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TAIWAN GLASS INDUSTRIAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED FINANCIAL STATEMENTS WITH INDEPENDENT AUDITORS' REPORT
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018

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

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Independent Auditor's Report Translated from Chinese

To Taiwan Glass Industrial Corporation

Opinion

We have audited the accompanying consolidated balance sheets of Taiwan Glass Industrial Corporation (the "Company") and its subsidiaries as of December 31, 2019 and 2018, and the related consolidated statements of comprehensive income, changes in equity and cash flows for the years ended December 31, 2019 and 2018, and notes to the consolidated financial statements, including the summary of significant accounting policies (collectively "the consolidated financial statements").

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as of December 31, 2019 and 2018, and their consolidated financial performance and cash flows for the years ended December 31, 2019 and 2018, in conformity with the requirements of the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Financial Reporting Standards, International Accounting Standards, interpretations developed by the International Financial Reporting Interpretations Committee or the former Standing Interpretations Committee as endorsed by Financial Supervisory Commission of the Republic of China.

Basis for Opinion

We conducted our audits of 2019 consolidated financial statements in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants, Order No. Financial-Supervisory-Securities-Auditing-1090360805 issued by the Financial Supervisory Commission on 25 February 2020, and the auditing standards generally accepted in the Republic of China; we conducted our audit of 2018 consolidated financial statements in accordance with the Regulations Governing Auditing and Certification of Financial Statements by Certified Public Accountants, and the auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Company and its subsidiaries in accordance with the Norm of Professional Ethics for Certified Public Accountant of the Republic of China (the "Norm"), and we have fulfilled our other ethical responsibilities in accordance with the Norm. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of 2019 consolidated financial statements. 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.

Impairment Valuation of Non-financial assets

As of December 31, 2019, the Company and its subsidiaries' property, plant and equipment amounted to NT$47,732,878 thousand, which accounted for 55% of its total assets, which is relatively material for the consolidated financial statements. Due to the market and economic outlook fluctuations in recent years, some operating units operated in losses which indicated that assets may be impaired. Therefore, the management performed impairment test on related cash-generating units and value in use or net fair value were adopted for the recoverable amounts of different cash generating units. As the estimation of the recoverable amount of the related cash-generating unit requires significant management judgment, we determined this a key audit matter.

Our audit procedures included, but not limited to, analyzing the rationality of recoverable amounts used by management, obtaining underlying data of the recoverable amount provided by management (including cash flow forecast, growth rate, real estate and equipment valuation report) and related assumptions and discussing with management; assessing the appraiser's professional competency, experience and reputation in the related field; using the work of internal expert to assist us in considering the discount rate used by management and reviewing the appraiser's valuation and its estimation process to assess whether the reasonable value in the current real estate market were evaluated based on reasonable and supported assumptions; verifying that the source of the assessment report is relevant and reliable to account for the recoverable amounts for impairment assessment used by management.

We also assessed the adequacy of disclosures of property, plant and equipment. Please refer to Notes 4, 5 and 6 to the Company's consolidated financial statements.

Valuation of Inventories

As of December 31, 2019, the Company and its subsidiaries net inventories amounted to NT$9,045,112 thousand, which is relatively material for the consolidated financial statements. The Company and its subsidiaries are engaged in the manufacturing, processing and sale of various glasses which have a wide range of applications in various sectors such as construction, electronics and consumer products industries. Considering the fact that identification of slow-moving inventories and the assessment of the amount of inventory write-downs require significant management judgement based on market demands, we determined this a key audit matter.

Our audit procedures included, but not limited to, assessing the appropriateness of the accounting policies of evaluating slow-moving and obsolete inventories, understanding and testing the internal controls established by management with respect to the valuation of inventories, including the calculation of net realizable value; sample testing the accuracy of the net realizable values used by management; vouching samples to verify accuracy of inventory aging.

We also assessed the adequacy of disclosures of inventories. Please refer to Notes 4, 5 and 6 to the Company's consolidated financial statements.

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Revenue Recognition

Operating revenues recognized by the Company and its subsidiaries amounted to NT$41,775,507 thousand for the year ended December 31, 2019. Reflecting different market demands, trade terms of different contracts varied, along with the fact that some of the sales orders included delivery services, management needed to review the sales orders or contracts to determine the performance obligations and the time of their satisfaction, there is a significant risk in revenue recognition. Therefore, we considered this a key audit matter.

Our audit procedures included, but not limited to, assessing the appropriateness of the accounting policy of revenue recognition; evaluating and testing the operating effectiveness of internal controls with respect to revenue recognition; selecting samples to perform tests of details and reviewing significant terms and conditions of contracts to verify reasonableness of the timing of revenue recognition; confirming significant account receivable balance by sending confirmation letters; selecting samples of transactions from either side of balance sheet date, vouching them to supporting evidences and reviewing significant subsequent sales return or discounts transactions to ensure the reasonableness of the timing of revenue recognition.

We also assessed the adequacy of disclosures of operating revenues. Please refer to Notes 4 and 6 to the Company's consolidated financial statements.

Emphasis of Matter – Applying for New Accounting Standards

As stated in Note 3 of the Company's consolidated financial statements, the Company and its subsidiaries adopted the International Financial Reporting Standard 16, "Leases" on January 1, 2019, and elected not to restate the Company's consolidated financial statements for prior periods.

Other Matter

We have audited and expressed an unqualified opinion with emphasis of matter on the parent company only financial statements of the Company as of and for the years ended December 31, 2019 and 2018.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the requirements of the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Financial Reporting Standards, International Accounting Standards, interpretations developed by the International Financial Reporting Interpretations Committee or the former Standing Interpretations Committee as endorsed by Financial Supervisory Commission of the Republic of China and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

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

Those charged with governance, including audit committee, are responsible for overseeing the financial reporting process of the Company and its subsidiaries.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's 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 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 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 internal control of the Company and its subsidiaries.

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 ability to continue as a going concern of the Company and its subsidiaries. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's 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 auditor's report. However, future events or conditions may cause the Company and its subsidiaries to cease to continue as a going concern.

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5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the accompanying notes, 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 and its subsidiaries 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 2019 consolidated financial statements and are therefore the key audit matters. We describe these matters in our auditor's 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.

Hsiao, Tsui-Hui
Fuh, Wen-Fang

Ernst & Young, Taiwan
March 16, 2020

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

Accordingly, the accompanying consolidated financial statements and report of independent accountants are not intended for use by those who are not informed about the accounting principles or auditing standards generally accepted in the Republic of China, and their applications in practice. As the financial statements are the responsibility of the management, Ernst & Young cannot accept any liability for the use of, or reliance on, the English translation or for any errors or misunderstandings that may derive from the translation.

English Translation of Consolidated Financial Statements Originally Issued in Chinese

TAIWAN GLASS INDUSTRIAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

December 31, 2019 and 2018

(Expressed in Thousands of New Taiwan Dollars)

		As of December 31,	
ASSETS	NOTE	2019	2018
Current assets			
Cash and cash equivalents	4, 6(1)	$6,245,123	$4,707,247
Financial assets at fair value through profit or loss - current	4, 6(2)	608,823	478,859
Financial assets at amortized cost - current	4, 6(3)	105,230	30,714
Contract assets - current	4, 6(20), 6(21)	299,131	395,754
Notes receivable, net	4, 6(4), 6(21), 7, 8	8,621,448	4,955,530
Accounts receivable, net	4, 6(5), 6(21), 7, 12(11)	4,339,300	4,521,147
Other receivables, net	4, 6(6), 6(21), 7	181,219	214,602
Current income tax assets	4	25,500	28,840
Inventories, net	4, 6(7)	9,045,112	8,851,263
Prepayments	6(12)	1,676,474	1,869,832
Other current financial assets	8	167,934	165,766
Other current assets	7	4,841	6,299
Total current assets		31,320,135	26,225,853
Non-current assets			
Financial assets at fair value through other comprehensive income - non-current	4, 6(8)	257,667	263,332
Investments accounted for using the equity method	4, 6(9), 6(29)	4,231,551	4,136,312
Property, plant and equipment	4, 6(10), 8	47,732,878	50,832,520
Right-of-use assets	4, 6(23), 7	3,041,000	-
Intangible assets	4, 6(11)	54,909	69,657
Deferred tax assets	4, 6(27)	462,453	412,224
Refundable deposits		159,228	197,392
Long-term prepaid rent	6(12)	-	2,887,765
Other non-current assets	4, 6(13), 6(21), 7	64,626	43,340
Total non-current assets		56,004,312	58,842,542
Total assets		$87,324,447	$85,068,395

