\$ 44,484	
	Morgan Stanley	-	"	-	US\$ 43,256	N/A	US\$ 43,256	
	Goldman Sachs Group Inc/The	-	"	-	US\$ 40,089	N/A	US\$ 40,089	
	Wells Fargo & Co	-	"	-	US\$ 36,031	N/A	US\$ 36,031	
	Mitsubishi UFJ Financial Group Inc	-	"	-	US\$ 34,946	N/A	US\$ 34,946	
	JPMorgan Chase & Co	-	"	-	US\$ 33,739	N/A	US\$ 33,739	
	AbbVie Inc	-	"	-	US\$ 33,716	N/A	US\$ 33,716	
	Sumitomo Mitsui Financial Group Inc	-	"	-	US\$ 27,424	N/A	US\$ 27,424	
	Metropolitan Life Global Funding I	-	"	-	US\$ 21,597	N/A	US\$ 21,597	
	Lloyds Banking Group PLC	-	"	-	US\$ 21,490	N/A	US\$ 21,490	
	Bristol-Myers Squibb Co	-	"	-	US\$ 21,090	N/A	US\$ 21,090	
	Mizuho Financial Group Inc	-	"	-	US\$ 20,795	N/A	US\$ 20,795	
	Toyota Motor Credit Corp	-	"	-	US\$ 20,448	N/A	US\$ 20,448	
	NatWest Markets PLC	-	"	-	US\$ 19,179	N/A	US\$ 19,179	
	Athene Global Funding	-	"	-	US\$ 18,421	N/A	US\$ 18,421	
	Credit Suisse AG/New York NY	-	"	-	US\$ 17,442	N/A	US\$ 17,442	
	Royal Bank of Canada	-	"	-	US\$ 16,267	N/A	US\$ 16,267	
	HSBC Holdings PLC	-	"	-	US\$ 16,113	N/A	US\$ 16,113	
Hyundai Capital America	-	"	-	US\$ 15,983	N/A	US\$ 15,983		
Macquarie Bank Ltd	-	"	-	US\$ 15,912	N/A	US\$ 15,912		
Nordea Bank Abp	-	"	-	US\$ 15,907	N/A	US\$ 15,907		
Apple Inc	-	"	-	US\$ 15,762	N/A	US\$ 15,762		
Santander UK PLC	-	"	-	US\$ 15,704	N/A	US\$ 15,704		
BP Capital Markets America Inc	-	"	-	US\$ 15,621	N/A	US\$ 15,621		

(Continued)



Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Toronto-Dominion Bank/The	-	Financial assets at fair value through other comprehensive income	-	US\$ 15,527	N/A	US\$ 15,527	
	Volkswagen Group of America Finance LLC	-	"	-	US\$ 15,417	N/A	US\$ 15,417	
	Comcast Corp	-	"	-	US\$ 14,947	N/A	US\$ 14,947	
	BNP Paribas SA	-	"	-	US\$ 14,590	N/A	US\$ 14,590	
	National Securities Clearing Corp	-	"	-	US\$ 14,129	N/A	US\$ 14,129	
	Principal Life Global Funding II	-	"	-	US\$ 13,580	N/A	US\$ 13,580	
	Roper Technologies Inc	-	"	-	US\$ 13,249	N/A	US\$ 13,249	
	AT&T Inc	-	"	-	US\$ 13,180	N/A	US\$ 13,180	
	Banco Santander SA	-	"	-	US\$ 13,146	N/A	US\$ 13,146	
	Banque Federative du Credit Mutuel SA	-	"	-	US\$ 13,019	N/A	US\$ 13,019	
	Nationwide Building Society	-	"	-	US\$ 12,913	N/A	US\$ 12,913	
	Chevron Corp	-	"	-	US\$ 12,771	N/A	US\$ 12,771	
	Guardian Life Global Funding	-	"	-	US\$ 12,187	N/A	US\$ 12,187	
	Bank of Nova Scotia/The	-	"	-	US\$ 12,144	N/A	US\$ 12,144	
	Equifax Inc	-	"	-	US\$ 12,015	N/A	US\$ 12,015	
	BPCE SA	-	"	-	US\$ 11,978	N/A	US\$ 11,978	
	UBS Group Funding Switzerland AG	-	"	-	US\$ 11,758	N/A	US\$ 11,758	
	US Bancorp	-	"	-	US\$ 11,651	N/A	US\$ 11,651	
	Societe Generale SA	-	"	-	US\$ 11,567	N/A	US\$ 11,567	
	American Honda Finance Corp	-	"	-	US\$ 11,354	N/A	US\$ 11,354	
	American International Group Inc	-	"	-	US\$ 11,011	N/A	US\$ 11,011	
	Amazon.com Inc	-	"	-	US\$ 10,846	N/A	US\$ 10,846	
	TJX Cos Inc/The	-	"	-	US\$ 10,563	N/A	US\$ 10,563	
	Verizon Communications Inc	-	"	-	US\$ 10,558	N/A	US\$ 10,558	
	Jackson National Life Global Funding	-	"	-	US\$ 10,434	N/A	US\$ 10,434	
	Equinor ASA	-	"	-	US\$ 10,372	N/A	US\$ 10,372	
	Canadian Imperial Bank of Commerce	-	"	-	US\$ 10,297	N/A	US\$ 10,297	
	DTE Energy Co	-	"	-	US\$ 10,173	N/A	US\$ 10,173	
	BMW US Capital LLC	-	"	-	US\$ 10,125	N/A	US\$ 10,125	
	Shire Acquisitions Investments Ireland DAC	-	"	-	US\$ 9,893	N/A	US\$ 9,893	
	NextEra Energy Capital Holdings Inc	-	"	-	US\$ 9,527	N/A	US\$ 9,527	
	Cox Communications Inc	-	"	-	US\$ 9,526	N/A	US\$ 9,526	
	Sumitomo Mitsui Trust Bank Ltd	-	"	-	US\$ 9,446	N/A	US\$ 9,446	
	Credit Agricole SA/London	-	"	-	US\$ 9,250	N/A	US\$ 9,250	
	NIKE Inc	-	"	-	US\$ 9,232	N/A	US\$ 9,232	
	Protective Life Global Funding	-	"	-	US\$ 9,137	N/A	US\$ 9,137	
	New York Life Global Funding	-	"	-	US\$ 9,057	N/A	US\$ 9,057	
	Bank of Montreal	-	"	-	US\$ 9,002	N/A	US\$ 9,002	
	Svenska Handelsbanken AB	-	"	-	US\$ 8,963	N/A	US\$ 8,963	
	Truist Bank	-	"	-	US\$ 8,775	N/A	US\$ 8,775	
	Intuit Inc	-	"	-	US\$ 8,524	N/A	US\$ 8,524	
	Barclays PLC	-	"	-	US\$ 8,492	N/A	US\$ 8,492	
	Inter-American Development Bank	-	"	-	US\$ 8,211	N/A	US\$ 8,211	
	Suncorp-Metway Ltd	-	"	-	US\$ 8,134	N/A	US\$ 8,134	
	AIG Global Funding	-	"	-	US\$ 8,098	N/A	US\$ 8,098	
	Fiserv Inc	-	"	-	US\$ 8,079	N/A	US\$ 8,079	
	Oracle Corp	-	"	-	US\$ 7,822	N/A	US\$ 7,822	
	Credit Suisse Group AG	-	"	-	US\$ 7,804	N/A	US\$ 7,804	
	Exxon Mobil Corp	-	"	-	US\$ 7,576	N/A	US\$ 7,576	
	Great-West Lifeco US Finance 2020 LP	-	"	-	US\$ 7,455	N/A	US\$ 7,455	
	Skandinaviska Enskilda Banken AB	-	"	-	US\$ 7,409	N/A	US\$ 7,409	
	AstraZeneca PLC	-	"	-	US\$ 7,333	N/A	US\$ 7,333	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Prudential Funding LLC	-	Financial assets at fair value through other comprehensive income	-	US\$ 7,322	N/A	US\$ 7,322	
	Huntington Bancshares Inc/OH	-	"	-	US\$ 7,249	N/A	US\$ 7,249	
	Tencent Holdings Ltd	-	"	-	US\$ 7,024	N/A	US\$ 7,024	
	Daimler Finance North America LLC	-	"	-	US\$ 6,772	N/A	US\$ 6,772	
	Scentre Group Trust 1 / Scentre Group Trust 2	-	"	-	US\$ 6,611	N/A	US\$ 6,611	
	Capital One Financial Corp	-	"	-	US\$ 6,498	N/A	US\$ 6,498	
	ING Groep NV	-	"	-	US\$ 6,484	N/A	US\$ 6,484	
	Cigna Corp	-	"	-	US\$ 6,445	N/A	US\$ 6,445	
	General Electric Co	-	"	-	US\$ 6,267	N/A	US\$ 6,267	
	UnitedHealth Group Inc	-	"	-	US\$ 6,255	N/A	US\$ 6,255	
	Bank of New York Mellon Corp/The	-	"	-	US\$ 6,241	N/A	US\$ 6,241	
	WPP Finance 2010	-	"	-	US\$ 6,236	N/A	US\$ 6,236	
	Standard Chartered PLC	-	"	-	US\$ 6,231	N/A	US\$ 6,231	
	Macquarie Group Ltd	-	"	-	US\$ 6,193	N/A	US\$ 6,193	
	Cargill Inc	-	"	-	US\$ 6,175	N/A	US\$ 6,175	
	UBS Group AG	-	"	-	US\$ 6,171	N/A	US\$ 6,171	
	CVS Health Corp	-	"	-	US\$ 5,981	N/A	US\$ 5,981	
	Analog Devices Inc	-	"	-	US\$ 5,975	N/A	US\$ 5,975	
	Alabama Power Co	-	"	-	US\$ 5,920	N/A	US\$ 5,920	
	Capital One NA	-	"	-	US\$ 5,919	N/A	US\$ 5,919	
	Intercontinental Exchange Inc	-	"	-	US\$ 5,873	N/A	US\$ 5,873	
	John Deere Capital Corp	-	"	-	US\$ 5,824	N/A	US\$ 5,824	
	Shell International Finance BV	-	"	-	US\$ 5,794	N/A	US\$ 5,794	
	American Express Co	-	"	-	US\$ 5,761	N/A	US\$ 5,761	
	BAT Capital Corp	-	"	-	US\$ 5,574	N/A	US\$ 5,574	
	Intel Corp	-	"	-	US\$ 5,547	N/A	US\$ 5,547	
	Thermo Fisher Scientific Inc	-	"	-	US\$ 5,516	N/A	US\$ 5,516	
	Microsoft Corp	-	"	-	US\$ 5,489	N/A	US\$ 5,489	
	Fox Corp	-	"	-	US\$ 5,483	N/A	US\$ 5,483	
	Charles Schwab Corp/The	-	"	-	US\$ 5,465	N/A	US\$ 5,465	
	Georgia-Pacific LLC	-	"	-	US\$ 5,422	N/A	US\$ 5,422	
	Dominion Energy Gas Holdings LLC	-	"	-	US\$ 5,403	N/A	US\$ 5,403	
	SMBC Aviation Capital Finance DAC	-	"	-	US\$ 5,399	N/A	US\$ 5,399	
	Fifth Third Bancorp	-	"	-	US\$ 5,399	N/A	US\$ 5,399	
	BB&T Corp	-	"	-	US\$ 5,381	N/A	US\$ 5,381	
	Sompo International Holdings Ltd	-	"	-	US\$ 5,344	N/A	US\$ 5,344	
	Merck & Co Inc	-	"	-	US\$ 5,302	N/A	US\$ 5,302	
	Sempra Energy	-	"	-	US\$ 5,257	N/A	US\$ 5,257	
	Federation des Caisses Desjardins du Quebec	-	"	-	US\$ 5,246	N/A	US\$ 5,246	
	National Bank of Canada	-	"	-	US\$ 5,214	N/A	US\$ 5,214	
	Tyson Foods Inc	-	"	-	US\$ 5,073	N/A	US\$ 5,073	
	Five Corners Funding Trust	-	"	-	US\$ 4,991	N/A	US\$ 4,991	
	Enel Finance International NV	-	"	-	US\$ 4,988	N/A	US\$ 4,988	
	Pacific Life Global Funding II	-	"	-	US\$ 4,961	N/A	US\$ 4,961	
	Danske Bank A/S	-	"	-	US\$ 4,897	N/A	US\$ 4,897	
	Nomura Holdings Inc	-	"	-	US\$ 4,875	N/A	US\$ 4,875	
	Sprint Spectrum Co LLC / Sprint Spectrum Co II LLC / Sprint Spectrum Co III LLC	-	"	-	US\$ 4,856	N/A	US\$ 4,856	
	Johnson & Johnson	-	"	-	US\$ 4,802	N/A	US\$ 4,802	
	Keurig Dr Pepper Inc	-	"	-	US\$ 4,796	N/A	US\$ 4,796	
	DNB Bank ASA	-	"	-	US\$ 4,726	N/A	US\$ 4,726	
	Moody's Corp	-	"	-	US\$ 4,695	N/A	US\$ 4,695	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Eversource Energy	-	Financial assets at fair value through other comprehensive income	-	US\$ 4,665	N/A	US\$ 4,665	
	Entergy Corp	-	"	-	US\$ 4,665	N/A	US\$ 4,665	
	Florida Power & Light Co	-	"	-	US\$ 4,569	N/A	US\$ 4,569	
	Gilead Sciences Inc	-	"	-	US\$ 4,496	N/A	US\$ 4,496	
	Barclays Bank PLC	-	"	-	US\$ 4,481	N/A	US\$ 4,481	
	Altria Group Inc	-	"	-	US\$ 4,450	N/A	US\$ 4,450	
	NiSource Inc	-	"	-	US\$ 4,440	N/A	US\$ 4,440	
	MPLX LP	-	"	-	US\$ 4,412	N/A	US\$ 4,412	
	PNC Bank NA	-	"	-	US\$ 4,335	N/A	US\$ 4,335	
	ERAC USA Finance LLC	-	"	-	US\$ 4,298	N/A	US\$ 4,298	
	Alimentation Couche-Tard Inc	-	"	-	US\$ 4,295	N/A	US\$ 4,295	
	Exelon Corp	-	"	-	US\$ 4,291	N/A	US\$ 4,291	
	Reliance Standard Life Global Funding II	-	"	-	US\$ 4,232	N/A	US\$ 4,232	
	National Australia Bank Ltd/New York	-	"	-	US\$ 4,208	N/A	US\$ 4,208	
	European Bank for Reconstruction & Development	-	"	-	US\$ 4,192	N/A	US\$ 4,192	
	Ameriprise Financial Inc	-	"	-	US\$ 4,147	N/A	US\$ 4,147	
	Bayer US Finance II LLC	-	"	-	US\$ 4,137	N/A	US\$ 4,137	
	Pricoa Global Funding I	-	"	-	US\$ 4,122	N/A	US\$ 4,122	
	American Express Credit Corp	-	"	-	US\$ 4,103	N/A	US\$ 4,103	
	BorgWarner Inc	-	"	-	US\$ 4,053	N/A	US\$ 4,053	
	Phillips 66	-	"	-	US\$ 4,044	N/A	US\$ 4,044	
	Banco Bilbao Vizcaya Argentaria SA	-	"	-	US\$ 4,027	N/A	US\$ 4,027	
	Welltower Inc	-	"	-	US\$ 3,986	N/A	US\$ 3,986	
	BOC Aviation Ltd	-	"	-	US\$ 3,976	N/A	US\$ 3,976	
	VF Corp	-	"	-	US\$ 3,972	N/A	US\$ 3,972	
	Compass Bank	-	"	-	US\$ 3,950	N/A	US\$ 3,950	
	KeyBank NA/Cleveland OH	-	"	-	US\$ 3,920	N/A	US\$ 3,920	
	Vodafone Group PLC	-	"	-	US\$ 3,916	N/A	US\$ 3,916	
	Laboratory Corp of America Holdings	-	"	-	US\$ 3,888	N/A	US\$ 3,888	
	BG Energy Capital PLC	-	"	-	US\$ 3,853	N/A	US\$ 3,853	
	Reckitt Benckiser Treasury Services PLC	-	"	-	US\$ 3,805	N/A	US\$ 3,805	
	GE Capital Funding LLC	-	"	-	US\$ 3,761	N/A	US\$ 3,761	
	Monongahela Power Co	-	"	-	US\$ 3,737	N/A	US\$ 3,737	
	Cooperatieve Rabobank UA	-	"	-	US\$ 3,698	N/A	US\$ 3,698	
	Verisk Analytics Inc	-	"	-	US\$ 3,677	N/A	US\$ 3,677	
	Diageo Capital PLC	-	"	-	US\$ 3,667	N/A	US\$ 3,667	
	Ameren Corp	-	"	-	US\$ 3,658	N/A	US\$ 3,658	
	UBS AG/London	-	"	-	US\$ 3,588	N/A	US\$ 3,588	
	Dominion Energy Inc	-	"	-	US\$ 3,586	N/A	US\$ 3,586	
	Pfizer Inc	-	"	-	US\$ 3,521	N/A	US\$ 3,521	
	AutoZone Inc	-	"	-	US\$ 3,456	N/A	US\$ 3,456	
	HSBC Bank Canada	-	"	-	US\$ 3,440	N/A	US\$ 3,440	
	Hewlett Packard Enterprise Co	-	"	-	US\$ 3,439	N/A	US\$ 3,439	
	Unilever Capital Corp	-	"	-	US\$ 3,394	N/A	US\$ 3,394	
	Swedbank AB	-	"	-	US\$ 3,388	N/A	US\$ 3,388	
	MassMutual Global Funding II	-	"	-	US\$ 3,369	N/A	US\$ 3,369	
	CNA Financial Corp	-	"	-	US\$ 3,316	N/A	US\$ 3,316	
	ONE Gas Inc	-	"	-	US\$ 3,310	N/A	US\$ 3,310	
	Texas Instruments Inc	-	"	-	US\$ 3,292	N/A	US\$ 3,292	
	Avangrid Inc	-	"	-	US\$ 3,262	N/A	US\$ 3,262	
	Ralph Lauren Corp	-	"	-	US\$ 3,207	N/A	US\$ 3,207	
	Oncor Electric Delivery Co LLC	-	"	-	US\$ 3,201	N/A	US\$ 3,201	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Royal Bank of Scotland Group PLC	-	Financial assets at fair value through other comprehensive income	-	US\$ 3,199	N/A	US\$ 3,199	
	Novartis Capital Corp	-	"	-	US\$ 3,199	N/A	US\$ 3,199	
	Baidu Inc	-	"	-	US\$ 3,184	N/A	US\$ 3,184	
	Raytheon Technologies Corp	-	"	-	US\$ 3,130	N/A	US\$ 3,130	
	Valero Energy Corp	-	"	-	US\$ 3,109	N/A	US\$ 3,109	
	Stryker Corp	-	"	-	US\$ 3,081	N/A	US\$ 3,081	
	Walt Disney Co/The	-	"	-	US\$ 3,058	N/A	US\$ 3,058	
	Zions Bancorp NA	-	"	-	US\$ 3,057	N/A	US\$ 3,057	
	HCP Inc	-	"	-	US\$ 2,978	N/A	US\$ 2,978	
	Penske Truck Leasing Co Lp / PTL Finance Corp	-	"	-	US\$ 2,967	N/A	US\$ 2,967	
	American Electric Power Co Inc	-	"	-	US\$ 2,948	N/A	US\$ 2,948	
	Xcel Energy Inc	-	"	-	US\$ 2,948	N/A	US\$ 2,948	
	Ventas Realty LP	-	"	-	US\$ 2,942	N/A	US\$ 2,942	
	Philip Morris International Inc	-	"	-	US\$ 2,933	N/A	US\$ 2,933	
	Air Products and Chemicals Inc	-	"	-	US\$ 2,909	N/A	US\$ 2,909	
	Berkshire Hathaway Energy Co	-	"	-	US\$ 2,877	N/A	US\$ 2,877	
	Credit Suisse Group Funding Guernsey Ltd	-	"	-	US\$ 2,867	N/A	US\$ 2,867	
	Equitable Financial Life Global Funding	-	"	-	US\$ 2,849	N/A	US\$ 2,849	
	Ross Stores Inc	-	"	-	US\$ 2,837	N/A	US\$ 2,837	
	Nuveen Finance LLC	-	"	-	US\$ 2,817	N/A	US\$ 2,817	
	Ryder System Inc	-	"	-	US\$ 2,800	N/A	US\$ 2,800	
	AvalonBay Communities Inc	-	"	-	US\$ 2,798	N/A	US\$ 2,798	
	Quest Diagnostics Inc	-	"	-	US\$ 2,798	N/A	US\$ 2,798	
	Kimco Realty Corp	-	"	-	US\$ 2,726	N/A	US\$ 2,726	
	CMS Energy Corp	-	"	-	US\$ 2,717	N/A	US\$ 2,717	
	Roche Holdings Inc	-	"	-	US\$ 2,702	N/A	US\$ 2,702	
	Magellan Midstream Partners LP	-	"	-	US\$ 2,700	N/A	US\$ 2,700	
	Nutrien Ltd	-	"	-	US\$ 2,687	N/A	US\$ 2,687	
	PNC Financial Services Group Inc/The	-	"	-	US\$ 2,683	N/A	US\$ 2,683	
	Pinnacle West Capital Corp	-	"	-	US\$ 2,669	N/A	US\$ 2,669	
	Aetna Inc	-	"	-	US\$ 2,592	N/A	US\$ 2,592	
	Empower Finance 2020 LP	-	"	-	US\$ 2,562	N/A	US\$ 2,562	
	Nestle Holdings Inc	-	"	-	US\$ 2,533	N/A	US\$ 2,533	
	Reynolds American Inc	-	"	-	US\$ 2,530	N/A	US\$ 2,530	
	Berkshire Hathaway Inc	-	"	-	US\$ 2,513	N/A	US\$ 2,513	
	Chevron USA Inc	-	"	-	US\$ 2,511	N/A	US\$ 2,511	
	Georgia Power Co	-	"	-	US\$ 2,497	N/A	US\$ 2,497	
	Northrop Grumman Corp	-	"	-	US\$ 2,491	N/A	US\$ 2,491	
	State Street Corp	-	"	-	US\$ 2,487	N/A	US\$ 2,487	
	SunTrust Bank/Atlanta GA	-	"	-	US\$ 2,486	N/A	US\$ 2,486	
	Honeywell International Inc	-	"	-	US\$ 2,480	N/A	US\$ 2,480	
	Enterprise Products Operating LLC	-	"	-	US\$ 2,470	N/A	US\$ 2,470	
	Duke Energy Corp	-	"	-	US\$ 2,428	N/A	US\$ 2,428	
	DuPont de Nemours Inc	-	"	-	US\$ 2,427	N/A	US\$ 2,427	
	Suncor Energy Inc	-	"	-	US\$ 2,416	N/A	US\$ 2,416	
	Union Pacific Corp	-	"	-	US\$ 2,398	N/A	US\$ 2,398	
	O'Reilly Automotive Inc	-	"	-	US\$ 2,394	N/A	US\$ 2,394	
	Public Service Electric and Gas Co	-	"	-	US\$ 2,321	N/A	US\$ 2,321	
	Health Care Service Corp A Mutual Legal Reserve Co	-	"	-	US\$ 2,303	N/A	US\$ 2,303	
	Magna International Inc	-	"	-	US\$ 2,291	N/A	US\$ 2,291	
	BAT International Finance PLC	-	"	-	US\$ 2,287	N/A	US\$ 2,287	
