

**Chunghwa Telecom Co., Ltd. and
Subsidiaries**

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

REPRESENTATION LETTER

The entities that are required to be included in the consolidated financial statements of affiliates in accordance with the “Criteria Governing Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises” for the year ended December 31, 2019 are all the same as those included in the consolidated financial statements of Chunghwa Telecom Co., Ltd. and its subsidiaries prepared in conformity with the International Financial Reporting Standard 10 “Consolidated Financial Statements”. Relevant information that should be disclosed in the consolidated financial statements of affiliates is included in the consolidated financial statements of Chunghwa Telecom Co., Ltd. and its subsidiaries. Hence, we do not prepare a separate set of consolidated financial statements of affiliates.

Very truly yours,

CHUNGHWA TELECOM CO., LTD.

By

Chi-Mau Sheih
Chairman

February 26, 2020

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Stockholders
Chunghwa Telecom Co., Ltd.

Opinion

We have audited the accompanying consolidated financial statements of Chunghwa Telecom Co., Ltd. and its subsidiaries (the Company), which comprise the consolidated balance sheets as of December 31, 2019 and 2018, and the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and the related 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, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), 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, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The descriptions of the key audit matters of the consolidated financial statements for the year ended December 31, 2019 are as follows:

Revenue Recognition on Mobile Service

Key audit matter:

Refer to Notes 3 and 28 to the consolidated financial statements.

The Company's mobile service revenue consists of subscriber-based charges made up of a significant volume of low-dollar transactions. Because of the complexity and a variety of subscriber-based charges as well as a large number of transactions, the Company uses highly automated systems to process and record its revenue transactions.

Given the Company's systems to process and record revenue are highly automated, auditing revenue was complex and challenging due to the extent of audit effort required and involvement of professionals with expertise in information technology (IT) necessary for us to identify, test, and evaluate the Company's IT systems.

Corresponding audit procedures:

Our audit procedures related to the Company's systems to process revenue transactions included the following, among others:

- With the assistance of our IT specialists, we:
 - Identified the significant systems used to process revenue transactions and tested the general IT controls over each of these systems, including testing of user access controls and change management controls.
 - Performed testing of system interface controls and automated controls within the relevant revenue streams, as well as the controls designed to ensure the accuracy and completeness of revenue.
- We tested internal controls within the relevant revenue business processes, including those in place to reconcile the various systems to the Company's accounting system.
- We selected samples from mobile service revenue and agreed to customer contracts and records of cash receipts.

Revenue Recognition on Project Business

Key audit matter:

Refer to Notes 3 and 4 to the consolidated financial statements.

The Company's project business is highly customized and mainly provides customers with combinations of various equipment and/or services. Project business contracts may likely outsource partial or substantial part of the obligations or services to third parties. The accounting for these contracts requires judgement, particularly as it relates to the determination of the Company acting as a principal or an agent.

Given the judgments on whether the Company is acting as a principal or an agent is required in order to determine if revenue should be recognized gross as principal versus net as agent, auditing such revenue required extensive audit effort due to the volume of contracts and involved a high degree of judgment when performing audit procedures and evaluating the result of these procedures.

Corresponding audit procedures:

Our audit procedures related to management's revenue recognition on project business included the following, among others:

- We tested the effectiveness of controls over project business revenue, including those over principal-versus-agent considerations and revenue recognition.
- We performed the following audit procedures on a sample basis:
 - Obtained project business contracts and the evaluation documentation prepared by management and determined the reasonableness of management's judgement on whether the Company is acting as a principal or an agent after considering whether the Company is the primary obligation provider, its exposures to inventory risks and the discretion in establishing the prices by reviewing the contractual terms, comparing to the business substance and evaluating if it is consistent with relevant accounting standards.
 - Performed detail transaction testing by agreeing the amounts recognized to source documents and testing the mathematical accuracy of the recorded revenue.
 - Confirmed project business contract terms with customers.

Emphasis of Matter

As disclosed in Note 5 to the consolidated financial statements, the Company initially applied IFRS 16 "Leases" in 2019. Our audit opinion is not modified in respect of this matter.

Other Matter

We have also audited the parent company only financial statements of Chunghwa Telecom Co., Ltd. as of and for the years ended December 31, 2019 and 2018 on which we have issued an unmodified opinion with emphasis of matter.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and IFRS, IAS, IFRIC, and SIC endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines is necessary to enable the preparation of the 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 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, 2019 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Mr. Dien Sheng Chang and Mr. Ching Pin Shih.

Dien-sheng Chang

Ching-Pin Shih

Deloitte & Touche
Taipei, Taiwan
Republic of China

February 26, 2020

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.

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

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

ASSETS	2019		2018	
	Amount	%	Amount	%
CURRENT ASSETS				
Cash and cash equivalents (Notes 3 and 6)	\$ 34,049,643	7	\$ 27,644,780	6
Financial assets at fair value through profit or loss (Notes 3, 4 and 7)	516	-	-	-
Hedging financial assets (Notes 3 and 20)	327	-	1,069	-
Contract assets (Notes 3 and 28)	4,441,196	1	4,868,728	1
Trade notes and accounts receivable, net (Notes 3, 4, 9 and 28)	26,407,783	6	30,075,503	7
Receivables from related parties (Note 36)	16,834	-	24,270	-
Inventories (Notes 3, 4, 10 and 37)	17,344,276	4	15,120,715	3
Prepayments (Notes 5, 11 and 36)	1,883,259	-	1,872,984	-
Other current monetary assets (Notes 12 and 26)	7,498,564	2	9,504,203	2
Other current assets (Notes 19, 30 and 37)	2,429,664	-	2,576,084	1
Total current assets	94,072,062	20	91,688,336	20
NONCURRENT ASSETS				
Financial assets at fair value through profit or loss (Notes 3, 4 and 7)	778,105	-	517,362	-
Financial assets at fair value through other comprehensive income (Notes 3, 4 and 8)	7,268,917	2	6,932,503	2
Investments accounted for using equity method (Notes 3 and 14)	7,354,226	2	2,944,890	1
Contract assets (Notes 3 and 28)	2,600,913	-	2,343,958	-
Property, plant and equipment (Notes 3, 4, 5, 15, 36 and 37)	283,694,215	59	288,914,228	61
Right-of-use assets (Notes 3, 4, 5 and 16)	11,364,249	2	-	-
Investment properties (Notes 3, 4 and 17)	8,169,393	2	8,287,212	2
Intangible assets (Notes 3, 4 and 18)	47,046,525	10	50,943,682	11
Deferred income tax assets (Notes 3, 5 and 30)	3,258,607	1	3,553,856	1
Incremental costs of obtaining contracts (Notes 3 and 28)	942,652	-	1,335,030	-
Net defined benefit assets (Notes 3, 4 and 26)	2,127,335	-	1,164,088	-
Prepayments (Notes 5, 11 and 36)	2,679,335	1	3,463,337	1
Other noncurrent assets (Notes 19 and 37)	6,101,704	1	5,180,222	1
Total noncurrent assets	383,386,176	80	375,580,368	80
TOTAL	\$ 477,458,238	100	\$ 467,268,704	100
LIABILITIES AND EQUITY				
CURRENT LIABILITIES				
Short-term loans (Note 21)	\$ 90,000	-	\$ 100,000	-
Financial liabilities at fair value through profit or loss (Notes 3, 4 and 7)	239	-	1,114	-
Contract liabilities (Notes 3, 5 and 28)	16,839,830	4	10,687,772	2
Trade notes and accounts payable (Note 23)	15,312,274	3	20,464,792	5
Payables to related parties (Note 36)	653,983	-	917,951	-
Current tax liabilities (Notes 3 and 30)	4,020,670	1	4,390,203	1
Lease liabilities (Notes 3, 4, 5, 16, 33 and 36)	3,291,330	1	-	-
Other payables (Notes 5 and 24)	22,952,488	5	23,315,383	5
Provisions (Notes 3 and 25)	206,942	-	128,200	-
Other current liabilities (Note 5)	983,789	-	1,381,606	-
Total current liabilities	64,351,545	14	61,387,021	13
NONCURRENT LIABILITIES				
Contract liabilities (Notes 3, 5 and 28)	6,841,485	2	2,595,149	1
Long-term loans (Notes 22 and 37)	1,600,000	-	1,600,000	-
Deferred income tax liabilities (Notes 3, 5 and 30)	1,912,305	-	1,991,843	-
Provisions (Notes 3 and 25)	97,382	-	78,627	-
Lease liabilities (Notes 3, 4, 5, 16, 33 and 36)	6,466,808	1	-	-
Customers' deposits (Note 36)	4,747,644	1	4,716,571	1
Net defined benefit liabilities (Notes 3, 4 and 26)	3,504,617	1	3,533,936	1
Other noncurrent liabilities (Note 5)	1,542,687	-	4,793,237	1
Total noncurrent liabilities	26,712,928	5	19,309,363	4
Total liabilities	91,064,473	19	80,696,384	17
EQUITY ATTRIBUTABLE TO STOCKHOLDERS OF THE PARENT (Notes 5, 13 and 27)				
Common stocks	77,574,465	16	77,574,465	17
Additional paid-in capital	171,255,985	36	171,136,764	36
Retained earnings				
Legal reserve	77,574,465	16	77,574,465	17
Special reserve	2,675,419	1	2,675,419	1
Unappropriated earnings	46,341,361	10	47,141,345	10
Total retained earnings	126,591,245	27	127,391,229	28
Other adjustments	688,548	-	459,914	-
Total equity attributable to stockholders of the parent	376,110,243	79	376,562,372	81
NONCONTROLLING INTERESTS (Notes 5, 13 and 27)	10,283,522	2	10,009,948	2
Total equity	386,393,765	81	386,572,320	83
TOTAL	\$ 477,458,238	100	\$ 467,268,704	100

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

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME YEARS ENDED DECEMBER 31, 2019 AND 2018

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

	2019		2018	
	Amount	%	Amount	%
REVENUES (Notes 3, 28, 36 and 41)	\$ 207,520,061	100	\$ 215,483,158	100
OPERATING COSTS (Notes 3, 10, 26, 28, 29, 36 and 41)	<u>135,952,540</u>	<u>65</u>	<u>139,545,457</u>	<u>65</u>
GROSS PROFIT	<u>71,567,521</u>	<u>35</u>	<u>75,937,701</u>	<u>35</u>
OPERATING EXPENSES (Notes 3, 9, 26, 29, 36 and 41)				
Marketing	22,219,688	11	23,170,024	11
General and administrative	4,758,340	2	4,589,488	2
Research and development	3,941,446	2	3,725,249	2
Expected credit loss (reversal of credit loss)	<u>(125,111)</u>	<u>-</u>	<u>919,732</u>	<u>-</u>
Total operating expenses	<u>30,794,363</u>	<u>15</u>	<u>32,404,493</u>	<u>15</u>
OTHER INCOME AND EXPENSES (Notes 15, 17, 18, 29 and 41)	<u>(127,304)</u>	<u>-</u>	<u>110,451</u>	<u>-</u>
INCOME FROM OPERATIONS	<u>40,645,854</u>	<u>20</u>	<u>43,643,659</u>	<u>20</u>
NON-OPERATING INCOME AND EXPENSES				
Interest income (Note 41)	250,787	-	196,889	-
Other income (Notes 8, 29 and 36)	531,624	-	699,823	-
Other gains and losses (Notes 14, 29, 35 and 36)	(36,471)	-	(45,671)	-
Interest expenses (Notes 16, 29, 36 and 41)	(104,142)	-	(17,596)	-
Share of profits of associates accounted for using equity method (Notes 14 and 41)	<u>462,140</u>	<u>-</u>	<u>501,600</u>	<u>-</u>
Total non-operating income and expenses	<u>1,103,938</u>	<u>-</u>	<u>1,335,045</u>	<u>-</u>
INCOME BEFORE INCOME TAX	41,749,792	20	44,978,704	20
INCOME TAX EXPENSE (Notes 3 and 30)	<u>7,985,849</u>	<u>4</u>	<u>8,522,533</u>	<u>4</u>
NET INCOME	<u>33,763,943</u>	<u>16</u>	<u>36,456,171</u>	<u>16</u>
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)				
Items that will not be reclassified to profit or loss:				
Remeasurements of defined benefit pension plans (Note 26)	1,526,353	1	(1,214,552)	-

(Continued)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME YEARS ENDED DECEMBER 31, 2019 AND 2018

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

	2019		2018	
	Amount	%	Amount	%
Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income (Notes 3 and 35)	\$ 286,408	-	\$ (346,330)	-
Gain or loss on hedging instruments subject to basis adjustment (Notes 3 and 20)	(742)	-	1,919	-
Share of remeasurements of defined benefit pension plans of associates (Note 14)	(2,335)	-	1,707	-
Income tax relating to items that will not be reclassified to profit or loss (Note 30)	<u>(305,271)</u>	-	<u>450,166</u>	-
	<u>1,504,413</u>	<u>1</u>	<u>(1,107,090)</u>	<u>-</u>
Items that may be reclassified subsequently to profit or loss:				
Exchange differences arising from the translation of the foreign operations	(61,207)	-	89,319	-
Share of exchange differences arising from the translation of the foreign operations of associates (Note 14)	<u>(700)</u>	-	<u>3,318</u>	-
	<u>(61,907)</u>	-	<u>92,637</u>	-
Total other comprehensive income (loss), net of income tax	<u>1,442,506</u>	<u>1</u>	<u>(1,014,453)</u>	<u>-</u>
TOTAL COMPREHENSIVE INCOME	<u>\$ 35,206,449</u>	<u>17</u>	<u>\$ 35,441,718</u>	<u>16</u>
NET INCOME ATTRIBUTABLE TO				
Stockholders of the parent	\$ 32,788,546	16	\$ 35,501,622	16
Noncontrolling interests	<u>975,397</u>	-	<u>954,549</u>	-
	<u>\$ 33,763,943</u>	<u>16</u>	<u>\$ 36,456,171</u>	<u>16</u>
COMPREHENSIVE INCOME ATTRIBUTABLE TO				
Stockholders of the parent	\$ 34,225,076	17	\$ 34,496,742	16
Noncontrolling interests	<u>981,373</u>	-	<u>944,976</u>	-
	<u>\$ 35,206,449</u>	<u>17</u>	<u>\$ 35,441,718</u>	<u>16</u>
EARNINGS PER SHARE (Note 31)				
Basic	<u>\$ 4.23</u>		<u>\$ 4.58</u>	
Diluted	<u>\$ 4.22</u>		<u>\$ 4.57</u>	

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

(Concluded)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

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

	Equity Attributable to Stockholders of the Parent (Notes 13, 20 and 27)										Total	Noncontrolling Interests (Notes 13 and 27)	Total Equity
	Common Stocks	Additional Paid-in Capital	Retained Earnings			Exchange Differences Arising from the Translation of the Foreign Operations	Other Adjustments		Gain or Loss on Hedging Instruments	Total			
			Legal Reserve	Special Reserve	Unappropriated Earnings		Unrealized Gain or Loss on Financial Assets at Fair Value Through Other Comprehensive Income						
BALANCE, JANUARY 1, 2018	\$ 77,574,465	\$ 169,466,883	\$ 77,574,465	\$ 2,680,823	\$ 49,595,850	\$ (174,593)	\$ 883,420	\$ (850)	\$ 377,600,463	\$ 8,693,650	\$ 386,294,113		
Appropriation of 2017 earnings	-	-	-	(5,404)	5,404	-	-	-	-	-	-		
Reversal of special reserve	-	-	-	-	(37,204,714)	-	-	-	(37,204,714)	-	(37,204,714)		
Cash dividends distributed by Chunghwa	-	-	-	-	-	-	-	-	-	-	-		
Cash dividends distributed by subsidiaries	-	-	-	-	-	-	-	-	-	(958,446)	(958,446)		
Unclaimed dividend	-	2,455	-	-	-	-	-	-	2,455	-	2,455		
Change in additional paid-in capital from investments in associates accounted for using equity method	-	(1,044)	-	-	-	-	-	-	(1,044)	191	(853)		
Partial disposal of interests in subsidiaries	-	826,047	-	-	-	-	-	-	826,047	348,353	1,174,400		
Change in additional paid-in capital for not participating proportionately in the capital increase of subsidiaries	-	776,713	-	-	-	-	-	-	776,713	699,967	1,476,680		
Net income for the year ended December 31, 2018	-	-	-	-	35,501,622	-	-	-	35,501,622	954,549	36,456,171		
Other comprehensive income (loss) for the year ended December 31, 2018	-	-	-	-	(756,817)	95,166	(345,148)	1,919	(1,004,880)	(9,573)	(1,014,453)		
Total comprehensive income (loss) for the year ended December 31, 2018	-	-	-	-	34,744,805	95,166	(345,148)	1,919	34,496,742	944,976	35,441,718		
Share-based payment transactions of subsidiaries	-	10,776	-	-	-	-	-	-	10,776	41,863	52,639		
Net increase in noncontrolling interests	-	54,934	-	-	-	-	-	-	54,934	239,394	294,328		
BALANCE, DECEMBER 31, 2018	77,574,465	171,136,764	77,574,465	2,675,419	47,141,345	(79,427)	538,272	1,069	376,562,372	10,009,948	386,572,320		
Effect of retrospective application (Note 5)	-	-	-	-	(50,823)	-	-	-	(50,823)	(19,603)	(70,426)		
BALANCE, JANUARY 1, 2019 AS ADJUSTED	77,574,465	171,136,764	77,574,465	2,675,419	47,090,522	(79,427)	538,272	1,069	376,511,549	9,990,345	386,501,894		
Appropriation of 2018 earnings	-	-	-	-	(34,745,603)	-	-	-	(34,745,603)	-	(34,745,603)		
Cash dividends distributed by Chunghwa	-	-	-	-	-	-	-	-	-	(709,817)	(709,817)		
Cash dividends distributed by subsidiaries	-	-	-	-	-	-	-	-	-	-	-		
Unclaimed dividend	-	1,266	-	-	-	-	-	-	1,266	-	1,266		
Change in additional paid-in capital from investments in associates accounted for using equity method	-	118,853	-	-	-	-	-	-	118,853	1,064	119,917		
Net income for the year ended December 31, 2019	-	-	-	-	32,788,546	-	-	-	32,788,546	975,397	33,763,943		
Other comprehensive income (loss) for the year ended December 31, 2019	-	-	-	-	1,207,896	(68,950)	298,326	(742)	1,436,530	5,976	1,442,506		
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	-	-	33,996,442	(68,950)	298,326	(742)	34,225,076	981,373	35,206,449		
Share-based payment transactions of subsidiaries	-	(898)	-	-	-	-	-	-	(898)	21,320	20,422		
Net decrease in noncontrolling interests	-	-	-	-	-	-	-	-	-	(763)	(763)		
BALANCE, DECEMBER 31, 2019	\$ 77,574,465	\$ 171,255,985	\$ 77,574,465	\$ 2,675,419	\$ 46,341,361	\$ (148,377)	\$ 836,598	\$ 327	\$ 376,110,243	\$ 10,283,522	\$ 386,393,765		

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

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

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

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Income before income tax	\$ 41,749,792	\$ 44,978,704
Adjustments to reconcile income before income tax to net cash provided by operating activities:		
Depreciation	30,922,991	27,481,956
Amortization	4,252,602	4,386,798
Amortization of incremental costs of obtaining contracts	1,173,492	1,941,124
Expected credit loss (reversal of credit loss)	(125,111)	919,732
Interest expenses	104,142	17,596
Interest income	(250,787)	(196,889)
Dividend income	(296,360)	(395,593)
Compensation cost of share-based payment transactions	1,597	17,302
Share of profits of associates accounted for using equity method	(462,140)	(501,600)
Loss (gain) on disposal of property, plant and equipment	37,785	(142,068)
Loss on disposal of intangible assets	146	-
Gain on disposal of financial instruments	(3,944)	(5,763)
Loss (gain) on disposal of investments accounted for using equity method	(30,152)	125
Provision for inventory and obsolescence	474,709	365,123
Impairment loss on property, plant and equipment	93,073	-
Reversal of impairment loss on investment properties	(56,617)	(19,133)
Impairment loss on intangible assets	8,946	50,750
Impairment loss on other assets	43,971	-
Valuation loss on financial assets and liabilities at fair value through profit or loss, net	38,314	20,763
Others	(26,524)	(17,223)
Changes in operating assets and liabilities:		
Decrease (increase) in:		
Financial assets mandatorily measured at fair value through profit or loss	-	63,117
Contract assets	172,489	2,750,594
Trade notes and accounts receivable	4,038,731	1,353,807
Receivables from related parties	7,436	25,097
Inventories	(2,698,270)	(6,778,309)
Prepayments	114,991	417,569
Other current monetary assets	(154,780)	(172,597)
Other current assets	146,420	(261,240)
Incremental cost of obtaining contracts	(781,114)	(802,011)
Increase (decrease) in:		
Contract liabilities	6,701,313	2,652,747
Trade notes and accounts payable	(5,151,740)	1,065,054
Payables to related parties	(263,968)	233,766
Other payables	697,351	(1,088,406)

(Continued)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

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

	2019	2018
Provisions	\$ 97,497	\$ 27,142
Other operating liabilities	(159,881)	422,413
Net defined benefit plans	<u>533,787</u>	<u>(1,535,294)</u>
Cash generated from operations	80,950,187	77,275,153
Interest paid	(104,142)	(17,524)
Income tax paid	<u>(8,419,360)</u>	<u>(10,891,279)</u>
Net cash provided by operating activities	<u>72,426,685</u>	<u>66,366,350</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of financial assets at fair value through other comprehensive income	(60,000)	(289,580)
Proceeds from return of financial assets at fair value through other comprehensive income	9,167	6,690
Purchase of financial assets at fair value through profit or loss	(443,064)	-
Proceeds from disposal of financial assets at fair value through profit or loss	146,560	-
Acquisition of time deposits and negotiable certificates of deposit with maturities of more than three months	(14,381,653)	(9,719,951)
Acquisition of repurchase agreements collateralized by bonds with maturities of more than three months	(14,990)	-
Proceeds from disposal of time deposits and negotiable certificates of deposit with maturities of more than three months	16,519,781	5,654,941
Acquisition of investments accounted for using equity method	(4,190,000)	(204,900)
Proceeds from disposal of investments accounted for using equity method	32,470	3,379
Proceeds from capital reduction of investments accounted for using equity method	-	19,184
Acquisition of property, plant and equipment	(24,165,857)	(28,549,929)
Proceeds from disposal of property, plant and equipment	48,157	264,446
Acquisition of intangible assets	(362,718)	(498,005)
Acquisition of investment properties	(523)	(5,627)
Increase in other noncurrent assets	(1,122,142)	(80,640)
Interest received	256,432	186,617
Cash dividends received	<u>602,086</u>	<u>599,621</u>
Net cash used in investing activities	<u>(27,126,294)</u>	<u>(32,613,754)</u>
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from short-term loans	575,000	360,000
Repayment of short-term loans	(585,000)	(330,000)
Increase in customers' deposits	7,311	30,997
Payment for the principal of lease liabilities	(3,727,792)	-
Increase in other noncurrent liabilities	232,357	83,613

(Continued)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

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

	2019	2018
Cash dividends	\$ (34,745,603)	\$ (37,204,714)
Partial disposal of interests in subsidiaries without losing control	-	1,174,400
Cash dividends distributed to noncontrolling interests	(709,817)	(958,446)
Change in other noncontrolling interests	18,062	1,806,345
Unclaimed dividend	<u>1,266</u>	<u>2,455</u>
Net cash used in financing activities	<u>(38,934,216)</u>	<u>(35,035,350)</u>
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	<u>38,688</u>	<u>102,599</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	6,404,863	(1,180,155)
CASH AND CASH EQUIVALENTS, BEGINNING OF THE YEAR	<u>27,644,780</u>	<u>28,824,935</u>
CASH AND CASH EQUIVALENTS, END OF THE YEAR	<u>\$ 34,049,643</u>	<u>\$ 27,644,780</u>

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

(Concluded)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

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

1. GENERAL

Chunghwa Telecom Co., Ltd. (“Chunghwa”) was incorporated on July 1, 1996 in the Republic of China (“ROC”) pursuant to the Article 30 of the Telecommunications Act. Chunghwa is a company limited by shares and, prior to August 2000, was wholly owned by the Ministry of Transportation and Communications (“MOTC”). Prior to July 1, 1996, the current operations of Chunghwa were carried out under the Directorate General of Telecommunications (“DGT”). The DGT was established by the MOTC in June 1943 to take primary responsibility in the development of telecommunications infrastructure and to formulate policies related to telecommunications. On July 1, 1996, the telecom operations of the DGT were spun-off as Chunghwa which continues to carry out the business and the DGT continues to be the industry regulator.

Effective August 12, 2005, the MOTC completed the process of privatizing Chunghwa by reducing the government ownership to below 50% in various stages. In July 2000, Chunghwa received approval from the Securities and Futures Commission (the “SFC”) for a domestic initial public offering and its common stocks were listed and traded on the Taiwan Stock Exchange (the “TWSE”) on October 27, 2000. Certain of Chunghwa’s common stocks were sold, in connection with the foregoing privatization plan, in domestic public offerings at various dates from August 2000 to July 2003. Certain of Chunghwa’s common stocks were also sold in an international offering of securities in the form of American Depositary Shares (“ADS”) on July 17, 2003 and were listed and traded on the New York Stock Exchange (the “NYSE”). The MOTC sold common stocks of Chunghwa by auction in the ROC on August 9, 2005 and completed the second international offering on August 10, 2005. Upon completion of the share transfers associated with these offerings on August 12, 2005, the MOTC owned less than 50% of the outstanding shares of Chunghwa and completed the privatization plan.

Chunghwa together with its subsidiaries are hereinafter referred to collectively as the “Company”.

The consolidated financial statements are presented in Chunghwa’s functional currency, New Taiwan dollars.

2. APPROVAL OF FINANCIAL STATEMENTS

The consolidated financial statements were approved by the Board of Directors on February 26, 2020.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company initially applied IFRS 16 “Leases” on January 1, 2019 and elected not to reflect the figures on a retrospective basis in comparative periods. Different accounting policies for each accounting period as a result of the application of new accounting standards are listed by year separately.

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 International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), International Financial Reporting Interpretations Committee (IFRIC) and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission (FSC) (the “Taiwan-IFRS”).

Basis of Preparation

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

Current and Noncurrent Assets and Liabilities

Current assets include:

- a. Assets held primarily for the purpose of trading;
- b. Assets expected to be realized within twelve months after the reporting period; and
- c. Cash and cash equivalents unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

Current liabilities include:

- a. Liabilities held primarily for the purpose of trading;
- b. Liabilities due to be settled within twelve months after the reporting period; and
- c. Liabilities for which the Company does not have an unconditional right to defer settlement for at least twelve months after the reporting period.

Assets and liabilities that are not classified as current are classified as noncurrent.

Light Era Development Co., Ltd. (LED) engages mainly in development of property for rent and sale. The assets and liabilities of LED related to property development within its operating cycle, which is over one year, are classified as current items.

Basis of Consolidation

- a. Principles for preparing consolidated financial statements

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

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

All inter-company transactions, balances, income and expenses are eliminated in full upon consolidation.

Attribution of total comprehensive income to noncontrolling interests

Total comprehensive income of subsidiaries is attributed to the stockholders of the parent and to the noncontrolling interests even if it results in the noncontrolling interests having a deficit balance.