		As of December 31,	
LIABILITIES AND EQUITY	NOTE	2019	2018
Current liabilities			
Short-term loans	6(14), 7, 8	$7,963,287	$7,040,660
Short-term bills payable	6(15)	3,741,006	3,295,570
Contract liabilities - current	4, 6(20)	812,294	960,526
Notes payable	7	164,628	69,429
Accounts payable	7	6,917,741	3,024,749
Other payables	4, 7	4,102,834	3,070,769
Current income tax liabilities	4	199,180	169,938
Current lease liabilities	4, 6(23) ,7	38,138	-
Current portion of long-term loans	6(16), 7, 8	5,975,364	5,594,435
Other current liabilities, others	7	30,659	25,884
Total current liabilities		29,945,131	23,251,960
Non-current liabilities			
Long-term loans	6(16), 7, 8	11,418,334	11,547,246
Deferred tax liabilities	4, 6(27)	584,203	631,973
Non-current lease liabilities	4, 6(23), 7	72,881	-
Long-term deferred revenue	4, 6(17)	1,243,581	1,249,590
Accrued pension liabilities	4, 6(18)	490,331	467,262
Deposits-in		208,775	187,999
Total non-current liabilities		14,018,105	14,084,070
Total liabilities		43,963,236	37,336,030
Capital	6(19)		
Common stock		29,080,608	29,080,608
Additional paid-in capital	4, 6(19), 6(29)	1,925,218	1,925,218
Retained earnings	6(19)		
Legal reserve		5,935,764	5,829,135
Special reserve		5,102,550	5,102,550
Unappropriated retained earnings		2,496,601	4,973,947
Total retained earnings		13,534,915	15,905,632
Other components of equity	4		
Exchange differences on translation of foreign operations		(4,256,371)	(2,551,354)
Unrealized gains and losses on financial assets at fair value through other comprehensive income		(120,289)	(114,624)
Total other components of equity		(4,376,660)	(2,665,978)
Total equity attributable to stockholders of the parent		40,164,081	44,245,480
Non-controlling interests	6(19)	3,197,130	3,486,885
Total equity		43,361,211	47,732,365
Total liabilities and equity		$87,324,447	$85,068,395

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

English Translation of Consolidated Financial Statements Originally Issued in Chinese

TAIWAN GLASS INDUSTRIAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31, 2019 and 2018

(Expressed in Thousands of New Taiwan Dollars Except Earnings Per Share Information)

	Note	For the years ended December 31, 2019	2018
Operating revenues	4, 6(20), 7	$41,775,507	$46,091,494
Operating costs	6(7), 6(11), 6(18), 6(23), 6(24), 7	(38,350,518)	(38,755,048)
Gross profit		3,424,989	7,336,446
Operating expenses	6(11), 6(18), 6(21), 6(23), 6(24), 7		
Selling and marketing expenses		(2,718,984)	(3,113,459)
General and administrative expenses		(1,426,237)	(1,515,355)
Research and development expenses		(376,258)	(425,245)
Expected credit losses and gains		(49,282)	41,113
Subtotal		(4,570,761)	(5,012,946)
Net amount of other revenues and gains and expenses and losses	6(22), 7	(23,349)	74
Operating (loss) income		(1,169,121)	2,323,574
Non-operating income and expenses	6(9), 6(25), 7		
Other income		706,853	673,663
Other gains and losses		(391,952)	(921,323)
Financial costs		(797,768)	(716,330)
Share of income of associates and joint ventures		351,565	195,081
Subtotal		(131,302)	(768,909)
(Loss) Income from continuing operations before income tax		(1,300,423)	1,554,665
Income tax expense	4, 6(27)	(306,355)	(522,685)
Net (loss) income from continuing operations		(1,606,778)	1,031,980
Other comprehensive income	4, 6(9), 6(18), 6(26), 6(27)		
Other comprehensive income that will not be reclassified subsequently:			
Remeasurement of defined benefit obligation		(65,265)	(395,128)
Unrealized losses on equity instruments investment at fair value through other comprehensive income		(5,665)	(900)
Income tax related to components of other comprehensive income that will not be reclassified subsequently		13,283	102,614
Other comprehensive income that will be reclassified subsequently:			
Exchange differences on translation of foreign operations		(1,580,000)	(688,092)
Share of other comprehensive income of associates and joint ventures		(256,326)	(317,817)
Income tax related to components of other comprehensive income that will be reclassified subsequently		-	-
Total other comprehensive income, net of tax		(1,893,973)	(1,299,323)
Total comprehensive income		$(3,500,751)	$(267,343)
Net income attributable to :			
Stockholders of the parent		$(1,448,450)	$1,066,286
Non-controlling interests		(158,328)	(34,306)
		$(1,606,778)	$1,031,980
Comprehensive income attributable to:			
Stockholders of the parent		$(3,211,009)	$(159,249)
Non-controlling interests		(289,742)	(108,094)
		$(3,500,751)	$(267,343)
Earnings per share (NT$)	6(28)		
Earnings per share-basic		$(0.50)	$0.37
Diluted earning per share			$0.37

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

English Translation of Consolidated Financial Statements Originally Issued in Chinese

TAIWAN GLASS INDUSTRIAL CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

For the years ended December 31, 2019 and 2018

(Expressed in Thousands of New Taiwan Dollars)

	EQUITY ATTRIBUTABLE TO THE PARENT COMPANY									
	Capital	Additional Paid-in Capital	Legal Reserve	Special Reserve	Unappropriated Retained Earnings	Exchange Differences on Translation of Foreign Operations	Unrealized Losses on Financial Assets at Fair Value through Other Comprehensive Income	Total	Non-controlling Interests	Total Equity
Adjusted balance as of January 1, 2018	$29,080,608	$1,921,575	$5,616,758	$5,102,550	$6,046,802	$(1,615,309)	$(113,724)	$46,039,260	$3,574,702	$49,613,962
Appropriations and distributions of 2017 earnings:										
Legal reserve			212,377		(212,377)			-		-
Cash dividends					(1,454,030)			(1,454,030)		(1,454,030)
Net income in 2018					1,066,286			1,066,286	(34,306)	1,031,980
Other comprehensive income, net of tax in 2018					(292,012)	(932,623)	(900)	(1,225,535)	(73,788)	(1,299,323)
Total comprehensive income	-	-	-	-	774,274	(932,623)	(900)	(159,249)	(108,094)	(267,343)
Increase (decrease) through changes in ownership interests in subsidiaries		3,643				(3,422)		221	(221)	-
Changes in non-controlling interests									32,074	32,074
Decrease through changes in associates accounted for using equity method					(180,722)			(180,722)	(11,576)	(192,298)
Balance as of December 31, 2018	29,080,608	1,925,218	5,829,135	5,102,550	4,973,947	(2,551,354)	(114,624)	44,245,480	3,486,885	47,732,365
Effects of retroactive application and retrospective restatement					2,028		-	2,028	(13)	2,015
Adjusted balance as of January 1, 2019	29,080,608	1,925,218	5,829,135	5,102,550	4,975,975	(2,551,354)	(114,624)	44,247,508	3,486,872	47,734,380
Appropriations and distributions of 2018 earnings:										
Legal reserve			106,629		(106,629)			-		-
Cash dividends					(872,418)			(872,418)		(872,418)
Net loss in 2019					(1,448,450)			(1,448,450)	(158,328)	(1,606,778)
Other comprehensive income, net of tax in 2019					(51,877)	(1,705,017)	(5,665)	(1,762,559)	(131,414)	(1,893,973)
Total comprehensive income	-	-	-	-	(1,500,327)	(1,705,017)	(5,665)	(3,211,009)	(289,742)	(3,500,751)
Balance as of December 31, 2019	$29,080,608	$1,925,218	$5,935,764	$5,102,550	$2,496,601	$(4,256,371)	$(120,289)	$40,164,081	$3,197,130	$43,361,211

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

English Translation of Consolidated Financial Statements Originally Issued in Chinese
TAIWAN GLASS INDUSTRIAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
For the years ended December 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars)