	Caterpillar Financial Services Corp	-	"	-	US\$ 2,284	N/A	US\$ 2,284	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	ITC Holdings Corp	-	Financial assets at fair value through other comprehensive income	-	US\$ 2,263	N/A	US\$ 2,263	
	East Ohio Gas Co/The	-	"	-	US\$ 2,261	N/A	US\$ 2,261	
	QUALCOMM Inc	-	"	-	US\$ 2,253	N/A	US\$ 2,253	
	Citizens Bank NA/Providence RI	-	"	-	US\$ 2,212	N/A	US\$ 2,212	
	Amphenol Corp	-	"	-	US\$ 2,201	N/A	US\$ 2,201	
	Bank of New Zealand	-	"	-	US\$ 2,196	N/A	US\$ 2,196	
	ASB Bank Ltd	-	"	-	US\$ 2,184	N/A	US\$ 2,184	
	Tucson Electric Power Co	-	"	-	US\$ 2,177	N/A	US\$ 2,177	
	Otis Worldwide Corp	-	"	-	US\$ 2,159	N/A	US\$ 2,159	
	WP Carey Inc	-	"	-	US\$ 2,103	N/A	US\$ 2,103	
	CNOOC Finance 2012 Ltd	-	"	-	US\$ 2,072	N/A	US\$ 2,072	
	PayPal Holdings Inc	-	"	-	US\$ 2,068	N/A	US\$ 2,068	
	Shinhan Financial Group Co Ltd	-	"	-	US\$ 2,024	N/A	US\$ 2,024	
	CK Hutchison International 16 Ltd	-	"	-	US\$ 2,016	N/A	US\$ 2,016	
	Regions Financial Corp	-	"	-	US\$ 2,007	N/A	US\$ 2,007	
	Kentucky Utilities Co	-	"	-	US\$ 1,994	N/A	US\$ 1,994	
	NetApp Inc	-	"	-	US\$ 1,982	N/A	US\$ 1,982	
	Sydney Airport Finance Co Pty Ltd	-	"	-	US\$ 1,968	N/A	US\$ 1,968	
	CRH America Inc	-	"	-	US\$ 1,965	N/A	US\$ 1,965	
	Evergy Kansas Central Inc	-	"	-	US\$ 1,937	N/A	US\$ 1,937	
	Burlington Northern Santa Fe LLC	-	"	-	US\$ 1,935	N/A	US\$ 1,935	
	ANZ New Zealand Int'l Ltd/London	-	"	-	US\$ 1,927	N/A	US\$ 1,927	
	Appalachian Power Co	-	"	-	US\$ 1,924	N/A	US\$ 1,924	
	Gulfstream Natural Gas System LLC	-	"	-	US\$ 1,913	N/A	US\$ 1,913	
	Public Service Enterprise Group Inc	-	"	-	US\$ 1,908	N/A	US\$ 1,908	
	Air Lease Corp	-	"	-	US\$ 1,882	N/A	US\$ 1,882	
	Discover Bank	-	"	-	US\$ 1,873	N/A	US\$ 1,873	
	Boston Properties LP	-	"	-	US\$ 1,840	N/A	US\$ 1,840	
	McCormick & Co Inc/MD	-	"	-	US\$ 1,837	N/A	US\$ 1,837	
	Infor Inc	-	"	-	US\$ 1,810	N/A	US\$ 1,810	
	International Business Machines Corp	-	"	-	US\$ 1,761	N/A	US\$ 1,761	
	Anheuser-Busch InBev Worldwide Inc	-	"	-	US\$ 1,759	N/A	US\$ 1,759	
	Emerson Electric Co	-	"	-	US\$ 1,750	N/A	US\$ 1,750	
	MetLife Inc	-	"	-	US\$ 1,681	N/A	US\$ 1,681	
	Duke Energy Florida LLC	-	"	-	US\$ 1,677	N/A	US\$ 1,677	
	Toyota Industries Corp	-	"	-	US\$ 1,672	N/A	US\$ 1,672	
	Exelon Generation Co LLC	-	"	-	US\$ 1,652	N/A	US\$ 1,652	
	Essex Portfolio LP	-	"	-	US\$ 1,650	N/A	US\$ 1,650	
	Midwest Connector Capital Co LLC	-	"	-	US\$ 1,641	N/A	US\$ 1,641	
	Brookfield Finance Inc	-	"	-	US\$ 1,641	N/A	US\$ 1,641	
	Suntory Holdings Ltd	-	"	-	US\$ 1,637	N/A	US\$ 1,637	
	Panasonic Corp	-	"	-	US\$ 1,619	N/A	US\$ 1,619	
	CK Hutchison International 19 Ltd	-	"	-	US\$ 1,603	N/A	US\$ 1,603	
	Marsh & McLennan Cos Inc	-	"	-	US\$ 1,592	N/A	US\$ 1,592	
	Marathon Petroleum Corp	-	"	-	US\$ 1,576	N/A	US\$ 1,576	
	Public Service Electric & Gas Co	-	"	-	US\$ 1,562	N/A	US\$ 1,562	
	AIA Group Ltd	-	"	-	US\$ 1,560	N/A	US\$ 1,560	
	NTT Finance Corp	-	"	-	US\$ 1,540	N/A	US\$ 1,540	
	ABN AMRO Bank NV	-	"	-	US\$ 1,527	N/A	US\$ 1,527	
	Alliant Energy Finance LLC	-	"	-	US\$ 1,526	N/A	US\$ 1,526	
	KEB Hana Bank	-	"	-	US\$ 1,504	N/A	US\$ 1,504	
	Virginia Electric & Power Co	-	"	-	US\$ 1,501	N/A	US\$ 1,501	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Entergy Louisiana LLC	-	Financial assets at fair value through other comprehensive income	-	US\$ 1,472	N/A	US\$ 1,472	
	Daiwa Securities Group Inc	-	"	-	US\$ 1,430	N/A	US\$ 1,430	
	Citizens Financial Group Inc	-	"	-	US\$ 1,418	N/A	US\$ 1,418	
	Andrew W Mellon Foundation/The	-	"	-	US\$ 1,418	N/A	US\$ 1,418	
	Wells Fargo Bank NA	-	"	-	US\$ 1,416	N/A	US\$ 1,416	
	CNOOC Curtis Funding No 1 Pty Ltd	-	"	-	US\$ 1,410	N/A	US\$ 1,410	
	Siemens Financieringsmaatschappij NV	-	"	-	US\$ 1,410	N/A	US\$ 1,410	
	Kilroy Realty LP	-	"	-	US\$ 1,402	N/A	US\$ 1,402	
	Entergy Arkansas LLC	-	"	-	US\$ 1,349	N/A	US\$ 1,349	
	Ontario Teachers' Cadillac Fairview Properties Trust	-	"	-	US\$ 1,339	N/A	US\$ 1,339	
	Federal Realty Investment Trust	-	"	-	US\$ 1,306	N/A	US\$ 1,306	
	General Dynamics Corp	-	"	-	US\$ 1,238	N/A	US\$ 1,238	
	Santander UK Group Holdings PLC	-	"	-	US\$ 1,237	N/A	US\$ 1,237	
	Lincoln National Corp	-	"	-	US\$ 1,227	N/A	US\$ 1,227	
	PSEG Power LLC	-	"	-	US\$ 1,208	N/A	US\$ 1,208	
	Schlumberger Finance Canada Ltd	-	"	-	US\$ 1,189	N/A	US\$ 1,189	
	eBay Inc	-	"	-	US\$ 1,154	N/A	US\$ 1,154	
	Cleveland Electric Illuminating Co/The	-	"	-	US\$ 1,149	N/A	US\$ 1,149	
	APT Pipelines Ltd	-	"	-	US\$ 1,148	N/A	US\$ 1,148	
	Alexandria Real Estate Equities Inc	-	"	-	US\$ 1,112	N/A	US\$ 1,112	
	Southern California Edison Co	-	"	-	US\$ 1,105	N/A	US\$ 1,105	
	Cooperatieve Rabobank UA/NY	-	"	-	US\$ 1,102	N/A	US\$ 1,102	
	Baltimore Gas & Electric Co	-	"	-	US\$ 1,066	N/A	US\$ 1,066	
	Entergy Mississippi LLC	-	"	-	US\$ 1,063	N/A	US\$ 1,063	
	BBVA USA	-	"	-	US\$ 1,062	N/A	US\$ 1,062	
	DH Europe Finance II Sarl	-	"	-	US\$ 1,056	N/A	US\$ 1,056	
	Loews Corp	-	"	-	US\$ 1,047	N/A	US\$ 1,047	
	USAA Capital Corp	-	"	-	US\$ 1,046	N/A	US\$ 1,046	
	Kinder Morgan Inc/DE	-	"	-	US\$ 1,046	N/A	US\$ 1,046	
	Kaiser Foundation Hospitals	-	"	-	US\$ 1,039	N/A	US\$ 1,039	
	Texas Eastern Transmission LP	-	"	-	US\$ 1,034	N/A	US\$ 1,034	
	Simon Property Group LP	-	"	-	US\$ 1,030	N/A	US\$ 1,030	
	Mondelez International Holdings Netherlands BV	-	"	-	US\$ 1,024	N/A	US\$ 1,024	
	Toyota Motor Finance Netherlands BV	-	"	-	US\$ 1,008	N/A	US\$ 1,008	
	MUFG Union Bank NA	-	"	-	US\$ 1,006	N/A	US\$ 1,006	
	BHP Billiton Finance USA Ltd	-	"	-	US\$ 964	N/A	US\$ 964	
	Southern California Gas Co	-	"	-	US\$ 959	N/A	US\$ 959	
	QNB Finance Ltd	-	"	-	US\$ 954	N/A	US\$ 954	
	Prudential Financial Inc	-	"	-	US\$ 933	N/A	US\$ 933	
	Mitsubishi UFJ Lease & Finance Co Ltd	-	"	-	US\$ 927	N/A	US\$ 927	
	Westpac Banking Corp	-	"	-	US\$ 879	N/A	US\$ 879	
	Woolworths Group Ltd	-	"	-	US\$ 867	N/A	US\$ 867	
	Niagara Mohawk Power Corp	-	"	-	US\$ 851	N/A	US\$ 851	
	CenterPoint Energy Inc	-	"	-	US\$ 851	N/A	US\$ 851	
	Visa Inc	-	"	-	US\$ 845	N/A	US\$ 845	
	Sinopec Capital 2013 Ltd	-	"	-	US\$ 835	N/A	US\$ 835	
	Natwest Group PLC	-	"	-	US\$ 815	N/A	US\$ 815	
	Sky Ltd	-	"	-	US\$ 779	N/A	US\$ 779	
	Xylem Inc/NY	-	"	-	US\$ 774	N/A	US\$ 774	
	DR Horton Inc	-	"	-	US\$ 772	N/A	US\$ 772	
	Nationwide Financial Services Inc	-	"	-	US\$ 758	N/A	US\$ 758	
	Canadian Natural Resources Ltd	-	"	-	US\$ 758	N/A	US\$ 758	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Warner Media LLC	-	Financial assets at fair value through other comprehensive income	-	US\$ 752	N/A	US\$ 752	
	BNZ International Funding Ltd/London	-	"	-	US\$ 743	N/A	US\$ 743	
	Sinopec Group Overseas Development 2017 Ltd	-	"	-	US\$ 717	N/A	US\$ 717	
	Abbott Laboratories	-	"	-	US\$ 705	N/A	US\$ 705	
	Digital Realty Trust LP	-	"	-	US\$ 679	N/A	US\$ 679	
	Cummins Inc	-	"	-	US\$ 664	N/A	US\$ 664	
	Carlisle Cos Inc	-	"	-	US\$ 658	N/A	US\$ 658	
	Glencore Funding LLC	-	"	-	US\$ 645	N/A	US\$ 645	
	Western Union Co/The	-	"	-	US\$ 644	N/A	US\$ 644	
	Republic Services Inc	-	"	-	US\$ 644	N/A	US\$ 644	
	American Water Capital Corp	-	"	-	US\$ 637	N/A	US\$ 637	
	OneBeacon US Holdings Inc	-	"	-	US\$ 633	N/A	US\$ 633	
	Sinopec Group Overseas Development 2012 Ltd	-	"	-	US\$ 623	N/A	US\$ 623	
	Ohio Power Co	-	"	-	US\$ 622	N/A	US\$ 622	
	Arizona Public Service Co	-	"	-	US\$ 604	N/A	US\$ 604	
	Duke Energy Progress LLC	-	"	-	US\$ 592	N/A	US\$ 592	
	ViacomCBS Inc	-	"	-	US\$ 590	N/A	US\$ 590	
	Evergy Inc	-	"	-	US\$ 579	N/A	US\$ 579	
	Fifth Third Bank/Cincinnati OH	-	"	-	US\$ 566	N/A	US\$ 566	
	United Parcel Service Inc	-	"	-	US\$ 565	N/A	US\$ 565	
	Aflac Inc	-	"	-	US\$ 552	N/A	US\$ 552	
	PACCAR Financial Corp	-	"	-	US\$ 552	N/A	US\$ 552	
	ABC Inc	-	"	-	US\$ 525	N/A	US\$ 525	
	TTX Co	-	"	-	US\$ 524	N/A	US\$ 524	
	Baker Hughes a GE Co LLC / Baker Hughes Co-Obligor Inc	-	"	-	US\$ 522	N/A	US\$ 522	
	Realty Income Corp	-	"	-	US\$ 521	N/A	US\$ 521	
	Hanwha Energy USA Holdings Corp	-	"	-	US\$ 514	N/A	US\$ 514	
	Danone SA	-	"	-	US\$ 506	N/A	US\$ 506	
	United Overseas Bank Ltd	-	"	-	US\$ 459	N/A	US\$ 459	
	Target Corp	-	"	-	US\$ 455	N/A	US\$ 455	
	Starbucks Corp	-	"	-	US\$ 430	N/A	US\$ 430	
	GlaxoSmithKline Capital PLC	-	"	-	US\$ 426	N/A	US\$ 426	
	Comerica Bank	-	"	-	US\$ 425	N/A	US\$ 425	
	Banco del Estado de Chile	-	"	-	US\$ 423	N/A	US\$ 423	
	CBS Corp	-	"	-	US\$ 413	N/A	US\$ 413	
	Fidelity National Information Services Inc	-	"	-	US\$ 413	N/A	US\$ 413	
	Komatsu Finance America Inc	-	"	-	US\$ 413	N/A	US\$ 413	
	Truist Financial Corp	-	"	-	US\$ 410	N/A	US\$ 410	
	Newmont Goldcorp Corp	-	"	-	US\$ 404	N/A	US\$ 404	
	AXA Equitable Holdings Inc	-	"	-	US\$ 403	N/A	US\$ 403	
	PepsiCo Inc	-	"	-	US\$ 400	N/A	US\$ 400	
	StanCorp Financial Group Inc	-	"	-	US\$ 388	N/A	US\$ 388	
	Canadian Pacific Railway Co	-	"	-	US\$ 378	N/A	US\$ 378	
	Enbridge Inc	-	"	-	US\$ 378	N/A	US\$ 378	
	Principal Financial Group Inc	-	"	-	US\$ 372	N/A	US\$ 372	
	Pernod Ricard SA	-	"	-	US\$ 364	N/A	US\$ 364	
	First Republic Bank/CA	-	"	-	US\$ 360	N/A	US\$ 360	
	Archer-Daniels-Midland Co	-	"	-	US\$ 353	N/A	US\$ 353	
	WEC Energy Group Inc	-	"	-	US\$ 351	N/A	US\$ 351	
	Ventas Realty LP / Ventas Capital Corp	-	"	-	US\$ 349	N/A	US\$ 349	
	Amgen Inc	-	"	-	US\$ 347	N/A	US\$ 347	
	Allstate Corp/The	-	"	-	US\$ 332	N/A	US\$ 332	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	BP Capital Markets PLC	-	Financial assets at fair value through other comprehensive income	-	US\$ 329	N/A	US\$ 329	
	CommonSpirit Health	-	"	-	US\$ 322	N/A	US\$ 322	
	Total Capital International SA	-	"	-	US\$ 320	N/A	US\$ 320	
	Southern Co/The	-	"	-	US\$ 318	N/A	US\$ 318	
	Anthem Inc	-	"	-	US\$ 314	N/A	US\$ 314	
	Chubb INA Holdings Inc	-	"	-	US\$ 313	N/A	US\$ 313	
	America Movil SAB de CV	-	"	-	US\$ 311	N/A	US\$ 311	
	Alibaba Group Holding Ltd	-	"	-	US\$ 306	N/A	US\$ 306	
	Aon Corp	-	"	-	US\$ 300	N/A	US\$ 300	
	Johnson Controls International plc	-	"	-	US\$ 298	N/A	US\$ 298	
	Mondelez International Inc	-	"	-	US\$ 284	N/A	US\$ 284	
	Southern Natural Gas Co LLC / Southern Natural Issuing Corp	-	"	-	US\$ 277	N/A	US\$ 277	
	Coca-Cola Co/The	-	"	-	US\$ 275	N/A	US\$ 275	
	Huntington National Bank/The	-	"	-	US\$ 257	N/A	US\$ 257	
	EI du Pont de Nemours and Co	-	"	-	US\$ 255	N/A	US\$ 255	
	Capital One Bank USA NA	-	"	-	US\$ 254	N/A	US\$ 254	
	Waste Management Inc	-	"	-	US\$ 251	N/A	US\$ 251	
	Aon PLC	-	"	-	US\$ 246	N/A	US\$ 246	
	Nasdaq Inc	-	"	-	US\$ 220	N/A	US\$ 220	
	Deere & Co	-	"	-	US\$ 217	N/A	US\$ 217	
	Saudi Arabian Oil Co	-	"	-	US\$ 202	N/A	US\$ 202	
	Nucor Corp	-	"	-	US\$ 189	N/A	US\$ 189	
	Dow Chemical Co/The	-	"	-	US\$ 135	N/A	US\$ 135	
	Columbia Property Trust Operating Partnership LP	-	"	-	US\$ 105	N/A	US\$ 105	
	Wells Fargo & Company	-	Financial assets at amortized cost	-	US\$ 180,487	N/A	US\$ 182,212	
	Citigroup Global Market Inc.	-	"	-	US\$ 99,965	N/A	US\$ 100,488	
	JPMorgan Chase & Co.	-	"	-	US\$ 95,058	N/A	US\$ 95,567	
	Goldman Sachs Group Inc/The	-	"	-	US\$ 14,930	N/A	US\$ 15,140	
	<u>Government bond</u>							
	United States Treasury Note/Bond	-	Financial assets at fair value through other comprehensive income	-	US\$ 472,618	N/A	US\$ 472,618	
	Abu Dhabi Government International Bond	-	"	-	US\$ 5,023	N/A	US\$ 5,023	
	Qatar Government International Bond	-	"	-	US\$ 1,396	N/A	US\$ 1,396	
	<u>Agency bonds/Agency mortgage-backed securities</u>							
	Fannie Mae Pool	-	Financial assets at fair value through other comprehensive income	-	US\$ 518,729	N/A	US\$ 518,729	
	Ginnie Mae II Pool	-	"	-	US\$ 297,578	N/A	US\$ 297,578	
	Fannie Mae REMICS	-	"	-	US\$ 134,588	N/A	US\$ 134,588	
	Freddie Mac REMICS	-	"	-	US\$ 128,111	N/A	US\$ 128,111	
	Freddie Mac Pool	-	"	-	US\$ 121,514	N/A	US\$ 121,514	
	Fannie Mae or Freddie Mac	-	"	-	US\$ 110,508	N/A	US\$ 110,508	
	Ginnie Mae	-	"	-	US\$ 99,267	N/A	US\$ 99,267	
	Freddie Mac Gold Pool	-	"	-	US\$ 80,113	N/A	US\$ 80,113	
	Government National Mortgage Association	-	"	-	US\$ 35,743	N/A	US\$ 35,743	
	Fannie Mae-Aces	-	"	-	US\$ 19,416	N/A	US\$ 19,416	
	Freddie Mac Strips	-	"	-	US\$ 3,760	N/A	US\$ 3,760	
	State Board of Administration Finance Corp	-	"	-	US\$ 3,605	N/A	US\$ 3,605	
	University of California	-	"	-	US\$ 1,947	N/A	US\$ 1,947	
	Korea Hydro & Nuclear Power Co Ltd	-	"	-	US\$ 1,942	N/A	US\$ 1,942	
	Federal National Mortgage Association	-	"	-	US\$ 1,159	N/A	US\$ 1,159	
	Denver City & County Housing Authority	-	"	-	US\$ 1,029	N/A	US\$ 1,029	