Changes in the Company's ownership interests in subsidiaries

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 noncontrolling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the noncontrolling

interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to stockholders of the parent.

b. 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	Percentage of Ownership		Note
			2019	2018	
Chunghwa Telecom Co., Ltd.	Senao International Co., Ltd. ("SENAO")	Handset and peripherals retailer, sales of CHT mobile phone plans as an agent	28	28	a)
	Light Era Development Co., Ltd. ("LED")	Planning and development of real estate and intelligent buildings, and property management	100	100	
	Donghwa Telecom Co., Ltd. ("DHT")	International private leased circuit, IP VPN service, and IP transit services	100	100	
	Chunghwa Telecom Singapore Pte., Ltd. ("CHTS")	International private leased circuit, IP VPN service, and IP transit services	100	100	
	Chunghwa System Integration Co., Ltd. ("CHSI")	Providing system integration services and telecommunications equipment	100	100	
	Chunghwa Investment Co., Ltd. ("CHI")	Investment	89	89	
	CHIEF Telecom Inc. ("CHIEF")	Network integration, internet data center ("IDC"), communications integration and cloud application services	57	57	b)
	CHYP Multimedia Marketing & Communications Co., Ltd. ("CHYP")	Digital information supply services and advertisement services	100	100	
	Prime Asia Investments Group Ltd. (B.V.I.) ("Prime Asia")	Investment	100	100	
	Spring House Entertainment Tech. Inc. ("SHE")	Software design services, internet contents production and play, and motion picture production and distribution	56	56	c)
	Chunghwa Telecom Global, Inc. ("CHTG")	International private leased circuit, internet services, and transit services	100	100	
	Chunghwa Telecom Vietnam Co., Ltd. ("CHTV")	Intelligent energy saving solutions, international circuit, and information and communication technology ("ICT") services	100	100	
	Smartfun Digital Co., Ltd. ("SFD")	Providing diversified family education digital services	65	65	
	Chunghwa Telecom Japan Co., Ltd. ("CHTJ")	International private leased circuit, IP VPN service, and IP transit services	100	100	
	Chunghwa Sochamp Technology Inc. ("CHST")	Design, development and production of Automatic License Plate Recognition software and hardware	51	51	
	Honghwa International Co., Ltd. ("HHP")	Telecommunications engineering, sales agent of mobile phone plan application and other business services, etc.	100	100	
	Chunghwa Leading Photonics Tech Co., Ltd. ("CLPT")	Production and sale of electronic components and finished products	75	75	
	Chunghwa Telecom (Thailand) Co., Ltd. ("CHTT")	International private leased circuit, IP VPN service, ICT and cloud VAS services	100	100	d)
	CHT Security Co., Ltd. ("CHTSC")	Computing equipment installation, wholesale of computing and business machinery equipment and software, management consulting services, data processing services, digital information supply services and internet identify services	80	80	

(Continued)

Name of Investor	Name of Investee	Main Businesses and Products	Percentage of Ownership		Note
			2019	2018	
Senao International Co., Ltd.	Senao International (Samoa) Holding Ltd. (“SIS”)	International investment	100	100	
	Youth Co., Ltd. (“Youth”)	Sale of information and communication technologies products	93	93	e)
	Aval Technologies Co., Ltd. (“Aval”)	Sale of information and communication technologies products	100	100	
	Senyoung Insurance Agent Co., Ltd. (“SENYOUNG”)	Property and liability insurance agency	100	100	
Youth Co., Ltd.	ISPOT Co., Ltd. (“ISPOT”)	Sale of information and communication technologies products	100	100	
	Youyi Co., Ltd. (“Youyi”)	Maintenance of information and communication technologies products	100	100	
Aval Technologies Co., Ltd.	Wiin Technology Co., Ltd. (“Wiin”)	Sale of information and communication technologies products	100	-	f)
Senyoung Insurance Agent Co., Ltd.	Seyoung Insurance Agent Co., Ltd. (“Seyoung”)	Life insurance services	100	-	g)
Light Era Development Co., Ltd.	Taoyuan Asia Silicon Valley Innovation Co., Ltd. (“TASVI”)	Development of real estate	-	60	h)
CHIEF Telecom Inc.	Unigate Telecom Inc. (“Unigate”)	Telecommunications and internet service	100	100	
	Chief International Corp. (“CIC”)	Telecommunications and internet service	100	100	
	Shanghai Chief Telecom Co., Ltd. (“SCT”)	Telecommunications and internet service	49	49	
Chunghwa System Integration Co., Ltd.	Concord Technology Co., Ltd. (“Concord”)	Investment	-	-	i)
Chunghwa Investment Co., Ltd.	Chunghwa Precision Test Tech. Co., Ltd. (“CHPT”)	Production and sale of semiconductor testing components and printed circuit board	34	34	j)
Chunghwa Precision Test Tech. Co., Ltd.	Chunghwa Precision Test Tech. USA Corporation (“CHPT (US)”)	Design and after-sale services of semiconductor testing components and printed circuit board	100	100	
	CHPT Japan Co., Ltd. (“CHPT (JP)”)	Related services of electronic parts, machinery processed products and printed circuit board	100	100	
	Chunghwa Precision Test Tech. International, Ltd. (“CHPT (International)”)	Wholesale and retail of electronic materials, and investment	100	100	
Senao International (Samoa) Holding Ltd.	Senao International HK Limited (“SIHK”)	International investment	100	100	
Senao International HK Limited	Senao Trading (Fujian) Co., Ltd. (“STF”)	Sale of information and communication technologies products	-	100	k)
	Senao International Trading (Shanghai) Co., Ltd. (“SITS”)	Sale of information and communication technologies products	100	100	
	Senao International Trading (Shanghai) Co., Ltd. (“SEITS”)	Maintenance of information and communication technologies products	-	-	l)
	Senao International Trading (Jiangsu) Co., Ltd. (“SITJ”)	Sale of information and communication technologies products	-	100	m)
Prime Asia Investments Group Ltd. (B.V.I.)	Chunghwa Hsingta Co., Ltd. (“CHC”)	Investment	100	100	

(Continued)

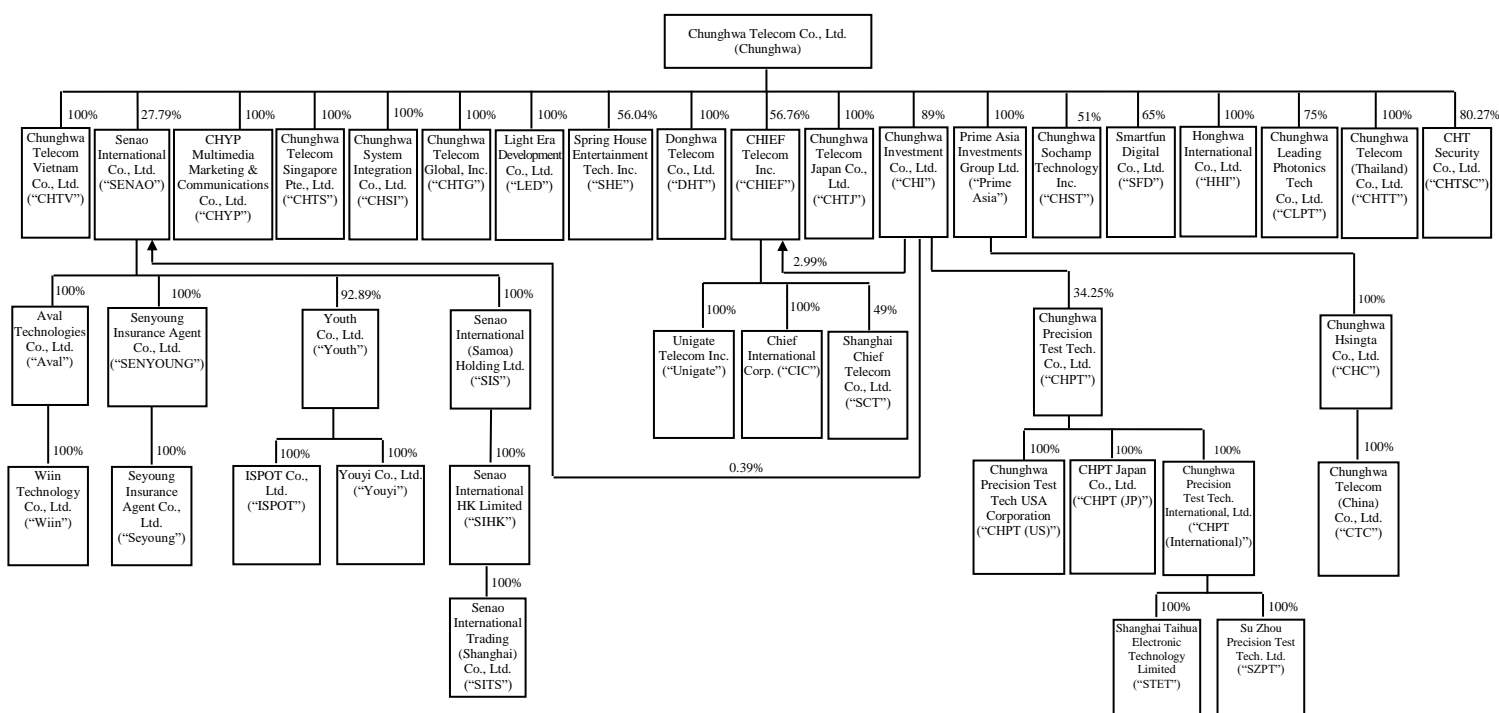
Name of Investor	Name of Investee	Main Businesses and Products	Percentage of Ownership		Note
			2019	2018	
Chunghwa Hsingta Co., Ltd. ("CHC")	Chunghwa Telecom (China) Co., Ltd. ("CTC")	Integrated information and communication solution services for enterprise clients, and intelligent energy network service	100	100	
	Jiangsu Zhenhua Information Technology Company, LLC. ("JZIT")	Providing intelligent energy saving solution and intelligent buildings services	-	-	n)
Chunghwa Precision Test Tech. International, Ltd.	Shanghai Taihua Electronic Technology Limited ("STET")	Design of printed circuit board and related consultation service	100	100	
	Su Zhou Precision Test Tech. Ltd. ("SZPT")	Assembly processed of circuit board, design of printed circuit board and related consultation service	100	-	o)

(Concluded)

- a) SENAO transferred its treasury stock to employees in June 2018 and the Company's ownership interest in SENAO decreased to 28.18% as of December 31, 2018 and 2019. As Chunghwa continues to control over half of the seats of the Board of Directors of SENAO (six out of eleven seats as of December 31, 2019) through the support of large beneficial stockholders, the accounts of SENAO are included in the consolidated financial statements.
- b) CHIEF issued new shares in March and November 2019, March and November 2018 as its employees exercised their options. In addition, Chunghwa and CHI disposed some shares of CHIEF in May 2018 before CHIEF traded its shares on the General Stock Market of the Taipei Exchange according to the local requirements. Furthermore, Chunghwa and CHI did not participate in the capital increase of CHIEF in June 2018. Therefore, the Company's ownership interest in CHIEF decreased to 60.23% and 59.75% as of December 31, 2018 and 2019, respectively.
- c) SHE reduced 19.72% of its capital to offset accumulated deficits in December 2019 and the Company's ownership interest in SHE remained the same.
- d) The Company increased its investment in CHTT proportionally in October 2019 and the Company's ownership interest in CHTT remained the same.
- e) SENAO subscribed for all the shares in the capital increase of Youth in December 2018. Therefore, the Company's ownership interest in Youth increased from 89% to 93%.
- f) Aval invested 100% equity shares of Wiin Technology Co., Ltd. ("Wiin") in September 2019.
- g) SENYOUNG invested 100% equity shares of Seyoung Insurance Agent Co., Ltd. ("Seyoung") in November 2019.
- h) LED invested 60% equity shares of Taoyuan Asia Silicon Valley Innovation Co., Ltd. ("TASVI") in March 2018. TASVI completed its liquidation in September 2019.
- i) Concord completed its liquidation in January 2018.
- j) CHI disposed some shares of CHPT from April to August 2018. Therefore, its ownership interest in CHPT decreased to 34.25% as of December 31, 2018 and 2019. However, considering the absolute and relative size of ownership interest, and the dispersion of shares owned by the other stockholders, the management concluded that the Company has a sufficiently dominant voting interest to direct the relevant activities; hence, CHPT is deemed as a subsidiary of the Company.
- k) STF completed its liquidation in May 2019.

- l) SEITS completed its liquidation in March 2018.
- m) SITJ completed its liquidation in March 2019.
- n) JZIT completed its liquidation in December 2018.
- o) CHPT (International) invested 100% equity shares of Su Zhou Precision Test Tech. Ltd. (“SZPT”) in October 2019.

The following diagram presents information regarding the relationship and ownership percentages between Chunghwa and its subsidiaries as of December 31, 2019:



Foreign Currencies

In preparing the financial statements of each individual 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. Exchange differences on monetary items arising from settlement or translation are recognized in profit or loss in the period in which they arise.

Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined and related exchange differences are recognized in profit or loss. Conversely, when the fair value changes were recognized in other comprehensive income, related exchange difference shall be recognized in other comprehensive income.

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

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Company's foreign operations (including of the subsidiaries and associates in other countries or currencies used different with Chunghwa) are translated into New Taiwan dollars using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period. Exchange differences arising, if any, are recognized in other comprehensive income and attributed to stockholders of the parent and noncontrolling interests as appropriate.

Cash Equivalents

Cash equivalents include commercial paper, time deposits, negotiable certificates of deposit and repurchase agreements collateralized by bonds with original maturities within three months from the date of acquisition, highly liquid, readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. These cash equivalents are held for the purpose of meeting short-term cash commitments.

Inventories

Inventories are stated at the lower of cost or net realizable value item by item, except for those that may be appropriate to group items of similar or related inventories. Net realizable value is the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale. The calculation of the cost of inventory is derived using the weighted-average method.

Buildings and Land Consigned to Construction Contractors

Inventories of LED are stated at the lower of cost or net realizable value item by item, except for those that may be appropriate to group as similar items or related inventories. Land acquired before construction is classified as land held for development, and then reclassified as land held under development after LED begins its construction project.

Upon the completion of the construction project, LED recognizes revenues in the amount of proceeds from customers for land and buildings and related costs when ownership is transferred to the customers. The unsold portion of the completed construction project is transferred to land and building held for sale.

Investments in Associates

An associate is an entity over which the Company has significant influence and that is neither a subsidiary nor an interest in a joint venture.

Investments accounted for using the equity method include investments in associates. Under the equity method, an investment in an associate is initially recognized 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 changes in the associates.

When the Company subscribes for new shares of the 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 associate. The Company records such a difference as an adjustment to investments with the corresponding amount charged or credited to additional paid-in capital. When the adjustment should be debited to additional paid-in capital but the additional paid-in capital recognized from investments accounted for using equity method is insufficient, the shortage is debited to retained earnings.

Any excess of the cost of acquisition over the Company's share of the fair value of the identifiable net assets and liabilities of an associate at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment and shall not be amortized. Any excess of the Company's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition 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 with its carrying amount. Any impairment loss recognized is not allocated to any asset, including goodwill, that 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 transacts with its 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 related to the Company.

Property, Plant and Equipment

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

Property, plant and equipment in the course of construction are depreciated and classified to the appropriate categories of property, plant and equipment when completed and ready for their intended use.

Depreciation on property, plant and equipment is recognized using the straight-line method. Each significant part is depreciated separately. Freehold land is not depreciated. The estimated useful lives, residual values and depreciation method are reviewed at the end of each year, with the effect of any changes in estimate accounted for on a prospective basis.

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

Investment Properties

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties also include land held for a currently undetermined future use.

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and accumulated impairment loss. Depreciation is recognized using the straight-line method.

For a transfer from the investment properties to property, plant and equipment, the deemed cost of the property, plant and equipment for subsequent accounting is its carrying amount at the commencement of owner-occupation.

For a transfer from the property, plant and equipment to investment properties, the deemed cost of the investment properties for subsequent accounting is its carrying amount at the end of owner-occupation.

On derecognition of the investment properties, the difference between the net disposal proceeds and the carrying amount of the asset is recognized in profit or loss in the period in which the property is derecognized.

Goodwill

Goodwill arising from the acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment loss.

For the purpose of impairment testing, goodwill is allocated to each of the Company's cash-generating units or groups of cash-generating units (referred to as "cash-generating unit") that are expected to benefit from the synergies of the business combination.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is an indication that the unit may be impaired, by comparing its carrying amount, including the attributable goodwill, with its recoverable amount. However, if the goodwill allocated to a cash-generating unit was acquired in a business combination during the current annual period, that unit shall be tested for impairment before the end of the current annual period. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit. Any impairment loss is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

Intangible Assets Other Than Goodwill

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment loss. Amortization is recognized on a straight-line basis. The estimated useful life, residual value, and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. The residual value of an intangible asset with a finite useful life shall be assumed to be zero unless the Company expects to dispose of the intangible asset before the end of its economic life.

Intangible assets acquired in a business combination and recognized separately from goodwill are initially recognized at their fair value at the acquisition date (which is regarded as their cost). Subsequent to initial recognition, they are measured on the same basis as intangible assets that are acquired separately.

Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss in the period in which the asset is derecognized.

Impairment of Tangible Assets, Intangible Assets Other Than Goodwill and Incremental Costs of Obtaining Contracts

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets, excluding goodwill, 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.

Intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount, with the resulting impairment loss recognized in profit or loss.

Impairment loss from the assets related to incremental cost of obtaining contracts is recognized to the extent that the carrying amount of the assets exceeds the remaining amount of consideration that the Company expects to receive in exchange for related goods or services less the costs which relate directly to providing those goods or services.

When an impairment loss is subsequently reversed, the carrying amount of the asset or cash-generating unit is increased to the revised estimate of its recoverable amount, but only to the extent of 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 in profit or loss.

Financial Instruments

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

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to 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.

a. Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis.

1) Measurement category

a) Financial assets at fair value through profit or loss (FVTPL)

Financial asset is classified as at FVTPL when the financial asset is mandatorily classified as at FVTPL. Financial assets mandatorily classified as at FVTPL include investments in equity instruments which are not designated as at fair value through other comprehensive income (FVOCI).

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss does not incorporate any dividend earned on the financial asset. Fair value is determined in the manner described in Note 35.

b) Financial assets at amortized cost

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

- i. The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- ii. The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Subsequent to initial recognition, financial assets at amortized cost are measured at amortized cost, which equals to gross carrying amount determined by the effective interest method less any impairment loss, except for short-term receivables as the effect of discounting is immaterial. Exchange differences are recognized in profit or loss.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of such financial assets.

c) Investments in equity instruments at FVOCI

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

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

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

2) Impairment of financial assets and contract assets

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

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

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

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

3) Derecognition of financial assets

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

On derecognition of a financial asset measured 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 investments in equity instruments at FVOCI in its entirety, the cumulative gain or loss is directly transferred to retained earnings, and it is not reclassified to profit or loss.

b. Financial liabilities

1) Subsequent measurement

Except for financial liabilities at FVTPL, all the financial liabilities are subsequently measured at amortized cost using the effective interest method.

2) Derecognition of financial liabilities

The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

c. Derivative financial instruments

The Company enters into derivative financial instruments to manage its exposure to foreign exchange rate risks, including forward exchange contracts.

Derivatives are initially measured 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 is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship. When the fair value of derivative financial instruments is positive, the derivative is recognized as a financial asset; when the fair value of derivative financial instruments is negative, the derivative is recognized as a financial liability.

Hedge Accounting

The Company designates some derivatives instruments as cash flow hedges. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

The associated gains or losses that were recognized in other comprehensive income are reclassified from equity to profit or loss as a reclassification adjustment in the line item relating to the hedged item in the same period when the hedged item affects profit or loss. If a hedge of a forecast transaction subsequently results in the recognition of a non-financial asset or a non-financial liability, the associated gains and losses that were recognized in other comprehensive income are removed from equity and are included in the initial cost of the non-financial asset or non-financial liability.

The Company 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. The cumulative gain or loss on the hedging instrument that has been previously recognized in other comprehensive income from the period when the hedge was effective remains separately in equity until the forecast transaction occurs. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

Provisions

Provisions are measured at the best estimate of the expenditure required to settle the Company's obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. The provisions for warranties claims are made by management according to the sales agreements which represent the management's best estimate of the future outflow of economic benefits. The provisions of warranties claims are recognized as operating cost in the period in which the goods are

sold. The provision for onerous contracts represents the present obligation resulting from the measurement for the unavoidable costs of meeting the Company's contractual obligations exceed the economic benefits expected to be received from the contracts.

Revenue Recognition

The Company identifies the performance obligations in the contract with the customers, allocates transaction price to each performance obligation and recognizes revenue when performance obligations are satisfied.

Sales of products are recognized as revenue when the Company delivers products and the customer accepts and controls the product. Except for the consumer electronic products such as mobile devices sold in channel stores which are usually in cash sale, the Company recognizes revenues for sale of other electronic devices and corresponding trade notes and accounts receivable.

Usage revenues from fixed-line services (including local, domestic long distance and international long distance telephone services), mobile services, internet and data services, and interconnection and call transfer fees from other telecommunications companies and carriers are billed in arrears and are recognized based upon seconds or minutes of traffic processed when the services are provided in accordance with contract terms. The usage revenues and corresponding trade notes and accounts receivable are recognized monthly.

Other revenues are recognized as follows: (a) one-time subscriber connection fees (on fixed-line services) are first recognized as contract liabilities and revenues are recognized subsequently over the average expected customer service periods, (b) monthly fees (on fixed-line services, mobile, internet and data services) and related receivables are accrued monthly, and (c) prepaid services (fixed-line, mobile, internet and data services) are recognized as contract liabilities upon collection considerations from customers and are recognized as revenues subsequently based upon actual usage by customers.

Where the Company enters into transactions which involve both the provision of telecommunications service bundled with products such as handsets, total consideration received from products and telecommunications service in these arrangements are allocated based on their relative stand-alone selling price. The amount of sales revenue recognized for products is not limited to the amount paid by the customer for the products. When the amount of sales revenue recognized for products exceeded the amount paid by the customer for the products, the difference is recognized as contract assets. Contract assets are reclassified to accounts receivable when the amounts become collectible from customers subsequently. When the amount of sales revenue recognized for products was less than the amount paid by the customer for the products, the difference is recognized as contract liabilities and revenues are recognized subsequently when the telecommunications service are provided.

For project business contracts, if a substantial part of the Company's promise to customers is to manage and coordinate the various tasks and assume the risks of those tasks to ensure the individual goods or services are incorporated into the combined output, they are treated as a single performance obligation since the Company provides a significant integration service. The Company recognizes revenues and corresponding accounts receivable when the project business contract is completed and accepted by customers.

For service contracts such as maintenance and warranties, customers simultaneously receive and consume the benefits provided by the Company; thus revenues and corresponding accounts receivable of service contracts are recognized over the related service period.

When another party is involved in providing goods or services to a customer, the Company is acting as a principal if it controls the specified good or service before that good or service is transferred to a customer; otherwise, the Company is acting as an agent. When the Company is acting as a principal, gross inflow of economic benefits arising from transactions is recognized as revenue. When the Company is acting as an agent, revenue is recognized as its share of transaction.

Incremental Costs of Obtaining Contracts

Commissions and equipment subsidy related to telecommunications service as a result of obtaining contracts are recognized as an asset under the incremental costs of obtaining contracts to the extent the costs are expected to be recovered, and are amortized over the contract period. However, the Company elects not to capitalize the incremental costs of obtaining contracts if the amortization period of the assets that the Company otherwise would have recognized is expected to be one year or less.

Leasing

2019

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

a. The Company as lessor

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

b. The Company as lessee

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

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities and for lease payments made at or before the commencement date. Right-of-use assets are subsequently measured at cost less accumulated depreciation and accumulated impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented separately on the consolidated balance sheets.

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

Lease liabilities were initially measured at the present value of the lease payments, which comprise fixed payments, in-substance fixed payments, variable lease payments which depend on an index or a rate. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If such rate cannot be readily determined, the lessee's incremental borrowing rate is used.

Lease liabilities are subsequently 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 or a change in future lease payments resulting from a change in an index or a rate used to determine those payments, the Company remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented separately on the consolidated balance sheets.

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

2018

a. The Company as lessor

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

b. The Company as lessee

Operating lease payments are recognized as an expense on a straight-line basis over the lease term.

Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Other than stated above, all other borrowing costs are recognized in profit or loss in the period in which they are incurred.

Government Grants

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

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes expenses of the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Company should construct noncurrent assets are recognized as deferred revenue and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Employee Benefits

a. Short-term employee benefits

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

b. Retirement benefits

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

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 gains or losses on settlements) and net interest on the net defined benefit liability (asset) are recognized as employee benefits expense in the period they occur. Remeasurement, comprising (a) actuarial gains and losses; and (b) the return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset), 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 (asset) represents the actual deficit (surplus) in the Company's defined benefit plan. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

c. Other long-term employee benefits

Other long-term employee benefits are accounted for in the same way as the accounting required for defined benefit plan except that remeasurement is recognized in profit or loss.

Share-based Payment Arrangements - Employee Stock Options

The fair value determined at the grant date of the employee share options is expensed on a straight-line basis over the vesting period, based on the Company's estimate of employee stock options that are expected to ultimately vest, with a corresponding increase in additional paid-in capital - employee stock options. If the equity instruments granted vest immediately at the grant date, expenses are recognized in full in profit or loss.

At the end of each reporting period, the Company revises its estimate of the number of employee share options expected to vest. The impact of the revision of the original estimates, if any, is recognized in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to additional paid-in capital - employee stock options.

Income Tax

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

a. Current tax

According to the Income Tax Act in the ROC, an additional tax of unappropriated earnings is provided for in the year the stockholders approve to retain the earnings.

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

b. Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. If the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit, the resulting deferred tax asset or liability is not recognized. In addition, a deferred tax liability is not recognized on taxable temporary difference arising from initial recognition of goodwill.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences, unused loss carry forward and unused tax credits from purchases of machinery, equipment and technology and research and development expenditures 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 and interests 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 asset to be recovered. A previously unrecognized deferred tax asset is also reviewed at the end of each reporting period and recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset 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 assets and liabilities 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.

c. Current and deferred tax

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

Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

4. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY AND ASSUMPTION

In the application of the Company's accounting policies, the management is required to make judgments, estimates and assumptions which are based on historical experience and other factors that are not readily apparent from other sources. Actual results may differ from these estimates.

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

a. Critical accounting judgments

1) Revenue recognition

The Company's project agreements are mainly to provide one or more customized equipment or services to customers. In order to fulfill the agreements, another party may be involved in some agreements. The Company considers the following factors to determine whether the Company is a principal of the transaction: whether the Company is the primary obligation provider of the agreements, its exposures to inventory risks and the discretion in establishing prices, etc. The determination of whether the Company is a principal or an agent will affect the amount of revenue recognized by the Company. Only when the Company is acting as a principal, gross inflows of economic benefits arising from transactions is recognized as revenue.

2) Control over subsidiaries

As discussed in Note 3, some entities are subsidiaries of the Company although the Company only owns less than 50% ownership interests in these entities. After considering the Company's absolute size of holding in the entity and the relative size of and the dispersion of shares owned by the other stockholders, and the contractual arrangements between the Company and other investors, potential voting interests and the written agreement between stockholders, the management

concluded that the Company has a sufficiently dominant voting interest to direct the relevant activities of the entity and therefore the Company has control over these entities.

b. Key sources of estimation uncertainty and assumption

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period. Actual results may differ from these estimates.

1) Impairment of trade notes and accounts receivable

The provision for impairment of trade notes and accounts receivable is based on assumptions about risk of default and expected loss rates. The Company uses judgment in making these assumptions and in selecting the inputs to the impairment calculation, based on the Company's past experience, current market conditions as well as forward looking information at the end of each reporting period. For details of the key assumptions and inputs used, see Note 9. Where the actual future cash flows are less than expected, a material impairment loss may arise.

2) Fair value measurements and valuation processes

For the assets and liabilities measured at fair value without quoted prices in active markets, the Company's management determines the appropriate valuation techniques for the fair value measurements and whether to engage third party qualified appraisers based on the related regulations and professional judgments.

Information about the valuation techniques and inputs used in determining the fair value of various assets and liabilities was disclosed in Note 35. If the actual changes of inputs in the future differ from expectation, the fair value may vary accordingly. The Company updates inputs periodically to monitor the appropriateness of the fair value measurement.

3) Provision for inventory valuation and obsolescence

Inventories are stated at the lower of cost or net realizable value. Net realizable value is calculated as the estimated selling price less the estimated selling costs. Comparison of net realizable value and cost is determined on an item by item basis, except for those similar items which could be categorized into the same groups. The Company uses the inventory holding period and turnover as the evaluation basis for inventory obsolescence losses.

4) Impairment of tangible and intangible assets

When an indication of impairment is assessed with objective evidence, the Company considers whether the recoverable amount of an asset is less than its carrying amount and recognizes the impairment loss based on difference between the recoverable amount and its carrying amount. The estimate of recoverable amount would impact on the timing and the amount of impairment loss recognition.

5) Useful lives of property, plant and equipment

As discussed in Note 3, "Summary of Significant Accounting Policies - Property, Plant and Equipment", the Company reviews estimated useful lives of property, plant and equipment at the end of each year.

6) Recognition and measurement of defined benefit plans

Net defined benefit liabilities and the resulting pension expense under defined benefit pension plans are calculated using the Projected Unit Credit Method. Actuarial assumptions comprise the discount rate, employee turnover rate, average future salary increase and etc. Changes in economic circumstances and market conditions will affect these assumptions and may have a material impact on the amount of the expense and the liability.

7) Lessees' incremental borrowing rates

2019

In determining a lessee's incremental borrowing rate used in discounting lease payments, a risk-free rate for relevant duration and the same currency is selected as a reference rate. The lessee's credit spread adjustments and lease specific adjustments are also taken into account.

5. APPLICATION OF NEW AND REVISED STANDARDS AND INTERPRETATIONS

- a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC and SIC endorsed and issued into effect by the FSC.

Except for the following, whenever applied, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC and SIC issued by the International Accounting Standards Board and endorsed and issued into effect by the FSC does not have material impacts on the Company's consolidated financial statements.

IFRS 16 "Leases"

IFRS 16 sets out the accounting standards for identifying leases and accounting treatments for lessors and lessees. It supersedes IAS 17, IFRIC 4 - Determining Whether an Arrangement Contains a Lease and a number of related interpretations. Refer to Note 3 for information relating to the relevant accounting policies.

The Company reassessed whether a contract is, or contains, a lease in accordance with the definition of a lease under IFRS 16. Some contracts previously identified as containing a lease under IAS 17 and IFRIC 4 do not meet the definition of a lease under IFRS 16 and are accounted for in accordance with other accounting standards because the Company does not have the right to direct the use of the identified assets. Contracts that are reassessed as leases or containing a lease are accounted for in accordance with the transitional provisions under IFRS 16.

If the Company is a lessee, it shall recognize right-of-use assets and lease liabilities for all leases on the consolidated balance sheets except for those whose payments for low-value assets are recognized as expenses on a straight-line basis. On the consolidated statements of comprehensive income, the Company presents the depreciation expense charged on the right-of-use asset separately from the interest expense accrued on lease liability using the effective interest method. On the consolidated statements of cash flows, cash payments for the principal portion of lease liability are classified within financing activities; cash payments for interest portion are classified within operating activities. Before the application of IFRS 16, payments under operating lease contracts were recognized as expenses on a straight-line basis. Prepaid lease payments for use rights of leased assets were recognized as prepaid rents. Cash flows for operating leases were classified within operating activities on the statements of cash flows.

The Company did not make any adjustments for leases in which the Company is a lessor and accounted for those leases with the application of IFRS 16 starting from January 1, 2019.

The Company applied IFRS 16 retrospectively with the cumulative effect of the initial application of IFRS 16 recognized in retained earnings on January 1, 2019. Comparative financial information is not restated.

Lease liabilities are recognized on January 1, 2019 for leases previously classified as operating leases under IAS 17 and measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. Right-of-use assets are measured at the present value discounted using the aforementioned incremental borrowing rate as if IFRS 16 had been applied since the commencement date of leases. The Company applies IAS 36 for assessing impairment of right-of-use assets.

The Company's weighted average incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 was 0.85%. The difference between the (1) lease liabilities recognized on January 1, 2019 and (2) future aggregate minimum lease payments of non-cancellable operating lease under IAS 17 on December 31, 2018 is explained as follows:

The future aggregate minimum lease payments of non-cancellable operating lease on December 31, 2018	\$ 10,557,854
Less: Recognition exemption for leases of low-value assets	<u>(3,263)</u>
Undiscounted amount on January 1, 2019	<u>\$ 10,554,591</u>
Discounted lease liabilities using the incremental borrowing rate on January 1, 2019	\$ 10,339,868
Add: Adjustments as a result of a different treatment of extension options	<u>189</u>
Lease liabilities recognized on January 1, 2019	<u>\$ 10,340,057</u>

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

	Carrying Amount as of January 1, 2019	Adjustments Arising from Initial Application of IFRS 16	Adjusted Carrying Amount as of January 1, 2019
Prepayments - current	<u>\$ 1,872,984</u>	\$ (245,215)	<u>\$ 1,627,769</u>
Property, plant and equipment	<u>\$ 288,914,228</u>	(1,308,990)	<u>\$ 287,605,238</u>
Right-of-use assets	<u>\$ -</u>	12,163,063	<u>\$ 12,163,063</u>
Deferred income tax assets	<u>\$ 3,553,856</u>	25,588	<u>\$ 3,579,444</u>
Prepayments - noncurrent	<u>\$ 3,463,337</u>	<u>(413,521)</u>	<u>\$ 3,049,816</u>
Total effect on assets		<u>\$ 10,220,925</u>	
Contract liabilities - current	<u>\$ 10,687,772</u>	\$ 214,174	<u>\$ 10,901,946</u>
Lease liabilities - current	<u>\$ -</u>	3,394,119	<u>\$ 3,394,119</u>
Other payables	<u>\$ 23,315,383</u>	(48,712)	<u>\$ 23,266,671</u>
Other current liabilities	<u>\$ 1,381,606</u>	(214,174)	<u>\$ 1,167,432</u>
Contract liabilities - noncurrent	<u>\$ 2,595,149</u>	3,482,907	<u>\$ 6,078,056</u>

(Continued)

	Carrying Amount as of January 1, 2019	Adjustments Arising from Initial Application of IFRS 16	Adjusted Carrying Amount as of January 1, 2019
Deferred income tax liabilities	<u>\$ 1,991,843</u>	\$ 6	<u>\$ 1,991,849</u>
Lease liabilities - noncurrent	<u>\$ -</u>	6,945,938	<u>\$ 6,945,938</u>
Other noncurrent liabilities	<u>\$ 4,793,237</u>	<u>(3,482,907)</u>	<u>\$ 1,310,330</u>
Total effect on liabilities		<u>\$ 10,291,351</u>	
Unappropriated earnings	<u>\$ 47,141,345</u>	\$ (50,823)	<u>\$ 47,090,522</u>
Noncontrolling interests	<u>\$ 10,009,948</u>	<u>(19,603)</u>	<u>\$ 9,990,345</u>
Total effect on equity (unappropriated earnings)		<u>\$ (70,426)</u>	(Concluded)

b. Amendments to IFRSs endorsed by the FSC for application starting from January 1, 2020

New, Revised or Amended Standards and Interpretations	Effective Date Issued by IASB
Amendments to IFRS 3	Definition of a Business
Amendments to IFRS 9, IAS 39 and IFRS 7	Interest Rate Benchmark Reform
Amendments to IAS 1 and IAS 8	Definition of Materiality
	January 1, 2020 (Note 1)
	January 1, 2020 (Note 2)
	January 1, 2020 (Note 3)

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

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

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

The application of the above new, revised or amended standards and interpretations will not have material impact on the Company's consolidated financial statements.