	For the years ended December 31,	
	2019	2018
Cash flows from operating activities:		
(Loss) Income before income tax	$(1,300,423)	$1,554,665
Adjustments:		
Depreciation (including investment property)	5,343,041	5,142,696
Amortization	14,916	29,307
Expected credit losses and gains	49,282	(41,113)
Interest expenses	797,768	716,330
Interest income	(94,408)	(50,625)
Dividend income	(7,493)	(13,998)
Share of income of associates and joint ventures	(351,565)	(195,081)
Loss (Gain) on disposal of property, plant and equipment	23,349	(74)
Loss on disposal of investment	-	86
Loss on impairment of non-financial assets	-	376,672
Changes in operating assets and liabilities:		
Financial assets at fair value through profit or loss, mandatorily measured at fair value	(129,964)	205,077
Contract assets	96,109	251,091
Notes receivable	(3,706,529)	(1,292,202)
Accounts receivable	184,184	933,157
Other receivables	34,637	(69,390)
Inventories	(193,849)	(1,465,073)
Prepayments	(33,988)	120,434
Other current assets	1,458	(5,076)
Other financial assets - current	(2,168)	54,518
Other operating assets	(3,243)	(357)
Contract liabilities	(148,232)	(239,064)
Notes payable	95,199	(173,246)
Accounts payable	3,892,992	(260,232)
Other payable	(131,007)	(180,497)
Advance receipts	-	55
Other current liabilities, others	4,775	5,634
Net accrued pension liability	(42,196)	(26,948)
Long-term deferred revenue	45,526	(61,229)
Cash inflow generated from operations	4,438,171	5,315,517
Interests received	94,408	50,625
Dividends received	7,493	13,998
Interests paid	(839,129)	(667,956)
Income tax paid	(358,489)	(467,415)
Net cash flows provided by operating activities	3,342,454	4,244,769
Cash flows from investing activities:		
Acquisition of financial assets at amortized cost	(74,516)	28,494
Acquisition of investments accounted for using the equity method	-	(1,434,797)
Disposal of subsidiaries	-	(15,426)
Capital reduction of investments accounted for using equity method	-	14,788
Acquisition of property, plant and equipment, excluding capitalized borrowing costs	(3,755,492)	(4,902,999)
Capitalized borrowing costs of self-constructed assets	(27,170)	(21,040)
Proceeds from disposal of property, plant and equipment	64,379	182,498
Decrease in refundable deposits	38,164	33,757
Acquisition of intangible assets	(2,188)	(3,418)
Acquisition of right-of-use assets	(163,708)	-
Net cash flows used in investing activities	(3,920,531)	(6,118,143)
Cash flows from financing activities:		
Increase in short-term loans	4,963,555	5,321,683
Decrease in short-term loans	(3,858,802)	(4,421,779)
Increase in short-term bills payable	16,400,000	11,250,000
Decrease in short-term bills payable	(15,950,000)	(10,150,000)
Proceeds from long-term loans	2,313,044	8,310,521
Repayments of long-term loans	(1,931,154)	(5,935,167)
Increase in deposits-in	20,776	-
Decrease in deposits-in	-	(10,635)
Increase in other payables to related parties	1,624,821	14,592
Decrease in other payable to related parties	(44,821)	(1,622,016)
Decrease in lease obligations payable - non-current	-	(9,357)
Payments of lease liabilities	(43,941)	-
Cash dividends paid	(859,027)	(1,461,966)
Changes in non-controlling interests	-	58,332
Net cash flows provided by financing activities	2,634,451	1,344,208
Effects of exchange rate changes on cash and cash equivalents	(518,498)	120,576
Net increase (decrease) in cash and cash equivalents	1,537,876	(408,590)
Cash and cash equivalents at the beginning of the year	4,707,247	5,115,837
Cash and cash equivalents at the end of the year	$6,245,123	$4,707,247

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

1. History and organization

Taiwan Glass Industrial Corporation ("the Company") was incorporated on September 5, 1964 and commenced operations in 1967. The main activities of the Company are manufacturing, processing and selling of various glass products. The Company's common shares were publicly listed on the Taiwan Stock Exchange (TWSE) in July 1973. The Company's registered office and the main business location is at 11F, No. 261, Section 3, Nanjing E. Rd., Taipei, Republic of China (R.O.C.).

2. Date and procedures of authorization of financial statements for issue

The consolidated financial statements of the Company and its subsidiaries ("the Group") for the years ended December 31, 2019 and 2018 were authorized for issue by the Board of Directors on March 16, 2020.

3. Newly issued or revised standards and interpretations

(1) Changes in accounting policies resulting from applying for the first time certain standards and amendments

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

(1) *IFRS 16"Leases"*

IFRS 16 "Leases" replaces IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", SIC-15 "Operating Leases - Incentives" and SIC-27 "Evaluating the Substance of Transactions Involving the Legal Form of a Lease".

The Group followed the transition provision in IFRS 16 and the date of initial application was January 1, 2019. The impacts arising from the adoption of IFRS 16 are summarized as follows:

A. Please refer to Note 4 for the accounting policies before or after January 1, 2019.

B. For the definition of a lease, the Group elected not to reassess whether a contract was, or contained, a lease on January 1, 2019. The Group was permitted to apply IFRS 16 to contracts that were previously identified as leases applying IAS 17 and IFRIC 4 but not to apply IFRS 16 to contracts that were not previously identified as containing a lease applying IAS 17 and IFRIC 4. That is, for contracts entered into (or changed) on or after January 1, 2019, the Group need to assess whether contacts are, or contain, leases applying IFRS 16. In comparing to IAS 17, IFRS 16 provides that a contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Group assessed most of the contracts are, or contain, leases and no significant impact arose.

C. The Group is a lessee and elects not to restate comparative information in accordance with the transition provision in IFRS 16. Instead, the Group recognized the cumulative effect of initially applying IFRS 16 as an adjustment to the opening balance of retained earnings (or other component of equity, as appropriate) at the date of initial application.

(a) Leases previously classified as operating leases

For leases that were previously classified as operating leases applying IAS 17, the Group measured and recognized those leases as lease liability on January 1, 2019 at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019, and; the Group chose, on a lease-by-lease basis, to measure the right-of-use asset at either:

i. its carrying amount as if IFRS 16 had been applied since the commencement date, but discounted using the lessee's incremental borrowing rate on January 1, 2019

On January 1, 2019, the Group's right-of-use asset increased by NT$3,104,884 thousand, prepayment decreased by NT$85,412 thousand, long-term prepaid rent decreased by NT$2,887,765 thousand, and lease liability increased by NT$129,692 thousand. The difference is adjusted to retained earnings and non-control interests for NT$2,028 thousand and NT$(13) thousand, respectively.

In accordance with the transition provision in IFRS 16, the Group used the following practical expedients on a lease-by-lease basis to leases previously classified as operating leases:

i. Apply a single discount rate to a portfolio of leases with reasonably similar characteristics.
ii. Rely on its assessment of whether leases are onerous immediately before January 1, 2019 as an alternative to performing an impairment review.
iii. Elect to account in the same way as short-term leases to leases for which the lease term ends within 12 months of January 1, 2019.
iv. Exclude initial direct costs from the measurement of the right-of-use asset on January 1, 2019.
v. Use hindsight, such as in determining the lease term if the contract contains options to extend or terminate the lease.

(b) Please refer to Note 4 and Note 6 for additional disclosure of lessee and lessor which required by IFRS 16.

(c) As of January 1, 2019, the impacts arising from the adoption of IFRS 16 are summarized as follows:

i. The weighted average lessee's incremental borrowing rate applied to lease liabilities recognized in the balance sheet on January 1, 2019 was 1.617%~3.094%.

ii. The explanation for the difference of 32,972 thousand between: 1) operating lease commitments disclosed applying IAS 17 as of December 31, 2018, discounted using the incremental borrowing rate on January 1, 2019; and 2) lease liabilities recognized in the balance sheet as of January 1, 2019 is summarized as follows:

Operating lease commitments disclosed applying IAS 17 as of December 31, 2018	$100,897
Discounted using the incremental borrowing rate on January 1, 2019	$96,720
Add: Single immaterial operating lease commitments discounted using the incremental borrowing rate on January 1, 2019	32,972
The carrying value of lease liabilities recognized as of January 1, 2019	$129,692

D. The Group is a lessor and has not made any adjustments. Please refer to Note 4 and Note 6 for the information relating to the lessor.