(Continued)



Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Ginnie Mae I Pool	-	Financial assets at fair value through other comprehensive income	-	US\$ 976	N/A	US\$ 976	
	Oregon Health & Science University	-	"	-	US\$ 826	N/A	US\$ 826	
	FRESB 2019-SB61 Mortgage Trust	-	"	-	US\$ 623	N/A	US\$ 623	
	Freddie Mac Multifamily Structured Pass Through Certificates	-	"	-	US\$ 596	N/A	US\$ 596	
	State of Hawaii	-	"	-	US\$ 556	N/A	US\$ 556	
	FHLMC-GNMA	-	"	-	US\$ 535	N/A	US\$ 535	
	State of Wisconsin	-	"	-	US\$ 526	N/A	US\$ 526	
	Brazos Higher Education Authority Inc	-	"	-	US\$ 480	N/A	US\$ 480	
	FRESB 2019-SB60 Mortgage Trust	-	"	-	US\$ 412	N/A	US\$ 412	
	Freddie Mac Non Gold Pool	-	"	-	US\$ 300	N/A	US\$ 300	
	Sales Tax Securitization Corp	-	"	-	US\$ 252	N/A	US\$ 252	
	Fannie Mae Benchmark REMIC	-	"	-	US\$ 97	N/A	US\$ 97	
	<u>Asset-backed securities</u>							
	JPMBB Commercial Mortgage Securities Trust 2014-C24	-	Financial assets at fair value through other comprehensive income	-	US\$ 8,013	N/A	US\$ 8,013	
	Wells Fargo Commercial Mortgage Trust 2016-BNK1	-	"	-	US\$ 7,881	N/A	US\$ 7,881	
	BANK 2020-BNK26	-	"	-	US\$ 7,325	N/A	US\$ 7,325	
	Citigroup Commercial Mortgage Trust 2014-GC21	-	"	-	US\$ 6,888	N/A	US\$ 6,888	
	CGDBB Commercial Mortgage Trust 2017-BIOC	-	"	-	US\$ 6,854	N/A	US\$ 6,854	
	Hyundai Auto Receivables Trust 2017-A	-	"	-	US\$ 6,742	N/A	US\$ 6,742	
	Benchmark 2019-B11 Mortgage Trust	-	"	-	US\$ 6,533	N/A	US\$ 6,533	
	Wells Fargo Commercial Mortgage Trust 2016-C35	-	"	-	US\$ 6,388	N/A	US\$ 6,388	
	Morgan Stanley Bank of America Merrill Lynch Trust 2016-C29	-	"	-	US\$ 6,074	N/A	US\$ 6,074	
	UBS-Barclays Commercial Mortgage Trust 2012-C2	-	"	-	US\$ 5,743	N/A	US\$ 5,743	
	WFRBS Commercial Mortgage Trust 2013-C13	-	"	-	US\$ 5,663	N/A	US\$ 5,663	
	BBCMS 2018-TALL Mortgage Trust	-	"	-	US\$ 5,403	N/A	US\$ 5,403	
	Morgan Stanley Bank of America Merrill Lynch Trust 2016-C30	-	"	-	US\$ 5,372	N/A	US\$ 5,372	
	COMM 2015-CCRE24 Mortgage Trust	-	"	-	US\$ 5,333	N/A	US\$ 5,333	
	Morgan Stanley Bank of America Merrill Lynch Trust 2013-C10	-	"	-	US\$ 5,071	N/A	US\$ 5,071	
	MBCD 2019-MARK Mortgage Trust	-	"	-	US\$ 4,917	N/A	US\$ 4,917	
	BANK 2019-BNK22	-	"	-	US\$ 4,583	N/A	US\$ 4,583	
	Mercedes-Benz Auto Lease Trust 2019-B	-	"	-	US\$ 4,333	N/A	US\$ 4,333	
	BANK 2017-BNK5	-	"	-	US\$ 4,272	N/A	US\$ 4,272	
	JPMCC Commercial Mortgage Securities Trust 2017-JP7	-	"	-	US\$ 4,261	N/A	US\$ 4,261	
	BANK 2017-BNK6	-	"	-	US\$ 4,254	N/A	US\$ 4,254	
	UBS Commercial Mortgage Trust 2018-C10	-	"	-	US\$ 4,248	N/A	US\$ 4,248	
	BANK 2019-BNK17	-	"	-	US\$ 4,234	N/A	US\$ 4,234	
	Morgan Stanley Bank of America Merrill Lynch Trust 2013-C7	-	"	-	US\$ 4,024	N/A	US\$ 4,024	
	JP Morgan Chase Commercial Mortgage Securities Trust 2012-LC9	-	"	-	US\$ 4,020	N/A	US\$ 4,020	
	Enterprise Fleet Financing 2020-1 LLC	-	"	-	US\$ 3,870	N/A	US\$ 3,870	
	JPMBB Commercial Mortgage Securities Trust 2015-C28	-	"	-	US\$ 3,620	N/A	US\$ 3,620	
	Benchmark 2018-B2 Mortgage Trust	-	"	-	US\$ 3,482	N/A	US\$ 3,482	
	UBS-Barclays Commercial Mortgage Trust 2013-C6	-	"	-	US\$ 3,321	N/A	US\$ 3,321	
	GS Mortgage Securities Trust 2012-GC6	-	"	-	US\$ 3,188	N/A	US\$ 3,188	
	Ford Credit Auto Lease Trust 2019-B	-	"	-	US\$ 3,139	N/A	US\$ 3,139	
	Wells Fargo Commercial Mortgage Trust 2017-C40	-	"	-	US\$ 3,063	N/A	US\$ 3,063	
	Morgan Stanley Capital I Trust 2017-H1	-	"	-	US\$ 3,051	N/A	US\$ 3,051	
	Citigroup Commercial Mortgage Trust 2016-P5	-	"	-	US\$ 3,017	N/A	US\$ 3,017	
	Hyundai Auto Receivables Trust 2018-A	-	"	-	US\$ 2,942	N/A	US\$ 2,942	
	Nissan Auto Lease Trust 2019-B	-	"	-	US\$ 2,899	N/A	US\$ 2,899	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	GS Mortgage Securities Corp Trust 2018-RIVR	-	Financial assets at fair value through other comprehensive income	-	US\$ 2,873	N/A	US\$ 2,873	
	Ford Credit Auto Lease Trust 2020-B	-	"	-	US\$ 2,869	N/A	US\$ 2,869	
	UBS-Barclays Commercial Mortgage Trust 2012-C3	-	"	-	US\$ 2,865	N/A	US\$ 2,865	
	BANK 2019-BNK24	-	"	-	US\$ 2,829	N/A	US\$ 2,829	
	Citigroup Commercial Mortgage Trust 2016-C3	-	"	-	US\$ 2,781	N/A	US\$ 2,781	
	Enterprise Fleet Financing 2019-2 LLC	-	"	-	US\$ 2,770	N/A	US\$ 2,770	
	BX Commercial Mortgage Trust 2018-IND	-	"	-	US\$ 2,760	N/A	US\$ 2,760	
	GS Mortgage Securities Trust 2013-GCJ12	-	"	-	US\$ 2,717	N/A	US\$ 2,717	
	Wells Fargo Commercial Mortgage Trust 2020-C55	-	"	-	US\$ 2,638	N/A	US\$ 2,638	
	Ford Credit Auto Owner Trust 2020-REV1	-	"	-	US\$ 2,635	N/A	US\$ 2,635	
	GM Financial Consumer Automobile Receivables Trust 2017-2	-	"	-	US\$ 2,524	N/A	US\$ 2,524	
	American Express Credit Account Master Trust	-	"	-	US\$ 2,519	N/A	US\$ 2,519	
	BBCMS Mortgage Trust 2020-C8	-	"	-	US\$ 2,478	N/A	US\$ 2,478	
	Morgan Stanley Bank of America Merrill Lynch Trust 2012-C6	-	"	-	US\$ 2,470	N/A	US\$ 2,470	
	Citibank Credit Card Issuance Trust	-	"	-	US\$ 2,304	N/A	US\$ 2,304	
	UBS Commercial Mortgage Trust 2018-C11	-	"	-	US\$ 2,243	N/A	US\$ 2,243	
	Morgan Stanley Capital I Trust 2018-H3	-	"	-	US\$ 2,240	N/A	US\$ 2,240	
	COMM 2013-CCRE12 Mortgage Trust	-	"	-	US\$ 2,165	N/A	US\$ 2,165	
	BENCHMARK 2018-B4	-	"	-	US\$ 2,163	N/A	US\$ 2,163	
	JPMDDB Commercial Mortgage Securities Trust 2017-C7	-	"	-	US\$ 2,126	N/A	US\$ 2,126	
	Citigroup Commercial Mortgage Trust 2017-P8	-	"	-	US\$ 2,103	N/A	US\$ 2,103	
	Ford Credit Auto Owner Trust 2019-A	-	"	-	US\$ 2,096	N/A	US\$ 2,096	
	Morgan Stanley Bank of America Merrill Lynch Trust 2016-C31	-	"	-	US\$ 2,068	N/A	US\$ 2,068	
	JPMBB Commercial Mortgage Securities Trust 2014-C19	-	"	-	US\$ 2,015	N/A	US\$ 2,015	
	Hyundai Auto Receivables Trust 2016-B	-	"	-	US\$ 1,913	N/A	US\$ 1,913	
	Morgan Stanley Bank of America Merrill Lynch Trust 2013-C8	-	"	-	US\$ 1,866	N/A	US\$ 1,866	
	Wells Fargo Commercial Mortgage Trust 2012-LC5	-	"	-	US\$ 1,716	N/A	US\$ 1,716	
	Wells Fargo Commercial Mortgage Trust 2015-C28	-	"	-	US\$ 1,586	N/A	US\$ 1,586	
	WFRBS Commercial Mortgage Trust 2013-C17	-	"	-	US\$ 1,578	N/A	US\$ 1,578	
	COMM 2014-CCRE17 Mortgage Trust	-	"	-	US\$ 1,568	N/A	US\$ 1,568	
	JPMBB Commercial Mortgage Securities Trust 2013-C12	-	"	-	US\$ 1,563	N/A	US\$ 1,563	
	COMM 2020-CBM Mortgage Trust	-	"	-	US\$ 1,535	N/A	US\$ 1,535	
	ARI Fleet Lease Trust 2019-A	-	"	-	US\$ 1,497	N/A	US\$ 1,497	
	GS Mortgage Securities Trust 2014-GC22	-	"	-	US\$ 1,476	N/A	US\$ 1,476	
	Wells Fargo Commercial Mortgage Trust 2016-C36	-	"	-	US\$ 1,411	N/A	US\$ 1,411	
	Honda Auto Receivables 2017-3 Owner Trust	-	"	-	US\$ 1,385	N/A	US\$ 1,385	
	Toyota Auto Receivables 2018-D Owner Trust	-	"	-	US\$ 1,341	N/A	US\$ 1,341	
	DBGS 2018-BIOD Mortgage Trust	-	"	-	US\$ 1,299	N/A	US\$ 1,299	
	Nissan Auto Lease Trust 2019-A	-	"	-	US\$ 1,243	N/A	US\$ 1,243	
	Chase Issuance Trust	-	"	-	US\$ 1,231	N/A	US\$ 1,231	
	GM Financial Automobile Leasing Trust 2019-4	-	"	-	US\$ 1,218	N/A	US\$ 1,218	
	Morgan Stanley Capital I Trust 2019-H6	-	"	-	US\$ 1,188	N/A	US\$ 1,188	
	Benchmark 2019-B14 Mortgage Trust	-	"	-	US\$ 1,178	N/A	US\$ 1,178	
	GS Mortgage Securities Trust 2014-GC24	-	"	-	US\$ 1,168	N/A	US\$ 1,168	
	Hyundai Auto Receivables Trust 2019-B	-	"	-	US\$ 1,165	N/A	US\$ 1,165	
	GM Financial Consumer Automobile Receivables Trust 2018-1	-	"	-	US\$ 1,138	N/A	US\$ 1,138	
	GS Mortgage Securities Trust 2019-GSA1	-	"	-	US\$ 1,072	N/A	US\$ 1,072	
	Morgan Stanley Bank of America Merrill Lynch Trust 2013-C12	-	"	-	US\$ 1,047	N/A	US\$ 1,047	
	Ford Credit Auto Owner Trust 2017-REV1	-	"	-	US\$ 1,025	N/A	US\$ 1,025	
	COMM 2013-LC6 Mortgage Trust	-	"	-	US\$ 1,013	N/A	US\$ 1,013	
	Ford Credit Auto Lease Trust 2019-A	-	"	-	US\$ 1,013	N/A	US\$ 1,013	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	WFRBS Commercial Mortgage Trust 2011-C4	-	Financial assets at fair value through other comprehensive income	-	US\$ 1,006	N/A	US\$ 1,006	
	Benchmark 2019-B9 Mortgage Trust	-	"	-	US\$ 980	N/A	US\$ 980	
	Citigroup Commercial Mortgage Trust 2013-GC11	-	"	-	US\$ 977	N/A	US\$ 977	
	Citigroup Commercial Mortgage Trust 2015-GC27	-	"	-	US\$ 970	N/A	US\$ 970	
	Hyundai Auto Lease Securitization Trust 2019-A	-	"	-	US\$ 964	N/A	US\$ 964	
	Morgan Stanley Bank of America Merrill Lynch Trust 2013-C13	-	"	-	US\$ 952	N/A	US\$ 952	
	COMM 2012-CCRE5 Mortgage Trust	-	"	-	US\$ 934	N/A	US\$ 934	
	Toyota Auto Receivables 2020-A Owner Trust	-	"	-	US\$ 928	N/A	US\$ 928	
	Wells Fargo Commercial Mortgage Trust 2015-LC20	-	"	-	US\$ 919	N/A	US\$ 919	
	BBCMS MORTGAGE TRUST 2017-C1	-	"	-	US\$ 895	N/A	US\$ 895	
	Benchmark 2019-B15 Mortgage Trust	-	"	-	US\$ 841	N/A	US\$ 841	
	280 Park Avenue 2017-280P Mortgage Trust	-	"	-	US\$ 830	N/A	US\$ 830	
	GM Financial Automobile Leasing Trust 2019-2	-	"	-	US\$ 826	N/A	US\$ 826	
	BANK 2017-BNK7	-	"	-	US\$ 818	N/A	US\$ 818	
	Cantor Commercial Real Estate Lending 2019-CF1	-	"	-	US\$ 797	N/A	US\$ 797	
	Ford Credit Auto Lease Trust	-	"	-	US\$ 790	N/A	US\$ 790	
	Citigroup Commercial Mortgage Trust 2014-GC23	-	"	-	US\$ 778	N/A	US\$ 778	
	Citigroup Commercial Mortgage Trust 2015-GC35	-	"	-	US\$ 773	N/A	US\$ 773	
	Toyota Auto Receivables 2017-A Owner Trust	-	"	-	US\$ 764	N/A	US\$ 764	
	BANK 2019-BNK23	-	"	-	US\$ 741	N/A	US\$ 741	
	Morgan Stanley Capital I Trust 2019-H7	-	"	-	US\$ 733	N/A	US\$ 733	
	COMM 2013-CCRE8 Mortgage Trust	-	"	-	US\$ 716	N/A	US\$ 716	
	Wells Fargo Commercial Mortgage Trust 2015-NXS3	-	"	-	US\$ 696	N/A	US\$ 696	
	GM Financial Automobile Leasing Trust 2019-1	-	"	-	US\$ 672	N/A	US\$ 672	
	GM Financial Automobile Leasing Trust 2019-3	-	"	-	US\$ 655	N/A	US\$ 655	
	COMM 2015-CCRE22 Mortgage Trust	-	"	-	US\$ 627	N/A	US\$ 627	
	Mercedes-Benz Auto Lease Trust 2019-A	-	"	-	US\$ 617	N/A	US\$ 617	
	GS Mortgage Securities Corp Trust 2020-UPTN	-	"	-	US\$ 602	N/A	US\$ 602	
	CD 2016-CD2 Mortgage Trust	-	"	-	US\$ 503	N/A	US\$ 503	
	JPMDB Commercial Mortgage Securities Trust 2019-COR6	-	"	-	US\$ 500	N/A	US\$ 500	
	JP Morgan Chase Commercial Mortgage Securities Trust 2015-JP1	-	"	-	US\$ 492	N/A	US\$ 492	
	Citigroup Commercial Mortgage Trust 2014-GC19	-	"	-	US\$ 444	N/A	US\$ 444	
	Chesapeake Funding II LLC	-	"	-	US\$ 403	N/A	US\$ 403	
	DBUBS 2011-LC2 Mortgage Trust	-	"	-	US\$ 392	N/A	US\$ 392	
	WFRBS Commercial Mortgage Trust 2014-C25	-	"	-	US\$ 385	N/A	US\$ 385	
	GS Mortgage Securities Trust 2014-GC26	-	"	-	US\$ 383	N/A	US\$ 383	
	UBS-Barclays Commercial Mortgage Trust 2013-C5	-	"	-	US\$ 370	N/A	US\$ 370	
	Mercedes-Benz Auto Lease Trust 2018-B	-	"	-	US\$ 368	N/A	US\$ 368	
	Morgan Stanley Bank of America Merrill Lynch Trust 2012-C5	-	"	-	US\$ 197	N/A	US\$ 197	
	Honda Auto Receivables 2020-2 Owner Trust	-	"	-	US\$ 166	N/A	US\$ 166	
	COMM 2015-DC1 Mortgage Trust	-	"	-	US\$ 165	N/A	US\$ 165	
	BANK 2020-BNK28	-	"	-	US\$ 156	N/A	US\$ 156	
	Toyota Auto Receivables 2018-B Owner Trust	-	"	-	US\$ 132	N/A	US\$ 132	
	BBCMS Mortgage Trust 2020-C7	-	"	-	US\$ 110	N/A	US\$ 110	
	CFCRE Commercial Mortgage Trust 2011-C1	-	"	-	US\$ 73	N/A	US\$ 73	
	COMM 2014-CCRE15 Mortgage Trust	-	"	-	US\$ 46	N/A	US\$ 46	
	Wells Fargo Commercial Mortgage Trust 2015-NXS1	-	"	-	US\$ 36	N/A	US\$ 36	
	<u>Non-publicly traded equity investments</u>							
	Primavera Capital Fund II L.P.	-	Financial assets at fair value through other comprehensive income	-	US\$ 81,161	4	US\$ 81,161	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2020				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
VTAF II	<u>Non-publicly traded equity investments</u> Aether Systems, Inc.	-	Financial assets at fair value through other comprehensive income	1,085	US\$ 386	20	US\$ 386	
	5V Technologies, Inc.	-	"	4	-	-	-	
	<u>Publicly traded stocks</u> Sentelic Corporation	-	Financial assets at fair value through other comprehensive income	1,019	US\$ 1,778	3	US\$ 1,778	
VTAF III	<u>Non-publicly traded equity investments</u> LiquidLeds Lighting Corp.	-	Financial assets at fair value through other comprehensive income	1,952	US\$ 800	14	US\$ 800	
	Neoconix, Inc.	-	"	4,147	US\$ 174	-	US\$ 174	
Growth Fund	<u>Non-publicly traded equity investments</u> Innovium, Inc.	-	Financial assets at fair value through other comprehensive income	230	US\$ 1,863	-	US\$ 1,863	
	Innovium, Inc.	-	"	221	US\$ 1,793	-	US\$ 1,793	
	CNEX Labs, Inc.	-	"	237	US\$ 479	-	US\$ 479	
	Astera Labs, Inc.	-	"	127	US\$ 250	-	US\$ 250	