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

New, Revised or Amended Standards and Interpretations	Effective Date Announced by IASB (Note)
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between An Investor and Its Associate or Joint Venture
Amendments to IAS 1	Classification of liabilities as current or noncurrent
	To be determined by IASB
	January 1, 2022

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

As of the date the consolidated financial statements were authorized for issue, the Company is continuously assessing the possible impact that the application of above standards and interpretations will have on the Company's financial position and operating result and will disclose the relevant impact when the assessment is completed.

6. CASH AND CASH EQUIVALENTS

	December 31	
	2019	2018
Cash		
Cash on hand	\$ 353,499	\$ 462,719
Bank deposits	<u>9,432,814</u>	<u>10,574,697</u>
	<u>9,786,313</u>	<u>11,037,416</u>
Cash equivalents (investments with maturities of less than three months)		
Commercial paper	20,109,823	6,143,672
Negotiable certificates of deposit	1,700,000	7,600,000
Time deposits	2,450,509	2,863,692
Repurchase agreements collateralized by bonds	<u>2,998</u>	<u>-</u>
	<u>24,263,330</u>	<u>16,607,364</u>
	<u>\$ 34,049,643</u>	<u>\$ 27,644,780</u>

The annual yield rates of bank deposits, commercial paper, negotiable certificates of deposit, time deposits and repurchase agreements collateralized by bonds as of balance sheet dates were as follows:

	December 31	
	2019	2018
Bank deposits	0.00%-0.74%	0.00%-0.50%
Commercial paper	0.47%-0.54%	0.47%-0.57%
Negotiable certificates of deposit	0.58%-0.60%	0.55%-0.60%
Time deposits	0.09%-4.40%	0.09%-4.40%
Repurchase agreements collateralized by bonds	1.90%	-

7. FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31	
	2019	2018
<u>Financial assets-current</u>		
Mandatorily measured at FVTPL		
Derivatives (not designated for hedge)		
Forward exchange contract	\$ 53	\$ -
Non-derivatives		
Listed stocks - domestic	<u>463</u>	<u>-</u>
	<u>\$ 516</u>	<u>\$ -</u>

(Continued)

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
<u>Financial assets-noncurrent</u>		
Mandatorily measured at FVTPL		
Non-derivatives		
Non-listed stocks - domestic	\$ 510,801	\$ 292,910
Non-listed stocks - foreign	<u>267,304</u>	<u>224,452</u>
	<u>\$ 778,105</u>	<u>\$ 517,362</u>
<u>Financial liabilities-current</u>		
Held for trading		
Derivatives (not designated for hedge)		
Forward exchange contracts	<u>\$ 239</u>	<u>\$ 1,114</u> (Concluded)

The Company increased its investment in Taiwan Capital Buffalo Fund Co., Ltd. proportionally for 300,000 thousand in October 2019 and the Company's ownership interest in Taiwan Capital Buffalo Fund Co., Ltd. remained at 12.9%.

Outstanding forward exchange contracts not designated for hedge as of balance sheet dates were as follows:

	Currency	Maturity Period	Contract Amount (In Thousands)
<u>December 31, 2019</u>			
Forward exchange contracts - buy	EUR/NT\$	2020.03	EUR1,500/NT\$50,910
Forward exchange contracts - buy	US\$/NT\$	2020.01	US\$850/NT\$25,524
<u>December 31, 2018</u>			
Forward exchange contracts - buy	EUR/NT\$	2019.03-06	EUR5,452/NT\$192,734
Forward exchange contracts - buy	US\$/NT\$	2019.01	US\$2,020/NT\$62,252

The Company entered into the above forward exchange contracts to manage its exposure to foreign currency risk due to fluctuations in exchange rates. However, the aforementioned derivatives did not meet the criteria for hedge accounting.

8. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME - NONCURRENT

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Domestic investments		
Listed stocks	\$ 2,453,616	\$ 2,899,843
Non-listed stocks	4,680,931	3,901,053
		(Continued)

	December 31	
	2019	2018
Foreign investments		
Non-listed stocks	\$ <u>134,370</u>	\$ <u>131,607</u>
	\$ <u>7,268,917</u>	\$ <u>6,932,503</u>
		(Concluded)

The Company holds the above foreign and domestic stocks for medium to long-term strategic purposes and expects to profit from long-term investment. Accordingly, the management elected to designate these investments in equity instruments at FVOCI as they believe that recognizing short-term fair value fluctuations of these investments in profit or loss is not consistent with the Company's strategy of holding these investments for long-term purposes.

The Company recognized dividend income of \$296,360 thousand and \$395,593 thousand for the years ended December 31, 2019 and 2018, respectively, from those investments still held on balance sheet dates.

9. TRADE NOTES AND ACCOUNTS RECEIVABLE, NET

	December 31	
	2019	2018
Trade notes and accounts receivable	\$ 28,767,539	\$ 32,677,558
Less: Loss allowance	<u>(2,359,756)</u>	<u>(2,602,055)</u>
	<u>\$ 26,407,783</u>	<u>\$ 30,075,503</u>

The main credit terms range from 30 to 90 days.

The Company serves a large consumer base for telecommunications business; therefore, the concentration of credit risk is limited. When having transactions with customers, the Company considers the record of arrears in the past. In addition, the Company may also collect some telecommunication charges in advance to reduce the payment arrears in subsequent periods.

The Company adopted a policy of dealing with counterparties with certain credit ratings for project business and to obtain collateral where necessary to mitigate the risk of loss arising from default. Credit rating information is provided by independent rating agencies where available and, if such credit rating information is not available, the Company uses other publicly available financial information and its own historical transaction experience to rate its major customers. The Company continues to monitor the credit exposure and credit ratings of its counterparties and spread the credit risk amongst qualified counterparties.

In order to mitigate credit risk, the management of the Company has delegated a team responsible for determining credit limits, credit approvals and other monitoring procedures to ensure the recoverability of receivables. In addition, the Company reviews the recoverable amount of receivables at balance sheet dates to ensure that adequate allowance is provided for possible irrecoverable amounts. In this regard, the management believes the Company's credit risk could be reasonably reduced.

The Company applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for receivables. The expected credit losses on receivables are estimated using a provision matrix by reference to past default experience of the customers and an analysis of the customers' current financial positions, as well as the forward-looking indicators such as macroeconomic business indicator.

When there are evidences indicating that the counterparty is in evasion, bankruptcy, deregistration of its company or the accounts receivable are over two years past due and the recoverable amount cannot be reasonable estimated, the Company writes off the trade notes and accounts receivable. For accounts receivable that have been written off, the Company continues to engage in enforcement activity to attempt to recover the receivables due. Where recoveries are made, these are recognized in profit or loss.

Except for receivables arising from telecommunications business and project business, the Company's remaining accounts receivable are limited. Therefore, only Chunghwa's provision matrix arising from telecommunications business and project business is disclosed below:

December 31, 2019

	Not Past Due	Past Due Less than 30 Days	Pass Due 31 to 60 Days	Pass Due 61 to 90 Days	Pass Due 91 to 120 Days	Pass Due 121 to 180 Days	Pass Due over 180 Days	Total
<u>Telecommunications business</u>								
Expected credit loss rate (Note a)	0% - 2%	0%-25%	0%-68%	0%-83%	11%-90%	17%-96%	100%	
Gross carrying amount	\$ 19,020,326	\$ 267,902	\$ 74,775	\$ 46,782	\$ 40,771	\$ 28,021	\$ 600,985	\$ 20,079,562
Loss allowance (lifetime ECL)	(55,903)	(25,517)	(27,630)	(34,624)	(26,281)	(27,366)	(600,985)	(798,306)
Amortized cost	\$ 18,964,423	\$ 242,385	\$ 47,145	\$ 12,158	\$ 14,490	\$ 655	\$ -	\$ 19,281,256
<u>Project business</u>								
Expected credit loss rate (Note b)	0%-5%	5%	10%	30%	50%	80%	100%	
Gross carrying amount	\$ 4,053,681	\$ 78,147	\$ 52,227	\$ 29,527	\$ 12,688	\$ 1,040	\$ 1,471,840	\$ 5,699,150
Loss allowance (lifetime ECL)	(2,637)	(4,892)	(5,223)	(10,577)	(6,344)	(832)	(1,471,840)	(1,502,345)
Amortized cost	\$ 4,051,044	\$ 73,255	\$ 47,004	\$ 18,950	\$ 6,344	\$ 208	\$ -	\$ 4,196,805

December 31, 2018

	Not Past Due	Past Due Less than 30 Days	Pass Due 31 to 60 Days	Pass Due 61 to 90 Days	Pass Due 91 to 120 Days	Pass Due 121 to 180 Days	Pass Due over 180 Days	Total
<u>Telecommunications business</u>								
Expected credit loss rate (Note a)	0% - 3%	3%-30%	7%-69%	19%-82%	32%-90%	61%-95%	100%	
Gross carrying amount	\$ 23,307,276	\$ 454,465	\$ 94,715	\$ 48,924	\$ 37,640	\$ 36,090	\$ 418,101	\$ 24,397,211
Loss allowance (lifetime ECL)	(79,857)	(26,872)	(24,023)	(28,432)	(28,196)	(25,618)	(418,101)	(631,099)
Amortized cost	\$ 23,227,419	\$ 427,593	\$ 70,692	\$ 20,492	\$ 9,444	\$ 10,472	\$ -	\$ 23,766,112
<u>Project business</u>								
Expected credit loss rate (Note b)	0%-5%	5%	10%	30%	50%	80%	100%	
Gross carrying amount	\$ 4,066,271	\$ 88,384	\$ 92,343	\$ 8,248	\$ 12,132	\$ 6,809	\$ 1,725,168	\$ 5,999,355
Loss allowance (lifetime ECL)	(152,624)	(8,609)	(10,142)	(2,910)	(8,492)	(5,643)	(1,725,168)	(1,913,588)
Amortized cost	\$ 3,913,647	\$ 79,775	\$ 82,201	\$ 5,338	\$ 3,640	\$ 1,166	\$ -	\$ 4,085,767

Note a: Please refer to Notes 28 and 41 for the information of disaggregation of telecommunications service revenue. The expected credit loss rate applicable to different business revenue varies so as to reflect the risk level indicating by factors like historical experience.

Note b: The project business has different loss types according to the customer types. The expected credit loss rate listed above is for general customers. When customer is the government or its affiliates, it is expected that no credit loss will occur. For those who had bounced or exchanged checks as well as those accounts receivable were overdue more than six months that are classified as high risk customers, the expected credit loss of high risk customers is at least 50%, and the rate is increased when the overdue days increases.

Movements of loss allowance for trade notes and accounts receivable were as follows:

	Year Ended December 31	
	2019	2018
Beginning balance	\$ 2,602,055	\$ 2,117,349
Add: Provision for (reversal of) credit loss	(53,952)	804,727
Less: Amounts written off	<u>(188,347)</u>	<u>(320,021)</u>
Ending balance	<u>\$ 2,359,756</u>	<u>\$ 2,602,055</u>

10. INVENTORIES

	December 31	
	2019	2018
Merchandise	\$ 3,858,034	\$ 6,067,750
Project in process	11,113,286	6,756,486
Work in process	141,417	109,191
Raw materials	<u>155,495</u>	<u>111,566</u>
	15,268,232	13,044,993
Land held under development	1,998,733	1,998,733
Construction in progress	<u>77,311</u>	<u>76,989</u>
	<u>\$ 17,344,276</u>	<u>\$ 15,120,715</u>

The operating costs related to inventories were \$49,258,066 thousand (including the valuation loss on inventories of \$474,709 thousand) and \$48,648,763 thousand (including the valuation loss on inventories of \$365,123 thousand) for the years ended December 31, 2019 and 2018, respectively.

As of December 31, 2019 and 2018, inventories of \$2,076,044 thousand and \$2,075,722 thousand, respectively, were expected to be recovered for a time period longer than twelve months. The aforementioned amount of inventories is related to property development owned by LED.

Land held under development and construction in progress was developed by LED for Qingshan Sec., Dayuan Dist., Taoyuan City project.

11. PREPAYMENTS

	December 31	
	2019	2018
Prepaid rents	\$ 3,382,560	\$ 2,415,083
Others	<u>1,180,034</u>	<u>2,921,238</u>
	<u>\$ 4,562,594</u>	<u>\$ 5,336,321</u>
Current		
Prepaid rents	\$ 704,607	\$ 599,817
Others	<u>1,178,652</u>	<u>1,273,167</u>
	<u>\$ 1,883,259</u>	<u>\$ 1,872,984</u>

(Continued)

	December 31	
	2019	2018
Noncurrent		
Prepaid rents	\$ 2,677,953	\$ 1,815,266
Others	<u>1,382</u>	<u>1,648,071</u>
	<u>\$ 2,679,335</u>	<u>\$ 3,463,337</u>
		(Concluded)

Prepaid rents in 2019 comprises the prepayments from the lease agreements applying the recognition exemption and the prepayments for leases that do not meet the definition of leases under IFRS 16.

12. OTHER CURRENT MONETARY ASSETS

	December 31	
	2019	2018
Time deposits and negotiable certificates of deposit with maturities of more than three months	\$ 5,959,074	\$ 8,156,647
Repurchase agreements collateralized by bonds with maturities of more than three months	14,990	-
Others	<u>1,524,500</u>	<u>1,347,556</u>
	<u>\$ 7,498,564</u>	<u>\$ 9,504,203</u>

The annual yield rates of time deposits, negotiable certificates of deposit and repurchase agreements collateralized by bonds with maturities of more than three months at the balance sheet dates were as follows:

	December 31	
	2019	2018
Time deposits and negotiable certificates of deposit with maturities of more than three months	0.03%-2.73%	0.03%-3.05%
Repurchase agreements collateralized by bonds with maturities of more than three months	2.50%	-

13. SUBSIDIARIES

a. Information on significant noncontrolling interest subsidiary

Subsidiaries	Principal Place of Business	Proportion of Ownership Interests and Voting Rights Held by Noncontrolling Interests	
		December 31	
		2019	2018
SENAO	Taiwan	72%	72%
CHPT	Taiwan	66%	66%

	Profit Allocated to Noncontrolling Interests		Accumulated Noncontrolling Interests	
	Year Ended December 31		December 31	
	2019	2018	2019	2018
SENAO	\$ 292,776	\$ 281,238	\$ 4,267,547	\$ 4,228,240
CHPT	\$ 411,049	\$ 456,599	4,236,872	4,044,322
Individually immaterial subsidiaries with noncontrolling interests			<u>1,779,103</u>	<u>1,737,386</u>
			<u>\$ 10,283,522</u>	<u>\$ 10,009,948</u>

Summarized financial information in respect of SENAO and its subsidiaries that has material noncontrolling interests is set out below. The summarized financial information below represents amounts before intercompany eliminations.

	December 31	
	2019	2018
Current assets	\$ 6,751,385	\$ 7,041,416
Noncurrent assets	3,321,252	2,675,748
Current liabilities	(3,617,165)	(3,740,162)
Noncurrent liabilities	<u>(589,882)</u>	<u>(164,056)</u>
Equity	<u>\$ 5,865,590</u>	<u>\$ 5,812,946</u>
Equity attributable to the parent	\$ 1,598,043	\$ 1,584,706
Equity attributable to noncontrolling interests	<u>4,267,547</u>	<u>4,228,240</u>
	<u>\$ 5,865,590</u>	<u>\$ 5,812,946</u>
	Year Ended December 31	
	2019	2018
Revenues and income	\$ 29,130,695	\$ 31,533,371
Costs and expenses	<u>28,722,830</u>	<u>31,137,428</u>
Profit for the year	<u>\$ 407,865</u>	<u>\$ 395,943</u>
Profit attributable to the parent	\$ 115,089	\$ 114,705
Profit attributable to noncontrolling interests	<u>292,776</u>	<u>281,238</u>
Profit for the year	<u>\$ 407,865</u>	<u>\$ 395,943</u>
Other comprehensive loss attributable to the parent	\$ (7,164)	\$ (1,818)
Other comprehensive income (loss) attributable to noncontrolling interests	<u>22,358</u>	<u>(10,523)</u>
	<u>\$ 15,194</u>	<u>\$ (12,341)</u>

(Continued)

	Year Ended December 31	
	2019	2018
Total comprehensive income attributable to the parent	\$ 107,925	\$ 112,887
Total comprehensive income attributable to noncontrolling interests	<u>315,134</u>	<u>270,715</u>
	<u>\$ 423,059</u>	<u>\$ 383,602</u>
Net cash flow from operating activities	\$ 537,965	\$ 696,142
Net cash flow from investing activities	235,169	(12,596)
Net cash flow from financing activities	(717,602)	(490,757)
Effect of exchange rate changes on cash and cash equivalents	<u>(193)</u>	<u>516</u>
Net cash inflow	<u>\$ 55,339</u>	<u>\$ 193,305</u>
Dividends paid to noncontrolling interests	<u>\$ 268,944</u>	<u>\$ 587,264</u> (Concluded)

Summarized financial information in respect of CHPT and its subsidiaries that has material noncontrolling interests is set out below. The summarized financial information below represents amounts before intercompany eliminations.

	December 31	
	2019	2018
Current assets	\$ 3,709,630	\$ 4,416,910
Noncurrent assets	4,043,881	2,779,020
Current liabilities	(1,287,597)	(1,044,054)
Noncurrent liabilities	<u>(22,003)</u>	<u>(816)</u>
Equity	<u>\$ 6,443,911</u>	<u>\$ 6,151,060</u>
Equity attributable to CHI	\$ 2,207,039	\$ 2,106,738
Equity attributable to noncontrolling interests	<u>4,236,872</u>	<u>4,044,322</u>
	<u>\$ 6,443,911</u>	<u>\$ 6,151,060</u>

	Year Ended December 31	
	2019	2018
Revenues and income	\$ 3,404,570	\$ 3,299,226
Costs and expenses	<u>2,779,406</u>	<u>2,583,202</u>
Profit for the year	<u>\$ 625,164</u>	<u>\$ 716,024</u>
Profit attributable to CHI	\$ 214,115	\$ 259,425
Profit attributable to noncontrolling interests	<u>411,049</u>	<u>456,599</u>
Profit for the year	<u>\$ 625,164</u>	<u>\$ 716,024</u> (Continued)

	Year Ended December 31	
	2019	2018
Other comprehensive income (loss) attributable to CHI	\$ (1,106)	\$ 218
Other comprehensive income (loss) attributable to noncontrolling interests	<u>(2,124)</u>	<u>45</u>
	<u>\$ (3,230)</u>	<u>\$ 263</u>
Total comprehensive income attributable to CHI	\$ 213,009	\$ 259,643
Total comprehensive income attributable to noncontrolling interests	<u>408,925</u>	<u>456,644</u>
	<u>\$ 621,934</u>	<u>\$ 716,287</u>
Net cash flow from operating activities	\$ 507,144	\$ 861,558
Net cash flow from investing activities	(1,425,660)	(733,108)
Net cash flow from financing activities	(349,452)	(327,890)
Effect of exchange rate changes on cash and cash equivalents	<u>(4,815)</u>	<u>1,337</u>
Net cash outflow	<u>\$ (1,272,783)</u>	<u>\$ (198,103)</u>
Dividends paid to noncontrolling interests	<u>\$ 215,591</u>	<u>\$ 209,711</u>
		(Concluded)

b. Equity transactions with noncontrolling interests

CHIEF issued new shares in March and November 2019, March and November 2018 as its employees exercised their options. In addition, Chunghwa and CHI disposed some shares of CHIEF in May 2018 before CHIEF traded its shares on the General Stock Market of the Taipei Exchange according to the local requirements. Furthermore, Chunghwa and CHI did not participate in the capital increase of CHIEF in June 2018; therefore, the Company's ownership interest in CHIEF decreased. See Note 32(c)(d) for details.

SENAO subscribed for all the shares in the capital increase of Youth in December 2018; therefore, the Company's ownership interest in Youth increased.

SENAO transferred its treasury stock to employees in June 2018; therefore, the Company's ownership interest in SENAO decreased. See Note 32(b) for details.

CHI disposed some shares of CHPT from April to August 2018; therefore, the Company's ownership interest in CHPT decreased.

The above transactions were accounted for as equity transactions since the Company did not cease to have control over these subsidiaries.

Information of the Company's equity transactions with noncontrolling interests for the years ended December 31, 2019 and 2018 was as follows:

	Year Ended December 31, 2019
	<u>CHIEF Share- Based Payment</u>
Cash consideration received from noncontrolling interests	\$ 18,825
The proportionate share of the carrying amount of the net assets of the subsidiary transferred to noncontrolling interests	<u>(19,723)</u>
Differences arising from equity transactions	<u>\$ (898)</u>
<u>Line items for equity transaction adjustments</u>	
Additional paid-in capital - arising from changes in equities of subsidiaries	<u>\$ (898)</u>

	Year Ended December 31, 2018					
	SENAO Not Proportionately Participating in the Capital Increase of Youth	SENAO Transferred its Treasury Stock	CHI Disposed Some Shares of CHPT	Chunghwa and CHI Did Not Participate in the Capital Increase of CHIEF	Chunghwa and CHI Disposed Some Shares of CHIEF	Share-based Payment of CHIEF
Cash consideration received from noncontrolling interests	\$ -	\$ 327,122	\$ 1,041,689	\$ 1,476,680	\$ 132,711	\$ 35,337
The proportionate share of the carrying amount of the net assets of the subsidiary transferred to noncontrolling interests	<u>(68)</u>	<u>(272,188)</u>	<u>(330,100)</u>	<u>(699,899)</u>	<u>(18,253)</u>	<u>(24,561)</u>
Differences arising from equity transactions	<u>\$ (68)</u>	<u>\$ 54,934</u>	<u>\$ 711,589</u>	<u>\$ 776,781</u>	<u>\$ 114,458</u>	<u>\$ 10,776</u>
<u>Line items for equity transaction adjustments</u>						
Additional paid-in capital-difference between consideration received or paid and the carrying amount of the subsidiaries' net assets upon actual disposal or acquisition	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 711,589</u>	<u>\$ -</u>	<u>\$ 114,458</u>	<u>\$ -</u>
Additional paid-in capital - arising from changes in equities of subsidiaries	<u>\$ (68)</u>	<u>\$ 54,934</u>	<u>\$ -</u>	<u>\$ 776,781</u>	<u>\$ -</u>	<u>\$ 10,776</u>

14. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

Investments in associates were as follows:

	<u>Carrying Amount</u>	
	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
<u>Material associate</u>		
Next Commercial Bank Co., Ltd. (preparatory office) (“NCB”)	\$ 4,074,168	\$ -
<u>Associates that are not individually material</u>		
<u>Listed</u>		
Senao Networks, Inc. (“SNP”)	953,685	919,841
KingwayTek Technology Co., Ltd. (“KWT”)	253,021	-
<u>Non-listed</u>		
ST-2 Satellite Ventures Pte., Ltd. (“STS”)	500,930	496,033
International Integrated System, Inc. (“IISP”)	340,240	310,842
Viettel-CHT Co., Ltd. (“Viettel-CHT”)	316,535	286,510
Taiwan International Standard Electronics Co., Ltd. (“TISE”)	272,166	216,439
Chunghwa PChome Fund I Co., Ltd. (“CPFI”)	194,081	198,974
So-net Entertainment Taiwan Limited (“So-net”)	189,396	119,956
KKBOX Taiwan Co., Ltd. (“KKBOXTW”, previously known as Skysoft Co., Ltd.)	150,789	147,360
Taiwan International Ports Logistics Corporation (“TIPL”)	50,979	49,650
Click Force Co., Ltd. (“CF”)	37,120	37,876
UUPON Inc. (“UUPON”, previously known as Dian Zuan Integrating Marketing Co., Ltd.)	10,529	16,647
Cornerstone Ventures Co., Ltd. (“CVC”)	5,507	4,757
Alliance Digital Tech Co., Ltd. (“ADT”)	5,080	5,080
KingwayTek Technology Co., Ltd. (“KWT”)	-	134,925
MeWorks Limited (HK) (“MeWorks”)	-	-
	<u>3,280,058</u>	<u>2,944,890</u>
	<u>\$ 7,354,226</u>	<u>\$ 2,944,890</u>

The percentages of ownership and voting rights in associates held by the Company as of balance sheet dates were as follows:

	<u>% of Ownership and Voting Rights</u>	
	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
<u>Material associate</u>		
Next Commercial Bank Co., Ltd. (preparatory office) (“NCB”)	42	-

(Continued)

**% of Ownership and Voting
Rights**

December 31

2019 2018

Associates that are not individually material

Senao Networks, Inc. (“SNI”)	34	34
KingwayTek Technology Co., Ltd. (“KWT”)	23	26
ST-2 Satellite Ventures Pte., Ltd. (“STS”)	38	38
International Integrated System, Inc. (“IISI”)	31	32
Viettel-CHT Co., Ltd. (“Viettel-CHT”)	30	30
Taiwan International Standard Electronics Co., Ltd. (“TISE”)	40	40
Chunghwa PChome Fund I Co., Ltd. (“CPFI”)	50	50
So-net Entertainment Taiwan Limited (“So-net”)	30	30
KKBOX Taiwan Co., Ltd. (“KKBOXTW”)	30	30
Taiwan International Ports Logistics Corporation (“TIPL”)	27	27
Click Force Co., Ltd. (“CF”)	49	49
UUpon Inc. (“UUPON”)	22	22
Cornerstone Ventures Co., Ltd. (“CVC”)	49	49
Alliance Digital Tech Co., Ltd. (“ADT”)	14	14
MeWorks Limited (HK) (“MeWorks”)	20	20
		(Concluded)

Summarized financial information of NCB (preparatory office) is set out below:

	December 31, 2019
Current assets	\$ 10,000,028
Noncurrent assets	451,897
Current liabilities	(291,399)
Noncurrent liabilities	<u>(436,975)</u>
Equity	<u>\$ 9,723,551</u>
The percentage of ownership held by the company	41.9%
Equity attributable to the Company and carrying amount of investment	<u>\$ 4,074,168</u>
	Period from the Beginning of Preparation to December 31, 2019
Revenues	<u>\$ -</u>
Net loss for the period	\$ (276,449)
Other comprehensive income	<u>-</u>
Total comprehensive loss for the year	<u>\$ (276,449)</u>

Except for NCB (preparatory office), no associate is considered individually material to the Company. Summarized financial information of associates that are not individually material to the Company was as follows:

	Year Ended December 31	
	2019	2018
The Company's share of profits	\$ 577,972	\$ 501,600
The Company's share of other comprehensive income (loss)	<u>(3,035)</u>	<u>5,025</u>
The Company's share of total comprehensive income	<u>\$ 574,937</u>	<u>\$ 506,625</u>

The Level 1 fair values based on the closing market prices of SNI and KWT as of the balance sheet dates were as follows:

	December 31	
	2019	2018
SNI	<u>\$ 2,014,353</u>	<u>\$ 1,447,350</u>
KWT	<u>\$ 872,729</u>	<u>\$ -</u>

The participation of establishing NCB was approved by Chunghwa's Board of Directors in January 2019. The establishment of NCB was approved by the FSC in July 2019 and the incorporation of NCB was approved by the Ministry of Economic Affairs Department of Commerce in January 2020. Chunghwa prepaid investment funds to NCB in February and November 2019 amounted to \$4,190,000 thousand, for ownership interest of 41.9%. Chunghwa obtained 6 out of 15 seats of the Board of Directors of NCB; therefore, Chunghwa does not have control over NCB and merely has significant influence over NCB and treats it as an associate. NCB mainly engages in online banking business, which located in Taiwan.

IISI issued new shares in March and September 2019 as its employees exercised their options; therefore, the Company's ownership interest in IISI decreased to 31% as of December 31, 2019. The investment of 20.58% of ownership interest in IISI was approved by Chunghwa's Board of Directors in January 2020. Upon the completion of the transaction, the Company's ownership interest in IISI is expected to increase from 31% to 52%. Therefore, Chunghwa will gain control over IISI and treat it as a subsidiary.

The Company disposed some shares of KWT in April 2019 before KWT traded its shares on the General Stock Market of the Taipei Exchange according to the local requirements and recognized disposal gain of \$30,152 thousand. In addition, the Company did not participate in the capital increase of KWT in May 2019 and KWT repurchased its stock in December 2019. Therefore, the Company's ownership interest in KWT decreased to 23% as of December 31, 2019.

The Company invested 50% equity shares of CPFI in October 2018. The Company has only two out of five seats of the Board of Directors of CPFI, and has no control but significant influence over CPFI. Therefore, the Company recognized CPFI as investment in associate. CPFI engages mainly in investment business.

The Company invested 49% equity shares of CVC in October 2018. The Company has only two out of five seats of the Board of Directors of CVC, and has no control but significant influence over CVC. Therefore, the Company recognized CVC as investment in associate. CVC engages mainly in investment business.

HopeTech returned the proceeds of \$19,184 thousand as a result of capital reduction in January 2018. The Company received \$3,379 thousand by disposing all shares of HopeTech in June 2018 and recognized disposal loss of \$125 thousand. HopeTech engages mainly in sale of information and communication technologies products.

The Company owns 14% equity shares of ADT. As the Company remains the seat in the Board of Directors of ADT and considers the relative size of ownership interest and the dispersion of shares owned by the other stockholders, the Company remains significant influence over ADT. In June 2018, the stockholders of ADT approved to dissolve. The liquidation of ADT is still in process.

The Company's share of profits and other comprehensive income (loss) of associates was recognized based on the audited financial statements.