(2) Standards or interpretations issued, revised or amended, by International Accounting Standards Board ("IASB") which are endorsed by FSC, but not yet adopted by the Group as at the end of the reporting period are listed below:

Items	New, Revised or Amended Standards and Interpretations	Effective Date issued by IASB
a	Definition of a Business - Amendments to IFRS 3	January 1, 2020
b	Definition of Material - Amendments to IAS 1 and 8	January 1, 2020
c	Interest Rate Benchmark Reform - Amendments to IFRS 9, IAS 39 and IFRS 7	January 1, 2020

(a) Definition of a Business - Amendments to IFRS 3

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

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

(b) Definition of a Material - Amendments to IAS 1 and 8

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

(c) Interest Rate Benchmark Reform - Amendments to IFRS 9, IAS 39 and IFRS 7
The amendments include a number of exceptions, which apply to all hedging relationships that are directly affected by interest rate benchmark reform. A hedging relationship is directly affected if the interest rate benchmark reform gives rise to uncertainties about the timing and or amount of benchmark-based cash flows of the hedged item or the hedging instrument. Hence, the entity shall apply the exceptions to all hedging relationships directly affected by the interest rate benchmark reform.

The amendments include:

i. highly probable requirement
When determining whether a forecast transaction is highly probable, an entity shall assume that the interest rate benchmark on which the hedged cash flows are based is not altered as a result of the interest rate benchmark reform.

ii. prospective assessments
When performing prospective assessments, an entity shall assume that the interest rate benchmark on which the hedged item, hedged risk and/or hedging instrument are based is not altered as a result of the interest rate benchmark reform.

iii. IAS 39 retrospective assessment
An entity is not required to undertake the IAS 39 retrospective assessment (i.e. the actual results of the hedge are within a range of 80–125%) for hedging relationships directly affected by the interest rate benchmark reform.

iv. separately identifiable risk components
For hedges of a non-contractually specified benchmark component of interest rate risk, an entity shall apply the separately identifiable requirement only at the inception of such hedging relationships.

The amendments also include the end of application of the exceptions requirements and the related disclosures requirements of the amendments.

The abovementioned standards and interpretations were issued by IASB and endorsed by FSC so that they are applicable for annual periods beginning on or after January 1, 2020. The abovementioned standards and interpretations have no material impact on the Group.

(3) Standards or interpretations issued, revised or amended, by International Accounting Standards Board ("IASB") which are not endorsed by FSC, but not yet adopted by the Group as at the end of the reporting period are listed below.

Items	New, Revised or Amended Standards and Interpretations	Effective Date issued by IASB
a	IFRS 10 Consolidated Financial Statements and IAS 28 Investments in Associates and Joint Ventures - Sale or Contribution of Assets between an Investor and its Associate or Joint Ventures	To be determined by IASB
b	IFRS 17 Insurance Contracts	January 1, 2021
c	Classification of Liabilities as Current or Non-current – Amendments to IAS 1	January 1, 2022

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

The amendments address the inconsistency between the requirements in IFRS 10 Consolidated Financial Statements and IAS 28 Investments in Associates and Joint Ventures, in dealing with the loss of control of a subsidiary that is contributed to an associate or a joint venture. IAS 28 restricts gains and losses arising from contributions of non-monetary assets to an associate or a joint venture to the extent of the interest attributable to the other equity holders in the associate or joint ventures. IFRS 10 requires full profit or loss recognition on the loss of control of the subsidiary. IAS 28 was amended so that the gain or loss resulting from the sale or contribution of assets that constitute a business as defined in IFRS 3 between an investor and its associate or joint venture is recognized in full. IFRS 10 was also amended so that the gains or loss resulting from the sale or contribution of a subsidiary that does not constitute a business as defined in IFRS 3 between an investor and its associate or joint venture is recognized only to the extent of the unrelated investors' interests in the associate or joint venture.

(b) IFRS 17 Insurance Contracts

IFRS 17 provides a comprehensive model for insurance contracts, covering all relevant accounting aspects (including recognition, measurement, presentation and disclosure requirements). The core of IFRS 17 is the General (building block) Model, under this model, on initial recognition, an entity shall measure a group of insurance contracts at the total of the fulfilment cash flows and the contractual service margin. The fulfilment cash flows comprise of the following:

i. estimates of future cash flows;
ii. Discount rate: an adjustment to reflect the time value of money and the financial risks related to the future cash flows, to the extent that the financial risks are not included in the estimates of the future cash flows; and
iii. a risk adjustment for non-financial risk.

The carrying amount of a group of insurance contracts at the end of each reporting period shall be the sum of the liability for remaining coverage and the liability for incurred claims. Other than the General Model, the standard also provides a specific adaptation for contracts with direct participation features (the Variable Fee Approach) and a simplified approach (Premium Allocation Approach) mainly for short-duration contracts.

(c) Classification of Liabilities as Current or Non-current – Amendments to IAS 1

These are the amendments to paragraphs 69-76 of IAS 1 Presentation of Financial statements and the amended paragraphs related to the classification of liabilities as current or non-current.

The abovementioned standards and interpretations issued by IASB have not yet endorsed by FSC at the date when the Group's financial statements were authorized for issue, the local effective dates are to be determined by FSC. As the Group is still currently determining the potential impact of the standards and interpretations listed under (1), it is not practicable to estimate their impact on the Group at this point in time. The remaining new or amended standards and interpretations have no material impact on the Group.

4. Summary of significant accounting policies

(1) Statement of compliance

The consolidated financial statements of the Group for the years ended December 31, 2019 and 2018 have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers ("the Regulations"), IFRSs, IASs, IFRIC and SIC, which are endorsed by the FSC.

(2) Basis of preparation

The consolidated financial statements have been prepared on a historical cost basis, except for financial instruments that have been measured at fair value. The consolidated financial statements are expressed in thousands of New Taiwan Dollars ("NT$") unless otherwise stated.

(3) Basis of consolidation

Preparation principle of consolidated financial statements

Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if and only if the Group has:

A. power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee)
B. exposure, or rights, to variable returns from its involvement with the investee, and
C. the ability to use its power over the investee to affect its returns

When the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

A. the contractual arrangement with the other vote holders of the investee
B. rights arising from other contractual arrangements
C. the Group's voting rights and potential voting rights

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control.

Subsidiaries are fully consolidated from the acquisition date, being the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases. The financial statements of the subsidiaries are prepared for the same reporting period as the parent company, using uniform accounting policies. All intra-group balances, income and expenses, unrealized gains and losses and dividends resulting from intra-group transactions are eliminated in full.

A change in the ownership interest of a subsidiary, without a change of control, is accounted for as an equity transaction.

Total comprehensive income of the subsidiaries is attributed to the owners of the parent and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

If the Company loses control of a subsidiary, it:

A. derecognizes the assets (including goodwill) and liabilities of the subsidiary;
B. derecognizes the carrying amount of any non-controlling interest;
C. recognizes the fair value of the consideration received;
D. recognizes the fair value of any investment retained;
E. recognizes any surplus or deficit in profit or loss; and
F. reclassifies the parent's share of components previously recognized in other comprehensive income to profit or loss.