(Concluded)

## Taiwan Semiconductor Manufacturing Company Limited 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 YEAR ENDED DECEMBER 31, 2020

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counterparty	Nature of Relationship	Beginning Balance		Acquisition		Disposal			Ending Balance (Note)		
					Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Carrying Value	Gain/Loss on Disposal	Shares/Units (In Thousands)	Amount
TSMC Global	Corporate bond													
	Bank of America Corp	Financial assets at fair value through other comprehensive income	-	-	-	US\$ 46,084	-	US\$ 35,954	-	US\$ 25,078	US\$ 23,852	US\$ 1,226	-	US\$ 58,724
	Mitsubishi UFJ Financial Group Inc	"	-	-	-	US\$ 21,332	-	US\$ 16,408	-	US\$ 3,583	US\$ 3,565	US\$ 18	-	US\$ 34,946
	AbbVie Inc	"	-	-	-	US\$ 31,425	-	US\$ 30,755	-	US\$ 30,437	US\$ 30,223	US\$ 214	-	US\$ 33,716
	Goldman Sachs Group Inc/The	"	-	-	-	US\$ 25,789	-	US\$ 18,529	-	US\$ 15,109	US\$ 14,762	US\$ 347	-	US\$ 29,809
	JPMorgan Chase & Co	"	-	-	-	US\$ 20,825	-	US\$ 11,988	-	US\$ 4,033	US\$ 4,000	US\$ 33	-	US\$ 29,759
	Wells Fargo & Co	"	-	-	-	US\$ 11,864	-	US\$ 17,277	-	US\$ 4,109	US\$ 3,956	US\$ 153	-	US\$ 26,074
	Metropolitan Life Global Funding I	"	-	-	-	US\$ 8,222	-	US\$ 22,410	-	US\$ 9,691	US\$ 9,427	US\$ 264	-	US\$ 21,597
	Bristol-Myers Squibb Co	"	-	-	-	US\$ 21,666	-	US\$ 26,225	-	US\$ 27,630	US\$ 27,393	US\$ 237	-	US\$ 21,090
	Mizuho Financial Group Inc	"	-	-	-	US\$ 10,307	-	US\$ 14,034	-	US\$ 3,862	US\$ 3,774	US\$ 88	-	US\$ 20,795
	Toyota Motor Credit Corp	"	-	-	-	US\$ -	-	US\$ 18,775	-	US\$ -	US\$ -	US\$ -	-	US\$ 19,401
	HSBC Holdings PLC	"	-	-	-	US\$ 20,102	-	US\$ 9,739	-	US\$ 14,126	US\$ 13,853	US\$ 273	-	US\$ 16,113
	Hyundai Capital America	"	-	-	-	US\$ 3,187	-	US\$ 12,872	-	US\$ 406	US\$ 400	US\$ 6	-	US\$ 15,983
	Santander UK PLC	"	-	-	-	US\$ 8,272	-	US\$ 11,560	-	US\$ 4,480	US\$ 4,322	US\$ 158	-	US\$ 15,704
	Volkswagen Group of America Finance LLC	"	-	-	-	US\$ 3,896	-	US\$ 13,134	-	US\$ 1,777	US\$ 1,754	US\$ 23	-	US\$ 15,417
	National Securities Clearing Corp	"	-	-	-	US\$ -	-	US\$ 15,211	-	US\$ 1,473	US\$ 1,449	US\$ 24	-	US\$ 14,129
	Lloyds Banking Group PLC	"	-	-	-	US\$ 2,359	-	US\$ 10,734	-	US\$ -	US\$ -	US\$ -	-	US\$ 13,428
	AT&T Inc	"	-	-	-	US\$ 26,140	-	US\$ 15,881	-	US\$ 30,123	US\$ 28,835	US\$ 1,288	-	US\$ 13,180
	Chevron Corp	"	-	-	-	US\$ -	-	US\$ 13,770	-	US\$ 1,574	US\$ 1,530	US\$ 44	-	US\$ 12,771
	Royal Bank of Canada	"	-	-	-	US\$ 1,004	-	US\$ 15,844	-	US\$ 5,082	US\$ 4,983	US\$ 99	-	US\$ 12,271
	Guardian Life Global Funding	"	-	-	-	US\$ 1,502	-	US\$ 10,601	-	US\$ -	US\$ -	US\$ -	-	US\$ 12,187
	US Bancorp	"	-	-	-	US\$ 2,028	-	US\$ 11,094	-	US\$ 2,000	US\$ 1,953	US\$ 47	-	US\$ 11,651
	American Honda Finance Corp	"	-	-	-	US\$ -	-	US\$ 11,210	-	US\$ -	US\$ -	US\$ -	-	US\$ 11,354
	Amazon.com Inc	"	-	-	-	US\$ 1,018	-	US\$ 10,687	-	US\$ 1,054	US\$ 976	US\$ 78	-	US\$ 10,846
	TJX Cos Inc/The	"	-	-	-	US\$ -	-	US\$ 12,500	-	US\$ 3,429	US\$ 3,150	US\$ 279	-	US\$ 10,563
	Verizon Communications Inc	"	-	-	-	US\$ 14,058	-	US\$ 9,489	-	US\$ 13,490	US\$ 12,509	US\$ 981	-	US\$ 10,558
	Equinor ASA	"	-	-	-	US\$ -	-	US\$ 11,811	-	US\$ 3,052	US\$ 2,889	US\$ 163	-	US\$ 9,635
	Exxon Mobil Corp	"	-	-	-	US\$ -	-	US\$ 17,331	-	US\$ 10,272	US\$ 10,025	US\$ 247	-	US\$ 7,576
	CVS Health Corp	"	-	-	-	US\$ 22,242	-	US\$ 4,205	-	US\$ 21,034	US\$ 20,205	US\$ 829	-	US\$ 5,981
	Fox Corp	"	-	-	-	US\$ 7,331	-	US\$ 10,171	-	US\$ 12,216	US\$ 12,059	US\$ 157	-	US\$ 5,483
	ERAC USA Finance LLC	"	-	-	-	US\$ 11,904	-	US\$ 3,659	-	US\$ 11,312	US\$ 11,159	US\$ 153	-	US\$ 4,298
	JPMorgan Chase & Co	"	-	-	-	US\$ 7,849	-	US\$ 7,837	-	US\$ 11,950	US\$ 11,819	US\$ 131	-	US\$ 3,981
	Hewlett Packard Enterprise Co	"	-	-	-	US\$ 10,661	-	US\$ 3,863	-	US\$ 11,564	US\$ 11,142	US\$ 422	-	US\$ 3,439
	Walt Disney Co/The	"	-	-	-	US\$ 3,246	-	US\$ 23,391	-	US\$ 25,026	US\$ 23,723	US\$ 1,303	-	US\$ 3,058
	General Dynamics Corp	"	-	-	-	US\$ 6,297	-	US\$ 9,418	-	US\$ 15,546	US\$ 14,412	US\$ 1,134	-	US\$ 1,238
	Wells Fargo & Co	Financial assets at amortized cost	-	-	-	US\$ 160,098	-	US\$ 20,630	-	US\$ -	US\$ -	US\$ -	-	US\$ 180,487
	Citigroup Global Market Inc.	"	-	-	-	-	-	US\$ 100,000	-	US\$ -	US\$ -	US\$ -	-	US\$ 99,965
	JPMorgan Chase & Co.	"	-	-	-	US\$ 84,967	-	US\$ 10,111	-	US\$ -	US\$ -	US\$ -	-	US\$ 95,058
	Goldman Sachs Group Inc/The	"	-	-	-	-	-	US\$ 14,930	-	US\$ -	US\$ -	US\$ -	-	US\$ 14,930