15. PROPERTY, PLANT AND EQUIPMENT

	December 31, 2019
Assets used by the Company	\$ 276,370,003
Assets subject to operating leases	<u>7,324,212</u>
	<u>\$ 283,694,215</u>

a. Assets used by the Company - 2019

	Land	Land Improvements	Buildings	Computer Equipment	Telecommunications Equipment	Transportation Equipment	Miscellaneous Equipment	Construction in Progress and Equipment to be Accepted	Total
Cost									
Balance on January 1, 2019	\$ 103,972,052	\$ 1,600,323	\$ 72,911,010	\$ 14,258,485	\$ 715,748,118	\$ 3,882,534	\$ 9,873,589	\$ 18,644,766	\$ 940,890,877
Effect of retrospective application of IFRS 16	(3,617,627)	(689)	(3,582,774)	-	(3,884,421)	-	-	-	(11,085,511)
Balance on January 1, 2019 as adjusted	100,354,425	1,599,634	69,328,236	14,258,485	711,863,697	3,882,534	9,873,589	18,644,766	929,805,366
Additions	-	-	1,220,691	56,699	120,559	1,122	148,949	21,611,786	23,159,806
Disposal	(37,951)	(6,630)	(3,101)	(1,915,939)	(30,417,855)	(50,653)	(404,834)	-	(32,836,963)
Effect of foreign exchange differences	-	-	-	(74)	(36,727)	(18)	(1,272)	(5,816)	(43,907)
Others	(1,214,223)	25,477	454,957	605,656	24,502,774	79,313	473,738	(26,498,539)	(1,570,847)
Balance on December 31, 2019	<u>\$ 99,102,251</u>	<u>\$ 1,618,481</u>	<u>\$ 71,000,783</u>	<u>\$ 13,004,827</u>	<u>\$ 706,032,448</u>	<u>\$ 3,912,298</u>	<u>\$ 10,090,170</u>	<u>\$ 13,752,197</u>	<u>\$ 918,513,455</u>
Accumulated depreciation and impairment									
Balance on January 1, 2019	\$ -	\$ (1,337,704)	\$ (28,126,983)	\$ (12,143,307)	\$ (599,425,774)	\$ (3,651,139)	\$ (7,291,742)	\$ -	\$ (651,976,649)
Effect of retrospective application of IFRS 16	-	512	1,265,356	-	2,575,431	-	-	-	3,841,299
Balance on January 1, 2019 as adjusted	-	(1,337,192)	(26,861,627)	(12,143,307)	(596,850,343)	(3,651,139)	(7,291,742)	-	(648,135,350)
Depreciation expenses	-	(43,481)	(1,301,085)	(826,745)	(23,905,621)	(90,939)	(688,274)	-	(26,856,145)
Disposal	-	6,630	3,101	1,908,324	30,380,684	50,627	401,655	-	32,751,021
Impairment losses	-	-	-	-	-	-	(63,715)	(29,358)	(93,073)
Effect of foreign exchange differences	-	-	-	73	15,682	28	962	-	16,745
Others	-	(559)	182,879	(6,590)	21,707	(2,902)	(21,185)	-	173,350
Balance on December 31, 2019	<u>\$ -</u>	<u>\$ (1,374,602)</u>	<u>\$ (27,976,732)</u>	<u>\$ (11,068,245)</u>	<u>\$ (590,337,891)</u>	<u>\$ (3,694,325)</u>	<u>\$ (7,662,299)</u>	<u>\$ (29,358)</u>	<u>\$ (642,143,452)</u>
Balance on January 1, 2019, net	\$ 103,972,052	\$ 262,619	\$ 44,784,027	\$ 2,115,178	\$ 116,327,344	\$ 231,395	\$ 2,581,847	\$ 18,644,766	\$ 288,914,228
Balance on January 1, 2019 as adjusted	\$ 100,354,425	\$ 262,442	\$ 42,466,609	\$ 2,115,178	\$ 115,013,354	\$ 231,395	\$ 2,581,847	\$ 18,644,766	\$ 281,670,016
Balance on December 31, 2019, net	<u>\$ 99,102,251</u>	<u>\$ 243,879</u>	<u>\$ 43,024,051</u>	<u>\$ 1,936,582</u>	<u>\$ 115,694,557</u>	<u>\$ 217,973</u>	<u>\$ 2,427,871</u>	<u>\$ 13,722,839</u>	<u>\$ 276,370,003</u>

CHPT evaluated that certain miscellaneous equipment, construction in progress and equipment to be accepted used for manufacturing specific PCB will not be used in the future and there was no active market for sale; therefore, CHPT determined that the recoverable amount of such assets was nil and recognized impairment losses of \$89,207 thousand for the year ended December 31, 2019. CHSI evaluated that certain miscellaneous equipment will not be used in the future and there was no active market for sale; therefore, CHSI determined that the recoverable amount of such assets was nil and recognized impairment losses of \$3,866 thousand for the year ended December 31, 2019. The aforementioned impairment losses were included in other income and expenses of statement of comprehensive income.

Depreciation expense for assets used by the Company is computed using the straight-line method over the following estimated service lives:

Land improvements	10-30 years
Buildings	
Main buildings	20-60 years
Other building facilities	3-15 years
Computer equipment	2-8 years
Telecommunications equipment	
Telecommunication circuits	2-30 years
Telecommunication machinery and antennas equipment	2-30 years
Transportation equipment	3-10 years
Miscellaneous equipment	
Leasehold improvements	1-9 years
Mechanical and air conditioner equipment	3-16 years
Others	1-15 years

b. Assets subject to operating leases - 2019

	Land	Land Improvements	Buildings	Total
<u>Cost</u>				
Balance on January 1, 2019	\$ -	\$ -	\$ -	\$ -
Effect of retrospective application of IFRS 16	<u>3,617,627</u>	<u>689</u>	<u>3,582,774</u>	<u>7,201,090</u>
Balance on January 1, 2019 as adjusted	3,617,627	689	3,582,774	7,201,090
Additions	-	-	4,478	4,478
Transferred from (to) assets used by the Company	<u>1,362,023</u>	<u>(689)</u>	<u>254,308</u>	<u>1,615,642</u>
Balance on December 31, 2019	<u>\$ 4,979,650</u>	<u>\$ -</u>	<u>\$ 3,841,560</u>	<u>\$ 8,821,210</u>
<u>Accumulated depreciation and impairment</u>				
Balance on January 1, 2019	\$ -	\$ -	\$ -	\$ -
Effect of retrospective application of IFRS 16	<u>-</u>	<u>(512)</u>	<u>(1,265,356)</u>	<u>(1,265,868)</u>
Balance on January 1, 2019 as adjusted	-	(512)	(1,265,356)	(1,265,868)
Depreciation expenses	-	(47)	(73,996)	(74,043)
Transferred to (from) assets used by the company	<u>-</u>	<u>559</u>	<u>(157,646)</u>	<u>(157,087)</u>
Balance on December 31, 2019	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (1,496,998)</u>	<u>\$ (1,496,998)</u>
Balance on January 1, 2019 as adjusted, net	<u>\$ 3,617,627</u>	<u>\$ 177</u>	<u>\$ 2,317,418</u>	<u>\$ 5,935,222</u>
Balance on December 31, 2019, net	<u>\$ 4,979,650</u>	<u>\$ -</u>	<u>\$ 2,344,562</u>	<u>\$ 7,324,212</u>

The Company leases out land and buildings with lease terms between 1 to 20 years. The lessees do not have bargain purchase options to acquire the assets at the expiry of the lease periods.

The future aggregate lease collection under operating lease for the freehold plant, property and equipment is as follows:

	December 31, 2019
Year 1	\$ 301,674
Year 2	272,899
Year 3	233,434
Year 4	191,128
Year 5	130,066
Onwards	<u>1,224,416</u>
	<u>\$ 2,353,617</u>

The above items of property, plant and equipment subject to operating leases are depreciated on a straight-line basis over their estimated useful lives as follows:

Land improvements	10 years
Buildings	
Main buildings	35-60 years
Other building facilities	3-15 years

c. Property, plant and equipment - 2018

	Land	Land Improvements	Buildings	Computer Equipment	Telecommunications Equipment	Transportation Equipment	Miscellaneous Equipment	Construction in Progress and Equipment to be Accepted	Total
Cost									
Balance on January 1, 2018	\$ 104,079,190	\$ 1,594,899	\$ 72,694,050	\$ 14,161,797	\$ 722,054,435	\$ 3,834,372	\$ 9,514,875	\$ 18,526,814	\$ 946,460,432
Additions	-	-	20,723	52,269	158,930	270	334,443	27,412,805	27,979,440
Disposal	(71,333)	(337)	(23)	(643,192)	(31,983,801)	(29,250)	(622,940)	-	(33,350,876)
Effect of foreign exchange differences	-	-	-	(119)	60,483	69	(343)	117	60,207
Others	(35,805)	5,761	196,200	687,730	25,458,071	77,073	647,554	(27,294,970)	(258,326)
Balance on December 31, 2018	<u>\$ 103,972,052</u>	<u>\$ 1,600,323</u>	<u>\$ 72,911,010</u>	<u>\$ 14,258,485</u>	<u>\$ 715,748,118</u>	<u>\$ 3,882,534</u>	<u>\$ 9,873,589</u>	<u>\$ 18,644,766</u>	<u>\$ 940,890,877</u>
Accumulated depreciation and impairment									
Balance on January 1, 2018	\$ -	\$ (1,292,527)	\$ (26,798,694)	\$ (11,787,847)	\$ (607,154,914)	\$ (3,513,529)	\$ (7,205,011)	\$ -	\$ (657,752,522)
Depreciation expenses	-	(45,731)	(1,356,765)	(982,728)	(24,235,603)	(161,660)	(678,692)	-	(27,461,179)
Disposal	-	337	23	632,457	31,951,706	29,186	614,789	-	33,228,498
Effect of foreign exchange differences	-	-	-	57	(20,354)	(40)	191	-	(20,146)
Others	-	217	28,453	(5,246)	33,391	(5,096)	(23,019)	-	28,700
Balance on December 31, 2018	<u>\$ -</u>	<u>\$ (1,337,704)</u>	<u>\$ (28,126,983)</u>	<u>\$ (12,143,307)</u>	<u>\$ (599,425,774)</u>	<u>\$ (3,651,139)</u>	<u>\$ (7,291,742)</u>	<u>\$ -</u>	<u>\$ (651,976,649)</u>
Balance on January 1, 2018, net	<u>\$ 104,079,190</u>	<u>\$ 302,372</u>	<u>\$ 45,895,356</u>	<u>\$ 2,373,950</u>	<u>\$ 114,899,521</u>	<u>\$ 320,843</u>	<u>\$ 2,309,864</u>	<u>\$ 18,526,814</u>	<u>\$ 288,707,910</u>
Balance on December 31, 2018, net	<u>\$ 103,972,052</u>	<u>\$ 262,619</u>	<u>\$ 44,784,027</u>	<u>\$ 2,115,178</u>	<u>\$ 116,322,344</u>	<u>\$ 231,395</u>	<u>\$ 2,581,847</u>	<u>\$ 18,644,766</u>	<u>\$ 288,914,228</u>

There was no indication that property, plant and equipment was impaired so the Company did not recognize any impairment loss for the year ended December 31, 2018.

Depreciation expense is computed using the straight-line method over the following estimated service lives:

Land improvements	8-30 years
Buildings	
Main buildings	35-60 years
Other building facilities	3-20 years
Computer equipment	2-8 years

(Continued)

Telecommunications equipment	
Telecommunication circuits	2-30 years
Telecommunication machinery and antennas equipment	2-30 years
Transportation equipment	3-10 years
Miscellaneous equipment	
Leasehold improvements	1-6 years
Mechanical and air conditioner equipment	3-16 years
Others	1-10 years
	(Concluded)

16. LEASE ARRANGEMENTS

a. Right-of-use Assets - 2019

	December 31, 2019
Land and buildings	
Handsets base stations	\$ 6,844,687
Others	1,916,835
Equipment	<u>2,602,727</u>
	<u>\$ 11,364,249</u>
	Year Ended December 31, 2019
Additions to right-of-use assets	<u>\$ 3,803,042</u>
Depreciation charge for right-of-use assets	
Land and buildings	
Handsets base stations	\$ 2,727,871
Others	821,272
Equipment	<u>418,503</u>
	<u>\$ 3,967,646</u>

b. Lease liabilities - 2019

	December 31, 2019
Lease liabilities	
Current	\$ 3,291,330
Non-current	<u>6,466,808</u>
	<u>\$ 9,758,138</u>

Range of discount rate for lease liabilities is as follows:

	December 31, 2019
Land and buildings	
Handsets base stations	0.58%-1.18%
Others	0.58%-9.00%
Equipment	0.58%-4.50%

c. Important lease-in activities and terms - 2019

The Company mainly enters into lease-in agreements of land and buildings for handsets base stations located all over Taiwan with lease terms from 1 to 20 years. There's no clause for bargain purchase options to acquire the assets at the expiry of the lease periods in the agreement. In most lease-in agreements of handsets base station agreements, the Company is able to terminate the agreement prior to the maturity date provided that the premise the Company fails to meet the purpose to build telecommunication equipment due to legal restriction, controversial events, or other events.

The Company also leases land and buildings for the use of offices, server rooms, and stores with lease terms from 1 to 30 years. Most of the lease agreements for national land adjust the lease payment according to the changes of present values of land announced by the authority. At the expiry of the lease term, the Company does not have bargain purchase options to acquire the assets.

The lease agreements for equipment include a contract between Chunghwa and ST-2 Satellite Ventures Pte., Ltd. to lease capacity on the ST-2 satellite. The information of lease agreements with related parties, please refer to Note 36 to the consolidated financial statements for details.

d. Other lease information

2019

	Year Ended December 31, 2019
Expenses relating to low-value asset leases	\$ <u>6,664</u>
Expenses relating to variable lease payments not included in the measurement of lease liabilities	\$ <u>6,603</u>
Total cash outflow for leases	\$ <u>3,825,977</u>

The Company leases certain equipment which qualify as low-value asset leases. The Company has elected to apply the recognition exemption and, thus, not to recognize right-of-use assets and lease liabilities for these leases.

Lease-out arrangements under operating leases for freehold property, plant, and equipment and investment properties are set out in Notes 15 and 17 to the consolidated financial statements.

2018

The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

	December 31, 2018
Within one year	\$ 3,439,259
Longer than one year but within five years	6,375,101
Longer than five years	<u>743,494</u>
	<u>\$ 10,557,854</u>

17. INVESTMENT PROPERTIES

Cost

Balance on January 1, 2018	\$ 9,134,817
Additions	5,627
Reclassification	<u>252,008</u>
Balance on December 31, 2018	<u>\$ 9,392,452</u>

Accumulated depreciation and impairment

Balance on January 1, 2018	\$ (1,087,024)
Depreciation expense	(20,777)
Reclassification	(16,572)
Reversal of impairment loss	<u>19,133</u>
Balance on December 31, 2018	<u>\$ (1,105,240)</u>

Balance on January 1, 2018, net	<u>\$ 8,047,793</u>
Balance on December 31, 2018, net	<u>\$ 8,287,212</u>

Cost

Balance on January 1, 2019	\$ 9,392,452
Additions	523
Disposal	(5,831)
Reclassification	<u>(173,165)</u>
Balance on December 31, 2019	<u>\$ 9,213,979</u>

Accumulated depreciation and impairment

Balance on January 1, 2019	\$ (1,105,240)
Depreciation expense	(25,157)
Disposal	5,831
Reclassification	23,363
Reversal of impairment loss	<u>56,617</u>

Balance on December 31, 2019	<u>\$ (1,044,586)</u>
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(Continued)

Balance on January 1, 2019, net	<u>\$ 8,287,212</u>
Balance on December 31, 2019, net	<u>\$ 8,169,393</u>
	(Concluded)

After the evaluation of land and buildings, the Company concluded the recoverable amount which represented the fair value less costs to sell of some land and buildings was higher than the carrying amount. Therefore, the Company recognized reversal of impairment losses of \$56,617 thousand and \$19,133 thousand for the years ended December 31, 2019 and 2018, respectively, and the amounts were recognized only to the extent of impairment losses that had been recognized in prior years. The reversal of impairment loss was included in other income and expenses in the statements of comprehensive income.

Depreciation expense is computed using the straight-line method over the following estimated service lives:

Land improvements	10-30 years
Buildings	
Main buildings	35-60 years
Other building facilities	4-10 years

The fair values of the Company's investment properties as of December 31, 2019 and 2018 were determined by Level 3 fair value measurements inputs based on the appraisal reports conducted by independent appraisers. Those appraisal reports are based on the comparison approach, income approach or cost approach. Key assumptions and the fair values were as follows:

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Fair value	<u>\$ 18,701,398</u>	<u>\$ 18,514,801</u>
Overall capital interest rate	1.03%-4.04%	1.02%-4.04%
Profit margin ratio	12%-20%	12%-20%
Discount rate	-	-
Capitalization rate	0.79%-1.74%	0.79%-1.75%

All of the Company's investment properties are held under freehold interest.

2019

The future aggregate lease collection under operating lease for investment properties is as follows:

	December 31, 2019
Year 1	\$ 112,626
Year 2	90,701
Year 3	70,795
Year 4	61,115
Year 5	39,386
Onwards	<u>96,010</u>
	<u>\$ 470,633</u>

2018

The future aggregate minimum lease collection under non-cancellable operating leases is as follows:

	December 31, 2018
Within one year	\$ 343,981
Longer than one year but within five years	580,451
Longer than five years	<u>205,747</u>
	<u><u>\$ 1,130,179</u></u>

18. INTANGIBLE ASSETS

	3G and 4G Concession	Computer Software	Goodwill	Others	Total
<u>Cost</u>					
Balance on January 1, 2018	\$ 70,144,000	\$ 3,311,610	\$ 236,200	\$ 418,150	\$ 74,109,960
Additions-acquired separately	-	484,864	-	13,141	498,005
Disposal	-	(370,657)	-	(58,008)	(428,665)
Effect of foreign exchange difference	<u>-</u>	<u>152</u>	<u>-</u>	<u>(80)</u>	<u>72</u>
Balance on December 31, 2018	<u>\$ 70,144,000</u>	<u>\$ 3,425,969</u>	<u>\$ 236,200</u>	<u>\$ 373,203</u>	<u>\$ 74,179,372</u>
<u>Accumulated amortization and impairment</u>					
Balance on January 1, 2018	\$(16,674,565)	\$ (2,431,797)	\$ (26,677)	\$ (93,653)	\$(19,226,692)
Amortization expenses	(3,957,909)	(405,898)	-	(22,991)	(4,386,798)
Disposal	-	370,657	-	58,008	428,665
Impairment losses	-	-	-	(50,750)	(50,750)
Effect of foreign exchange difference	<u>-</u>	<u>(132)</u>	<u>-</u>	<u>17</u>	<u>(115)</u>
Balance on December 31, 2018	<u>\$(20,632,474)</u>	<u>\$ (2,467,170)</u>	<u>\$ (26,677)</u>	<u>\$ (109,369)</u>	<u>\$(23,235,690)</u>
Balance on January 1, 2018, net	<u>\$ 53,469,435</u>	<u>\$ 879,813</u>	<u>\$ 209,523</u>	<u>\$ 324,497</u>	<u>\$ 54,883,268</u>
Balance on December 31, 2018, net	<u>\$ 49,511,526</u>	<u>\$ 958,799</u>	<u>\$ 209,523</u>	<u>\$ 263,834</u>	<u>\$ 50,943,682</u>
<u>Cost</u>					
Balance on January 1, 2019	\$ 70,144,000	\$ 3,425,969	\$ 236,200	\$ 373,203	\$ 74,179,372
Additions-acquired separately	-	357,605	-	5,113	362,718
Disposal	(10,179,000)	(356,750)	-	(157)	(10,535,907)
Effect of foreign exchange difference	-	(117)	-	(96)	(213)
Others	<u>-</u>	<u>1,902</u>	<u>-</u>	<u>-</u>	<u>1,902</u>
Balance on December 31, 2019	<u>\$ 59,965,000</u>	<u>\$ 3,428,609</u>	<u>\$ 236,200</u>	<u>\$ 378,063</u>	<u>\$ 64,007,872</u>
<u>Accumulated amortization and impairment</u>					
Balance on January 1, 2019	\$(20,632,474)	\$ (2,467,170)	\$ (26,677)	\$ (109,369)	\$(23,235,690)
Amortization expenses	(3,839,572)	(388,501)	-	(24,529)	(4,252,602)
Disposal	10,179,000	356,750	-	11	10,535,761

(Continued)

	3G and 4G Concession	Computer Software	Goodwill	Others	Total
Impairment losses	\$ -	\$ -	\$ (8,946)	\$ -	\$ (8,946)
Effect of foreign exchange difference	-	96	-	34	130
Balance on December 31, 2019	<u>\$(14,293,046)</u>	<u>\$(2,498,825)</u>	<u>\$(35,623)</u>	<u>\$(133,853)</u>	<u>\$(16,961,347)</u>
Balance on January 1, 2019, net	<u>\$ 49,511,526</u>	<u>\$ 958,799</u>	<u>\$ 209,523</u>	<u>\$ 263,834</u>	<u>\$ 50,943,682</u>
Balance on December 31, 2019, net	<u>\$ 45,671,954</u>	<u>\$ 929,784</u>	<u>\$ 200,577</u>	<u>\$ 244,210</u>	<u>\$ 47,046,525</u>

(Concluded)

The concessions are granted and issued by the NCC. The concession fees are amortized using the straight-line method from the date operations commence through the date the license expires. The carrying amount of 3G concession fee was fully amortized in December 2018, and 4G concession fees will be fully amortized by December 2030 and December 2033.

The computer software is amortized using the straight-line method over the estimated useful lives of 1 to 10 years. Other intangible assets are amortized using the straight-line method over the estimated useful lives of 1 to 20 years. Goodwill is not amortized.

SENAO evaluated and determined that the recoverable amount of certain licensed contract was nil and recognized the impairment loss of \$50,750 thousand for the year ended December 31, 2018. The recoverable amount was based on the value in use.

SENAO evaluated the goodwill that arose in the acquisition of Youth and its subsidiaries at the end of each year. SENAO determined the smallest identifiable group of assets that generates cash inflows as single cash generating units by business type, and evaluated the recoverable amount of those cash generating units by their value in use. The management of SENAO estimated the cash flow projections based on the financial budgets for the following five years. Discount rates were 12.3% and 13.7% as of December 31 2018 and 2019, respectively and were used to calculate the recoverable amount of related cash generating units by discounting aforementioned cash flows.

SENAO concluded the recoverable amount of the goodwill was lower than the carrying value and recognized impairment loss of \$8,946 thousand for the year ended December 31, 2019. There was no impairment loss recognized for the year ended December 31, 2018.

The aforementioned impairment losses were included in other income and expenses of statement of comprehensive income.

19. OTHER ASSETS

	December 31	
	2019	2018
Spare parts	\$ 2,336,082	\$ 2,422,060
Refundable deposits	1,879,109	1,992,206
Other financial assets	1,000,000	1,000,000
Deposit for mobile broadband license bidding	1,000,000	-
Others	<u>2,316,177</u>	<u>2,342,040</u>
	<u>\$ 8,531,368</u>	<u>\$ 7,756,306</u>

(Continued)

	December 31	
	2019	2018
Current		
Spare parts	\$ 2,336,082	\$ 2,422,060
Others	<u>93,582</u>	<u>154,024</u>
	<u>\$ 2,429,664</u>	<u>\$ 2,576,084</u>
Noncurrent		
Refundable deposits	\$ 1,879,109	\$ 1,992,206
Other financial assets	1,000,000	1,000,000
Deposit for mobile broadband license bidding	1,000,000	-
Others	<u>2,222,595</u>	<u>2,188,016</u>
	<u>\$ 6,101,704</u>	<u>\$ 5,180,222</u>
		(Concluded)

For long-term business development, Chunghwa participated in the first phase of 5G mobile broadband license bidding hosted by NCC and paid the deposit for 5G spectrum bidding amounting to \$1,000,000 thousand in October 2019. Chunghwa obtained 90MHz in the 3.5GHz spectrum and 600MHz in the 28GHz spectrum for bid amounting to \$46,293,000 thousand in January 2020. In addition, Chunghwa participated in the second phase of the aforementioned license bidding for location in February 2020 for the bid of \$2,080,000 thousand. Therefore, the total bid amounted to \$48,373,000 thousand.

Other financial assets - noncurrent was Piping Fund. As part of the government's effort to upgrade the existing telecommunications infrastructure, Chunghwa and other public utility companies were required by the ROC government to contribute to a Piping Fund administered by the Taipei City Government. This fund was used to finance various telecommunications infrastructure projects. Net assets of this fund will be returned proportionately after the project is completed.

Chunghwa evaluated that certain other assets will not be used in the future and there was no active market for sale; therefore, the Company determined that the recoverable amount of such assets was nil and recognized impairment losses of \$43,971 thousand for the year ended December 31, 2019. The aforementioned impairment loss was included in other income and expenses in the statements of comprehensive income.

20. HEDGING FINANCIAL INSTRUMENTS

Chunghwa's hedge strategy is to enter forward exchange contracts - buy to avoid its foreign currency exposure to certain foreign currency denominated equipment payments in the following six months. In addition, Chunghwa's management considers the market condition to determine the hedge ratio and enters into forward exchange contracts with the banks to avoid the foreign currency risk.

Chunghwa signed equipment purchase contracts with suppliers and entered into forward exchange contracts to avoid foreign currency risk exposure to Euro-denominated purchase commitments. Those forward exchange contracts were designated as cash flow hedges. When forecast purchases actually take place, basis adjustments are made to the initial carrying amounts of hedged items.

For the hedges of highly probable forecast sales and purchases, as the critical terms (i.e. the notional amount, life and underlying) of the forward foreign exchange contracts and their corresponding hedged items are the same, the Company performs a qualitative assessment of effectiveness and it is expected that the value of the forward contracts and the value of the corresponding hedged items will systematically change in opposite direction in response to movements in the underlying exchange rates.

The main source of hedge ineffectiveness in these hedging relationships is the effect of credit risks of the Company and the counterparty on the fair value of the forward exchange contracts. Such credit risks do not impact the fair value of the hedged item attributable to changes in foreign exchange rates. No other sources of ineffectiveness emerged from these hedging relationships.

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

December 31, 2019

Hedging Instruments	Currency	Notional Amount (In Thousands)	Maturity	Forward Rate	Line Item in Balance Sheet	Carrying Amount		Change in Fair Values of Hedging Instruments Used for Calculating Hedge Ineffectiveness
						Asset	Liability	
Cash flow hedge Forecast purchases - forward exchange contracts	EUR/NT\$	EUR 2,498/ NT\$ 84,066	2020.03	\$ 33.66	Hedging financial assets (liabilities)	\$ 327	\$ -	\$ (742)

Hedged Items	Change in Value of Hedged Item Used for Calculating Hedge Ineffectiveness	Accumulated Gain or Loss on Hedging Instruments in Other Equity	
		Continuing Hedges	Hedge Accounting No Longer Applied
Cash flow hedge Forecast equipment purchases	\$ 742	\$ 327	\$ -

December 31, 2018

Hedging Instruments	Currency	Notional Amount (In Thousands)	Maturity	Forward Rate	Line Item in Balance Sheet	Carrying Amount		Change in Fair Values of Hedging Instruments Used for Calculating Hedge Ineffectiveness
						Asset	Liability	
Cash flow hedge Forecast purchases - forward exchange contracts	EUR/NT\$	EUR 4,911/ NT\$ 171,797	2019.03	\$ 34.98	Hedging financial assets (liabilities)	\$ 1,069	\$ -	\$ 1,919

Hedged Items	Change in Value of Hedged Item Used for Calculating Hedge Ineffectiveness	Accumulated Gain or Loss on Hedging Instruments in Other Equity	
		Continuing Hedges	Hedge Accounting No Longer Applied
Cash flow hedge Forecast equipment purchases	\$ (1,919)	\$ 1,069	\$ -

2019

Hedge Transaction	Comprehensive Income				
	Hedging Gain or Loss Recognized in OCI	Amount of Hedge Ineffectiveness Recognized in Profit or Loss	Line Item in Which Hedge Ineffectiveness is Included	Reclassification from Equity to Profit or Loss and the Adjusted Line Item	
				Amount Reclassified to P/L and the Adjusted Line Item	Due to Hedged Future Cash Flows No Longer Expected to Occur
Cash flow hedge Forecast equipment purchases	\$ (742)	\$ -	-	\$ (2,026) Construction in progress and equipment to be accepted	\$ - Other gains and losses

2018

Hedge Transaction	Comprehensive Income				
	Hedging Gain or Loss Recognized in OCI	Amount of Hedge Ineffectiveness Recognized in Profit or Loss	Line Item in Which Hedge Ineffectiveness is Included	Reclassification from Equity to Profit or Loss and the Adjusted Line Item	
				Amount Reclassified to P/L and the Adjusted Line Item	Due to Hedged Future Cash Flows No Longer Expected to Occur
Cash flow hedge Forecast equipment purchases	\$ 1,919	\$ -	-	\$ (4,030) Construction in progress and equipment to be accepted	\$ (297) Other gains and losses

21. SHORT-TERM LOANS

	December 31	
	2019	2018
Unsecured loans	\$ 90,000	\$ 100,000

The annual interest rates of loans were as follows:

	December 31	
	2019	2018
Unsecured loans	1.20%-2.50%	1.35%-2.35%

22. LONG-TERM LOANS (INCLUDING LONG-TERM LOANS - CURRENT PORTION)

	<u>December 31</u>	
	2019	2018
Secured loans (Note 37)	<u>\$ 1,600,000</u>	<u>\$ 1,600,000</u>

The annual interest rates of loans were as follows:

	<u>December 31</u>	
	2019	2018
Secured loans	0.92%	0.92%

LED obtained a secured loan from Chang Hwa Bank in September 2010. Interest is paid monthly. \$300,000 thousand and \$1,350,000 thousand were originally due in December 2014 and September 2015, respectively. In October 2014, the bank borrowing mentioned above was extended to September 2018 for one time repayment. LED made an early repayment of \$50,000 thousand in April 2015. LED entered into a contract with Chang Hwa Bank to renew the contract upon the maturity of the aforementioned contract in December 2017 and the due date of the renew contract is September 2021.

23. TRADE NOTES AND ACCOUNTS PAYABLE

	<u>December 31</u>	
	2019	2018
Trade notes and accounts payable	<u>\$ 15,312,274</u>	<u>\$ 20,464,792</u>

Trade notes and accounts payable were attributable to operating activities and the trading conditions were agreed separately.

24. OTHER PAYABLES

	<u>December 31</u>	
	2019	2018
Accrued salary and compensation	\$ 9,482,606	\$ 9,040,692
Payables to contractors	1,892,188	1,709,778
Accrued compensation to employees and remuneration to directors and supervisors	1,440,573	1,738,716
Amounts collected for others	1,278,796	1,226,031
Accrued franchise fees	1,091,148	1,151,084
Accrued maintenance costs	954,761	1,049,849
Payables to equipment suppliers	295,816	1,459,246
Others	<u>6,516,600</u>	<u>5,939,987</u>
	<u>\$ 22,952,488</u>	<u>\$ 23,315,383</u>

25. PROVISIONS

	December 31	
	2019	2018
Warranties	\$ 173,275	\$ 131,664
Onerous contracts	66,907	19,323
Employee benefits	59,745	51,393
Others	<u>4,397</u>	<u>4,447</u>
	<u>\$ 304,324</u>	<u>\$ 206,827</u>
Current	\$ 206,942	\$ 128,200
Noncurrent	<u>97,382</u>	<u>78,627</u>
	<u>\$ 304,324</u>	<u>\$ 206,827</u>

	Warranties	Onerous Contracts	Employee Benefits	Others	Total
Balance on January 1, 2018	\$ 131,789	\$ -	\$ 43,429	\$ 4,467	\$ 179,685
Additional provisions recognized	163,901	19,323	9,180	80	192,484
Used / forfeited during the year	<u>(164,026)</u>	<u>-</u>	<u>(1,216)</u>	<u>(100)</u>	<u>(165,342)</u>
Balance on December 31, 2018	<u>\$ 131,664</u>	<u>\$ 19,323</u>	<u>\$ 51,393</u>	<u>\$ 4,447</u>	<u>\$ 206,827</u>
Balance on January 1, 2019	\$ 131,664	\$ 19,323	\$ 51,393	\$ 4,447	\$ 206,827
Additional provisions recognized	127,517	47,584	9,194	-	184,295
Used / forfeited during the year	<u>(85,906)</u>	<u>-</u>	<u>(842)</u>	<u>(50)</u>	<u>(86,798)</u>
Balance on December 31, 2019	<u>\$ 173,275</u>	<u>\$ 66,907</u>	<u>\$ 59,745</u>	<u>\$ 4,397</u>	<u>\$ 304,324</u>

- a. The provision for warranties claims represents the present value of the management's best estimate of the future outflow of economic benefits that will be required under the Company's obligation for warranties in sales agreements. The estimate has been made based on the historical warranty experience.
- b. The provision for employee benefits represents vested long-term service compensation accrued.
- c. The provision for onerous contracts represents the present obligation resulting from the measurement for the unavoidable costs of meeting the Company's contractual obligations exceed the economic benefits expected to be received from the contracts.