The consolidated entities are listed as follows:

Investor	Subsidiary	Main businesses	Percentage of ownership (%) December 31, 2019	Percentage of ownership (%) December 31, 2018	
The Company	Taiwan Glass USA Sales Corp. (TGUS)	Holding company investing in Mainland China, selling of glass and etc.	100.00%	100.00%	
〃	Taiwan Glass China Holding Ltd. (TGCH)	Holding company investing in Mainland China	93.98%	93.98%	Note 1
〃	Taiwan Autoglass Ind. Corp. (TAG)	Holding company investing in Mainland China, selling of autoglass etc.	87.00%	87.00%	
〃	TG Teco Vacuum Insulated Glass Corp. (TVIG)	Selling vacuum insulation glass	65.00%	65.00%	
Taiwan Glass USA Sales Corp.	Qingdao Rolled Glass Co., Ltd. (QRG)	Manufacturing of rolled glass	16.30%	16.30%	
Taiwan Glass China Holding Ltd.	Qingdao Rolled Glass Co., Ltd. (QRG)	Manufacturing of rolled glass	4.10%	4.10%	
〃	TG Qingdao Glass Co., Ltd. (QFG)	Manufacturing of flat	100.00%	100.00%	
〃	Yinan Silica Sand Co., Ltd. (YNSS)	Manufacturing of silica sand	63.38%	63.38%	
〃	TG Changjiang Glass Co., Ltd. (CFG)	Manufacturing of flat and low-emission glass	100.00%	100.00%	
〃	TG Fengyang Silica Sand Co., Ltd. (FYSS)	Manufacturing of silica sand	100.00%	100.00%	
〃	Taichia Glass Fiber Co., Ltd. (TGF)	Manufacturing of glass fabric & fiber	100.00%	100.00%	
〃	TG Chengdu Glass Co., Ltd. (CDG)	Manufacturing of flat and low-emission glass	100.00%	100.00%	
〃	TG Hanzhong Silica Sand Co., Ltd. (HZSS)	Manufacturing of silica sand	100.00%	100.00%	
〃	TG Donghai Glass Co., Ltd. (DHG)	Manufacturing of flat glass	100.00%	100.00%	
〃	TG Huanan Glass Co., Ltd. (HNG)	Manufacturing of flat and low-emission glass	100.00%	100.00%	
〃	TG Tianjin Glass Co., Ltd. (TJG)	Manufacturing of flat and low-emission glass	100.00%	100.00%	
〃	TG Kunshan Glass Co., Ltd. (TKG)	Manufacturing of flat glass	-	100.00%	Note 2
〃	TG Fujian Photovoltaic Glass Co., Ltd. (FPG)	Manufacturing of photovoltaic glass and cell module assembly	100.00%	100.00%	
〃	TG Xianyang Glass Co., Ltd. (TXY)	Manufacturing of flat glass and low-emission glass	100.00%	100.00%	
〃	TG Taicang Architectural Glass Co., Ltd. (TTAR)	Manufacturing of low-emission glass	100.00%	100.00%	
〃	TG Wuhan Architectural Glass Co., Ltd. (TWAR)	Manufacturing of low-emission glass	100.00%	100.00%	
〃	TG Anhui Glass Co., Ltd. (TAH)	Manufacturing of flat glass	100.00%	100.00%	

Investor	Subsidiary	Main businesses	Percentage of ownership (%) December 31, 2019	Percentage of ownership (%) December 31, 2018
〃	TG Yueda Autoglass Co., Ltd. (TYAU)	Manufacturing of autoglass	51.18%	51.18%
〃	TG Yueda Solar Glass Co., Ltd. (TYSM)	Manufacturing of solar glass	75.00%	75.00%
〃	Taichia Chengdu Glass Fiber Co., Ltd. (TCD)	Manufacturing of glass fiber	100.00%	100.00%
〃	Taichia Bengbu Glass Fiber Co., Ltd. (TBF)	Manufacturing of glass fiber	100.00%	100.00%
TG Qingdao Glass Co., Ltd.	Qingdao Rolled Glass Co., Ltd. (QRG)	Manufacturing of rolled glass	79.60%	79.60%
〃	TG (Qingdao) Photoelectric Technology Co., Ltd. (TQPT)	Manufacturing of ITO conductive glass	70.00%	70.00%
TG Huanan Glass Co., Ltd.	TG Zhangzhou Silica Sand Co., Ltd. (ZZSS)	Manufacturing of silica sand	100.00%	100.00%
〃	TG Heyuan Mineral Co., Ltd. (HYM)	Mining	60.00%	60.00%
Taiwan Autoglass Ind. Corp.	TAG China Holding Ltd. (TAGH)	Holding company investing in Mainland China	100.00%	100.00%
TAG China Holding Ltd.	TG Yueda Autoglass Co., Ltd. (TYAU)	Manufacturing of autoglass	8.82%	8.82%
TG Xianyang Glass Co., Ltd.	Xianyang Jienengdun Glass Co., Ltd. (XYES)	Selling flat glass	100.00%	100.00%
TG Wuhan Architectural Glass Co., Ltd.	Wuhan Jienengzhixing Glass Co., Ltd. (WHES)	Selling flat glass	100.00%	100.00%
TG Chang Jiang Glass Co., Ltd.	Kunshan Energy Star Glass Co., Ltd. (KSES)	Selling flat glass	100.00%	100.00%

Note 1: For the year ended December 31, 2018, the Company reinvested US$46,782 thousand (equivalent to NT$1,434,797 thousand) in its affiliate in Mainland China through TGCH. As the Company did not acquire new shares in proportion to its ownership in the subsidiary, the Company increased its ownership in TGCH to 93.98% and recognized additional paid-in capital in the amount of NT$3,643 thousand.

Note 2: For the period ended September 30, 2019, TG Kunshan Glass Co., Ltd. was merged with TG Changjiang Glass Co., Ltd.. TG Changjiang Glass Co., Ltd. is the surving company, and TG Kunshan Glass Co., Ltd. is the dissolved company.

(4) Foreign currency transactions

The Group's consolidated financial statements are presented in NT dollars, which is also the Company's functional currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency.

Transactions in foreign currencies are initially recorded by the Group entities at their respective functional currency rates prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency closing rate of exchange ruling at the reporting date. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. Non-monetary items that are measured at historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions.

All exchange differences arising on the settlement of monetary items or on translating monetary items are taken to profit or loss in the period in which they arise except for the following:

A. Exchange differences arising from foreign currency borrowings for an acquisition of a qualifying asset to the extent that they are regarded as an adjustment to interest costs are included in the borrowing costs that are eligible for capitalization.

B. Foreign currency items within the scope of IFRS 9 *Financial Instruments* are accounted for based on the accounting policy for financial instruments.

C. Exchange differences arising on a monetary item that forms part of a reporting entity's net investment in a foreign operation is recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal of the net investment.

When a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange component of that gain or loss is recognized in other comprehensive income. When a gain or loss on a non-monetary item is recognized in profit or loss, any exchange component of that gain or loss is recognized in profit or loss.

(5) Translation of financial statements in foreign currency

The assets and liabilities of foreign operations are translated into NT$ at the closing rate of exchange prevailing at the reporting date and their income and expenses are translated at an average rate for the period. The exchange differences arising on the translation are recognized in other comprehensive income. On the disposal of a foreign operation, the cumulative amount of the exchange differences relating to that foreign operation, recognized in other comprehensive income and accumulated in the separate component of equity, is reclassified from equity to profit or loss when the gain or loss on disposal is recognized. The following are accounted for as disposals even if an interest in the foreign operation is retained by the Group: the loss of control over a foreign operation, the loss of significant influence over a foreign operation, or the loss of joint control over a foreign operation.

On the partial disposal of a subsidiary that includes a foreign operation that does not result in a loss of control, the proportionate share of the cumulative amount of the exchange differences recognized in other comprehensive income is re-attributed to the non-controlling interests in that foreign operation. In partial disposal of an associate or jointly controlled entity that includes a foreign operation that does not result in a loss of significant influence or joint control, only the proportionate share of the cumulative amount of the exchange differences recognized in other comprehensive income is reclassified to profit or loss.

Any goodwill and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and expressed in its functional currency.

(6) Current and non-current distinction

An asset is classified as current when:

A. The Group expects to realize the asset, or intends to sell or consume it, in its normal operating cycle; or
B. The Group holds the asset primarily for the purpose of trading; or
C. The Group expects to realize the asset within twelve months after the reporting period; or
D. The asset is cash or cash equivalent unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

All other assets are classified as non-current.

A liability is classified as current when:

A. The Group expects to settle the liability in its normal operating cycle; or
B. The Group holds the liability primarily for the purpose of trading; or
C. The liability is due to be settled within twelve months after the reporting period; or
D. The Group does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

All other liabilities are classified as non-current.

(7) Cash and cash equivalents

Cash and cash equivalents comprises cash on hand, demand deposits and short-term, highly liquid investments that are readily convertible to known amounts of cash and subject to an insignificant risk of changes in value (include fixed-term deposits that have maturities of 3 months from the date of acquisition).

(8) Financial instruments

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

Financial assets and financial liabilities within the scope of IFRS 9 *Financial Instruments* are recognized initially at fair value plus or minus, in the case of investments not at fair value through profit or loss, directly attributable transaction costs.

A. Financial instruments: Recognition and Measurement

The Group accounts for regular way purchase or sales of financial assets on the trade date.

The Group classified financial assets as subsequently measured at amortized cost, fair value through other comprehensive income or fair value through profit or loss considering both factors below:

a. the Group's business model for managing the financial assets and

b. the contractual cash flow characteristics of the financial asset.