(Continued)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counterparty	Nature of Relationship	Beginning Balance		Acquisition		Disposal			Ending Balance (Note)		
					Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Carrying Value	Gain/Loss on Disposal	Shares/Units (In Thousands)	Amount
TSMC Global	<u>Government bond</u>				-		-		-				-	
	United States Treasury Note/Bond	Financial assets at fair value through other comprehensive income	-	-	-	US\$ 419,942	-	US\$ 683,985	-	US\$ 836,067	US\$ 817,467	US\$ 18,600	-	US\$ 287,012
	United States Treasury Note/Bond	"	-	-	-	US\$ -	-	US\$ 243,371	-	US\$ 60,688	US\$ 60,688	US\$ -	-	US\$ 182,533
	<u>Agency bonds/Agency mortgage-backed securities</u>				-		-		-				-	
	Fannie Mae or Freddie Mac	Financial assets at fair value through other comprehensive income	-	-	-	US\$ -	-	US\$ 671,704	-	US\$ 630,072	US\$ 628,929	US\$ 1,143	-	US\$ 42,872
	Ginnie Mae	"	-	-	-	US\$ -	-	US\$ 371,076	-	US\$ 329,867	US\$ 329,505	US\$ 362	-	US\$ 41,775
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 31,529	-	US\$ 77	US\$ 81	US\$ (4)	-	US\$ 31,812
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 31,618	-	US\$ -	US\$ -	US\$ -	-	US\$ 31,787
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 31,658	-	US\$ -	US\$ -	US\$ -	-	US\$ 31,756
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 31,057	-	US\$ 5	US\$ 5	US\$ -	-	US\$ 31,174
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 30,824	-	US\$ 2,420	US\$ 2,406	US\$ 14	-	US\$ 28,723
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 28,376	-	US\$ -	US\$ -	US\$ -	-	US\$ 28,537
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 28,251	-	US\$ 243	US\$ 253	US\$ (10)	-	US\$ 28,188
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 28,496	-	US\$ 3,626	US\$ 3,632	US\$ (6)	-	US\$ 24,963
	FNMA TBA 30 Yr 4	"	-	-	-	US\$ 17,372	-	US\$ 413,102	-	US\$ 409,695	US\$ 409,435	US\$ 260	-	US\$ 21,036
	Freddie Mac Pool	"	-	-	-	US\$ -	-	US\$ 26,913	-	US\$ 6,834	US\$ 6,806	US\$ 28	-	US\$ 20,247
	FNMA TBA 30 Yr 3.5	"	-	-	-	US\$ 9,259	-	US\$ 538,814	-	US\$ 528,608	US\$ 528,389	US\$ 219	-	US\$ 19,673
	GNMA II TBA 30 Yr 3.5	"	-	-	-	US\$ 10,517	-	US\$ 405,941	-	US\$ 397,904	US\$ 397,624	US\$ 280	-	US\$ 18,900
	Ginnie Mae	"	-	-	-	US\$ -	-	US\$ 150,623	-	US\$ 132,937	US\$ 132,781	US\$ 156	-	US\$ 17,896
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 18,793	-	US\$ 1,872	US\$ 1,994	US\$ (122)	-	US\$ 17,503
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 17,435	-	US\$ -	US\$ -	US\$ -	-	US\$ 17,474
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 16,176	-	US\$ 209	US\$ 220	US\$ (11)	-	US\$ 15,890
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 15,207	-	US\$ 917	US\$ 959	US\$ (42)	-	US\$ 14,294
	GNMA II TBA 30 Yr 3	"	-	-	-	US\$ 15,095	-	US\$ 546,063	-	US\$ 547,550	US\$ 546,840	US\$ 710	-	US\$ 14,249
	Freddie Mac	"	-	-	-	US\$ 696	-	US\$ 15,872	-	US\$ 2,926	US\$ 3,119	US\$ (193)	-	US\$ 13,631
	Freddie Mac Gold Pool	"	-	-	-	US\$ -	-	US\$ 12,610	-	US\$ 2,904	US\$ 3,043	US\$ (139)	-	US\$ 9,723
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 17,468	-	US\$ 8,915	US\$ 8,946	US\$ (31)	-	US\$ 8,515
	FNMA TBA 30 Yr 4.5	"	-	-	-	US\$ 20,165	-	US\$ 369,946	-	US\$ 382,027	US\$ 381,698	US\$ 329	-	US\$ 8,394
	Fannie Mae or Freddie Mac	"	-	-	-	US\$ 987	-	US\$ 207,006	-	US\$ 202,126	US\$ 201,841	US\$ 285	-	US\$ 6,155
	GNMA II TBA 30 Yr 4.5	"	-	-	-	US\$ 7,496	-	US\$ 56,467	-	US\$ 58,653	US\$ 58,590	US\$ 63	-	US\$ 5,381
	Fannie Mae or Freddie Mac	"	-	-	-	US\$ -	-	US\$ 13,115	-	US\$ 8,732	US\$ 8,752	US\$ (20)	-	US\$ 4,377
	Fannie Mae or Freddie Mac	"	-	-	-	US\$ -	-	US\$ 28,040	-	US\$ 24,518	US\$ 24,461	US\$ 57	-	US\$ 3,592
	Fannie Mae or Freddie Mac	"	-	-	-	US\$ -	-	US\$ 720,211	-	US\$ 718,892	US\$ 716,978	US\$ 1,914	-	US\$ 3,253
	GNMA II TBA 30 Yr 4	"	-	-	-	US\$ -	-	US\$ 36,042	-	US\$ 35,090	US\$ 34,978	US\$ 112	-	US\$ 1,067
	Fannie Mae or Freddie Mac	"	-	-	-	US\$ -	-	US\$ 25,440	-	US\$ 24,718	US\$ 24,658	US\$ 60	-	US\$ 782
	Fannie Mae Pool	"	-	-	-	US\$ 16,230	-	US\$ -	-	US\$ 16,413	US\$ 16,148	US\$ 265	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 11,962	-	US\$ -	-	US\$ 12,079	US\$ 11,900	US\$ 179	-	US\$ -
	Freddie Mac Gold Pool	"	-	-	-	US\$ 19,392	-	US\$ -	-	US\$ 19,677	US\$ 19,135	US\$ 542	-	US\$ -
	Freddie Mac Pool	"	-	-	-	US\$ -	-	US\$ 30,881	-	US\$ 30,624	US\$ 30,845	US\$ (221)	-	US\$ -
	Freddie Mac Pool	"	-	-	-	US\$ -	-	US\$ 11,321	-	US\$ 11,441	US\$ 11,320	US\$ 121	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 29,463	-	US\$ -	-	US\$ 29,873	US\$ 29,355	US\$ 518	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 13,261	-	US\$ -	-	US\$ 12,741	US\$ 12,622	US\$ 119	-	US\$ -
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 29,498	-	US\$ 29,527	US\$ 29,476	US\$ 51	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 40,438	-	US\$ -	-	US\$ 40,787	US\$ 40,399	US\$ 388	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 42,143	-	US\$ 42,162	US\$ 42,119	US\$ 43	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 22,677	-	US\$ -	-	US\$ 23,181	US\$ 22,349	US\$ 832	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 12,810	-	US\$ 12,807	US\$ 12,809	US\$ (2)	-	US\$ -
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 19,016	-	US\$ 18,664	US\$ 19,009	US\$ (345)	-	US\$ -

(Continued)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counterparty	Nature of Relationship	Beginning Balance		Acquisition		Disposal			Ending Balance (Note)		
					Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Carrying Value	Gain/Loss on Disposal	Shares/Units (In Thousands)	Amount
TSMC Global	Fannie Mae Pool	Financial assets at fair value through other comprehensive income	-	-	-	US\$ -	-	US\$ 27,694	-	US\$ 27,598	US\$ 27,659	US\$ (61)	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 26,299	-	US\$ 27,107	US\$ 26,265	US\$ 842	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 43,455	-	US\$ -	-	US\$ 43,789	US\$ 43,333	US\$ 456	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 6,072	-	US\$ 4,451	-	US\$ 10,551	US\$ 10,512	US\$ 39	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 16,122	-	US\$ -	-	US\$ 16,194	US\$ 16,095	US\$ 99	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 28,876	-	US\$ 28,743	US\$ 28,875	US\$ (132)	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 25,431	-	US\$ 26,008	US\$ 25,393	US\$ 615	-	US\$ -
	Freddie Mac Pool	"	-	-	-	US\$ -	-	US\$ 30,971	-	US\$ 31,136	US\$ 30,964	US\$ 172	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 11,248	-	US\$ -	-	US\$ 11,350	US\$ 11,003	US\$ 347	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 19,901	-	US\$ -	-	US\$ 20,081	US\$ 19,418	US\$ 663	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 40,590	-	US\$ 41,110	US\$ 40,555	US\$ 555	-	US\$ -
	Freddie Mac Pool	"	-	-	-	US\$ -	-	US\$ 13,065	-	US\$ 13,073	US\$ 13,044	US\$ 29	-	US\$ -
	Freddie Mac Pool	"	-	-	-	US\$ -	-	US\$ 12,107	-	US\$ 12,146	US\$ 12,080	US\$ 66	-	US\$ -
	Freddie Mac Pool	"	-	-	-	US\$ 12,628	-	US\$ -	-	US\$ 12,111	US\$ 11,994	US\$ 117	-	US\$ -
	FNMA TBA 30 Yr 5	"	-	-	-	US\$ 3,603	-	US\$ 62,210	-	US\$ 65,896	US\$ 65,813	US\$ 83	-	US\$ -
	Ginnie Mae	"	-	-	-	US\$ -	-	US\$ 17,223	-	US\$ 17,315	US\$ 17,223	US\$ 92	-	US\$ -
	FNMA TBA 30 Yr 3	"	-	-	-	US\$ 2,028	-	US\$ 721,017	-	US\$ 723,739	US\$ 722,965	US\$ 774	-	US\$ -
	FNMA TBA 15 Yr 3	"	-	-	-	US\$ 3,073	-	US\$ 9,656	-	US\$ 12,739	US\$ 12,724	US\$ 15	-	US\$ -
	Freddie Mac Pool	"	-	-	-	US\$ -	-	US\$ 19,031	-	US\$ 19,456	US\$ 19,002	US\$ 454	-	US\$ -
	Freddie Mac Gold Pool	"	-	-	-	US\$ 12,480	-	US\$ -	-	US\$ 12,551	US\$ 12,132	US\$ 419	-	US\$ -
	Ginnie Mae II Pool	"	-	-	-	US\$ 513	-	US\$ 13,356	-	US\$ 13,853	US\$ 13,849	US\$ 4	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 35,024	-	US\$ 35,439	US\$ 34,994	US\$ 445	-	US\$ -
	Ginnie Mae II Pool	"	-	-	-	US\$ -	-	US\$ 12,270	-	US\$ 12,345	US\$ 12,262	US\$ 83	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 12,751	-	US\$ 12,782	US\$ 12,731	US\$ 51	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 31,593	-	US\$ 31,900	US\$ 31,554	US\$ 346	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 16,331	-	US\$ 16,375	US\$ 16,327	US\$ 48	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 49,131	-	US\$ 48,934	US\$ 49,083	US\$ (149)	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ 6,284	-	US\$ 7,821	-	US\$ 14,163	US\$ 14,070	US\$ 93	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 30,870	-	US\$ 30,603	US\$ 30,863	US\$ (260)	-	US\$ -
	GNMA II Pool MA6090	"	-	-	-	US\$ 16,840	-	US\$ -	-	US\$ 17,140	US\$ 16,943	US\$ 197	-	US\$ -
	GNMA II Pool MA6155	"	-	-	-	US\$ 23,932	-	US\$ -	-	US\$ 23,946	US\$ 24,029	US\$ (83)	-	US\$ -
	Ginnie Mae II Pool	"	-	-	-	US\$ 5,285	-	US\$ 16,418	-	US\$ 21,492	US\$ 21,683	US\$ (191)	-	US\$ -
	Fannie Mae Pool	"	-	-	-	US\$ -	-	US\$ 19,011	-	US\$ 19,004	US\$ 19,004	US\$ -	-	US\$ -

Note: The ending balance includes the amortization of premium/discount on bonds investments and other related adjustment.