26. RETIREMENT BENEFIT PLANS

- a. Defined contribution plans

The pension plan under the Labor Pension Act of ROC (the "LPA") is considered as a defined contribution plan. Based on the LPA, Chunghwa and its domestic subsidiaries make monthly contributions to employees' individual pension accounts at 6% of monthly salaries and wages. Its foreign subsidiaries would make monthly contributions based on the local pension requirements.

b. Defined benefit plans

Chunghwa completed its privatization plans on August 12, 2005. Chunghwa is required to pay all accrued pension obligations including service clearance payment, lump sum payment under civil service plan, additional separation payments, etc. upon the completion of the privatization in accordance with the Statute Governing Privatization of Stated-owned Enterprises. After paying all pension obligations for privatization, the plan assets of Chunghwa should be transferred to the Fund for Privatization of Government-owned Enterprises (the "Privatization Fund") under the Executive Yuan. On August 7, 2006, Chunghwa transferred the remaining balance of fund to the Privatization Fund. However, according to the instructions of MOTC, Chunghwa was requested to administer the distributions to employees for pension obligations including service clearance payment, lump sum payment under civil service plan, additional separation payments, etc. upon the completion of the privatization and recognized in other current monetary assets.

Chunghwa and its subsidiaries SENA0, CHIEF, CHSI, and SHE with the pension mechanism under the Labor Standards Law are considered as defined benefit plans. These pension plans provide benefits based on an employee's length of service and average six-month salary prior to retirement. Chunghwa and its subsidiaries contribute an amount no more than 15% 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 names of the Committees in the Bank of Taiwan. The plan assets are held in a commingled fund which is 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. According to the Article 56 of the Labor Standards Law in the ROC, entities are required to contribute the difference in one appropriation to the Funds before the end of next March when the balance of the Funds is insufficient to pay employees who will meet the retirement eligibility criteria within next year.

The amounts included in the consolidated balance sheets arising from the Company's obligation in respect of its defined benefit plans were as follows:

	December 31	
	2019	2018
Present value of funded defined benefit obligation	\$ 41,197,226	\$ 41,396,992
Fair value of plan assets	<u>(39,819,944)</u>	<u>(39,027,144)</u>
Funded status - deficit	<u>\$ 1,377,282</u>	<u>\$ 2,369,848</u>
Net defined benefit liabilities	\$ 3,504,617	\$ 3,533,936
Net defined benefit assets	<u>(2,127,335)</u>	<u>(1,164,088)</u>
	<u>\$ 1,377,282</u>	<u>\$ 2,369,848</u>

Movements in the defined benefit obligation and the fair value of plan assets were as follows:

	Present Value of Funded Defined Benefit Obligation	Fair Value of Plan Assets	Net Defined Benefit Liabilities (Assets)
Balance on January 1, 2018	\$ 37,662,966	\$ 34,972,376	\$ 2,690,590
Current service cost	3,024,370	-	3,024,370
Interest expense / interest income	<u>549,662</u>	<u>544,077</u>	<u>5,585</u>
Amounts recognized in profit or loss	<u>3,574,032</u>	<u>544,077</u>	<u>3,029,955</u>

(Continued)

	Present Value of Funded Defined Benefit Obligation	Fair Value of Plan Assets	Net Defined Benefit Liabilities (Assets)
Remeasurement on the net defined benefit liability			
Return on plan assets (excluding amounts included in net interest)	\$ -	\$ 875,203	\$ (875,203)
Actuarial losses recognized from changes in demographic assumptions	3,446	-	3,446
Actuarial losses recognized from changes in financial assumptions	1,273,122	-	1,273,122
Actuarial losses recognized from experience adjustments	<u>813,187</u>	<u>-</u>	<u>813,187</u>
Amounts recognized in other comprehensive income	<u>2,089,755</u>	<u>875,203</u>	<u>1,214,552</u>
Contributions from employer	-	4,373,688	(4,373,688)
Benefits paid	(1,738,200)	(1,738,200)	-
Benefits paid directly by the Company	<u>(191,561)</u>	<u>-</u>	<u>(191,561)</u>
Balance on December 31, 2018	41,396,992	39,027,144	2,369,848
Current service cost	2,927,021	-	2,927,021
Interest expense / interest income	<u>400,314</u>	<u>390,272</u>	<u>10,042</u>
Amounts recognized in profit or loss	<u>3,327,335</u>	<u>390,272</u>	<u>2,937,063</u>
Remeasurement on the net defined benefit liability			
Return on plan assets (excluding amounts included in net interest)	-	1,337,771	(1,337,771)
Actuarial losses recognized from changes in demographic assumptions	5,746	-	5,746
Actuarial losses recognized from changes in financial assumptions	647,236	-	647,236
Actuarial gains recognized from experience adjustments	<u>(841,564)</u>	<u>-</u>	<u>(841,564)</u>
Amounts recognized in other comprehensive income	<u>(188,582)</u>	<u>1,337,771</u>	<u>(1,526,353)</u>
Contributions from employer	-	2,098,912	(2,098,912)
Benefits paid	(3,034,155)	(3,034,155)	-
Benefits paid directly by the Company	<u>(304,364)</u>	<u>-</u>	<u>(304,364)</u>
Balance on December 31, 2019	<u>\$ 41,197,226</u>	<u>\$ 39,819,944</u>	<u>\$ 1,377,282</u> (Concluded)

Relevant pension costs recognized in profit and loss for defined benefit plans were as follows:

	Year Ended December 31	
	2019	2018
Operating costs	\$ 1,725,644	\$ 1,795,526
Marketing expenses	866,412	885,684
General and administrative expenses	164,255	164,252
Research and development expenses	<u>103,156</u>	<u>107,494</u>
	<u>\$ 2,859,467</u>	<u>\$ 2,952,956</u>

The Company is exposed to following risks for the defined benefits plans under the Labor Standards Law:

a. Investment risk

Under the Labor Standards Law, the rate of return on assets shall not be lower 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. The plan assets are held in a commingled fund mainly invested in foreign and domestic equity and debt securities and bank deposits which is 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.

b. Interest rate risk

The decline in government bond interest rate will increase the present value of the obligation on the defined benefit plan, while the return on plan assets will increase. The net effect on the present value of the obligation on defined benefit plan is partially offset by the return on plan assets.

c. Salary risk

The calculation of the present value of defined benefit obligation is referred to the plan participants’ future salary. Hence, the increase in plan participants’ salary will increase the present value of the defined benefit obligation.

The most recent actuarial valuation of plan assets and the present value of the defined benefit obligation were carried out by the independent actuary.

The principal assumptions used for the purpose of the actuarial valuations were as follows:

	Measurement Date	
	December 31	
	2019	2018
Discount rates	0.75%	1.00%
Expected rates of salary increase	1.20%-2.00%	1.20%-2.00%

If reasonably possible changes of the respective significant actuarial assumptions occur at the end of reporting periods, while holding all other assumptions constant, the present value of the defined benefit obligation would increase (decrease) as follows:

	December 31	
	2019	2018
Discount rates		
0.5% increase	<u>\$ (1,275,319)</u>	<u>\$ (1,258,429)</u>
0.5% decrease	<u>\$ 1,356,153</u>	<u>\$ 1,338,402</u>
Expected rates of salary increase		
0.5% increase	<u>\$ 1,448,264</u>	<u>\$ 1,429,623</u>
0.5% decrease	<u>\$ (1,374,156)</u>	<u>\$ (1,355,931)</u>

The sensitivity analysis presented above may not be representative of the actual change in the present value of the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated. There is no change in the methods and assumptions used in preparing the sensitivity analysis from the previous period.

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
The expected contributions to the plan for the next year	<u>\$ 2,076,027</u>	<u>\$ 2,236,871</u>
The average duration of the defined benefit obligation	6.5-14 years	6.5-12.1 years

As of December 31, 2019, the Company's maturity analysis of the undiscounted benefit payments was as follows:

Year	Amount
2020	\$ 2,956,110
2021	7,260,662
2022	11,006,630
2023	12,755,858
2024 and thereafter	<u>42,686,574</u>
	<u>\$ 76,665,834</u>

27. EQUITY

a. Share capital

1) Common stocks

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Number of authorized shares (thousand)	<u>12,000,000</u>	<u>12,000,000</u>
Authorized shares	<u>\$ 120,000,000</u>	<u>\$ 120,000,000</u>
Number of issued and paid shares (thousand)	<u>7,757,447</u>	<u>7,757,447</u>
Issued shares	<u>\$ 77,574,465</u>	<u>\$ 77,574,465</u>

The issued common stocks of a par value at \$10 per share entitled the right to vote and receive dividends.

2) Global depositary receipts

The MOTC and some stockholders sold some common stocks of Chunghwa in an international offering of securities in the form of American Depositary Shares ("ADS") (one ADS represents 10 common stocks) in July 2003, August 2005, and September 2006. The ADSs were traded on the New York Stock Exchange since July 17, 2003. As of December 31, 2019, the outstanding ADSs were 229,597 thousand common stocks, which equaled 22,960 thousand units and represented 2.96% of Chunghwa's total outstanding common stocks.

The ADS holders generally have the same rights and obligations as other common stockholders, subject to the provision of relevant laws. The exercise of such rights and obligations shall comply with the related regulations and deposit agreement, which stipulate, among other things, that ADS holders are entitled to, through deposit agents:

- a) Exercise their voting rights,
- b) Sell their ADSs, and
- c) Receive dividends declared and subscribe to the issuance of new shares.

b. Additional paid-in capital

The adjustments of additional paid-in capital for the years ended December 31, 2019 and 2018 were as follows:

	Share Premium	Movements of Additional Paid-in Capital for Associates Accounted for Using Equity Method	Movements of Additional Paid-in Capital Arising from Changes in Equities of Subsidiaries	Difference between Consideration Received and Carrying Amount of the Subsidiaries' Net Assets upon Disposal	Donated Capital	Stockholders' Contribution due to Privatization	Total
Balance on January 1, 2018	\$ 147,329,386	\$ 90,937	\$ 1,220,725	\$ 161,564	\$ 16,193	\$ 20,648,078	\$ 169,466,883
Unclaimed dividend	-	-	-	-	2,455	-	2,455
Change in additional paid-in capital from investments in associates accounted for using equity method	-	(1,044)	-	-	-	-	(1,044)
Partial disposal of interests in subsidiaries	-	-	-	826,047	-	-	826,047
Change in additional paid-in capital for not proportionately participating in the capital increase of subsidiaries	-	-	776,713	-	-	-	776,713
Share-based payment transactions of subsidiaries	-	-	10,776	-	-	-	10,776
Treasury stock transfer of subsidiaries	-	-	54,934	-	-	-	54,934
Balance on December 31, 2018	147,329,386	89,893	2,063,148	987,611	18,648	20,648,078	171,136,764
Unclaimed dividend	-	-	-	-	1,266	-	1,266
Change in additional paid-in capital from investments in associates accounted for using equity method	-	118,853	-	-	-	-	118,853
Share-based payment transactions of subsidiaries	-	-	(898)	-	-	-	(898)
Balance on December 31, 2019	<u>\$ 147,329,386</u>	<u>\$ 208,746</u>	<u>\$ 2,062,250</u>	<u>\$ 987,611</u>	<u>\$ 19,914</u>	<u>\$ 20,648,078</u>	<u>\$ 171,255,985</u>

Additional paid-in capital from share premium, donated capital and the difference between consideration received and the carrying amount of the subsidiaries' net assets upon disposal may be utilized to offset deficits. Furthermore, when Chunghwa has no deficit, it may be distributed in cash or capitalized, which however is limited to a certain percentage of Chunghwa's paid-in capital except the additional paid-in capital arising from unclaimed dividend can only be utilized to offset deficits.

The additional paid-in capital from movements of paid-in capital arising from changes in equities of subsidiaries may only be utilized to offset deficits.

Among additional paid-in capital from movements of investments in associates accounted for using equity method, the portion arising from the difference between consideration received and the carrying amount of the subsidiaries' net assets upon disposal may be utilized to offset deficits; furthermore, when the Company has no deficit, it may be distributed in cash or capitalized. However, other additional paid-in capital recognized in proportion of share ownership may only be utilized to offset deficits.

c. Retained earnings and dividends policy

In accordance with the Chunghwa's Articles of Incorporation, Chunghwa must pay all outstanding taxes, offset deficits in prior years and set aside a legal reserve equal to 10% of its net income before distributing a dividend or making any other distribution to stockholders, except when the accumulated amount of such legal reserve equals to Chunghwa's total issued capital, and depending on its business needs or requirements, may also set aside or reverse special reserves. No less than 50% of the remaining earnings comprising remaining balance of net income, if any, plus cumulative undistributed earnings shall be distributed as stockholders' dividends, of which cash dividends to be distributed shall not be less than 50% of the total amount of dividends to be distributed. If cash dividend to be distributed is less than \$0.10 per share, such cash dividend shall be distributed in the form of common stocks.

Chunghwa should appropriate or reverse a special reserve in accordance with Rule No. 1010012865 and Rule No. 1010047490 issued by the FSC and the directive entitled "Questions and Answers on Special Reserves Appropriated Following the Adoption of Taiwan-IFRSs". Distributions can be made out of any subsequent reversal of the debit to other equity items.

The appropriation for legal reserve shall be made until the accumulated reserve equals the aggregate par value of the outstanding capital stock of Chunghwa. This reserve can only be used to offset a deficit, or when the legal reserve has exceeded 25% of Chunghwa's paid-in capital, the excess may be transferred to capital or distributed in cash.

The appropriations of the 2018 and 2017 earnings of Chunghwa approved by the stockholders in their meetings on June 21, 2019 and June 15, 2018 were as follows:

	Appropriation of Earnings		Dividends Per Share (NT\$)	
	For Fiscal Year 2018	For Fiscal Year 2017	For Fiscal Year 2018	For Fiscal Year 2017
Reversal of special reserve	\$ -	\$ 5,404		
Cash dividends	34,745,603	37,204,714	\$ 4.479	\$ 4.796

The appropriations of earnings for 2019 had been proposed by Chunghwa's Board of Directors on February 26, 2020. The appropriations and dividends per share were as follows:

	Appropriation of Earnings	Dividends Per Share (NT\$)
Cash dividends	\$ 32,782,969	\$ 4.226

The appropriations of earnings for 2019 are subject to the resolution of the stockholders' meeting planned to be held on May 29, 2020. Information of the appropriation of the Chunghwa's earnings proposed by the Board of Directors and approved by the stockholders is available on the Market Observation Post System website.

d. Other adjustments

1) Exchange differences arising from the translation of the foreign operations

The exchange differences arising from the translation of the foreign operations from their functional currency to New Taiwan dollars were recognized as exchange differences arising from the translation of the foreign operations in other comprehensive income.

2) Unrealized gain or loss on financial assets at FVOCI

	Year Ended December 31	
	2019	2018
Beginning balance	\$ 538,272	\$ 883,420
Unrealized gain (loss) for the year		
Equity instruments	<u>298,326</u>	<u>(345,148)</u>
Ending balance	<u>\$ 836,598</u>	<u>\$ 538,272</u>

e. Noncontrolling interests

	Year Ended December 31	
	2019	2018
Beginning balance	\$ 10,009,948	\$ 8,693,650
Effect of retrospective application	<u>(19,603)</u>	<u>-</u>
Beginning balance as adjusted	9,990,345	8,693,650
Shares attributed to noncontrolling interests		
Net income for the year	975,397	954,549
Exchange differences arising from the translation of the net investment in foreign operations	7,753	(3,177)
Unrealized gain or loss on financial assets at FVOCI	(11,918)	(1,182)
Remeasurements of defined benefit pension plans	14,340	(9,306)
Income tax relating to remeasurements of defined benefit pension plans	(2,874)	3,396
Share of other comprehensive income (loss) of associates accounted for using equity method	(1,325)	696
Cash dividends distributed by subsidiaries	(709,817)	(958,446)
Changes in additional paid-in capital from investments in associates accounted for using equity method	1,064	191
Partial disposal of interests in subsidiaries	-	348,353
Share-based payment transactions of subsidiaries	21,320	41,863
Change in additional paid-in capital for not proportionately participating in the capital increase of subsidiaries	-	699,967
Net increase (decrease) in noncontrolling interests	<u>(763)</u>	<u>239,394</u>
Ending balance	<u>\$ 10,283,522</u>	<u>\$ 10,009,948</u>

28. REVENUES

	Year Ended December 31	
	2019	2018
Revenue from contracts with customers	<u>\$ 206,359,673</u>	<u>\$ 214,460,894</u>
Other revenues		
Rental income	817,553	640,312
Other	<u>342,835</u>	<u>381,952</u>
	<u>1,160,388</u>	<u>1,022,264</u>
	<u>\$ 207,520,061</u>	<u>\$ 215,483,158</u>

The information of performance obligations in customer contracts, please refer to Note 3 Summary of Significant Accounting Policies for details.

a. Disaggregation of revenue

2019

	Domestic Fixed Communi- cations Business	Mobile Communi- cations Business	Internet Business	International Fixed Communi- cations Business	Others	Total
<u>Main Products and Service Revenues</u>						
Mobile services revenue	\$ -	\$ 58,703,003	\$ -	\$ -	\$ -	\$ 58,703,003
Sales of products	1,957,460	35,545,256	40,873	264,949	3,784,586	41,593,124
Local telephone and domestic long distance telephone services revenue	27,929,263	-	-	-	-	27,929,263
Broadband access and domestic leased line services revenue	22,115,908	-	-	-	-	22,115,908
Data Communications internet services revenue	-	-	21,002,699	-	-	21,002,699
International network and leased telephone services revenue	-	-	-	7,066,361	-	7,066,361
Others	<u>13,063,469</u>	<u>1,141,584</u>	<u>8,789,794</u>	<u>4,143,885</u>	<u>810,583</u>	<u>27,949,315</u>
	<u>\$ 65,066,100</u>	<u>\$ 95,389,843</u>	<u>\$ 29,833,366</u>	<u>\$ 11,475,195</u>	<u>\$ 4,595,169</u>	<u>\$206,359,673</u>

2018

	Domestic Fixed Communi- cations Business	Mobile Communi- cations Business	Internet Business	International Fixed Communi- cations Business	Others	Total
<u>Main Products and Service Revenues</u>						
Mobile services revenue	\$ -	\$ 63,905,960	\$ -	\$ -	\$ -	\$ 63,905,960
Sales of products	1,731,152	35,701,599	3,993	251,437	3,600,582	41,288,763
Local telephone and domestic long distance telephone services revenue	29,995,695	-	-	-	-	29,995,695
Broadband access and domestic leased line services revenue	22,453,133	-	-	-	-	22,453,133
Data Communications internet services revenue	-	-	21,137,189	-	-	21,137,189
International network and leased telephone services revenue	-	-	-	8,724,302	-	8,724,302
Others	<u>11,922,601</u>	<u>1,269,587</u>	<u>8,509,272</u>	<u>4,448,211</u>	<u>806,181</u>	<u>26,955,852</u>
	<u>\$ 66,102,581</u>	<u>\$100,877,146</u>	<u>\$ 29,650,454</u>	<u>\$ 13,423,950</u>	<u>\$ 4,406,763</u>	<u>\$214,460,894</u>

b. Contract balances

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Trade notes and accounts receivable (Note 9)	<u>\$ 26,407,783</u>	<u>\$ 30,075,503</u>
Contract assets		
Products and service bundling	\$ 6,942,974	\$ 7,122,875
Other	115,993	108,581
Less: Loss allowance	<u>(16,858)</u>	<u>(18,770)</u>
	<u>\$ 7,042,109</u>	<u>\$ 7,212,686</u>
Current	\$ 4,441,196	\$ 4,868,728
Noncurrent	<u>2,600,913</u>	<u>2,343,958</u>
	<u>\$ 7,042,109</u>	<u>\$ 7,212,686</u>

(Continued)

	December 31	
	2019	2018
Contract liabilities		
Telecommunications business	\$ 12,771,621	\$ 8,193,215
Project business	10,360,428	4,508,200
Products and service bundling	38,570	105,559
Others	<u>510,696</u>	<u>475,947</u>
	<u>\$ 23,681,315</u>	<u>\$ 13,282,921</u>
Current	\$ 16,839,830	\$ 10,687,772
Noncurrent	<u>6,841,485</u>	<u>2,595,149</u>
	<u>\$ 23,681,315</u>	<u>\$ 13,282,921</u>

(Concluded)

The changes in the contract asset and the contract liability balances primarily result from the timing difference between the satisfaction of performance obligations and the payments collected from customers. Significant changes of contract assets and liabilities recognized resulting from product and service bundling were as follows:

	Year Ended December 31	
	2019	2018
Contract assets		
Net increase of customer contracts	\$ 6,066,406	\$ 4,125,505
Reclassified to trade receivables	<u>(6,405,198)</u>	<u>(7,531,886)</u>
	<u>\$ (338,792)</u>	<u>\$ (3,406,381)</u>
Contract liabilities		
Net increase of customer contracts	\$ 21,844	\$ 16,243
Recognized as revenues	<u>(88,833)</u>	<u>(194,384)</u>
	<u>\$ (66,989)</u>	<u>\$ (178,141)</u>

The Company applies the simplified approach to providing for expected credit losses prescribed by IFRS 9, which permits the use of lifetime expected loss provision for receivables. Contract assets will be reclassified to trade receivables when the corresponding invoice is billed to the client. Contract assets have substantially the same risk characteristics as the trade receivables of the same types of contracts. Therefore, the Company concluded that the expected loss rates for trade receivables can be applied to the contract assets.

Revenue recognized for the period that was included in the contract liability at the beginning of the period was as follows:

	Year Ended December 31	
	2019	2018
Telecommunications business	\$ 6,185,997	\$ 7,156,712
Project business	3,973,559	626,860
Others	<u>403,921</u>	<u>324,892</u>
	<u>\$ 10,563,477</u>	<u>\$ 8,108,464</u>

c. Incremental costs of obtaining contracts

	December 31	
	2019	2018
Noncurrent		
Incremental costs of obtaining contracts	<u>\$ 942,652</u>	<u>\$ 1,335,030</u>

The Company considered the past experience and the default clauses in the telecommunications service contract and believes the commissions and equipment subsidy paid for obtaining contracts are expected to be recoverable; therefore, incremental costs of obtaining contracts are recognized as an asset. Amortization expense of incremental costs of obtaining contracts for the years ended December 31, 2019 and 2018 were \$1,173,492 thousand and \$1,941,124 thousand, respectively.

d. Remaining Performance Obligations

As of December 31, 2019, the aggregate amount of transaction price allocated to performance obligations for non-cancellable telecommunications service contracts that are unsatisfied is \$35,633,568 thousand. The Company recognizes revenue when service is provided over contract terms. The Company expects to recognize such revenue of \$20,336,233 thousand, \$11,970,383 thousand and \$3,326,952 thousand in 2020, 2021 and 2022, respectively. The variable consideration collected from customers on nonrecurring basis resulting from exceeded usage from monthly fee and revenue recognized for contracts that the Company has a right to consideration from customers in the amount corresponding directly with the value to the customers of the Company's performance completed to date have been excluded from the disclosure of remaining performance obligations.

As of December 31, 2019, the aggregate amount of transaction price allocated to performance obligations for non-cancellable project business contracts that are unsatisfied is \$23,158,615 thousand. The Company recognizes revenues when the project business contract is completed and accepted by customers. The Company expects to recognize such revenue of \$14,182,796 thousand, \$5,372,471 thousand and \$3,603,348 thousand in 2020, 2021 and 2022, respectively. Project business contracts whose expected duration are less than a year have been excluded from the aforementioned disclosure.

29. NET INCOME

a. Other income and expenses

	Year Ended December 31	
	2019	2018
Gain (loss) on disposal of property, plant and equipment	\$ (37,785)	\$ 142,068
Impairment loss on property, plant and equipment	(93,073)	-
Reversal of impairment loss on investment properties	56,617	19,133
Loss on disposal of intangible assets	(146)	-
Impairment loss on intangible assets	(8,946)	(50,750)
Impairment loss on other assets	<u>(43,971)</u>	<u>-</u>
	<u>\$ (127,304)</u>	<u>\$ 110,451</u>

b. Other income

	Year Ended December 31	
	2019	2018
Dividend income	\$ 296,360	\$ 395,593
Rental income	84,870	70,142
Others	<u>150,394</u>	<u>234,088</u>
	<u>\$ 531,624</u>	<u>\$ 699,823</u>

c. Other gains and losses

	Year Ended December 31	
	2019	2018
Foreign currency exchange gain, net	\$ 15,823	\$ 37,348
Gain (loss) on disposal of investments accounted for using equity method	30,152	(125)
Gain on disposal of financial instruments	3,944	5,763
Valuation loss on financial assets and liabilities at fair value through profit or loss, net	(38,314)	(20,763)
Others	<u>(48,076)</u>	<u>(67,894)</u>
	<u>\$ (36,471)</u>	<u>\$ (45,671)</u>

d. Interest expenses

	Year Ended December 31	
	2019	2018
Interest on lease liabilities	\$ 84,918	\$ -
Other interest expenses	<u>19,224</u>	<u>17,596</u>
	<u>\$ 104,142</u>	<u>\$ 17,596</u>

e. Impairment loss (reversal of impairment loss)

	Year Ended December 31	
	2019	2018
Contract assets	<u>\$ (1,912)</u>	<u>\$ 18,770</u>
Trade notes and accounts receivable	<u>\$ (53,952)</u>	<u>\$ 804,727</u>
Other receivables	<u>\$ (69,247)</u>	<u>\$ 96,235</u>
Inventories	<u>\$ 474,709</u>	<u>\$ 365,123</u>
Property, plant and equipment	<u>\$ 93,073</u>	<u>\$ -</u>
Investment properties	<u>\$ (56,617)</u>	<u>\$ (19,133)</u>
Intangible assets	<u>\$ 8,946</u>	<u>\$ 50,750</u>
Other assets	<u>\$ 43,971</u>	<u>\$ -</u>

f. Depreciation and amortization expenses

	Year Ended December 31	
	2019	2018
Property, plant and equipment	\$ 26,930,188	\$ 27,461,179
Right-of-use assets	3,967,646	-
Investment properties	25,157	20,777
Intangible assets	4,252,602	4,386,798
Incremental costs of obtaining contracts	<u>1,173,492</u>	<u>1,941,124</u>
Total depreciation and amortization expenses	<u>\$ 36,349,085</u>	<u>\$ 33,809,878</u>
Depreciation expenses summarized by functions		
Operating costs	\$ 28,956,751	\$ 25,996,087
Operating expenses	<u>1,966,240</u>	<u>1,485,869</u>
	<u>\$ 30,922,991</u>	<u>\$ 27,481,956</u>
Amortization expenses summarized by functions		
Operating costs	\$ 5,196,298	\$ 6,085,039
Marketing expenses	96,477	113,253
General and administrative expenses	94,487	93,239
Research and development expenses	<u>38,832</u>	<u>36,391</u>
	<u>\$ 5,426,094</u>	<u>\$ 6,327,922</u>

g. Employee benefit expenses

	Year Ended December 31	
	2019	2018
Post-employment benefit		
Defined contribution plans	\$ 654,449	\$ 639,670
Defined benefit plans	<u>2,859,467</u>	<u>2,952,956</u>
	<u>3,513,916</u>	<u>3,592,626</u>
Share-based payment		
Equity-settled share-based payment	<u>1,597</u>	<u>17,302</u>
Other employee benefit		
Salaries	25,463,967	26,203,747
Insurance	2,746,088	2,739,782
Others	<u>14,429,853</u>	<u>14,470,194</u>
	<u>42,639,908</u>	<u>43,413,723</u>
Total employee benefit expenses	<u>\$ 46,155,421</u>	<u>\$ 47,023,651</u>
Summary by functions		
Operating costs	\$ 23,586,735	\$ 24,366,935
Operating expenses	<u>22,568,686</u>	<u>22,656,716</u>
	<u>\$ 46,155,421</u>	<u>\$ 47,023,651</u>

Chunghwa distributes employees' compensation at the rates from 1.7% to 4.3% and remuneration to directors not higher than 0.17%, respectively, of pre-tax income. As of December 31, 2019, the payables of the employees' compensation and the remuneration to directors were \$1,126,194 thousand and \$35,210 thousand, respectively. Such amounts have been approved by the Chunghwa's Board of Directors on February 26, 2020 and will be reported to the stockholders in their meeting planned to be held on May 29, 2020.

If there is a change in the proposed amounts after the annual financial statements are authorized for issue, the differences are recorded as a change in accounting estimate.

The compensation to the employees and remuneration to the directors of 2018 and 2017 approved by the Board of Directors on March 19, 2019 and March 13, 2018, respectively, were as follows:

	<u>2018</u>	<u>2017</u>
	Cash	Cash
Compensation distributed to the employees	\$ 1,404,264	\$ 1,596,012
Remuneration paid to the directors	38,216	40,750

There was no difference between the initial accrual amounts and the amounts proposed in the Board of Directors in 2019 and 2018 of the aforementioned compensation to employees and the remuneration to directors.

Information of the appropriation of Chunghwa's employees compensation and remuneration to directors and those approved by the Board of Directors is available on the Market Observation Post System website.