Financial asset measured at amortized cost

A financial asset is measured at amortized cost if both of the following conditions are met and presented as note receivables, accounts receivables, financial assets measured at amortized cost and other receivables etc., on balance sheet as at the reporting date:

a. the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows and

b. 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.

Such financial assets are subsequently measured at amortized cost (the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between the initial amount and the maturity amount and adjusted for any loss allowance) and is not part of a hedging relationship. A gain or loss is recognized in profit or loss when the financial asset is derecognized, through the amortization process or in order to recognize the impairment gains or losses.

Interest revenue is calculated by using the effective interest method. This is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for:

a. purchased or originated credit-impaired financial assets. For those financial assets, the Group applies the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition.

b. financial assets that are not purchased or originated credit-impaired financial assets but subsequently have become credit-impaired financial assets. For those financial assets, the Group applies the effective interest rate to the amortized cost of the financial asset in subsequent reporting periods.

Financial asset measured at fair value through other comprehensive income

A financial asset is measured at fair value through other comprehensive income if both of the following conditions are met:

a. the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and

b. 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.

Recognition of gain or loss on a financial asset measured at fair value through other comprehensive income are described as below:

a. A gain or loss on a financial asset measured at fair value through other comprehensive income recognized in other comprehensive income, except for impairment gains or losses and foreign exchange gains and losses, until the financial asset is derecognized or reclassified.

b. When the financial asset is derecognized the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment.

c. Interest revenue is calculated by using the effective interest method. This is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for:

   (a) Purchased or originated credit-impaired financial assets. For those financial assets, the Group applies the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition.
   (b) Financial assets that are not purchased or originated credit-impaired financial assets but subsequently have become credit-impaired financial assets. For those financial assets, the Group applies the effective interest rate to the amortized cost of the financial asset in subsequent reporting periods.

Besides, for certain equity investments within the scope of IFRS 9 that is neither held for trading nor contingent consideration recognized by an acquirer in a business combination to which IFRS 3 applies, the Group made an irrevocable election to present the changes of the fair value in other comprehensive income at initial recognition. Amounts presented in other comprehensive income shall not be subsequently transferred to profit or loss (when disposal of such equity instrument, its cumulated amount included in other components of equity is transferred directly to the retained earnings) and these investments should be presented as financial assets measured at fair value through other comprehensive income on the balance sheet. Dividends on such investment are recognized in profit or loss unless the dividends clearly represents a recovery of part of the cost of investment.

Financial asset measured at fair value through profit or loss

Financial assets were classified as measured at amortized cost or measured at fair value through other comprehensive income based on aforementioned criteria. All other financial assets were measured at fair value through profit or loss and presented on the balance sheet as financial assets measured at fair value through profit or loss.

Such financial assets are measured at fair value, the gains or losses resulting from remeasurement is recognized in profit or loss which includes any dividend or interest received on such financial assets.

B. Impairment of financial assets

The Group recognizes a loss allowance for expected credit losses on debt instrument investments measured at fair value through other comprehensive income and financial asset measured at amortized cost. The loss allowance on debt instrument investments measured at fair value through other comprehensive income is recognized in other comprehensive income and not reduce the carrying amount in the balance sheet.

The Group measures expected credit losses of a financial instrument in a way that reflects:

a. an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;
b. the time value of money; and
c. reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

The loss allowance is measured as follows:

a. At an amount equal to 12-month expected credit losses: the credit risk on a financial asset has not increased significantly since initial recognition or the financial asset is determined to have low credit risk at the reporting date. In addition, the Group measures the loss allowance at an amount equal to lifetime expected credit losses in the previous reporting period, but determines at the current reporting date that the credit risk on a financial asset has increased significantly since initial recognition is no longer met.

b. At an amount equal to the lifetime expected credit losses: the credit risk on a financial asset has increased significantly since initial recognition or financial asset that is purchased or originated credit-impaired financial asset.

c. For accounts receivables or contract assets arising from transactions within the scope of IFRS 15, the Group measures the loss allowance at an amount equal to lifetime expected credit losses.

d. For lease receivables arising from transactions within the scope of IFRS 16, the Group measures the loss allowance at an amount equal to lifetime expected credit losses.

At each reporting date, the Group needs to assess whether the credit risk on a financial asset has increased significantly since initial recognition by comparing the risk of a default occurring at the reporting date and the risk of default occurring at initial recognition. Please refer to Note 12 for further details on credit risk.

C. Derecognition of financial assets

A financial asset is derecognized when:

a. The rights to receive cash flows from the asset have expired
b. The Group has transferred the asset and substantially all the risks and rewards of the asset have been transferred
c. The Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

On derecognition of a financial asset in its entirety, the difference between the carrying amount and the consideration received or receivable including any cumulative gain or loss that had been recognized in other comprehensive income, is recognized in profit or loss.

D. Financial liabilities and equity

<u>Classification between liabilities or equity</u>

The Group classifies the instrument issued as a financial liability or an equity instrument in accordance with the substance of the contractual arrangement and the definitions of a financial liability, and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. The transaction costs of an equity transaction are accounted for as a deduction from equity (net of any related income tax benefit) to the extent they are incremental costs directly attributable to the equity transaction that otherwise would have been avoided.

Financial liabilities

Financial liabilities within the scope of IFRS 9 *Financial Instruments* are classified as financial liabilities at fair value through profit or loss or financial liabilities measured at amortized cost upon initial recognition.

Financial liabilities at amortized cost

Financial liabilities measured at amortized cost include interest bearing loans and borrowings that are subsequently measured using the effective interest rate method after initial recognition. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the effective interest rate method amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or transaction costs.

Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified (whether or not attributable to the financial difficulty of the debtor), such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

E. Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the balance sheet if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

(9) Fair value measurement

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

A. In the principal market for the asset or liability, or
B. In the absence of a principal market, in the most advantageous market for the asset or liability

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

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

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

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

(10) Inventories

Inventories are valued at lower of cost and net realizable value item by item.

Costs incurred in bringing each inventory to its present location and conditions are accounted for as follows:

A. Raw materials - Purchase cost on a weighted average cost basis.
B. Finished goods and work in progress - Cost of direct materials and labor and a proportion of manufacturing overheads based on normal operating capacity but excluding borrowing costs.

Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

(11) Investments accounted for using the equity method

The Group's investment in its associate is accounted for using the equity method other than those that meet the criteria to be classified as held for sale. An associate is an entity over which the Group has significant influence. A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture.

Under the equity method, the investment in the associate or an investment in a joint venture is carried in the balance sheet at cost and adjusted thereafter for the post-acquisition change in the Group's share of net assets of the associate or joint venture. After the interest in the associate or joint venture is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture. Unrealized gains and losses resulting from transactions between the Group and the associate or joint venture are eliminated to the extent of the Group's related interest in the associate or joint venture.

When changes in the net assets of an associate or a joint venture occur and not those that are recognized in profit or loss or other comprehensive income and do not affects the Group's percentage of ownership interests in the associate or joint venture, the Group recognizes such changes in equity based on its percentage of ownership interests. The resulting capital surplus recognized will be reclassified to profit or loss at the time of disposing the associate or joint venture on a prorata basis.

When the associate or joint venture issues new stock, and the Group's interest in an associate or a joint venture is reduced or increased as the Group fails to acquire shares newly issued in the associate or joint venture proportionately to its original ownership interest, the increase or decrease in the interest in the associate or joint venture is recognized in Additional Paid in Capital and Investment accounted for using the equity method. When the interest in the associate or joint venture is reduced, the cumulative amounts previously recognized in other comprehensive income are reclassified to profit or loss or other appropriate items. The aforementioned capital surplus recognized is reclassified to profit or loss on a pro rata basis when the Group disposes the associate or joint venture.

The financial statements of the associate or joint venture are prepared for the same reporting period as the Group. Where necessary, adjustments are made to bring the accounting policies in line with those of the Group.