(Concluded)

## Taiwan Semiconductor Manufacturing Company Limited 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 YEAR ENDED DECEMBER 31, 2020

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Fab construction & installation of fab facilities	February 11, 2020 (Note 1)	\$ 47,500,000 (Note 1)	Based on the terms in the purchase order	80 counterparties (Note 1), including : ABB Ltd. Accudevice Co., Ltd. Air Liquide Far Eastern Ltd. Allis Electric Co., Ltd. Am-Power Machine International Enterprise Co., Ltd. Atlas Copco Taiwan Ltd. Atlas Technology Corp. Capital Machinery Limited Chen Yuan International Co., Ltd. Chenfull International Co., Ltd. Cheng Deh Fire Protection Industrial Corp. China Steel Structure Co., Ltd. Chun Yuan Steel Industry Co., Ltd. Cica-Huntek Chemical Technology Taiwan Co., Ltd. Confederate Technology Co., Ltd. Da-Cin Construction Co., Ltd. Desiccant Technology Corporation EDS International Evergreen Steel Corporation Exyte Taiwan Co., Ltd. Fortune Electric Co., Ltd.	-	N/A	N/A	N/A	N/A	Price comparison and price negotiation	Manufacturing purpose	None

(Continued)



Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Fab construction & installation of fab facilities				Fu Tsu Construction Co., Ltd. Hantech Engineering Co., Ltd. Hsieh Kun Co., Ltd. Hueng Luei Process Industry Co., Ltd. Ingersoll-Rand Southeast Asia (Pte) Ltd. Taiwan Branch (Singapore) J.C. Yang Architect and Associates JG Environmental Technology Co., Ltd. JJmr-Clean-Air Solution Tech.Services Co., Ltd. Jusun Instruments Co., Ltd. Kedge Construction Co., Ltd. Kinetics Technology Corporation L&K Engineering Co., Ltd. Lead-Fu Industrials Corporation Mandartech Interiors Inc. Marketech International Corp. Mega Union Technology Incorporated Organo Technology Co., Ltd. Ovivo Taiwan Co., Ltd. Pan Asia (Engineers & Constructors) Corporation San Fu Chemical Co., Ltd. Schneider Electric Taiwan Co., Ltd. Shihlin Electric & Engineering Corporation Siemens Limited Solomon Technology Corporation Swift Engineering Co., Ltd. Taiwan Gleno Enterprise Co., Ltd. Taiwan Puritic Corp. TASA Construction Corporation Techgo Industrial Co., Ltd. Trusval Technology Co., Ltd.								

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Fab construction & installation of fab facilities				Tung Kang Steel Structure Corp. Uangyih-Tech Industrial Co., Ltd. Unelectra International Corp. United Integrated Services Co., Ltd. Versum Materials Taiwan Co., Ltd. Weltall Technology Corporation Wholtech System Hitech Limited Yang Lung-Shih Architect & Associates Yangtech Engineering Co., Ltd. Yankey Engineering Co., Ltd. Ying Pao Technology Inc. Zhao-Cheng Corp.								
	Fab construction & installation of fab facilities	May 12, 2020 (Note 1)	\$ 66,600,000 (Note 1)	Based on the terms in the purchase order	84 counterparties (Note 1), including :  ABB Ltd. Accudevice Co., Ltd. Air Liquide Far Eastern Ltd. Allis Electric Co., Ltd. Am-Power Machine International Enterprise Co., Ltd. Atlas Copco Taiwan Ltd. Atlas Technology Corp. Capital Machinery Limited Chen Yuan International Co., Ltd. Chenfull International Co., Ltd. Cheng Deh Fire Protection Industrial Corp. Chien Kuo Construction Co., Ltd. China Steel Structure Co., Ltd. Chun Yuan Steel Industry Co., Ltd. Chung-Lin General Contractors, Ltd.	-	N/A	N/A	N/A	N/A	Price comparison and price negotiation	Manufacturing purpose	None

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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				
TSMC	Fab construction & installation of fab facilities				Cica-Huntek Chemical Technology Taiwan Co., Ltd. Confederate Technology Co., Ltd. Da-Cin Construction Co., Ltd. Desiccant Technology Corporation Evergreen Steel Corporation Exyte Taiwan Co., Ltd. Fortune Electric Co., Ltd. Fu Tsu Construction Co., Ltd. Hantech Engineering Co., Ltd. Hsieh Kun Co., Ltd. Hueng Luei Process Industry Co., Ltd. Ingersoll-Rand Southeast Asia (Pte) Ltd. Taiwan Branch (Singapore) J.C. Yang Architect and Associates JG Environmental Technology Co., Ltd. JJmr-Clean-Air Solution Tech.Services Co., Ltd. Jusun Instruments Co., Ltd. Kedge Construction Co., Ltd. Kinetics Technology Corporation L&K Engineering Co., Ltd. Lead-Fu Industrials Corporation Lee Ming Construction Co., Ltd. Li Jin Engineering Co., Ltd. Mandartech Interiors Inc. Marketech International Corp. Mega Union Technology Incorporated Obayashi Corporation Organo Technology Co., Ltd. Ovivo Taiwan Co., Ltd.									

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Fab construction & installation of fab facilities				Pan Asia (Engineers & Constructors) Corporation San Fu Chemical Co., Ltd. San Min Construction Development Schneider Electric Taiwan Co., Ltd. Shihlin Electric & Engineering Corporation Siemens Limited Solomon Technology Corporation Swift Engineering Co., Ltd. Taiwan Gleno Enterprise Co., Ltd. Taiwan Puritic Corp. TASA Construction Corporation Techgo Industrial Co., Ltd. Trusval Technology Co., Ltd. Tung Kang Steel Structure Corp. Uangyih-Tech Industrial Co., Ltd. Unelectra International Corp. United Integrated Services Co., Ltd. Versum Materials Taiwan Co., Ltd. Weltall Technology Corporation Wholtech System Hitech Limited Yangtech Engineering Co., Ltd. Yankey Engineering Co., Ltd. Ying Pao Technology Inc. Zhao-Cheng Corp.								
TSMC	Fab construction & installation of fab facilities	August 11, 2020 (Note 2)	\$ 57,700,000 (Note 2)	Based on the terms in the purchase order	102 counterparties (Note 2), including: ABB Ltd.  Accudevice Co., Ltd. Air Liquide Far Eastern Ltd. Allis Electric Co., Ltd.	-	N/A	N/A	N/A	N/A	Price comparison and price negotiation	Manufacturing purpose	None

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Fab construction & installation of fab facilities				Am-Power Machine International Enterprise Co., Ltd. Atlas Copco Taiwan Ltd. Atlas Technology Corp. Capital Machinery Limited Chen Yuan International Co., Ltd. Chenfull International Co., Ltd. Cheng Deh Fire Protection Industrial Corp. Chien Kuo Construction Co., Ltd. China Steel Structure Co., Ltd. Chun Yuan Steel Industry Co., Ltd. Chung-Lin General Contractors, Ltd. Cica-Huntek Chemical Technology Taiwan Co., Ltd. Confederate Technology Co., Ltd. Da-Cin Construction Co., Ltd. Desiccant Technology Corporation Evergreen Steel Corporation Exyte Taiwan Co., Ltd. Fortune Electric Co., Ltd. Fu Tsu Construction Co., Ltd. Hantech Engineering Co., Ltd. Hsieh Kun Co., Ltd. Hueng Luei Process Industry Co., Ltd. Ingersoll-Rand Southeast Asia (Pte) Ltd. Taiwan Branch (Singapore) J.C. Yang Architect and Associates JG Environmental Technology Co., Ltd. JJmr-Clean-Air Solution Tech.Services Co., Ltd.								

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Fab construction & installation of fab facilities				Jusun Instruments Co., Ltd. Kedge Construction Co., Ltd. Kinetics Technology Corporation L&K Engineering Co., Ltd. Lead-Fu Industrials Corporation Lee Ming Construction Co., Ltd. Li Jin Engineering Co., Ltd. Mandartech Interiors Inc. Marketech International Corp. Mega Union Technology Incorporated Obayashi Corporation Optimax Technology Corporation Organo Technology Co., Ltd. Ovivo Taiwan Co., Ltd. Pan Asia (Engineers & Constructors) Corporation San Fu Chemical Co., Ltd. San Min Construction Development Schneider Electric Taiwan Co., Ltd. Shihlin Electric & Engineering Corporation Siemens Limited Solomon Technology Corporation Swift Engineering Co., Ltd. Taiwan Gleno Enterprise Co., Ltd. Taiwan Puritic Corp. TASA Construction Corporation Techgo Industrial Co., Ltd. Trusval Technology Co., Ltd. Tung Kang Steel Structure Corp. Uangyih-Tech Industrial Co., Ltd. Unelectra International Corp. United Integrated Services Co., Ltd.								

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Fab construction & installation of fab facilities				Versum Materials Taiwan Co., Ltd. Weltall Technology Corporation Wholetech System Hitech Limited Yangtech Engineering Co., Ltd. Yankey Engineering Co., Ltd. Ying Pao Technology Inc. Zhao-Cheng Corp. E-Ton Solar Tech Co., LTD	-	N/A	N/A	N/A	N/A	Price comparison and price negotiation	Manufacturing purpose	None
TSMC	Buildings and facilities	August 20, 2020	\$ 860,000	Based on the terms in the purchase order		-	N/A	N/A	N/A	N/A	Price comparison and price negotiation	Manufacturing purpose	None
	Real estate	November 10, 2020 (Note2)	229,600,000 (Note 2)	Based on the terms in the purchase order	99 counterparties (Note2), including : ABB Ltd.  Accudevice Co., Ltd. Air Liquide Far Eastern Ltd. Allis Electric Co., Ltd. Am-Power Machine International Enterprise Co., Ltd. Arizona State Land Department Atlas Copco Taiwan Ltd. Atlas Technology Corp. Capital Machinery Limited Central Taiwan Science Park Bureau, Ministry of Science and Technology Chen Yuan International Co., Ltd. Chenfull International Co., Ltd. Cheng Deh Fire Protection Industrial Corp. Chien Kuo Construction Co., Ltd. China Steel Structure Co., Ltd. Chun Yuan Steel Industry Co., Ltd. Chung-Lin General Contractors, Ltd.	-	N/A	N/A	N/A	N/A	Price comparison and price negotiation	Manufacturing purpose	None

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Real estate				Cica-Huntek Chemical Technology Taiwan Co., Ltd. Confederate Technology Co., Ltd. Da-Cin Construction Co., Ltd. Desiccant Technology Corporation Evergreen Steel Corporation Exyte Taiwan Co., Ltd. Fortune Electric Co., Ltd. Fu Tsu Construction Co., Ltd. Hantech Engineering Co., Ltd. Hsieh Kun Co., Ltd. Hueng Luei Process Industry Co., Ltd. Ingersoll-Rand Southeast Asia (Pte) Ltd. Taiwan Branch (Singapore) J.C. Yang Architect and Associates JG Environmental Technology Co., Ltd. JJmr-Clean-Air Solution Tech.Services Co., Ltd. Jusun Instruments Co., Ltd. Kedge Construction Co., Ltd. Kinetics Technology Corporation L&K Engineering Co., Ltd. Lead-Fu Industrials Corporation Lee Ming Construction Co., Ltd. Li Jin Engineering Co., Ltd. Mandartech Interiors Inc. Marketch International Corp. Mega Union Technology Incorporated Organo Technology Co., Ltd. Ovivo Taiwan Co., Ltd. Pan Asia (Engineers & Constructors) Corporation San Fu Chemical Co., Ltd.	-	N/A	N/A	N/A	N/A	Price comparison and price negotiation	Manufacturing purpose	None

(Continued)



Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
TSMC	Real estate				Schneider Electric Taiwan Co., Ltd. Shihlin Electric & Engineering Corporation Siemens Limited Solomon Technology Corporation Southern Taiwan Science Park Bureau, Ministry of Science and Technology Swift Engineering Co., Ltd. Taiwan Gleno Enterprise Co., Ltd. Taiwan Obayashi Corporation Taiwan Puritic Corp. TASA Construction Corporation Techgo Industrial Co., Ltd. Trusval Technology Co., Ltd. Tung Kang Steel Structure Corp. Uangyih-Tech Industrial Co., Ltd. Unelectra International Corp. United Integrated Services Co., Ltd. Versum Materials Taiwan Co., Ltd. Weltall Technology Corporation Wholetech System Hitech Limited Yangtech Engineering Co., Ltd. Yankey Engineering Co., Ltd. Ying Pao Technology Inc. Zhao-Cheng Corp. Li Jin Engineering Co., Ltd.								
VisEra	Fab construction & installation of fab facilities	July 17, 2020	\$1,680,000	Based on the terms in the purchase order		-	N/A	N/A	N/A	N/A	Price comparison and price negotiation	Manufacturing purpose	None

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	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			
VisEra	Fab construction & installation of fab facilities	December 7, 2020	\$1,930,000	Based on the terms in the purchase order	Acter Group Corporation Limited	-	N/A	N/A	N/A	N/A	Price comparison and price	Manufacturing purpose	None

Note 1: The disclosures are expected information based on the capital appropriation approved by the Board of Directors. The actual information shall be subject to the final purchase order of TSMC.