30. INCOME TAX

a. Income tax recognized in profit or loss

The major components of income tax expense were as follows:

	<u>Year Ended December 31</u>	
	2019	2018
Current tax		
Current tax expenses recognized for the year	\$ 8,109,261	\$ 8,271,026
Income tax on unappropriated earnings	19,523	47,528
Income tax adjustments on prior years	(90,531)	6,782
Others	<u>11,574</u>	<u>7,368</u>
	8,049,827	8,332,704
Deferred tax		
Deferred tax expenses recognized for the year	(63,119)	208,252
Income tax adjustments on prior years	(859)	19,229
Change in tax rate	<u>-</u>	<u>(37,652)</u>
	<u>(63,978)</u>	<u>189,829</u>
Income tax expense recognized in profit or loss	<u>\$ 7,985,849</u>	<u>\$ 8,522,533</u>

Reconciliation of accounting profit and income tax expense was as follows:

	Year Ended December 31	
	2019	2018
Income before income tax	<u>\$ 41,749,792</u>	<u>\$ 44,978,704</u>
Income tax expense calculated at the statutory rate	\$ 8,349,958	\$ 8,995,741
Nondeductible income and expenses in determining taxable income	17,616	226,727
Unrecognized deductible temporary differences	3,243	755
Unrecognized loss carryforwards	7,221	21,240
Tax-exempt income	(125,004)	(578,412)
Additional income tax under Alternative Minimum Tax Act	-	45,827
Income tax on unappropriated earnings	19,523	47,528
Investment credits	(202,921)	(204,223)
Change in tax rate	-	(37,652)
Effect of different tax rates of group entities operating in other jurisdictions	(8,981)	(14,967)
Income tax adjustments on prior years	(91,390)	26,011
Others	<u>16,584</u>	<u>(6,042)</u>
Income tax expense recognized in profit or loss	<u>\$ 7,985,849</u>	<u>\$ 8,522,533</u>

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

In July 2019, the President of the ROC announced of the amendments to Article 23-3 of the Statute of Industrial Innovation, which stipulate that the unappropriated earnings in 2018 and thereafter that are reinvested in certain assets or technologies are allowed as deduction when computing the income tax on unappropriated earnings. Chunghwa has deducted the reinvested capital expenditure from the 2018 unappropriated earnings while calculating income tax on unappropriated earnings in 2019.

b. Income tax recognized in other comprehensive income

	Year Ended December 31	
	2019	2018
Deferred tax		
Remeasurement on defined benefit plan	\$ 305,271	\$ (242,911)
Change in tax rate	<u>-</u>	<u>(207,255)</u>
Total income tax expense (benefit) recognized in other comprehensive income	<u>\$ 305,271</u>	<u>\$ (450,166)</u>

c. Current tax assets and liabilities

	<u>December 31</u>	
	<u>2019</u>	<u>2018</u>
Current tax assets		
Tax refund receivable (included in other current assets - other)	\$ <u>897</u>	\$ <u>466</u>
Current tax liabilities		
Income tax payable	<u>\$4,020,670</u>	<u>\$ 4,390,203</u>

d. Deferred income tax assets and liabilities

The movements of deferred income tax assets and liabilities were as follows:

For the year ended December 31, 2019

	January 1, 2019	Adjustments Arising from Application of IFRS 16	Recognized in Profit or Loss	Recognized in Other Comprehensive Income	December 31, 2019
<u>Deferred income tax assets</u>					
Temporary differences					
Defined benefit obligation	\$ 2,307,057	\$ -	\$ 32,475	\$ (305,175)	\$ 2,034,357
Allowance for doubtful receivables over quota	435,445	-	(31,733)	-	403,712
Share of profit or loss of associates accounted for using equity method	389,379	-	12,680	-	402,059
Valuation loss on inventory	87,474	-	53,364	-	140,838
Deferred revenue	110,929	-	(13,472)	-	97,457
Estimated warranty liabilities	25,989	-	8,472	-	34,461
Impairment loss on property, plant and equipment	93,456	-	(75,577)	-	17,879
Accrued award credits liabilities	13,912	-	3,406	-	17,318
Unrealized foreign exchange loss, net	430	-	2,593	-	3,023
Property, plant and equipment	1,998	-	(45)	-	1,953
Trade-in right	10,335	-	(9,693)	-	642
Others	<u>36,510</u>	<u>25,588</u>	<u>14,438</u>	<u>(305,175)</u>	<u>76,536</u>
	3,512,914	25,588	(3,092)	-	3,230,235
Loss carryforwards	<u>40,942</u>	<u>-</u>	<u>(12,570)</u>	<u>-</u>	<u>28,372</u>
	<u>\$ 3,553,856</u>	<u>\$ 25,588</u>	<u>\$ (15,662)</u>	<u>\$ (305,175)</u>	<u>\$ 3,258,607</u>
<u>Deferred income tax liabilities</u>					
Temporary differences					
Defined benefit obligation	\$ 1,832,669	\$ -	\$ (74,634)	\$ 96	\$ 1,758,131
Land value incremental tax	94,986	-	-	-	94,986
Intangible assets	32,028	-	(2,515)	-	29,513
Deferred revenue for award credits	30,690	-	(2,147)	-	28,543
Unrealized foreign exchange gain, net	599	-	480	-	1,079
Valuation gain or loss on financial instruments, net	53	-	(1)	-	52
Others	<u>818</u>	<u>6</u>	<u>(823)</u>	<u>-</u>	<u>1</u>
	<u>\$ 1,991,843</u>	<u>\$ 6</u>	<u>\$ (79,640)</u>	<u>\$ 96</u>	<u>\$ 1,912,305</u>

For the year ended December 31, 2018

	January 1, 2018	Recognized in Profit or Loss	Recognized in Other Comprehensive Income	December 31, 2018
<u>Deferred income tax assets</u>				
Temporary differences				
Defined benefit obligation	\$ 1,723,130	\$ 133,748	\$ 450,179	\$ 2,307,057
Allowance for doubtful receivables over quota	289,043	146,402	-	435,445
Share of profit or loss of associates accounted for using equity method	330,705	58,674	-	389,379
Valuation loss on inventory	22,905	64,569	-	87,474
Deferred revenue	105,742	5,187	-	110,929
Estimated warranty liabilities	22,389	3,600	-	25,989
Impairment loss on property, plant and equipment	112,323	(18,867)	-	93,456
Accrued award credits liabilities	15,387	(1,475)	-	13,912
Unrealized foreign exchange loss, net	16,663	(16,233)	-	430
Property, plant and equipment	1,762	236	-	1,998
Trade-in right	14,887	(4,552)	-	10,335
Others	<u>29,547</u>	<u>6,963</u>	<u>-</u>	<u>36,510</u>
	2,684,483	378,252	450,179	3,512,914
Loss carryforwards	<u>45,610</u>	<u>(4,668)</u>	<u>-</u>	<u>40,942</u>
	<u>\$ 2,730,093</u>	<u>\$ 373,584</u>	<u>\$ 450,179</u>	<u>\$ 3,553,856</u>
<u>Deferred income tax liabilities</u>				
Temporary differences				
Defined benefit obligation	\$ 1,265,380	\$ 567,276	\$ 13	\$ 1,832,669
Land value incremental tax	94,986	-	-	94,986
Intangible assets	38,111	(6,083)	-	32,028
Deferred revenue for award credits	28,810	1,880	-	30,690
Unrealized foreign exchange gain, net	134	465	-	599
Valuation gain or loss on financial instruments, net	-	53	-	53
Others	<u>996</u>	<u>(178)</u>	<u>-</u>	<u>818</u>
	<u>\$ 1,428,417</u>	<u>\$ 563,413</u>	<u>\$ 13</u>	<u>\$ 1,991,843</u>

- e. Deductible temporary differences and unused loss carryforwards for which no deferred tax assets have been recognized in the consolidated balance sheets

	December 31	
	2019	2018
Loss carryforwards		
Expire in 2020	\$ 22,515	\$ 41,390
Expire in 2021	12,406	11,836
Expire in 2022	10,264	10,264
Expire in 2023	8,251	8,459
Expire in 2024	8,189	1,631
Expire in 2025	15,438	15,438
Expire in 2026	8,423	8,423
Expire in 2027	2,585	2,585
Expire in 2028	930	614
Expire in 2029	<u>293</u>	<u>-</u>
	<u>\$ 89,294</u>	<u>\$ 100,640</u>
Deductible temporary differences	<u>\$ 813</u>	<u>\$ 1,369</u>

- f. Information about unused loss carryforwards

As of December 31, 2019, information about loss carryforwards was as follows:

Remaining Creditable Amount	Expiry Year
\$ 22,515	2020
19,468	2021
11,391	2022
8,923	2023
8,372	2024
25,668	2025
11,636	2026
3,503	2027
4,556	2028
<u>1,634</u>	2029
<u>\$ 117,666</u>	

- g. Income tax examinations

Income tax returns of Chunghwa, CHSI, CHST, SENAO, CHIEF, CHI, CHPT, LED, Unigate, CLPT, SFD, SHE, ISPOT, Youth, Youyi, SENYOUNG, Aval and HHI have been examined by the tax authorities through 2017. Income tax returns of CHYP and CHTSC have been examined by the tax authorities through 2018.

31. EARNINGS PER SHARE (“EPS”)

Net income and weighted average number of common stocks used in the calculation of earnings per share were as follows:

Net Income

	<u>Year Ended December 31</u>	
	2019	2018
Net income used to compute the basic earnings per share		
Net income attributable to the parent	\$ 32,788,546	\$ 35,501,622
Assumed conversion of all dilutive potential common stocks		
Employee stock options and employee compensation of subsidiaries	<u>(3,617)</u>	<u>(6,333)</u>
Net income used to compute the diluted earnings per share	<u>\$ 32,784,929</u>	<u>\$ 35,495,289</u>

Weighted Average Number of Common Stocks

(Thousand Shares)

	<u>Year Ended December 31</u>	
	2019	2018
Weighted average number of common stocks used to compute the basic earnings per share	7,757,447	7,757,447
Assumed conversion of all dilutive potential common stocks		
Employee compensation	<u>7,862</u>	<u>9,062</u>
Weighted average number of common stocks used to compute the diluted earnings per share	<u>7,765,309</u>	<u>7,766,509</u>

Because Chunghwa may settle the employee compensation in shares or cash, Chunghwa shall presume that it will be settled in shares and takes those shares into consideration when calculating the weighted average number of outstanding shares used in the calculation of diluted EPS if the shares have a dilutive effect. The dilutive effect of the shares needs to be considered until the approval of the number of shares to be distributed to employees as compensation in the following year.

32. SHARE-BASED PAYMENT ARRANGEMENT

a. SENAO share-based compensation plan (“SENAO Plan”) described as follows:

Effective Date for Plan Registration	Resolution Date by SENAO’s Board of Directors	Stock Options Units (Thousand)	Exercise Price (NT\$)
2012.05.28	2013.04.29	10,000	\$66.20 (Original price \$93.00)

Each option is eligible to subscribe for one common share when exercisable. Under the terms of the SENAO Plan, the options are granted at an exercise price equal to the closing price of the SENAO’s common stocks listed on the TSE on the higher of closing price or par value. The SENAO Plan have exercise price adjustment formula upon the changes in common stocks equity (including cash capital increase, new share issue through capitalization of earnings and additional paid-in capital, merger,

spin off and new share issue for Global Depository Shares, and so on) or distribution of cash dividends. The options of SENAO Plan are valid for six years and the graded vesting schedule for which 50% of option granted will vest two years after the grant date and another two tranches of 25%, each will vest three and four years after the grant date respectively.

No compensation cost of stock options granted on May 7, 2013 was recognized for the years ended December 31, 2018 and 2019.

SENAO modified the plan terms of the outstanding stock options in July 2018 and the exercise price changed from \$70.70 to \$66.20 per share. The modification did not cause any incremental fair value granted.

Information about SENAO's outstanding stock options for the years ended December 31, 2019 and 2018 was as follows:

	Year Ended December 31			
	2019		2018	
	Granted on May 7, 2013		Granted on May 7, 2013	
	Number of Options (Thousand)	Weighted Average Exercise Price (NT\$)	Number of Options (Thousand)	Weighted Average Exercise Price (NT\$)
<u>Employee stock options</u>				
Options outstanding at beginning of the year	5,318	\$ 66.20	5,926	\$ 70.70
Options forfeited	<u>(5,318)</u>	-	<u>(608)</u>	-
Options outstanding at end of the year	<u>-</u>	-	<u>5,318</u>	66.20
Options exercisable at end of the year	<u>-</u>	-	<u>5,318</u>	66.20

As of December 31, 2019, there was no outstanding stock options.

As of December 31, 2018, information about employee stock options outstanding was as follows:

	Options Outstanding			Options Exercisable	
	Range of Exercise Price (NT\$)	Number of Options (Thousand)	Weighted Average Remaining Contractual Life (Years)	Number of Options (Thousand)	Weighted Average Exercise Price (NT\$)
	\$ 66.20	5,318	0.35	5,318	\$ 66.20

SENAO used the fair value method to evaluate the options using the Black-Scholes model and the related assumptions and the fair value of the options were as follows:

	Stock Options Granted on May 7, 2013
Grant-date share price (NT\$)	\$93.00
Exercise price (NT\$)	\$93.00
Dividends yield	-
Risk-free interest rate	0.91%
Expected life	4.375 years
Expected volatility	36.22%
Weighted average fair value of grants (NT\$)	\$28.72

Expected volatility was based on the historical share price volatility of SENAO over the period equal to the expected life of SENAO Plan.

b. SENAO transferred the treasury stock

The Board of Directors of SENAO resolved to transfer treasury stock 6,658 thousand shares to specific employees in April 2018. The aforementioned treasury stock transferred to employees were measured at the fair value on the grant date. The compensation cost of \$15,564 thousand was recognized for the year ended December 31, 2018.

SENAO used the fair value method to evaluate share-based payment transaction using the Black-Scholes model and the related assumptions and the fair value of the option were as follows:

	Stock Options Granted on May 7, 2018
Grant-date share price (NT\$)	\$51.60
Exercise price (NT\$)	\$49.28
Dividends yield	-
Risk-free interest rate	0.59%
Expected life	18 days
Expected volatility	8.78%
Weighted average fair value of grants (NT\$)	\$2.34

Expected volatility was based on the historical share price volatility of SENAO over three months before the grant date.

c. CHIEF share-based compensation plan (“CHIEF Plan”) described as follows:

Effective Date for Plan Registration	Resolution Date by CHIEF’s Board of Directors	Stock Options Units	Exercise Price (NT\$)
2017.12.18	2017.12.19	950.00	\$ 135.60 (Original price \$ 147.00)
	2018.10.31	50.00	\$ 141.70 (Original price \$ 147.00)
2015.11.17	2015.10.22	2,000.00	\$ 34.40 (Original price \$ 43.00)

Each option is eligible to subscribe for one thousand common stocks when exercisable. The options are granted to specific employees that meet the vesting conditions. The CHIEF Plan has exercise price adjustment formula upon the changes in common stocks or distribution of cash dividends. The options of CHIEF Plan are valid for five years and the graded vesting schedule will vest two years after the grant date.

The compensation cost for stock options granted on October 31, 2018 were \$552 thousand and \$92 thousand for the years ended December 31, 2019 and 2018, respectively.

The compensation costs for stock options granted on December 19, 2017 were \$582 thousand and \$596 thousand for the years ended December 31, 2019 and 2018, respectively.

The compensation costs for stock options granted on October 22, 2015 were \$272 thousand and \$1,050 thousand for the years ended December 31, 2019 and 2018, respectively.

CHIEF modified the plan terms of stock options granted on October 31, 2018 in June 2019 and the exercise price changed from \$147.00 to \$141.70 per share. The modification did not cause any incremental fair value granted.

CHIEF modified the plan terms of stock options granted on December 19, 2017 in June 2019 and the exercise price changed from \$140.60 to \$135.60 per share. The modification did not cause any incremental fair value granted.

CHIEF modified the plan terms of stock options granted on December 19, 2017 in June and August 2018 and the exercise price changed from \$147.00 to \$144.10 and \$140.60 per share, respectively. The modification did not cause any incremental fair value granted.

Information about CHIEF's outstanding stock options for the years ended December 31, 2019 and 2018 was as follows:

	Year Ended December 31, 2019					
	Granted on October 31, 2018		Granted on December 19, 2017		Granted on October 22, 2015	
	Number of Options	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
Options outstanding at beginning of the year	50.00	\$ 147.00	925.00	\$ 140.60	882.75	\$ 34.40
Options exercised	-	-	-	-	(547.25)	34.40
Options forfeited	<u>(4.00)</u>	-	<u>(28.00)</u>	-	<u>(21.25)</u>	-
Options outstanding at end of the year	<u>46.00</u>	141.70	<u>897.00</u>	135.60	<u>314.25</u>	34.40
Options exercisable at end of the year	<u>-</u>	-	<u>448.50</u>	135.60	<u>314.25</u>	34.40

Year Ended December 31, 2018

	Granted on October 31, 2018		Granted on December 19, 2017		Granted on October 22, 2015	
	Number of Options	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
Options outstanding at beginning of the year	-	\$ -	950.00	\$ 147.00	1,936.00	\$ 34.40
Options granted	50.00	147.00	-	-	-	-
Options exercised	-	-	-	-	(1,027.25)	34.40
Options forfeited	-	-	(25.00)	-	(26.00)	-
Options outstanding at end of the year	<u>50.00</u>	147.00	<u>925.00</u>	140.60	<u>882.75</u>	34.40
Options exercisable at end of the year	<u>-</u>	-	<u>-</u>	-	<u>416.50</u>	34.40

As of December 31, 2019, information about employee stock options outstanding was as follows:

Granted on October 31, 2018

Options Outstanding				Options Exercisable	
Range of Exercise Price (NT\$)	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
\$141.70	46.00	3.83	\$141.70	-	\$ -

Granted on December 19, 2017

Options Outstanding				Options Exercisable	
Range of Exercise Price (NT\$)	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
\$135.60	897.00	2.96	\$135.60	448.50	\$135.60

Granted on October 22, 2015

Options Outstanding				Options Exercisable	
Range of Exercise Price (NT\$)	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
\$ 34.40	314.25	0.81	\$ 34.40	314.25	\$ 34.40

As of December 31, 2018, information about employee stock options outstanding was as follows:

Granted on October 31, 2018					
Options Outstanding				Options Exercisable	
Range of Exercise Price (NT\$)	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
\$147.00	50.00	4.83	\$147.00	-	\$ -

Granted on December 19, 2017					
Options Outstanding				Options Exercisable	
Range of Exercise Price (NT\$)	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
\$140.60	925.00	3.96	\$140.60	-	\$ -

Granted on October 22, 2015					
Options Outstanding				Options Exercisable	
Range of Exercise Price (NT\$)	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
\$ 34.40	882.75	1.81	\$ 34.40	416.50	\$ 34.40

CHIEF used the fair value method to evaluate the options using the Black-Scholes model and binomial option pricing model and the related assumptions and the fair value of the options were as follows:

	Stock Options Granted on October 31, 2018	Stock Options Granted on December 19, 2017	Stock Options Granted on October 22, 2015
Grant-date share price (NT\$)	\$166.00	\$95.92	\$39.55
Exercise price (NT\$)	\$147.00	\$147.00	\$43.00
Dividends yield	-	-	-
Risk-free interest rate	0.72%	0.62%	0.86%
Expected life	5 years	5 years	5 years
Expected volatility	16.60%	17.35%	21.02%
Weighted average fair value of grants (NT\$)	\$33,540	\$2,318	\$4,863

Expected volatility was based on the average annualized historical share price volatility of CHIEF's comparable companies before the grant date.

d. New shares reserved for subscription by employees under cash injection of CHIEF

In March 2018, the Board of Directors of CHIEF approved the cash injection to issue 7,842 thousand shares and simultaneously reserved 1,176 thousand shares for subscription by employees according to the Company Act of the ROC. Furthermore, when the employees subscribed some shares or discarded their rights to subscribe shares, the Board of Directors of CHIEF authorized the chairman of the Board of Directors to contact specific people or group to subscribe.

The aforementioned options granted to employees are accounted for and measured at fair value of the grant date. No compensation cost was recognized for the year ended December 31, 2018.

CHIEF used the fair value method to evaluate the options granted to employees on May 22, 2018 using the Black-Scholes model and the related assumptions and the fair value of the options were as follows:

	Stock Options Granted on May 22, 2018
Grant-date share price (NT\$)	\$156.41
Exercise price (NT\$)	\$170.00
Dividends yield	-
Risk-free interest rate	0.34%
Expected life	7 days
Expected volatility	14.33%
Weighted average fair value of grants (NT\$)	\$ -

Expected volatility was based on the average annualized historical share price volatility of CHIEF's comparable companies before the grant date.

e. CHTSC share-based compensation plan ("CHTSC Plan") described as follows:

The Board of Directors of CHTSC resolved to issue 4,500 options that are granted to specific employees that meet the vesting conditions on December 20, 2019. Each option is eligible to subscribe for one thousand common stocks when exercisable, and the exercisable price is \$19.085. The CHTSC Plan has exercise price adjustment formula upon the changes in common stocks. The options of CHTSC Plan are valid for five years and the graded vesting schedule will vest one year after the grant date.

The compensation costs of stock options granted were \$191 thousand for the year ended December 31, 2019.

Information about CHTSC's outstanding stock options for the year ended December 31, 2019 was as follows:

	<u>Year Ended December 31, 2019</u> <u>Granted on December 20, 2019</u>	
	Number of Options	Weighted Average Exercise Price (NT\$)
<u>Employee stock options</u>		
Options outstanding at beginning of the year	-	\$ -

(Continued)

	<u>Year Ended December 31, 2019</u> <u>Granted on December 20, 2019</u>	
	Number of Options	Weighted Average Exercise Price (NT\$)
Options granted	<u>4,500</u>	\$ 19.085
Options outstanding at end of the year	<u>4,500</u>	19.085
Options exercisable at end of the year	<u>-</u>	- (Concluded)

As of December 31, 2019, information about employee stock options outstanding was as follows:

<u>Options Outstanding</u>			<u>Options Exercisable</u>		
Range of Exercise Price (NT\$)	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price (NT\$)	Number of Options	Weighted Average Exercise Price (NT\$)
\$19.085	4,500	4.97	\$19.085	-	\$ -

CHTSC used the fair value method to evaluate the options using the Black-Scholes model and the related assumptions and the fair value of the options were as follows:

	Stock Options Granted on December 20,2019
Grant-date share price (NT\$)	\$20.17
Exercise price (NT\$)	\$19.085
Dividends yield	12.49%
Risk-free interest rate	0.54%
Expected life	5 years
Expected volatility	42.41%
Weighted average fair value of grants (NT\$)	\$2,470

Expected volatility was based on the average annualized historical share price volatility of CHTSC's comparable companies before the grant date.

33. CASH FLOW INFORMATION

For the years ended December 31, 2019 and 2018, the Company entered into the following non-cash investing activities:

	<u>Year Ended December 31</u>	
	<u>2019</u>	<u>2018</u>
Increase in property, plant and equipment	\$ 23,164,284	\$ 27,979,440
Changes in other payables	<u>1,001,573</u>	<u>570,489</u>
	<u>\$ 24,165,857</u>	<u>\$ 28,549,929</u>

For the year ended December 31, 2019, changes in liabilities arising from financing activities, including non-cash transactions, were as follows:

	<u>Balance on January 1, 2019</u>	<u>Cash Flows from Financing Activities</u>	<u>Changes in Non-Cash Transactions</u>		<u>Cash Flows from Operation Activities - Interest Paid</u>	<u>Balance on December 31, 2019</u>
			<u>New Leases</u>	<u>Others</u>		
Lease liabilities	<u>\$10,340,057</u>	<u>\$(3,727,792)</u>	<u>\$ 3,803,042</u>	<u>\$(572,251)</u>	<u>\$(84,918)</u>	<u>\$ 9,758,138</u>

34. CAPITAL MANAGEMENT

The Company manages its capital to ensure that entities in the Company will be able to continue as going concerns while maximizing the return to stakeholders through the optimization of the debt and equity balance.

The capital structure of the Company consists of debt of the Company and the equity attributable to the parent.

Some consolidated entities are required to maintain minimum paid-in capital amount as prescribed by the applicable laws.

The management reviews the capital structure of the Company as needed. As part of this review, the management considers the cost of capital and the risks associated with each class of capital.

According to the management's suggestion, the Company maintains a balanced capital structure through paying cash dividends, increasing its share capital, purchasing outstanding shares, and proceeds from new debt or repayment of debt.

35. FINANCIAL INSTRUMENTS

Fair Value Information

The fair value measurement guidance establishes a framework for measuring fair value and expands disclosure about fair value measurements. The standard describes a fair value hierarchy based on three levels of inputs that may be used to measure fair value. These levels are:

Level 1 fair value measurements: These measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 fair value measurements: These 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).

Level 3 fair value measurements: These 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).

- a. Financial instruments that are not measured at fair value but for which fair value is disclosed

The Company considers that the carrying amounts of financial assets and liabilities not measured at fair value approximate their fair values or the fair values cannot be reliably estimated, no financial instruments need to be disclosed on balance sheet date.

- b. Financial instruments that are measured at fair value on a recurring basis

December 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Derivatives	\$ -	\$ 53	\$ -	\$ 53
Listed stocks	463	-	-	463
Non-listed stocks	<u>-</u>	<u>-</u>	<u>778,105</u>	<u>778,105</u>
	<u>\$ 463</u>	<u>\$ 53</u>	<u>\$ 778,105</u>	<u>\$ 778,621</u>
Hedging financial assets	<u>\$ -</u>	<u>\$ 327</u>	<u>\$ -</u>	<u>\$ 327</u>
Financial assets at FVOCI				
Equity investment	<u>\$ 2,453,616</u>	<u>\$ -</u>	<u>\$ 4,815,301</u>	<u>\$ 7,268,917</u>
Financial liabilities at FVTPL				
Derivatives	<u>\$ -</u>	<u>\$ 239</u>	<u>\$ -</u>	<u>\$ 239</u>

December 31, 2018

	Level 1	Level 2	Level 3	Total
Financial assets at FVTPL				
Non-listed stocks	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 517,362</u>	<u>\$ 517,362</u>
Hedging financial assets	<u>\$ -</u>	<u>\$ 1,069</u>	<u>\$ -</u>	<u>\$ 1,069</u>
Financial assets at FVOCI				
Equity investment	<u>\$ 2,899,843</u>	<u>\$ -</u>	<u>\$ 4,032,660</u>	<u>\$ 6,932,503</u>
Financial liabilities at FVTPL				
Derivatives	<u>\$ -</u>	<u>\$ 1,114</u>	<u>\$ -</u>	<u>\$ 1,114</u>

There were no transfers between Levels 1 and 2 for the years ended December 31, 2019 and 2018.

The reconciliations for financial assets measured at Level 3 are listed below:

2019

Financial Assets	Measured at Fair Value through Profit or Loss	Measured at Fair Value through Other Comprehensive Income	Total
Balance at January 1, 2019	\$ 517,362	\$ 4,032,660	\$ 4,550,022
Acquisition	300,000	-	300,000
Recognized in profit or loss under “Other gains and losses”	(39,257)	-	(39,257)
Recognized in other comprehensive income under “Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income”	-	791,808	791,808
Proceed from return of investments	<u>-</u>	<u>(9,167)</u>	<u>(9,167)</u>
Balance at December 31, 2019	<u>\$ 778,105</u>	<u>\$ 4,815,301</u>	<u>\$ 5,593,406</u>
Unrealized loss in 2019	<u>\$ (39,257)</u>		

2018

Financial Assets	Measured at Fair Value through Profit or Loss	Measured at Fair Value through Other Comprehensive Income	Total
Balance at January 1, 2018	\$ 542,521	\$ 3,925,129	\$ 4,467,650
Acquisition	-	289,580	289,580
Recognized in profit or loss under “Other gains and losses”	(25,159)	-	(25,159)
Recognized in other comprehensive income under “Unrealized gain or loss on investments in equity instruments at fair value through other comprehensive income”	-	(175,359)	(175,359)
Proceed from return of investments	<u>-</u>	<u>(6,690)</u>	<u>(6,690)</u>
Balance at December 31, 2018	<u>\$ 517,362</u>	<u>\$ 4,032,660</u>	<u>\$ 4,550,022</u>
Unrealized loss in 2018	<u>\$ (25,159)</u>		

The fair values of financial assets and financial liabilities of Level 2 are determined as follows:

- 1) The fair values of financial assets and financial liabilities with standard terms and conditions and traded in active markets are determined with reference to quoted market prices.
- 2) For derivatives, fair values are estimated using discounted cash flow model. Future cash flows are estimated based on observable inputs including forward exchange rates at the end of the reporting periods and the forward and spot exchange rates stated in the contracts, discounted at a rate that reflects the credit risk of various counterparties.

The fair values of non-listed domestic and foreign equity investments were Level 3 financial assets, and determined using the market approach by reference the Price-to-Book ratios (P/B ratios) of peer companies that traded in active market or using assets approach. The significant unobservable inputs used were listed in the table below. A decrease in discount for the lack of marketability or noncontrolling interests discount would result in increases in the fair values.

	December 31, 2019	December 31, 2018
Discount for lack of marketability	13.73%-20.00%	12.73%-20.00%
Noncontrolling interests discount	21.45%-25.00%	24.41%-25.00%

If the inputs to the valuation model were changed to reflect reasonably possible alternative assumptions while all the other variables were held constant, the fair values of equity investments would increase as below table. When related discounts increase, the fair value of equity investments would be the negative amount of the same amount.

	December 31, 2019	December 31, 2018
Discount for lack of marketability 5% decrease	<u>\$ 349,584</u>	<u>\$ 268,085</u>
Noncontrolling interests discount 5% decrease	<u>\$ 53,646</u>	<u>\$ 36,527</u>

Categories of Financial Instruments

	December 31	
	2019	2018
<u>Financial assets</u>		
Measured at FVTPL		
Mandatorily measured at FVTPL	\$ 778,621	\$ 517,362
Hedging financial assets	327	1,069
Financial assets at amortized cost (Note a)	71,851,933	70,240,962
Financial assets at FVOCI	7,268,917	6,932,503
<u>Financial liabilities</u>		
Measured at FVTPL		
Held for trading	239	1,114
Measured at amortized cost (Note b)	34,433,210	40,335,289

Note a: The balances included cash and cash equivalents, trade notes and accounts receivable, receivables from related parties, other current monetary assets and refundable deposits (classified as other noncurrent assets), which were financial assets measured at amortized cost.

Note b: The balances included short-term loans, trade notes and accounts payable, payables to related parties, partial other payables, customers' deposits and long-term loans which were financial liabilities carried at amortized cost.

Financial Risk Management Objectives

The main financial instruments of the Company include equity investments, trade notes and accounts receivable, trade notes and accounts payable, lease liabilities and loans. The Company's Finance Department provides services to its business units, co-ordinates access to domestic and international capital markets, monitors and manages the financial risks relating to the operations of the Company through internal risk reports which analyze exposures by degree and magnitude of risks. These risks include market risk (including foreign currency risk, interest rate risk and other price risk), credit risk, and liquidity risk.

The Company seeks to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives is governed by the Company's policies approved by the Board of Directors. Those derivatives are used to hedge the risks of exchange rate fluctuation arising from operating or investment activities. Compliance with policies and risk exposure limits is reviewed by the Company's Finance Department on a continuous basis. The Company does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

Chunghwa reports the significant risk exposures and related action plans timely and actively to the audit committee and if needed to the Board of Directors.

a. Market risk

The Company is exposed to market risks of changes in foreign currency exchange rates and interest rates. The Company uses forward exchange contracts to hedge the exchange rate risk arising from assets and liabilities denominated in foreign currencies.

There were no changes to the Company's exposure to market risks or the manner in which these risks are managed and measured.

1) Foreign currency risk

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the balance sheet dates were as follows:

	December 31	
	2019	2018
Assets		
USD	\$ 5,781,593	\$ 5,903,025
EUR	11,792	34,059
SGD	224,501	123,916
JPY	17,092	16,689
RMB	8,854	2,082
Liabilities		
USD	4,120,881	6,998,564
EUR	206,447	1,216,812
SGD	1,262,926	50,921
JPY	14,206	13,968
RMB	310	-

The carrying amounts of the Company's derivatives with exchange rate risk exposures at the balance sheet dates were as follows:

	December 31	
	2019	2018
Assets		
USD	\$ 53	\$ -
EUR	327	1,069
Liabilities		
USD	11	217
EUR	228	897

Foreign currency sensitivity analysis

The Company is mainly exposed to the fluctuations of the currencies USD, EUR, SGD, JPY and RMB as listed above.