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate or an investment in a joint venture is impaired in accordance with IAS 28 *Investments in Associates and Joint Ventures*. If this is the case the Group calculates the amount of impairment as the difference between the recoverable amount of the associate or joint venture and its carrying value and recognizes the amount in the 'share of profit or loss of an associate' in the statement of comprehensive income in accordance with IAS 36 *Impairment of Assets.* If the recoverable amount is under the investment value in use, the Group uses the following measurements to determine the relevant value:

A. Its share of the present value of the estimated future cash flows expected to be generated by the associate or joint venture, including the cash flows from the operations of the associate and the proceeds on the ultimate disposal of the investment; or
B. The present value of the estimated future cash flows expected to arise from dividends to be received from the investment and from its ultimate disposal.

Because goodwill that forms part of the carrying amount of an investment in an associate or an investment in a joint venture is not separately recognized, it is not tested for impairment separately by applying the requirements for impairment testing goodwill in IAS 36 Impairment of Assets.

Upon loss of significant influence over the associate or joint venture, the Group measures and recognizes any retaining investment at its fair value. Any difference between the carrying amount of the associate or joint venture upon loss of significant influence and the fair value of the retaining investment and proceeds from disposal is recognized in profit or loss. Furthermore, if an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate, the entity continues to apply the equity method and does not remeasure the retained interest.

(12) Property, plant and equipment

Property, plant and equipment is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes the cost of dismantling and removing the item and restoring the site on which it is located and borrowing costs for construction in progress if the recognition criteria are met. Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately. When significant parts of property, plant and equipment are required to be replaced in intervals, the Group recognized such parts as individual assets with specific useful lives and depreciation, respectively. The carrying amount of those parts that are replaced is derecognized in accordance with the derecognition provisions of IAS 16 *Property, plant and equipment*. When a major inspection is performed, its cost is recognized in the carrying amount of the plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognized in profit or loss as incurred.

Depreciation is calculated on a straight-line basis over the estimated economic lives of the following assets:

Buildings	5~55 years
Machinery and equipment	1~20 years
Transportation equipment	4~46 years and 1 month
Office equipment	2~20 years
Lease assets	5~12 years

An item of property, plant and equipment and any significant part initially recognized is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset is recognized in profit or loss.

The assets' residual values, useful lives and methods of depreciation are reviewed at each financial year end and adjusted prospectively, if appropriate.

(13) Leases

The accounting policy from January 1, 2019 as follows:

The Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset for a period of time, the Group assesses whether, throughout the period of use, has both of the following:

A. the right to obtain substantially all of the economic benefits from use of the identified asset; and
B. the right to direct the use of the identified asset.

For a contract that is, or contains, a lease, the Group accounts for each lease component within the contract as a lease separately from non-lease components of the contract. For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components. The relative stand-alone price of lease and non-lease components shall be determined on the basis of the price the lessor, or a similar supplier, would charge the Group for that component, or a similar component, separately. If an observable stand-alone price is not readily available, the Group estimates the stand-alone price, maximising the use of observable information.

Group as a lessee

Except for leases that meet and elect short-term leases or leases of low-value assets, the Group recognizes right-of-use asset and lease liability for all leases which the Group is the lessee of those lease contracts.

At the commencement date, the Group measures the lease liability at the present value of the lease payments that are not paid at that date. The lease payments are discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the Group uses its incremental borrowing rate. At the commencement date, the lease payments included in the measurement of the lease liability comprise the following payments for the right to use the underlying asset during the lease term that are not paid at the commencement date:

A. fixed payments (including in-substance fixed payments), less any lease incentives receivable;
B. variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
C. amounts expected to be payable by the lessee under residual value guarantees;
D. the exercise price of a purchase option if the Group is reasonably certain to exercise that option; and
E. payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

After the commencement date, the Group measures the lease liability on an amortised cost basis, which increases the carrying amount to reflect interest on the lease liability by using an effective interest method; and reduces the carrying amount to reflect the lease payments made.

At the commencement date, the Group measures the right-of-use asset at cost. The cost of the right-of-use asset comprises:

A. the amount of the initial measurement of the lease liability;
B. any lease payments made at or before the commencement date, less any lease incentives received;
C. any initial direct costs incurred by the lessee; and
D. an estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

For subsequent measurement of the right-of-use asset, the Group measures the right-of-use asset at cost less any accumulated depreciation and any accumulated impairment losses. That is, the Group measures the right-of-use applying a cost model.

If the lease transfers ownership of the underlying asset to the Group by the end of the lease term or if the cost of the right-of-use asset reflects that the Group will exercise a purchase option, the Group depreciates the right-of-use asset from the commencement date to the end of the useful life of the underlying asset. Otherwise, the Group depreciates the right-of-use asset from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

The Group applies IAS 36 "Impairment of Assets" to determine whether the right-of-use asset is impaired and to account for any impairment loss identified.

Except for those leases that the Group accounted for as short-term leases or leases of low-value assets, the Group presents right-of-use assets and lease liabilities in the balance sheet and separately presents lease-related interest expense and depreciation charge in the statements comprehensive income.

For short-term leases or leases of low-value assets, the Group elects to recognize the lease payments associated with those leases as an expense on either a straight-line basis over the lease term or another systematic basis.

Group as a lessor

At inception of a contract, the Group classifies each of its leases as either an operating lease or a finance lease. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership of an underlying asset. At the commencement date, the Group recognizes assets held under a finance lease in its balance sheet and present them as a receivable at an amount equal to the net investment in the lease.

For a contract that contains lease components and non-lease components, the Group allocates the consideration in the contract applying IFRS 15.

The Group recognizes lease payments from operating leases as rental income on either a straight-line basis or another systematic basis. Variable lease payments for operating leases that do not depend on an index or a rate are recognized as rental income when incurred.

The accounting policy before January 1, 2019 as follows:

Group as a lessee

Finance leases which transfer to the Group substantially all the risks and benefits incidental to ownership of the leased item, are capitalized at the commencement of the lease at the fair value of the leased property or, if lower, at the present value of the minimum lease payments. Lease payments are apportioned between finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are recognized in profit or loss.

A leased asset is depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

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

Group as a lessor

Leases in which the Group does not transfer substantially all the risks and benefits of ownership of the asset are classified as operating leases. Initial direct costs incurred in negotiating an operating lease are added to the carrying amount of the leased asset and recognized over the lease term on the same basis as rental income. Contingent rents are recognized as revenue in the period in which they are earned.

(14) Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is its fair value as at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and accumulated impairment losses, if any. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and expenditure is reflected in profit or loss for the year in which the expenditure is incurred.

Intangible assets are all finite.

Intangible assets with finite lives are amortized over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at the end of each financial year. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset is accounted for by changing the amortization period or method, as appropriate, and are treated as changes in accounting estimates.

Gains or losses arising from derecognition of an intangible asset are recognized in profit or loss.

Research and development costs

Research costs are expensed as incurred. Development expenditures, on an individual project, are recognized as an intangible asset when the Group can demonstrate:

A. The technical feasibility of completing the intangible asset so that it will be available for use or sale
B. Its intention to complete and its ability to use or sell the asset
C. How the asset will generate future economic benefits
D. The availability of resources to complete the asset
E. The ability to measure reliably the expenditure during development

Following initial recognition of the development expenditure as an asset, the cost model is applied requiring the asset to be carried at cost less any accumulated amortization and accumulated impairment losses. During the period of development, the asset is tested for impairment annually. Amortization of the asset begins when development is complete and the asset is available for use. It is amortized over the period of expected future benefit.

Accounting policies of the Group's intangible assets are summarized as follows:

	Development costs	Mining Right
Useful lives	Finite	Finite
Amortization method used	Amortized over the period of expected future sales from the related project on a straight-line basis	Amortized over the period of estimated life on a straight-line basis
Internally generated or acquired	Internally generated	Acquired

(15) Impairment of non-financial assets

The Group assesses at the end of each reporting period whether there is any indication that an asset in the scope of IAS 36 *Impairment of Assets* may be impaired. If any such indication exists, or when annual impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's ("CGU") fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

For assets excluding goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the Group estimates the asset's or cash-generating unit's recoverable amount. A previously recognized impairment loss is reversed only if there has been an increase in the estimated service potential of an asset which in turn increases the recoverable amount. However, the reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years.

A cash generating unit, or groups of cash-generating units, to which goodwill has been allocated is tested for impairment annually at the same time, irrespective of whether there is any indication of impairment. If an impairment loss is to be recognized, it is first allocated to reduce the carrying amount of any goodwill allocated to the cash generating unit (group of units), then to the other assets of the unit (group of units) pro rata on the basis of the carrying amount of each asset in the unit (group of units). Impairment losses relating to goodwill cannot be reversed in future periods for any reason.