Note 2: The disclosures are expected information based on the capital appropriation approved by the Board of Directors (Right-of-use assets are included). The actual information shall be subject to the final purchase order of TSMC.

(Concluded)

## Taiwan Semiconductor Manufacturing Company Limited 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 YEAR ENDED DECEMBER 31, 2020

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Related Party	Nature of Relationships	Transaction Details				Abnormal Transaction		Notes/Accounts Payable or Receivable		Note
			Purchases/ Sales	Amount (Foreign Currencies in Thousands)	% to Total	Payment Terms	Unit Price	Payment Terms	Ending Balance (Foreign Currencies in Thousands)	% to Total	
TSMC	TSMC North America	Subsidiary	Sales	\$ 824,139,751	61	Net 30 days from invoice date (Note)	-	(Note)	\$ 101,467,381	74	
	GUC	Associate	Sales	5,607,239	-	Net 30 days from the end of the month of when invoice is issued	-	-	313,064	-	
	TSMC China	Subsidiary	Purchases	19,971,901	19	Net 30 days from the end of the month of when invoice is issued	-	-	(1,643,070)	4	
	TSMC Nanjing	Subsidiary	Purchases	16,933,672	16	Net 30 days from the end of the month of when invoice is issued	-	-	(1,889,906)	4	
	WaferTech	Indirect subsidiary	Purchases	8,015,129	7	Net 30 days from the end of the month of when invoice is issued	-	-	(697,756)	2	
	SSMC	Associate	Purchases	4,110,449	4	Net 30 days from the end of the month of when invoice is issued	-	-	(400,765)	1	
	VIS	Associate	Purchases	3,494,631	3	Net 30 days from the end of the month of when invoice is issued	-	-	(311,406)	1	
TSMC North America	GUC	Associate of TSMC	Sales	1,572,476 (US\$ 53,406)	-	Net 30 days from invoice date	-	-	57,354 (US\$ 2,041)	-	
VisEra Tech	Xintec	Associate of TSMC	Sales	898,091	13	Net 30 days from the end of the month of when invoice is issued	-	-	187,488	20	

Note : The tenor is determined by the payment terms granted to its clients by TSMC North America.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NTS100 MILLION OR 20% OF THE PAID-IN CAPITAL  
DECEMBER 31, 2020

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Related Party	Nature of Relationships	Ending Balance (Foreign Currencies in Thousands)	Turnover Days (Note 1)	Overdue		Amounts Received in Subsequent Period	Allowance for Bad Debts
					Amount	Action Taken		
TSMC	TSMC North America	Subsidiary	\$ 102,858,283	41	\$ -	-	\$ -	\$ -
	TSMC Nanjing	Subsidiary	203,209	Note 2	-	-	-	-
	GUC	Associate	313,064	25	-	-	-	-
TSMC China	TSMC Nanjing	The same parent company	20,710,244 (RMB 4,820,484)	Note 2	-	-	-	-
	TSMC	Parent company	1,643,070 (RMB 382,438)	28	-	-	-	-
TSMC Nanjing	TSMC	Parent company	1,889,906 (RMB 439,891)	34	-	-	-	-
VisEra Tech	Xintec	Associate of TSMC	187,488	31	-	-	-	-
TSMC Technology	TSMC	The ultimate parent of the Company	444,021 (US\$ 15,803)	Note 2	-	-	-	-
WaferTech	TSMC	The ultimate parent of the Company	697,756 (US\$ 24,834)	41	-	-	-	-
	TSMC Development	Parent company	103,033 (US\$ 3,667)	Note 2	-	-	-	-

Note 1: The calculation of turnover days excludes other receivables from related parties.

Note 2: The ending balance is primarily consisted of other receivables, which is not applicable for the calculation of turnover days.

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT INTERCOMPANY TRANSACTIONS  
 FOR THE YEAR ENDED DECEMBER 31, 2020  
 (Amounts in Thousands of New Taiwan Dollars)

No.	Company Name	Counterparty	Nature of Relationship (Note 1)	Intercompany Transactions			
				Financial Statements Item	Amount	Terms (Note 2)	Percentage of Consolidated Net Revenue or Total Assets
0	TSMC	TSMC North America	1	Net revenue from sale of goods	\$ 824,139,751	-	62%
				Receivables from related parties	101,467,381	-	4%
				Other receivables from related parties	1,390,902	-	-
		TSMC Japan	1	Marketing expenses - commission	247,235	-	-
		TSMC JDC	1	Research and development expenses	106,086	-	-
		TSMC Europe	1	Marketing expenses - commission	735,295	-	-
		TSMC China	1	Purchases	19,971,901	-	1%
				Marketing expenses - commission	209,573	-	-
				Proceeds from acquisition of property, plant and equipment	126,162	-	-
				Payables to related parties	1,643,070	-	-
TSMC Nanjing	1	Net revenue from royalties	214,210	-	-		
		Purchases	16,933,672	-	1%		
		Proceeds from disposal of property, plant and equipment	527,134	-	-		
		Other receivables from related parties	203,209	-	-		
TSMC Canada	1	Research and development expenses	341,816	-	-		
TSMC Technology	1	Research and development expenses	2,931,005	-	-		
		Payables to related parties	444,021	-	-		
WaferTech	1	Purchases	8,015,129	-	1%		
		Payables to related parties	697,756	-	-		
1	TSMC China	TSMC Nanjing	3	Other receivables from related parties	20,710,244	-	1%
2	TSMC Development	WaferTech	3	Other payables from related parties	103,033	-	-

Note 1: No. 1 represents the transactions from parent company to subsidiary.

No. 3 represents the transactions between subsidiaries.

Note 2: The sales prices and payment terms of intercompany sales are not significantly different from those to third parties. For other intercompany transactions, prices and terms are determined in accordance with mutual agreements.

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

NAMES, LOCATIONS, AND RELATED INFORMATION OF INVESTEEES OVER WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INFORMATION ON INVESTMENT IN MAINLAND CHINA)  
FOR THE YEAR ENDED DECEMBER 31, 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 December 31, 2020			Net Income (Losses) of the Investee (Foreign Currencies in Thousands)	Share of Profits/Losses of Investee (Note 1) (Foreign Currencies in Thousands)	Note
				December 31, 2020 (Foreign Currencies in Thousands)	December 31, 2019 (Foreign Currencies in Thousands)	Shares (In Thousands)	Percentage of Ownership	Carrying Value (Foreign Currencies in Thousands)			
TSMC	TSMC Global TSMC Partners	Tortola, British Virgin Islands	Investment activities	\$ 355,162,309	\$ 355,162,309	11	100	\$ 382,229,039	\$ 7,668,014	\$ 7,668,014	Subsidiary
		Tortola, British Virgin Islands	Investing in companies involved in the design, manufacture, and other related business in the semiconductor industry and other investment activities	31,456,130	31,456,130	988,268	100	52,649,936	2,273,717	2,273,717	Subsidiary
	VIS	Hsin-Chu, Taiwan	Manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing and design service of masks	10,180,677	10,180,677	464,223	28	9,029,890	6,305,519	1,780,829	Associate
	VisEra Tech	Hsin-Chu, Taiwan	Engaged in manufacturing electronic spare parts and in researching, developing, designing, manufacturing, selling, packaging and testing of color filter	5,005,171	5,005,171	253,120	87	6,363,099	2,090,545	1,817,520	Subsidiary
	SSMC	Singapore	Manufacturing and selling of integrated circuits and other semiconductor devices	5,120,028	5,120,028	314	39	5,900,245	2,106,093	816,954	Associate
	TSMC North America	San Jose, California, U.S.A	Selling and marketing of integrated circuits and other semiconductor devices	333,718	333,718	11,000	100	4,568,059	294,316	294,316	Subsidiary
	Xintec	Taoyuan, Taiwan	Wafer level chip size packaging and wafer level post passivation interconnection service	1,988,317	1,988,317	111,282	41	2,554,123	1,727,445	709,125	Associate
	GUC	Hsin-Chu, Taiwan	Researching, developing, manufacturing, testing and marketing of integrated circuits	386,568	386,568	46,688	35	1,328,620	850,007	296,142	Associate
	TSMC Arizona	Phoenix, Arizona, U.S.A.	Manufacturing, selling and testing of integrated circuits and other semiconductor devices	855,599	-	30	100	842,745	(196)	(196)	Subsidiary
	TSMC Europe	Amsterdam, the Netherlands	Customer service and supporting activities	15,749	15,749	-	100	537,737	60,142	60,142	Subsidiary
	TSMC JDC	Yokohama, Japan	Engineering support activities	302,560	-	11	100	292,266	(8,070)	(8,070)	Subsidiary
	VTAF III	Cayman Islands	Investing in new start-up technology companies	1,318,846	1,318,846	-	98	214,881	(14,453)	(14,163)	Subsidiary
	TSMC Japan	Yokohama, Japan	Customer service and supporting activities	83,760	83,760	6	100	144,784	3,361	3,361	Subsidiary
	VTAF II	Cayman Islands	Investing in new start-up technology companies	260,300	260,300	-	98	82,441	(2,066)	(2,024)	Subsidiary
TSMC Korea	Seoul, Korea	Customer service and supporting activities	13,656	13,656	80	100	42,395	1,598	1,598	Subsidiary	
TSMC Partners	TSMC Development	Delaware, U.S.A	Investing in companies involved in the manufacturing related business in the semiconductor industry	16,491,220 (US\$ 586,939)	16,491,220 (US\$ 586,939)	-	100	29,493,929 (US\$1,049,718)	1,626,764 (US\$ 55,150)	Note 2	Subsidiary
	TSMC Technology	Delaware, U.S.A	Engineering support activities	401,282 (US\$ 14,282)	401,282 (US\$ 14,282)	-	100	769,414 (US\$ 27,384)	147,271 (US\$ 5,024)	Note 2	Subsidiary
	TSMC Canada	Ontario, Canada	Engineering support activities	64,623 (US\$ 2,300)	64,623 (US\$ 2,300)	2,300	100	256,777 (US\$ 9,139)	27,379 (US\$ 923)	Note 2	Subsidiary
VTAF III	Growth Fund	Cayman Islands	Investing in new start-up technology companies	70,348 (US\$ 2,504)	70,348 (US\$ 2,504)	-	100	123,940 (US\$ 4,411)	(1,280) (US\$ (43))	Note 2	Subsidiary
	Mutual-Pak	New Taipei, Taiwan	Manufacturing of electronic parts, wholesaling and retailing of electronic materials, and researching, developing and testing of RFID	44,768 (US\$ 1,593)	44,768 (US\$ 1,593)	4,693	28	28,183 (US\$ 1,003)	(36,461) (US\$ (1,209))	Note 2	Associate
TSMC Development	WaferTech	Washington, U.S.A	Manufacturing, selling and testing of integrated circuits and other semiconductor devices	-	-	293,637	100	4,610,909 (US\$ 164,107)	1,394,261 (US\$ 47,293)	Note 2	Subsidiary

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

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

## Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

INFORMATION ON INVESTMENT IN MAINLAND CHINA  
FOR YEAR ENDED DECEMBER 31, 2020

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Investee Company	Main Businesses and Products	Total Amount of Paid-in Capital (RMB in Thousands)	Method of Investment	Accumulated Outflow of Investment from Taiwan as of January 1, 2020 (US\$ in Thousands)	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2020 (US\$ in Thousands)	Net Income (Losses) of the Investee Company	Percentage of Ownership	Share of Profits/Losses	Carrying Amount as of December 31, 2020	Accumulated Inward Remittance of Earnings as of December 31, 2020
					Outflow (US\$ in Thousands)	Inflow						
TSMC China	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	\$ 18,939,667 (RMB 4,502,080)	Note 1	\$ 18,939,667 (US\$ 596,000)	\$ -	\$ -	\$ 18,939,667 (US\$ 596,000)	\$ 7,200,634	100%	\$ 6,999,772 (Note 2)	\$ 64,243,766	\$ -
TSMC Nanjing	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	30,521,412 (RMB 6,650,119)	Note 1	30,521,412 (US\$ 1,000,000)	-	-	30,521,412 (US\$ 1,000,000)	12,143,866	100%	12,205,157 (Note 2)	33,573,482	-

Accumulated Investment in Mainland China as of December 31, 2020 (US\$ in Thousands)	Investment Amounts Authorized by Investment Commission, MOEA (US\$ in Thousands)	Upper Limit on Investment
\$ 49,461,079 (US\$ 1,596,000)	\$ 119,412,667 (US\$ 3,596,000)	\$1,110,373,199 (Note 3)

Note 1: TSMC directly invested US\$596,000 thousand in TSMC China and US\$1,000,000 thousands in TSMC Nanjing.

Note 2: Amount was recognized based on the audited financial statements.

Note 3: The upper limit on investment in mainland China is determined by sixty percent (60%) of the Company's consolidated net worth.

**Taiwan Semiconductor Manufacturing Company Limited**

**INFORMATION ON MAJOR SHAREHOLDERS  
DECEMBER 31, 2020**

Shareholders (Note)	Shares	
	Total Shares Owned	Ownership Percentage
ADR-Taiwan Semiconductor Manufacturing Company, Ltd.	5,321,819,398	20.52%
National Development Fund, Executive Yuan	1,653,709,980	6.38%

Note: Major shareholders shows the list of all shareholders with ownership of 5 percent or greater.