The following table details the Company's sensitivity to a 5% increase and decrease in the functional currency against the relevant foreign currencies. 5% is the sensitivity rate used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the reasonably possible changes in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and forward exchange contracts. A positive number below indicates an increase in pre-tax profit or equity where the functional currency weakens 5% against the relevant currency.

	Year Ended December 31	
	2019	2018
Profit or loss		
Monetary assets and liabilities (a)		
USD	\$ 83,036	\$ (54,777)
EUR	(9,733)	(59,138)
SGD	(51,921)	3,650
JPY	144	136
RMB	427	104
Derivatives (b)		
USD	1,274	3,102
EUR	2,519	9,595
Equity		
Derivatives (c)		
EUR	4,195	8,644

- a) This is mainly attributable to the exposure to foreign currency denominated receivables and payables of the Company outstanding at the balance sheet dates.
- b) This is mainly attributable to forward exchange contracts.
- c) This is mainly attributable to the changes in the fair value of derivatives that are designated as cash flow hedges.

For a 5% strengthening of the functional currency against the relevant currencies, there would be an equal and opposite effect on the pre-tax profit or equity for the amounts shown above.

2) Interest rate risk

The carrying amounts of the Company's exposures to interest rates on financial assets and financial liabilities at the balance sheet dates were as follows:

	<u>Year Ended December 31</u>	
	2019	2018
Fair value interest rate risk		
Financial assets	\$ 30,946,503	\$ 25,821,638
Financial liabilities	9,758,138	-
Cash flow interest rate risk		
Financial assets	7,681,032	9,160,863
Financial liabilities	1,690,000	1,700,000

Interest rate sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to interest rates for non-derivative instruments at the end of the reporting period. A 25 basis point increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 25 basis points higher/lower and all other variables were held constant, the Company's pre-tax income would increase/decrease by \$14,978 thousand and \$18,652 thousand for the years ended December 31, 2019 and 2018, respectively. This is mainly attributable to the Company's exposure to floating interest rates on its financial assets and short-term and long-term loan.

3) Other price risk

The Company is exposed to equity price risks arising from holding other company's equity. Equity investments are held for strategic rather than trading purposes. The management managed the risk through holding various risk portfolios. Further, the Company assigned finance and investment departments to monitor the price risk.

Equity price sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to equity price risks at the end of the reporting period.

If equity prices had been 5% higher/lower, pre-tax profit and pre-tax other comprehensive income for the year ended December 31, 2019 would have increased/decreased by \$38,928 thousand and \$363,446 thousand as a result of the changes in fair value of financial assets at FVTPL and financial assets at FVTOCI, respectively. If equity prices had been 5% higher/lower, pre-tax profit and pre-tax other comprehensive income for the year ended December 31, 2018 would have increased/decreased by \$25,868 thousand and \$346,625 thousand as a result of the changes in fair value of financial assets at FVTPL and financial assets at FVTOCI, respectively.

b. Credit risk

Credit risk refers to the risk that a counterparty would default on its contractual obligations resulting in financial loss to the Company. The maximum credit exposure of the aforementioned financial instruments is equal to their carrying amounts recognized in consolidated balance sheet as of the balance sheet date.

The Company has large trade receivables outstanding with its customers. A substantial majority of the Company's outstanding trade receivables are not covered by collateral or credit insurance. The Company has implemented ongoing measures including enhancing credit assessments and strengthening overall risk management to reduce its credit risk. While the Company has procedures to monitor and limit exposure to credit risk on trade receivables, there can be no assurance such procedures will effectively limit its credit risk and avoid losses. This risk is heightened during periods when economic conditions worsen.

As the Company serves a large number of unrelated consumers, the concentration of credit risk was limited.

c. Liquidity risk

The Company manages and maintains sufficient cash and cash equivalent position to support the operations and reduce the impact on fluctuation of cash flow.

1) Liquidity and interest risk tables

The following tables detailed the Company's remaining contractual maturity for its non-derivative financial liabilities with agreed repayment periods. The tables had been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Company is required to pay.

December 31, 2019

	Weighted Average Effective Interest Rate (%)	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	Add More than 5 Years	Total
<u>December 31, 2019</u>							
Non-derivative financial liabilities							
Non-interest bearing	-	\$ 36,387,024	\$ -	\$ 2,531,721	\$ 4,747,644	\$ -	\$ 43,666,389
Floating interest rate instruments	0.98	<u>50,000</u>	<u>10,000</u>	<u>30,000</u>	<u>1,600,000</u>	<u>-</u>	<u>1,690,000</u>
		<u>\$ 36,437,024</u>	<u>\$ 10,000</u>	<u>\$ 2,561,721</u>	<u>\$ 6,347,644</u>	<u>\$ -</u>	<u>\$ 45,356,389</u>

Information about the maturity analysis for lease liabilities was as follows:

	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	Total
Lease liabilities	<u>\$ 3,309,578</u>	<u>\$ 4,394,009</u>	<u>\$ 1,581,034</u>	<u>\$ 645,520</u>	<u>\$ 9,930,141</u>

December 31, 2018

	Weighted Average Effective Interest Rate (%)	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	Add More than 5 Years	Total
<u>December 31, 2018</u>							
Non-derivative financial liabilities							
Non-interest bearing	-	\$ 41,808,326	\$ -	\$ 2,889,800	\$ 4,716,571	\$ -	\$ 49,414,697
Floating interest rate instruments	0.98	<u>-</u>	<u>-</u>	<u>100,000</u>	<u>1,600,000</u>	<u>-</u>	<u>1,700,000</u>
		<u>\$ 41,808,326</u>	<u>\$ -</u>	<u>\$ 2,989,800</u>	<u>\$ 6,316,571</u>	<u>\$ -</u>	<u>\$ 51,114,697</u>

The following table detailed the Company's liquidity analysis for its derivative financial instruments. The table had been drawn up based on the undiscounted gross inflows and outflows on those derivatives that require gross settlement.

	Less than 1 Month	1-3 Months	3 Months to 1 Year	1-5 Years	Total
<u>December 31, 2019</u>					
<u>Gross settled</u>					
Forward exchange contracts					
Inflow	\$ 25,566	\$ 135,075	\$ -	\$ -	\$ 160,641
Outflow	<u>25,524</u>	<u>134,976</u>	<u>-</u>	<u>-</u>	<u>160,500</u>
	<u>\$ 42</u>	<u>\$ 99</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 141</u>
<u>December 31, 2018</u>					
<u>Gross settled</u>					
Forward exchange contracts					
Inflow	\$ 62,035	\$ 238,302	\$ 126,401	\$ -	\$ 426,738
Outflow	<u>62,252</u>	<u>238,459</u>	<u>126,072</u>	<u>-</u>	<u>426,783</u>
	<u>\$ (217)</u>	<u>\$ (157)</u>	<u>\$ 329</u>	<u>\$ -</u>	<u>\$ (45)</u>

2) Financing facilities

	December 31	
	2019	2018
Unsecured bank loan facility		
Amount used	\$ 120,681	\$ 132,445
Amount unused	<u>46,109,219</u>	<u>46,328,280</u>
	<u>\$ 46,229,900</u>	<u>\$ 46,460,725</u>
Secured bank loan facility		
Amount used	\$ 1,600,000	\$ 1,600,000
Amount unused	<u>1,340,000</u>	<u>1,340,000</u>
	<u>\$ 2,940,000</u>	<u>\$ 2,940,000</u>

36. RELATED PARTIES TRANSACTIONS

The ROC Government, one of Chunghwa's customers, has significant equity interest in Chunghwa. Chunghwa provides fixed-line services, wireless services, internet and data and other services to the various departments and institutions of the ROC Government in the normal course of business and at arm's-length prices. The transactions with the ROC government bodies have not been disclosed because the transactions are not individually or collectively significant. However, the related revenues and operating costs have been appropriately recorded.

- a. The Company engages in business transactions with the following related parties:

<u>Company</u>	<u>Relationship</u>
Taiwan International Standard Electronics Co., Ltd.	Associate
So-net Entertainment Taiwan Limited	Associate
KKBOX Taiwan Co., Ltd.	Associate
KingwayTek Technology Co., Ltd.	Associate
UUPON Inc.	Associate
Taiwan International Ports Logistics Corporation	Associate
International Integrated System, Inc.	Associate
Senao Networks, Inc.	Associate
EnRack Technology Inc.	Subsidiary of the Company's associate, Senao Networks, Inc.
Emplus Technologies, Inc.	Subsidiary of the Company's associate, Senao Networks, Inc.
ST-2 Satellite Ventures Pte., Ltd.	Associate
Viettel-CHT Co., Ltd.	Associate
Click Force Co., Ltd.	Associate
Alliance Digital Tech Co., Ltd.	Associate
MeWorks Limited (HK)	Associate
Chunghwa PChome Fund I Co., Ltd. ("CPFI")	Associate
Cornerstone Ventures Co., Ltd. ("CVC")	Associate
Next Commercial Bank Co., Ltd. (preparatory office) ("NCB")	Associate
Other related parties	
Chunghwa Telecom Foundation	A nonprofit organization of which the funds donated by Chunghwa exceeds one third of its total funds
Senao Technical and Cultural Foundation	A nonprofit organization of which the funds donated by SENAO exceeds one third of its total funds
Sochamp Technology Co., Ltd.	Investor of significant influence over CHST
E-Life Mall Co., Ltd.	One of the directors of E-Life Mall and a director of SENAO are members of an immediate family
Engenius Technologies Co., Ltd.	Chairman of Engenius Technologies Co., Ltd. is a member of SENAO's management
Cheng Keng Investment Co., Ltd.	Chairman of Cheng Keng Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
Cheng Feng Investment Co., Ltd.	Chairman of Cheng Feng Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
All Oriented Investment Co., Ltd.	Chairman of All Oriented Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
Hwa Shun Investment Co., Ltd.	Chairman of Hwa Shun Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
Yu Yu Investment Co., Ltd.	Chairman of Yu Yu Investment Co., Ltd. and SENAO's chief executive officer are members of an immediate family
United Daily News Co., Ltd.	Investor of significant influence over SFD
Shenzhen Century Communication Co., Ltd.	Investor of significant influence over SCT

- b. Balances and transactions between Chunghwa and its subsidiaries, which are related parties of Chunghwa, have been eliminated on consolidation and are not disclosed in this note. Terms of the foregoing transactions with related parties were not significantly different from transactions with non-related parties. When no similar transactions with non-related parties can be referenced, terms were determined in accordance with mutual agreements. Details of transactions between the Company and other related parties are disclosed below:

1) Operating transactions

	Revenues	
	Year Ended December 31	
	2019	2018
Associates	\$ 273,892	\$ 344,043
Others	<u>76,559</u>	<u>94,227</u>
	<u>\$ 350,451</u>	<u>\$ 438,270</u>
	Operating Costs and Expenses	
	Year Ended December 31	
	2019	2018
Associates	\$ 963,627	\$ 1,304,008
Others	<u>76,153</u>	<u>75,345</u>
	<u>\$ 1,039,780</u>	<u>\$ 1,379,353</u>

2) Non-operating transactions

	Non-operating Income and Expenses	
	Year Ended December 31	
	2019	2018
Associates	\$ 41,373	\$ 31,255
Others	<u>3,470</u>	<u>32</u>
	<u>\$ 44,843</u>	<u>\$ 31,287</u>

3) Receivables

	December 31	
	2019	2018
Associates	\$ 10,356	\$ 10,785
Others	<u>6,478</u>	<u>13,485</u>
	<u>\$ 16,834</u>	<u>\$ 24,270</u>

4) Payables

	December 31	
	2019	2018
Associates	\$ 650,617	\$ 914,177
Others	<u>3,366</u>	<u>3,774</u>
	<u>\$ 653,983</u>	<u>\$ 917,951</u>

5) Customers' deposits

	December 31	
	2019	2018
Associates	<u>\$ 7,595</u>	<u>\$ 5,925</u>

6) Acquisition of property, plant and equipment

	Year Ended December 31	
	2019	2018
Associates	\$ 241,626	\$ 311,519
Others	<u>182</u>	<u>-</u>
	<u>\$ 241,808</u>	<u>\$ 311,519</u>

7) Lease-in agreements

Chunghwa entered into a contract with ST-2 Satellite Ventures Pte., Ltd. on March 12, 2010 to lease capacity on the ST-2 satellite. This lease term is for 15 years which should start from the official operation of ST-2 satellite and the total contract value is approximately \$6,000,000 thousand (SG\$260,723 thousand), including a prepayment of \$3,067,711 thousand at the inception of the lease, and the rest of amount should be paid annually when ST-2 satellite starts its official operation. ST-2 satellite was launched in May 2011 and began its official operation in August 2011.

2019

The lease liabilities of ST-2 Satellite Ventures Pte., Ltd. as of December 31, 2019 was as follows:

	December 31, 2019
Lease liabilities - current	\$ 188,271
Lease liabilities - noncurrent	<u>1,023,889</u>
	<u>\$ 1,212,160</u>

The interest expense recognized for the aforementioned lease liabilities for the year ended December 31, 2019 was \$10,887 thousand.

2018

The total rental expense for the year ended December 31, 2018 was \$394,289 thousand, which consisted of an offsetting credit of the prepayment of \$204,398 thousand and an additional accrual of \$189,891 thousand. The prepaid rents (classified as prepayments) as of December 31, 2018, was as follows:

	December 31, 2018
Prepaid rents - current	\$ 204,398
Prepaid rents - noncurrent	<u>1,345,623</u>
	<u>\$ 1,550,021</u>

c. Compensation of key management personnel

The compensation of directors and key management personnel was as follows:

	Year Ended December 31	
	2019	2018
Short-term employee benefits	\$ 263,383	\$ 281,981
Post-employment benefits	8,560	9,971
Share-based payment	<u>355</u>	<u>9,484</u>
	<u>\$ 272,298</u>	<u>\$ 301,436</u>

The compensation of directors and key management personnel was mainly determined by the compensation committee having regard to the performance of individual and market trends.

37. PLEDGED ASSETS

The following assets are pledged as collaterals for bank loans and custom duties of the imported materials.

	December 31	
	2019	2018
Property, plant and equipment	\$ 2,491,324	\$ 2,520,838
Land held under development (included in inventories)	1,998,733	1,998,733
Restricted assets (included in other assets - others)	<u>2,500</u>	<u>2,500</u>
	<u>\$ 4,492,557</u>	<u>\$ 4,522,071</u>

38. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

As of December 31, 2019, the Company's significant commitments and contingent liabilities, excluding those disclosed in other notes, were as follows:

- a. Acquisitions of land and buildings of \$43,614 thousand.
- b. Acquisitions of telecommunications equipment of \$17,876,961 thousand.
- c. Unused letters of credit amounting to \$50,000 thousand.

- d. A commitment to contribute \$2,000,000 thousand to a Piping Fund administered by the Taipei City Government, of which \$1,000,000 thousand was contributed by Chunghwa on August 15, 1996 (classified as other monetary assets - noncurrent). If the fund is not sufficient, Chunghwa will contribute the remaining \$1,000,000 thousand upon notification from the Taipei City Government.
- e. Chunghwa committed that when its ownership interest in NCB is greater than 25% and NCB encounters financial difficulty or capital adequacy ratio of NCB cannot meet the related regulation requirements, the Company will provide financial support to assist NCB maintain in healthy financial condition.
- f. CHPT signed the contract for its headquarters construction amounted to \$1,613,800 thousand in July 2017. The payment of \$1,525,227 thousand has been made as of December 31, 2019.

39. SIGNIFICANT ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

The following information summarizes the disclosure of the currency which is other than functional currency of Chunghwa and its subsidiaries. The following exchange rates are the exchange rates used to translate to the presentation currency in the consolidated financial statements, which is NTD:

	December 31, 2019		
	Foreign Currencies (Thousands)	Exchange Rate	New Taiwan Dollars (Thousands)
<u>Assets denominated in foreign currencies</u>			
Monetary items			
USD	\$ 192,849	29.98	\$ 5,781,593
EUR	351	33.59	11,792
SGD	10,076	22.28	224,501
JPY	61,929	0.276	17,092
RMB	2,057	4.305	8,854
Non-monetary items			
Investments accounted for using equity method			
SGD	22,483	22.28	500,930
VND	270,542,735	0.0012	316,535
<u>Liabilities denominated in foreign currencies</u>			
Monetary items			
USD	137,454	29.98	4,120,881
EUR	6,146	33.59	206,447
SGD	56,685	22.28	1,262,926
JPY	51,472	0.276	14,206
RMB	72	4.305	310

	December 31, 2018		
	Foreign Currencies (Thousands)	Exchange Rate	New Taiwan Dollars (Thousands)
<u>Assets denominated in foreign currencies</u>			
Monetary items			
USD	\$ 192,187	30.72	\$ 5,903,025
EUR	968	35.20	34,059
SGD	5,512	22.48	123,916
JPY	60,034	0.278	16,689
RMB	466	4.472	2,082
Non-monetary items			
Investments accounted for using equity method			
SGD	22,066	22.48	496,033
VND	238,757,968	0.0012	286,510

Liabilities denominated in foreign currencies

Monetary items			
USD	227,855	30.72	6,998,564
EUR	34,569	35.20	1,216,812
SGD	2,265	22.48	50,921
JPY	50,243	0.278	13,968

The unrealized foreign exchange losses were \$9,938 thousand and \$7,872 thousand for the years ended December 31, 2019 and 2018, respectively. Due to the various foreign currency transactions and the functional currency of each individual entity of the Company, foreign exchange gains and losses cannot be disclosed by the respective significant foreign currency.

40. ADDITIONAL DISCLOSURES

Following are the additional disclosures required by the FSC for the Company:

- a. Financing provided: None.
- b. Endorsement/guarantee provided: Please see Table 1.
- c. Marketable securities held (excluding investments in subsidiaries and associates: Please see Table 2.
- d. Marketable securities acquired and disposed of at costs or prices at least \$300 million or 20% of the paid-in capital: Please see Table 3.
- e. Acquisition of individual real estate at costs of at least \$300 million or 20% of the paid-in capital: Please see Table 4.
- f. Disposal of individual real estate at prices of at least \$300 million or 20% of the paid-in capital: None.
- g. Total purchases from or sales to related parties amounting to at least \$100 million or 20% of the paid-in capital: Please see Table 5.

- h. Receivables from related parties amounting to \$100 million or 20% of the paid-in capital: Please see Table 6.
- i. Names, locations, and other information of investees on which the Company exercises significant influence (excluding investees in Mainland China): Please see Table 7.
- j. Derivative instruments transactions: Please see Notes 7, 20 and 35.
- k. Investment in Mainland China: Please see Table 8.
- l. Intercompany relationships and significant intercompany transaction: Please see Table 9.

41. SEGMENT INFORMATION

The Company has the following reportable segments that provide different products or services. The reportable segments are managed separately because each segment represents a strategic business unit that serves different markets. Segment information is provided to CEO who allocates resources and assesses segment performance. The Company's measure of segment performance is mainly based on revenues and income before income tax. The Company's reportable segments are as follows:

- a. Domestic fixed communications business - the provision of local telephone services, domestic long distance telephone services, broadband access, and related services;
- b. Mobile communications business - the provision of mobile services, sales of mobile handsets and data cards, and related services;
- c. Internet business - the provision of HiNet services and related services;
- d. International fixed communications business - the provision of international long distance telephone services and related services;
- e. Others - the provision of non-telecom services and the corporate related items not allocated to reportable segments.

Some operating segments have been aggregated into a single operating segment taking into account the following factors: (a) similar economic characteristics such as long-term gross profit margins; (b) the nature of the telecommunications products and services are similar; (c) the nature of production processes of the telecommunications products and services are similar; (d) the type or class of customer for the telecommunications products and services are similar; and (e) the methods used to provide the services to the customers are similar.

There was no material differences between the accounting policies of the operating segments and the accounting policies described in Note 3.

Segment Revenues and Operating Results

Analysis by reportable segment of revenues and operating results of continuing operations was as follows:

	Domestic Fixed Communi- cations Business	Mobile Communi- cations Business	Internet Business	International Fixed Communi- cations Business	Others	Total
<u>Year ended December 31, 2019</u>						
Revenues						
From external customers	\$ 65,727,627	\$ 95,469,002	\$ 30,090,758	\$ 11,485,197	\$ 4,747,477	\$ 207,520,061
Intersegment revenues	<u>16,065,223</u>	<u>1,563,685</u>	<u>3,950,832</u>	<u>2,078,889</u>	<u>4,914,694</u>	<u>28,573,323</u>
Segment revenues	<u>\$ 81,792,850</u>	<u>\$ 97,032,687</u>	<u>\$ 34,041,590</u>	<u>\$ 13,564,086</u>	<u>\$ 9,662,171</u>	<u>236,093,384</u>
Intersegment elimination						<u>(28,573,323)</u>
Consolidated revenues						<u>\$ 207,520,061</u>
Segments operating costs and expenses	<u>\$ 56,268,655</u>	<u>\$ 72,952,530</u>	<u>\$ 13,849,557</u>	<u>\$ 11,427,554</u>	<u>\$ 12,248,607</u>	<u>\$ 166,746,903</u>
Segment income (loss) before income tax	<u>\$ 19,536,966</u>	<u>\$ 11,249,716</u>	<u>\$ 12,514,656</u>	<u>\$ 799,078</u>	<u>\$ (2,350,624)</u>	<u>\$ 41,749,792</u>
<u>Year ended December 31, 2018</u>						
Revenues						
From external customers	\$ 66,753,094	\$ 100,937,021	\$ 29,813,239	\$ 13,434,422	\$ 4,545,382	\$ 215,483,158
Intersegment revenues	<u>17,125,311</u>	<u>1,701,768</u>	<u>4,038,032</u>	<u>2,234,202</u>	<u>5,007,565</u>	<u>30,106,878</u>
Segment revenues	<u>\$ 83,878,405</u>	<u>\$ 102,638,789</u>	<u>\$ 33,851,271</u>	<u>\$ 15,668,624</u>	<u>\$ 9,552,947</u>	<u>245,590,036</u>
Intersegment elimination						<u>(30,106,878)</u>
Consolidated revenues						<u>\$ 215,483,158</u>
Segments operating costs and expenses	<u>\$ 59,430,120</u>	<u>\$ 73,901,350</u>	<u>\$ 13,765,723</u>	<u>\$ 13,279,413</u>	<u>\$ 11,573,344</u>	<u>\$ 171,949,950</u>
Segment income (loss) before income tax	<u>\$ 18,243,503</u>	<u>\$ 15,327,824</u>	<u>\$ 11,943,594</u>	<u>\$ 1,023,831</u>	<u>\$ (1,560,048)</u>	<u>\$ 44,978,704</u>

Other Segment Information

Other information reviewed by the chief operating decision maker or regularly provided to the chief operating decision maker was as follows:

	Domestic Fixed Communi- cations Business	Mobile Communi- cations Business	Internet Business	International Fixed Communi- cations Business	Others	Total
<u>Year ended December 31, 2019</u>						
Share of profits of associates accounted for using equity method	\$ _____	\$ _____	\$ _____	\$ _____	\$ 462,140	\$ 462,140
Interest income	<u>\$ 15,156</u>	<u>\$ 8,688</u>	<u>\$ 20,160</u>	<u>\$ 40,937</u>	<u>\$ 165,846</u>	<u>\$ 250,787</u>
Interest expenses	<u>\$ 5,076</u>	<u>\$ 58,081</u>	<u>\$ 696</u>	<u>\$ 11,501</u>	<u>\$ 28,788</u>	<u>\$ 104,142</u>
Depreciation and amortization	<u>\$ 14,841,890</u>	<u>\$ 16,253,558</u>	<u>\$ 2,914,375</u>	<u>\$ 1,547,334</u>	<u>\$ 791,928</u>	<u>\$ 36,349,085</u>
Capital expenditure	<u>\$ 12,070,922</u>	<u>\$ 7,773,266</u>	<u>\$ 1,424,601</u>	<u>\$ 1,116,541</u>	<u>\$ 1,780,527</u>	<u>\$ 24,165,857</u>
Impairment loss on property, plant and equipment	\$ _____	\$ _____	\$ _____	\$ _____	\$ 93,073	\$ 93,073
Reversal of impairment loss on investment properties	<u>\$ 56,617</u>	\$ _____	\$ _____	\$ _____	\$ _____	<u>\$ 56,617</u>
Impairment loss on intangible assets	\$ _____	<u>\$ 8,946</u>	\$ _____	\$ _____	\$ _____	<u>\$ 8,946</u>
Impairment loss on other assets	<u>\$ 13,191</u>	\$ _____	<u>\$ 13,191</u>	\$ _____	<u>\$ 17,589</u>	<u>\$ 43,971</u>
<u>Year ended December 31, 2018</u>						
Share of profits of associates accounted for using equity method	\$ _____	\$ _____	\$ _____	\$ _____	\$ 501,600	\$ 501,600
Interest income	<u>\$ 17,535</u>	<u>\$ 12,159</u>	<u>\$ 19,123</u>	<u>\$ 27,903</u>	<u>\$ 120,169</u>	<u>\$ 196,889</u>
Interest expenses	\$ _____	<u>\$ 181</u>	<u>\$ 191</u>	\$ _____	<u>\$ 17,224</u>	<u>\$ 17,596</u>
Depreciation and amortization	<u>\$ 15,027,196</u>	<u>\$ 13,788,352</u>	<u>\$ 3,120,942</u>	<u>\$ 1,424,530</u>	<u>\$ 448,858</u>	<u>\$ 33,809,878</u>
Capital expenditure	<u>\$ 12,692,526</u>	<u>\$ 10,663,759</u>	<u>\$ 2,729,512</u>	<u>\$ 1,347,874</u>	<u>\$ 1,116,258</u>	<u>\$ 28,549,929</u>
Reversal of impairment loss on investment properties	<u>\$ 19,133</u>	\$ _____	\$ _____	\$ _____	\$ _____	<u>\$ 19,133</u>
Impairment loss on intangible assets	\$ _____	<u>\$ 50,750</u>	\$ _____	\$ _____	\$ _____	<u>\$ 50,750</u>

Main Products and Service Revenues

	Year Ended December 31	
	2019	2018
Mobile services revenue	\$ 58,703,003	\$ 63,905,960
Sales of products	41,593,124	41,288,763
Local telephone and domestic long distance telephone services revenue	27,929,263	29,995,695
Broadband access and domestic leased line services revenue	22,115,908	22,453,133
Data Communications internet services revenue	21,002,699	21,137,189
International network and leased telephone services revenue	7,066,361	8,724,302
Others	<u>29,109,703</u>	<u>27,978,116</u>
	<u>\$ 207,520,061</u>	<u>\$ 215,483,158</u>

Geographic Information

The users of the Company's services are mainly from Taiwan, ROC. The revenues it derived outside Taiwan are mainly revenues from international long distance telephone and leased line services. The geographic information for revenues was as follows:

	Year Ended December 31	
	2019	2018
Taiwan, ROC	\$ 197,895,254	\$ 205,695,525
Overseas	<u>9,624,807</u>	<u>9,787,633</u>
	<u>\$ 207,520,061</u>	<u>\$ 215,483,158</u>

The Company has long-lived assets in U.S., Singapore, Hong Kong, China, Vietnam, Japan and Thailand for \$4,063,468 thousand and \$4,324,172 thousand at December 31, 2019 and 2018, respectively, in the aforementioned areas, the other long-lived assets are located in Taiwan, ROC.

Major Customers

As of December 31, 2019 and 2018, the Company did not have any single customer whose revenue exceeded 10% of the total revenues.

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

ENDORSEMENTS/GUARANTEES PROVIDED

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

No. (Note 1)	Endorsement/ Guarantee Provider	Guaranteed Party		Limits on Endorsement/ Guarantee Amount Provided to Each Guaranteed Party	Maximum Balance for the Period	Ending Balance	Actual Borrowing Amount	Amount of Endorsement/ Guarantee Collateralized by Properties	Ratio of Accumulated Endorsement/ Guarantee to Net Equity Per Latest Financial Statements	Maximum Endorsement/ Guarantee Amount Allowable	Endorsement/ Guarantee Given by Parent on Behalf of Subsidiaries	Endorsement/ Guarantee Given by Subsidiaries on Behalf of Parent	Endorsement/ Guarantee Given on Behalf of Companies in Mainland China	Note
		Name	Nature of Relationship (Note 2)											
1	Senao International Co., Ltd.	Aval Technologies Co., Ltd.	b	\$ 584,817	\$ 300,000	\$ 300,000	\$ 300,000	\$ -	5.13	\$ 2,924,089	Yes	No	No	Notes 3 and 4
		Wiin Technology Co., Ltd.	b	584,817	100,000	100,000	100,000	-	1.71	2,924,089	Yes	No	No	Notes 3 and 4

Note 1: Significant transactions between the Company and its subsidiaries or among subsidiaries are numbered as follows:

- a. "0" for the Company.
- b. Subsidiaries are numbered from "1".

Note 2: Relationships between the endorsement/guarantee provider and the guaranteed party:

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

Note 3: The limits on endorsement or guarantee amount provided to each guaranteed party is up to 10% of the net assets value of the latest financial statements of Senao International Co., Ltd.

Note 4: The total amount of endorsement or guarantee that the Company is allowed to provide is up to 50% of the net assets value of the latest financial statements of Senao International Co., Ltd.

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

MARKETABLE SECURITIES HELD

DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2019				Note
				Shares (Thousands/Thousand Units)	Carrying Value (Note 1)	Percentage of Ownership	Fair Value	
Chunghwa Telecom Co., Ltd.	<u>Stocks</u>							
	Taipei Financial Center Corp.	-	Financial assets at FVOCI	172,927	\$ 4,388,984	12	\$ 4,388,984	-
	Innovation Works Development Fund, L.P.	-	Financial assets at FVTPL - noncurrent	-	267,304	4	267,304	-
	Industrial Bank of Taiwan II Venture Capital Co., Ltd. (IBT II)	-	Financial assets at FVOCI	5,252	17,084	17	17,084	-
	Global Mobile Corp.	-	Financial assets at FVOCI	7,617	-	3	-	-
	Innovation Works Limited	-	Financial assets at FVOCI	1,000	4,078	2	4,078	-
	RPTI Intergroup International Ltd.	-	Financial assets at FVOCI	4,765	-	10	-	-
	Taiwan mobile payment Co., Ltd.	-	Financial assets at FVOCI	1,200	4,510	2	4,510	-
	Taiwania Capital Buffalo Fund Co., Ltd.	-	Financial assets at FVTPL - noncurrent	600,000	510,801	13	510,801	-
China Airlines Ltd.	-	Financial assets at FVOCI	263,622	2,388,416	5	2,388,416	Note 2	
4 Gamers Entertainment Inc.	-	Financial assets at FVOCI	136	120,243	19.9	120,243	-	
Senao International Co., Ltd.	<u>Stocks</u>							
N.T.U. Innovation Incubation Corporation	-	Financial assets at FVOCI	1,200	10,648	9	10,648	-	
CHIEF Telecom Inc.	<u>Stocks</u>							
	3 Link Information Service Co., Ltd.	-	Financial assets at FVOCI	374	950	10	950	-
WPG Holdings Limited	-	Financial assets at FVTPL - current	9	463	-	463	Note 2	
Chunghwa Investment Co., Ltd.	<u>Stocks</u>							
	Tatung Technology Inc.	-	Financial assets at FVOCI	4,571	144,277	11	144,277	-
	iSing99 Inc.	-	Financial assets at FVOCI	10,000	-	7	-	-
	Powtec ElectroChemical Corporation	-	Financial assets at FVOCI	20,000	114,478	2	114,478	-
Bosssdom Digiinnovation Co., Ltd.	-	Financial assets at FVOCI	2,000	65,200	7	65,200	Note 2	
Chunghwa Hsingta Co., Ltd.	<u>Stocks</u>							
Cotech Engineering Fuzhou Corp.	-	Financial assets at FVOCI	-	10,049	5	10,049	-	

Note 1: Showed at carrying amounts with fair value adjustments.

Note 2: Fair value was based on the closing price on December 31, 2019.

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

MARKETABLE SECURITIES ACQUIRED AND DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT\$300 MILLION OR 20% OF THE PAID-IN CAPITAL
 YEAR ENDED DECEMBER 31, 2019
 (Amounts in Thousands of New Taiwan Dollars)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counter-party	Nature of Relationship	Beginning Balance		Acquisition		Disposal			Ending Balance		
					Shares (Thousands/Thousand Units)	Amount	Shares (Thousands/Thousand Units)	Amount	Shares (Thousands/Thousand Units)	Amount	Carrying Value	Gain on Disposal	Shares (Thousands/Thousand Units)	Amount
Chunghwa Telecom Co., Ltd.	Stocks Taiwania Capital Buffalo Fund Co., Ltd.	Financial assets at FVTPL-noncurrent	-	-	300,000	\$ 300,000 (Note 1)	300,000	\$ 300,000	-	\$ -	\$ -	\$ -	600,000	\$ 600,000 (Note 1)
	Next Commercial Bank Co., Ltd. (preparatory office)	Investments accounted for using equity method	-	Associate	-	-	419,000	4,190,000	-	-	-	-	419,000	4,190,000 (Note 2)

Note 1: Showing at their original investment amounts without adjustments for fair values.

Note 2: The ending balance was based on the original investment amount without adjustments for share of the profit or loss of investments accounted for using equity method.

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

ACQUISITION OF INDIVIDUAL REAL ESTATE AT COSTS OF AT LEAST \$300 MILLION OR 20% OF THE PAID-IN CAPITAL
 YEAR ENDED DECEMBER 31, 2019
 (Amounts in Thousands of New Taiwan Dollars)

Buyer	Property	Event Date	Transaction Amount	Payment Status	Counterparty	Relationship	Information on Previous Title Transfer If Counterparty is a Related Party				Pricing Reference	Purpose of Acquisition	Other Terms
							Property Owner	Relationship	Transaction Date	Amount			
Chunghwa Precision Test Tech. Co., Ltd.	Headquarters	2017.07.29-2019.12.25	\$ 1,460,105	Monthly settlement based on the construction progress and acceptance	Fu Tsu Construction Co., Ltd.	-	Not applicable	Not applicable	Not applicable	Not applicable	Bidding, price comparison and price negotiation	Manufacturing purpose	None

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL
YEAR ENDED DECEMBER 31, 2019
(Amounts in Thousands of New Taiwan Dollars)

Company Name	Related Party	Nature of Relationship	Transaction Details				Abnormal Transaction		Notes / Accounts Payable or Receivable	
			Purchase/Sales (Note 1)	Amount (Notes 2 and 5)	% to Total	Payment Terms	Units Price	Payment Terms	Ending Balance (Notes 3 and 5)	% to Total
Chunghwa Telecom Co., Ltd.	Senao International Co., Ltd.	Subsidiary	Sales	\$ 2,396,927	1	30 days	\$ -	-	\$ 285,563	1
			Purchase	878,601	1	30-90 days	-	-	(787,371)	(6)
	CHIEF Telecom Inc.	Subsidiary	Sales	354,556	-	30 days	-	-	48,736	-
			Purchase	115,231	-	60 days	-	-	(23,165)	-
	Chunghwa System Integration Co., Ltd.	Subsidiary	Purchase	1,052,583	1	30 days	-	-	(659,866)	(5)
	CHYP Multimedia Marketing & Communications Co., Ltd.	Subsidiary	Purchase	107,346	-	30 days	-	-	(33,217)	-
	Honghwa International Co., Ltd.	Subsidiary	Sales	109,606	-	30-60 days	-	-	64,232	-
			Purchase	5,347,566	5	30-60 days	-	-	(790,045)	(6)
	Donghwa Telecom Co., Ltd.	Subsidiary	Sales	198,226	-	30 days	-	-	46,707	-
			Purchase	606,424	1	90 days	-	-	(169,182)	(1)
	Chunghwa Telecom Global, Inc.	Subsidiary	Purchase	362,348	-	90 days	-	-	(38,134)	-
	Chunghwa Telecom Singapore Pte., Ltd.	Subsidiary	Sales	275,094	-	30 days	-	-	42,356	-
			Purchase	353,121	-	90 days	-	-	(67,217)	-
	CHT Security Co., Ltd.	Subsidiary	Purchase	235,011	-	30 days	-	-	(57,268)	-
	Taiwan International Standard Electronics Co., Ltd.	Associate	Purchase	700,254	1	30-90 days	-	-	(432,307)	(3)
So-net Entertainment Taiwan Limited	Associate	Sales	143,772	-	60 days	-	-	5	-	
International Integrated System, Inc.	Associate	Purchase	151,034	-	30 days	-	-	(48,182)	-	
Senao International Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	6,441,498	22	30-90 days	-	-	797,620	47
			Purchase	2,216,723	9	30 days	-	-	(261,139)	(14)
Aval Technologies Co., Ltd.	Senyoung Insurance Agent Co., Ltd.	Subsidiary	Purchase	602,456	2	30 days	-	-	(180)	-
			Sales	124,104	-	30 days	-	-	44,441	3
Aval Technologies Co., Ltd.	Youth Co., Ltd.	Fellow subsidiary	Sales	174,216	1	30 days	-	-	27,077	2
CHIEF Telecom Inc.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	264,284	11	60 days	-	-	34,123	16
			Purchase	354,038	27	30 days	-	-	(48,736)	(45)
Chunghwa System Integration Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	1,965,251	85	30 days	-	-	657,839	80
CHYP Multimedia Marketing & Communications Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	107,346	27	30 days	-	-	30,697	40
Honghwa International Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	5,318,598	96	30-60 days	-	-	788,779	98
Donghwa Telecom Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	606,424	46	90 days	-	-	169,182	78
			Purchase	198,226	16	30 days	-	-	(46,707)	(28)
Chunghwa Telecom Global, Inc.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	362,348	59	90 days	-	-	38,134	71
Chunghwa Telecom Singapore Pte., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	353,121	31	90 days	-	-	67,217	12
			Purchase	275,094	26	30 days	-	-	(42,356)	(7)
CHT Security Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	Sales	295,699	43	30 days	-	-	136,450	78

Note 1: Purchase included acquisition of services costs.

Note 2: The differences were because Chunghwa Telecom Co., Ltd. and subsidiaries classified the amount as incremental costs of obtaining contracts, inventories, property, plant and equipment, intangible assets, and operating expenses.

Note 3: Notes and accounts receivable did not include the amounts collected for others and other receivables.

Note 4: Transaction terms with the related parties were determined in accordance with mutual agreements when there were no similar transactions with third parties. Other transactions with related parties were not significantly different from those with third parties.

Note 5: All inter-company transactions, balances, income and expenses are eliminated upon consolidation.

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL

DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Company Name	Related Party	Nature of Relationship	Ending Balance	Turnover Rate (Note 1)	Overdue		Amounts Received in Subsequent Period	Allowance for Bad Debts
					Amounts	Action Taken		
Chunghwa Telecom Co., Ltd.	Senao International Co., Ltd.	Subsidiary	\$ 464,647 (Note 2)	10.31	\$ -	-	\$ 451,941	\$ -
Senao International Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	990,879 (Note 2)	7.48	-	-	123,369	-
Chunghwa System Integration Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	657,839 (Note 2)	3.06	-	-	482,712	-
Honghwa International Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	788,779 (Note 2)	5.76	-	-	171,232	-
Donghwa Telecom Co., Ltd.	Chunghwa Telecom Co., Ltd.	Parent company	169,182 (Note 2)	3.59	-	-	110,229	-

Note 1: Payments and receipts collected in trust for others are excluded from the accounts receivable for calculating the turnover rate.

Note 2: The amount was eliminated upon consolidation.

TABLE 7

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTEEES IN MAINLAND CHINA)
 YEAR ENDED DECEMBER 31, 2019
 (Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019			Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)	Carrying Value (Note 3)			
Chunghwa Telecom Co., Ltd.	Senao International Co., Ltd.	Taiwan	Handset and peripherals retailer; sales of CHT mobile phone plans as an agent	\$ 1,065,813	\$ 1,065,813	71,773	28	\$ 1,616,907	\$ 409,348	\$ 108,059	Subsidiary (Note 6)
	Light Era Development Co., Ltd.	Taiwan	Planning and development of real estate and intelligent buildings, and property management	3,000,000	3,000,000	300,000	100	3,850,095	7,254	3,494	Subsidiary (Note 6)
	Donghwa Telecom Co., Ltd.	Hong Kong	International private leased circuit, IP VPN service, and IP transit services	1,567,453	1,567,453	402,590	100	1,627,491	39,268	39,268	Subsidiary (Note 6)
	Chunghwa Telecom Singapore Pte., Ltd.	Singapore	International private leased circuit, IP VPN service, and IP transit services	574,112	574,112	26,383	100	935,228	143,145	143,152	Subsidiary (Note 6)
	Chunghwa System Integration Co., Ltd.	Taiwan	Providing system integration services and telecommunications equipment	838,506	838,506	60,000	100	717,883	13,135	(20,612)	Subsidiary (Note 6)
	CHIEF Telecom Inc.	Taiwan	Network integration, internet data center ("IDC"), communications integration and cloud application services	459,652	459,652	39,426	57	1,729,189	542,508	313,931	Subsidiary (Note 6)
	Chunghwa Investment Co., Ltd.	Taiwan	Investment	639,559	639,559	68,085	89	3,130,389	207,988	185,348	Subsidiary (Note 6)
	Prime Asia Investments Group Ltd. (B.V.I)	British Virgin Islands	Investment	385,274	385,274	1	100	182,989	(2,462)	(2,462)	Subsidiary (Note 6)
	Honghwa International Co., Ltd.	Taiwan	Telecommunication engineering, sales agent of mobile phone plan application and other business services	180,000	180,000	18,000	100	422,269	171,509	165,011	Subsidiary (Note 6)
	CHYP Multimedia Marketing & Communications Co., Ltd.	Taiwan	Digital information supply services and advertisement services	150,000	150,000	15,000	100	190,972	15,375	15,733	Subsidiary (Note 6)
	Chunghwa Telecom Vietnam Co., Ltd.	Vietnam	Intelligent energy saving solutions, international circuit, and information and communication technology ("ICT") services.	148,275	148,275	-	100	98,221	(5,365)	(5,365)	Subsidiary (Note 6)
	Chunghwa Telecom Global, Inc.	United States	International private leased circuit, internet services, and transit services	70,429	70,429	6,000	100	347,380	66,530	68,770	Subsidiary (Note 6)
	CHT Security Co., Ltd.	Taiwan	Computing equipment installation, wholesale of computing and business machinery equipment and software, management consulting services, data processing services, digital information supply services and internet identify services	240,000	240,000	24,000	80	306,851	98,124	72,112	Subsidiary (Note 6)
	Chunghwa Telecom (Thailand) Co., Ltd.	Thailand	International private leased circuit, IP VPN service, ICT and cloud VAS services	119,624	100,000	1,300	100	114,231	(3,595)	(3,595)	Subsidiary (Note 6)
	Spring House Entertainment Tech. Inc.	Taiwan	Software design services, internet contents production and play, and motion picture production and distribution	41,941	62,209	8,251	56	110,357	21,322	11,949	Subsidiary (Note 6)
	Chunghwa leading Photonics Tech Co., Ltd.	Taiwan	Production and sale of electronic components and finished products	70,500	70,500	7,050	75	111,680	10,464	13,050	Subsidiary (Note 6)
	Smartfun Digital Co., Ltd.	Taiwan	Providing diversified family education digital services	65,000	65,000	6,500	65	73,688	10,260	7,466	Subsidiary (Note 6)
	Chunghwa Telecom Japan Co., Ltd.	Japan	International private leased circuit, IP VPN service, and IP transit services	17,291	17,291	1	100	76,567	15,073	15,073	Subsidiary (Note 6)
	Chunghwa Sochamp Technology Inc.	Taiwan	Design, development and production of Automatic License Plate Recognition software and hardware	20,400	20,400	2,040	51	(10,086)	(2,232)	(3,858)	Subsidiary (Note 6)
	International Integrated System, Inc.	Taiwan	IT solution provider, IT application consultation, system integration and package solution	283,500	283,500	22,498	31	340,240	129,400	41,699	Associate

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTMENT IN MAINLAND CHINA)

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019			Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)	Carrying Value (Note 3)			
	Viettel-CHT Co., Ltd.	Vietnam	IDC services	\$ 288,327	\$ 288,327	-	30	\$ 316,535	\$ 253,315	\$ 76,008	Associate
	Taiwan International Standard Electronics Co., Ltd.	Taiwan	Manufacturing, selling, designing, and maintaining of telecommunications systems and equipment	164,000	164,000	1,760	40	272,166	259,592	135,438	Associate
	KKBOX Taiwan Co., Ltd.	Taiwan	Providing of music on-line, software, electronic information, and advertisement services	67,025	67,025	4,438	30	150,789	12,645	3,793	Associate
	So-net Entertainment Taiwan Limited	Taiwan	Online service and sale of computer hardware	120,008	120,008	9,429	30	189,396	230,376	69,113	Associate
	KingwayTek Technology Co., Ltd.	Taiwan	Publishing books, data processing and software services	66,684	69,013	7,898	23	253,021	2,692	1,723	Associate
	Taiwan International Ports Logistics Corporation	Taiwan	Import and export storage, logistic warehouse, and ocean shipping service	80,000	80,000	8,000	27	50,979	4,921	1,329	Associate
	UUPON Inc.	Taiwan	Information technology service and general advertisement service	97,598	97,598	5,400	15	7,199	(28,150)	(4,234)	Associate
	Alliance Digital Tech Co., Ltd.	Taiwan	Development of mobile payments and information processing service	60,000	60,000	6,000	14	5,080	-	-	Associate
	Chunghwa PChome Fund I Co., Ltd.	Taiwan	Investment, venture capital, investment advisor, management consultant and other consultancy service	200,000	200,000	20,000	50	194,081	(9,785)	(4,893)	Associate
	Cornerstone Ventures Co., Ltd.	Taiwan	Investment, venture capital, investment advisor, management consultant and other consultancy service	4,900	4,900	490	49	5,507	1,530	750	Associate
	Next Commercial Bank Co., Ltd. (preparatory office)	Taiwan	Online banking business	4,190,000	-	419,000	42	4,074,168	(276,449)	(115,832)	Associate
Senao International Co., Ltd.	Senao Networks, Inc.	Taiwan	Telecommunication facilities manufactures and sales	202,758	202,758	16,579	34	953,685	424,479	143,443	Associate
	Senao International (Samoa) Holding Ltd.	Samoa Islands	International investment	2,333,620	2,416,645	77,775	100	352,254	(50,646)	(50,646)	Subsidiary (Note 6)
	UUPON Inc.	Taiwan	Information technology service and general advertisement service	24,000	24,000	2,400	7	3,330	(28,150)	(1,883)	Associate
	Youth Co., Ltd.	Taiwan	Sale of information and communication technologies products	364,950	364,950	8,462	93	185,858	(3,130)	(20,345)	Subsidiary (Note 6)
	Aval Technologies Co., Ltd.	Taiwan	Sale of information and communication technologies products	89,550	60,000	9,843	100	101,850	2,363	2,367	Subsidiary (Note 6)
	Senyoung Insurance Agent Co., Ltd.	Taiwan	Property and liability insurance agency	59,000	59,000	5,900	100	75,728	25,036	25,044	Subsidiary (Note 6)
Light Era Development Co., Ltd.	Taoyuan Asia Silicon Valley Innovation Co., Ltd.	Taiwan	Development of real estate	-	7,500	750	60	-	(5,466)	(3,280)	Subsidiary (Notes 4 and 6)
CHIEF Telecom Inc.	Unigate Telecom Inc.	Taiwan	Telecommunications and internet service	2,000	2,000	200	100	886	(1)	(1)	Subsidiary (Note 6)
	Chief International Corp.	Samoa Islands	Telecommunications and internet service	6,068	6,068	200	100	73,369	10,894	10,894	Subsidiary (Note 6)
Chunghwa Telecom Singapore Pte., Ltd.	ST-2 Satellite Ventures Pte., Ltd.	Singapore	Operation of ST-2 telecommunications satellite	409,061	409,061	18,102	38	500,930	306,425	116,442	Associate
Chunghwa Investment Co., Ltd.	Chunghwa Precision Test Tech. Co., Ltd.	Taiwan	Production and sale of semiconductor testing components and printed circuit board	178,608	178,608	11,230	34	2,207,040	625,164	214,115	Subsidiary (Note 6)
	CHIEF Telecom Inc.	Taiwan	Network integration, internet data center ("IDC"), communications integration and cloud application services	19,064	19,064	2,078	3	85,381	542,508	16,275	Associate (Note 6)
	Senao International Co., Ltd.	Taiwan	Selling and maintaining mobile phones and its peripheral products	49,731	49,731	1,001	-	43,412	409,348	1,594	Associate (Note 6)

(Continued)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

NAMES, LOCATIONS, AND OTHER INFORMATION OF INVESTEEES IN WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INVESTMENT IN MAINLAND CHINA)

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2019			Net Income (Loss) of the Investee	Recognized Gain (Loss) (Notes 1, 2 and 3)	Note
				December 31, 2019	December 31, 2018	Shares (Thousands)	Percentage of Ownership (%)	Carrying Value (Note 3)			
Chunghwa Precision Test Tech. Co., Ltd.	Chunghwa Precision Test Tech USA Corporation	United States	Design and after-sale services of semiconductor testing components and printed circuit board	\$ 12,636	\$ 12,636	400	100	\$ 24,337	\$ 544	\$ 544	Subsidiary (Note 6)
	CHPT Japan Co., Ltd.	Japan	Related services of electronic parts, machinery processed products and printed circuit board	2,008	2,008	1	100	2,380	82	82	Subsidiary (Note 6)
	Chunghwa Precision Test Tech. International, Ltd.	Samoa Islands	Wholesale and retail of electronic materials, and investment	116,790	54,450	3,700	100	84,684	(13,893)	(17,461)	Subsidiary (Note 6)
Prime Asia Investments Group, Ltd. (B.V.I.)	Chunghwa Hsingta Co., Ltd.	Hong Kong	Investment	375,274	375,274	1	100	182,988	(2,460)	(2,460)	Subsidiary (Note 6)
	MeWorks Limited (HK)	Hong Kong	Investment	10,000	10,000	-	20	-	-	-	Associate
Senao International (Samoa) Holding Ltd.	Senao International HK Limited	Hong Kong	International investment	2,328,754	2,393,646	80,440	100	332,131	(50,952)	(50,952)	Subsidiary (Note 6)
Youth Co., Ltd.	ISPOT Co., Ltd.	Taiwan	Sale of information and communication technologies products	53,021	53,021	-	100	9,098	(94)	(286)	Subsidiary (Note 6)
	Youyi Co., Ltd.	Taiwan	Maintenance of information and communication technologies products	21,354	21,354	-	100	17,152	315	87	Subsidiary (Note 6)
Aval Technologies Co., Ltd.	Wiin Technology Co., Ltd.	Taiwan	Sale of information and communication technologies products	29,550	-	2,955	100	29,781	231	231	Subsidiary (Note 6)
Senyoung Insurance Agent Co., Ltd.	Seyoung Insurance Agent Co., Ltd.	Taiwan	Life insurance services	29,500	-	2,950	100	29,220	(280)	(280)	Subsidiary (Note 6)
CHYP Multimedia Marketing & Communications Co., Ltd	Click Force Marketing Company	Taiwan	Advertisement services	44,607	44,607	1,078	49	37,120	3,014	(756)	Associate

Note 1: The amounts were based on audited financial statements.

Note 2: Recognized gain (loss) of investees includes amortization of differences between the investment cost and net value and elimination of unrealized transactions.

Note 3: Recognized gain (loss) and carrying value of the investees did not include the adjustment of the difference between the accounting treatment on standalone basis and consolidated basis as a result of the application of IFRS 15.

Note 4: The liquidation of Taoyuan Asia Silicon Valley Innovation Co., Ltd. was completed in September 2019.

Note 5: Investment in mainland China is included in Table 8.

Note 6: The amount was eliminated upon consolidation.

(Concluded)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

INVESTMENT IN MAINLAND CHINA

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Investee	Main Businesses and Products	Total Amount of Paid-in Capital	Investment Type (Note 1)	Accumulated Outflow of Investment from Taiwan as of January 1, 2019	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2019	Net Income (Loss) of the Investee	% Ownership of Direct or Indirect Investment	Investment Gain (Loss) (Note 2)	Carrying Value as of December 31, 2019	Accumulated Inward Remittance of Earnings as of December 31, 2019	Note
					Outflow	Inflow							
Senao Trading (Fujian) Co., Ltd.	Sale of information and communication technologies products	\$ 1,073,170	2	\$ 1,073,170	\$ -	\$ -	\$ 1,073,170	\$ 1,435	100	\$ 1,435	\$ -	\$ -	Notes 7 and 11
Senao International Trading (Shanghai) Co., Ltd.	Sale of information and communication technologies products	955,838	2	955,838	-	-	955,838	(27,215)	100	(27,215)	50,497	-	Note 11
Senao International Trading (Shanghai) Co., Ltd. (Note 12)	Maintenance of information and communication technologies products	26,053	2	87,540	-	61,487	26,053	-	100	-	-	-	Notes 8 and 11
Senao International Trading (Jiangsu) Co., Ltd.	Sale of information and communication technologies products	263,736	2	263,736	-	-	263,736	310	100	310	-	-	Notes 9 and 11
Chunghwa Telecom (China) Co., Ltd.	Integrated information and communication solution services for enterprise clients, and intelligent energy network service	177,176	2	177,176	-	-	177,176	(6,069)	100	(6,069)	44,475	-	Note 11
Jiangsu Zhenghua Information Technology Company, LLC	Providing intelligent energy saving solution and intelligent buildings services	189,410	2	142,057	-	-	142,057	-	75	-	-	-	Notes 10 and 11
Shanghai Taihua Electronic Technology Limited	Design of printed circuit board and related consultation service	51,233	2	51,233	-	-	51,233	(12,279)	100	(12,279)	25,943	-	Note 11
Su Zhou Precision Test Tech. Ltd.	Assembly processed of circuit board, design of printed circuit board and related consultation service	62,340	2	-	62,340	-	62,340	(1,955)	100	(1,955)	58,916	-	Note 11
Shanghai Chief Telecom Co., Ltd.	Telecommunications and internet service	10,150	1	4,973	-	-	4,973	6,822	49	3,343	10,852	-	Note 11

(Continued)

Investee	Accumulated Investment in Mainland China as of December 31, 2019	Investment Amounts Authorized by Investment Commission, MOEA	Upper Limit on Investment Stipulated by Investment Commission, MOEA
SENAO and its subsidiaries (Note 3)	\$ 2,318,797	\$ 2,318,797	\$ 3,517,513
Chunghwa Telecom (China) Co., Ltd. (Note 4)	177,176	177,176	231,836,259
Jiangsu Zhenghua Information Technology Company, LLC (Note 4)	142,057	142,057	231,836,259
Chunghwa Precision Test Tech Co., Ltd and its subsidiaries (Note 5)	113,573	159,725	3,866,346
Shanghai Chief Telecom Co., Ltd. (Note 6)	4,973	4,973	1,720,100

Note 1: Investments are divided into three categories as follows:

- a. Direct investment.
- b. Investments through a holding company registered in a third region.
- c. Others.

Note 2: The amounts were calculated based on the investee's audited financial statements.

Note 3: Senao International Co., Ltd. and its subsidiaries were calculated based on the consolidated net assets value of Senao International Co., Ltd.

Note 4: Chunghwa Telecom (China) Co., Ltd. and Jiangsu Zhenghua Information Technology Company, LLC were calculated based on the consolidated net assets value of Chunghwa Telecom Co., Ltd.

Note 5: Chunghwa Precision Test Tech. Co., Ltd. and its subsidiaries were calculated based on the consolidated net assets value of Chunghwa Precision Test Tech. Co., Ltd

Note 6: Shanghai Chief Telecom Co., Ltd. was calculated based on the consolidated net assets value of CHIEF Telecom Inc.

Note 7: The liquidation of Senao Trading (Fujian) Co., Ltd. was completed in May 2019.

Note 8: The liquidation of Senao International Trading (Shanghai) Co., Ltd. was completed in March 2018.

Note 9: The liquidation of Senao International Trading (Jiangsu) Co., Ltd. was completed in March 2019.

Note 10: The liquidation of Jiangsu Zhenhua Information Technology Company, LLC. was completed in December 2018.

Note 11: The amount was eliminated upon consolidation.

Note 12: The English name is the same as the above entity; however the Chinese name included in the respective Articles of Incorporations is different from the above entity.

(Concluded)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT TRANSACTIONS

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Year	No. (Note 1)	Company Name	Related Party	Nature of Relationship (Note 2)	Transaction Details			
					Financial Statement Account	Amount (Note 5)	Payment Terms (Note 3)	% to Total Sales or Assets (Note 4)
2019	0	Chunghwa Telecom Co., Ltd.	Senao International Co., Ltd.	a	Accounts receivable	\$ 285,563	-	-
					Accrued custodial receipts	179,084	-	-
					Accounts payable	787,371	-	-
					Amounts collected for others	203,740	-	-
					Revenues	2,396,927	-	1
					Operating costs and expenses	862,598	-	-
					Inventories	16,003	-	-
					Property, plant and equipment	14,513	-	-
			CHIEF Telecom Inc.	a	Accounts receivable	48,736	-	-
					Accounts payable	23,165	-	-
					Revenues	354,556	-	-
					Operating costs and expenses	115,231	-	-
			CHYP Multimedia Marketing & Communications Co., Ltd.	a	Accounts payable	33,217	-	-
					Amounts collected for others	47,305	-	-
					Revenues	33,394	-	-
					Operating costs and expenses	107,346	-	-
			Chunghwa System Integration Co., Ltd.	a	Accounts receivable	48,136	-	-
					Accounts payable	659,866	-	-
					Revenues	11,578	-	-
					Operating costs and expenses	873,838	-	-
					Inventories	178,745	-	-
					Prepayments	102,421	-	-
					Property, plant and equipment	704,678	-	-
					Intangible assets	121,357	-	-
			Chunghwa Telecom Global Inc.	a	Accounts receivable	13,997	-	-
					Accounts payable	38,134	-	-
					Revenues	82,684	-	-
					Operating costs and expenses	362,348	-	-
Donghwa Telecom Co., Ltd.	a	Accounts receivable	46,707	-	-			
		Accounts payable	169,182	-	-			
		Revenues	198,226	-	-			
		Operating costs and expenses	606,424	-	-			
Spring House Entertainment Tech. Inc.	a	Amounts collected for others	17,092	-	-			
		Revenues	17,896	-	-			

(Continued)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT TRANSACTIONS

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Year	No. (Note 1)	Company Name	Related Party	Nature of Relationship (Note 2)	Transaction Details			
					Financial Statement Account	Amount (Note 5)	Payment Terms (Note 3)	% to Total Sales or Assets (Note 4)
			Chunghwa Telecom Japan Co., Ltd.	a	Revenues	\$ 27,989	-	-
			Chunghwa Telecom Singapore Pte., Ltd.	a	Operating costs and expenses	96,096	-	-
					Accounts receivable	42,356	-	-
					Accounts payable	67,217	-	-
					Revenues	275,094	-	-
			Chunghwa Sochamp Technology Inc.	a	Operating costs and expenses	353,121	-	-
					Accounts payable	32,986	-	-
					Inventories	13,557	-	-
			Honghwa International Co., Ltd.	a	Accounts receivable	64,232	-	-
					Accounts payable	790,045	-	-
					Revenues	109,606	-	-
					Operating costs and expenses	5,318,598	-	3
					Inventories	28,968	-	-
					Property, plant and equipment	95,291	-	-
			Smartfun Digital Co., Ltd.	a	Accounts payable	14,417	-	-
					Operating costs and expenses	29,515	-	-
			Chunghwa Telecom Thailand Co., Ltd.	a	Operating costs and expenses	31,306	-	-
			CHT Security Co., Ltd.	a	Accounts payable	57,268	-	-
					Revenues	30,655	-	-
					Operating costs and expenses	204,074	-	-
					Inventories	30,937	-	-
					Property, plant and equipment	19,943	-	-
					Intangible assets	11,258	-	-
					Other noncurrent assets	34,578	-	-
			Aval Technologies Co., Ltd.	a	Accounts payable	15,438	-	-
					Operating costs and expenses	79,019	-	-
			Senyoung Insurance Agent Co., Ltd.	a	Accounts receivable	28,273	-	-
					Revenues	34,670	-	-
			Light Era Development Co., Ltd.	a	Accounts payable	47,371	-	-
					Property, plant and equipment	39,948	-	-
	1	Light Era Development Co., Ltd.	CHIEF Telecom Inc.	c	Revenues	96,390	-	-
	2	Chunghwa Telecom Singapore Pte., Ltd.	Donghwa Telecom Co., Ltd.	c	Prepayments	15,523	-	-

(Continued)

CHUNGHWA TELECOM CO., LTD. AND SUBSIDIARIES

INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT TRANSACTIONS

YEAR ENDED DECEMBER 31, 2019

(Amounts in Thousands of New Taiwan Dollars)

Year	No. (Note 1)	Company Name	Related Party	Nature of Relationship (Note 2)	Transaction Details			
					Financial Statement Account	Amount (Note 5)	Payment Terms (Note 3)	% to Total Sales or Assets (Note 4)
	3	CHIEF Telecom Inc.	Chunghwa Telecom Singapore Pte., Ltd.	c	Revenues	\$ 26,734	-	-
					Operating costs and expenses	22,059	-	-

Note 1: Significant transactions between the Company and its subsidiaries or among subsidiaries are numbered as follows:

- a. "0" for the Company.
- b. Subsidiaries are numbered from "1".

Note 2: Related party transactions are divided into three categories as follows:

- a. The Company to subsidiaries.
- b. Subsidiaries to the Company.
- c. Subsidiaries to subsidiaries.

Note 3: Transaction terms with the related parties were determined in accordance with mutual agreements when there were no similar transactions with third parties. Other transactions with related parties were not significantly different from those with third parties.

Note 4: For assets and liabilities, amount is shown as a percentage to consolidated total assets as of December 31, 2019, while revenues, costs and expenses are shown as a percentage to consolidated revenues for the year ended December 31, 2019.

Note 5: The amount was eliminated upon consolidation.

(Concluded)