An impairment loss of continuing operations or a reversal of such impairment loss is recognized in profit or loss.

(16) Revenue recognition

The Group's revenue arising from contracts with customers are primarily related to sale of goods and rendering of services. The accounting policies are explained as follows:

Sale of goods

The Group manufactures and sells machinery. Sales are recognized when control of the goods is transferred to the customer and the goods are delivered to the customers. The main product of the Group is glass(flat glass, glass fiber, and glass container) and revenue is recognized based on the consideration stated in the contract. For certain sales of goods transactions, they are usually accompanied by volume discounts (based on the accumulated total sales amount for a specified period). Therefore, revenue from these sales is recognized based on the price specified in the contract, net of the estimated volume discounts. to the Group estimates the discounts using the expected value method based on historical experiences. Revenue is only recognized to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur and when the uncertainty associated with the variable consideration is subsequently resolved. During the period specified in the contract, refund liability is recognized for the expected volume discounts.

The credit period of the Group's sale of goods is from 5 to 255 days. For most of the contracts, when the Group transfers the goods to customers and has a right to an amount of consideration that is unconditional, these contracts are recognized as accounts receivables. The Group usually collects the payments shortly after transfer of goods to customers; therefore, there is no significant financing component to the contract. For some of the contracts, the Group has transferred the goods to customers but does not has a right to an amount of consideration that is unconditional, these contacts should be presented as contract assets. Besides, in accordance with IFRS 9, the Group measures the loss allowance for a contract asset at an amount equal to the lifetime expected credit losses. For other services contracts, part of the consideration was received from customers upon signing the contract, and the Company has the obligation to provide the services subsequently; accordingly, these amounts are recognized as advance receipts or temporary receipts.

The period between the transfers of contract liabilities to revenue is usually within one year, thus, no significant financing component arosed.

(17) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the respective assets. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

(18) Government grants

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. Where the grant relates to an asset, it is recognized as deferred income and released to income in equal amounts over the expected useful life of the related asset. When the grant relates to an expense item, it is recognized as income over the period necessary to match the grant on a systematic basis to the costs that it is intended to compensate.

Where the Group receives non-monetary grants, the asset and the grant are recorded gross at nominal amounts and released to the statement of comprehensive income over the expected useful life and pattern of consumption of the benefit of the underlying asset by equal annual installments. Where loans or similar assistance are provided by governments or related institutions with an interest rate below the current applicable market rate, the effect of this favorable interest is regarded as additional government grant.

(19) Post-employment benefits

All regular employees of the Company and its domestic subsidiaries are entitled to a pension plan that is managed by an independently administered pension fund committee. Fund assets are deposited under the committee’s name in the specific bank account and hence, not associated with the Company and its domestic subsidiaries. Therefore, fund assets are not included in the Group’s consolidated financial statements. Pension benefits for employees of the overseas subsidiaries and the branches are provided in accordance with the respective local regulations.

For the defined contribution plan, the Company and its domestic subsidiaries will make a monthly contribution of no less than 6% of the monthly wages of the employees subject to the plan. The Group recognizes expenses for the defined contribution plan in the period in which the contribution becomes due. Overseas subsidiaries and branches make contribution to the plan based on the requirements of local regulations.

Post-employment benefit plan that is classified as a defined benefit plan uses the Projected Unit Credit Method to measure its obligations and costs based on actuarial assumptions. Re-measurements, comprising of the effect of the actuarial gains and losses, the effect of the asset ceiling (excluding net interest) and the return on plan assets, excluding net interest, are recognized as other comprehensive income with a corresponding debit or credit to retained earnings in the period in which they occur. Past service costs are recognized in profit or loss on the earlier of:

A. the date of the plan amendment or curtailment, and
B. the date that the Group recognizes restructuring-related costs

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset, both as determined at the start of the annual reporting period, taking account of any changes in the net defined benefit liability (asset) during the period as a result of contribution and benefit payment.

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

(20) Income taxes

Income tax expense (income) is the aggregate amount included in the determination of profit or loss for the period in respect of current tax and deferred tax.

Current income tax

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities, using the tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period. Current income tax relating to items recognized in other comprehensive income or directly in equity is recognized in other comprehensive income or equity and not in profit or loss.

The income tax for undistributed earnings is recognized as income tax expense in the subsequent year when the distribution proposal is approved by the Shareholders' meeting.

Deferred tax

Deferred tax is provided on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

A. Where the deferred tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss;
B. In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognized for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized, except:

A. Where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss;
B. In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the reporting date. The measurement of deferred tax assets and deferred tax liabilities reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities. Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity. Deferred tax assets are reassessed at each reporting date and are recognized accordingly.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current income tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

5. Significant accounting judgments, estimates and assumptions

The preparation of the Group’s consolidated financial statements require management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumption and estimate could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Estimates and assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

A. Fair value of financial instruments

Where the fair value of financial assets and financial liabilities recorded in the balance sheet cannot be derived from active markets, they are determined using valuation techniques including the income approach (for example the discounted cash flows model) or market approach. Changes in assumptions about these factors could affect the reported fair value of the financial instruments. Please refer to Note 12 for more details.

B. Inventories

The Group estimates the net realizable value of inventory for damage, obsolescence and price decline. The net realizable value of the inventory is mainly determined based on reliable evidence of expected cash flow. Please refer to Note 6.

C. Impairment of non-financial assets

An impairment exists when the carrying value of an asset or cash generating unit exceeds its recoverable amount, which is the higher of its fair value less costs to sell and its value in use. The fair value less costs to sell calculation is based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date less incremental costs that would be directly attributable to the disposal of the asset or cash generating unit. The value in use calculation is based on a discounted cash flow model. The cash flows projections are derived from the budget for the next five years and do not include restructuring activities that the Group is not yet committed to or significant future investments that will enhance the asset's performance of the cash generating unit being tested. The recoverable amount is most sensitive to the discount rate used for the discounted cash flow model as well as the expected future cash-inflows and the growth rate used for extrapolation purposes. The key assumptions used to determine the recoverable amount for the different cash generating units, including a sensitivity analysis, are further explained in Note 6.

D. Pension benefits

The cost of post-employment benefit and the present value of the pension obligation under defined benefit pension plans are determined using actuarial valuations. An actuarial valuation involves making various assumptions. These include the determination of the discount rate and changes of thefuture salary etc.

E. Revenue recognition – sales returns and allowance

The Group estimates sales returns and allowance based on historical experience and other known factors at the time of sale, which reduces the operating revenue. In assessing the aforementioned sales returns and allowance, revenue is recognized to the extent it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. Please refer to Note 6 for more details.

F. Income tax

Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate future adjustments to tax income and expense already recorded. The Group establishes provisions, based on reasonable estimates, for possible consequences of audits by the tax authorities of the respective counties in which it operates. The amount of such provisions is based on various factors, such as experience of previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective Group's domicile.

Deferred tax assets are recognized for all carryforward of unused tax losses and unused tax credits and deductible temporary differences to the extent that it is probable that taxable profit will be available or there are sufficient taxable temporary differences against which the unused tax losses, unused tax credits or deductible temporary differences can be utilized. The amount of deferred tax assets determined to be recognized is based upon the likely timing and the level of future taxable profits and taxable temporary differences together with future tax planning strategies. Please refer to Note 6 for more details on unrecognized deferred tax assets.

6. Contents of significant accounts

(1) Cash and cash equivalents

	As of December 31,	
	2019	2018
Cash on hand	$2,093	$2,159
Checking and savings accounts	4,813,326	4,471,432
Time deposits	1,391,666	92,361
Equivalent cash, including investments in bonds with resale agreements	38,038	141,295
Total	$6,245,123	$4,707,247

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

	As of December 31,	
	2019	2018
Financial assets mandatorily measured at fair value through profit or loss:		
Structured deposit	$565,849	$-
Guaranteed financial products	42,974	478,859
Total	$608,823	$478,859

	2019.12.31	2018.12.31
Current	$608,823	$478,859
Non-current	-	-
Total	$608,823	$478,859

Financial assets at fair value through profit or loss were not pledged.

(3) Financial assets measured at amortized cost

	As of December 31,	
	2019	2018
Time deposit	$105,230	$30,714

	2019.12.31	2018.12.31
Current	$105,230	$30,714
Non-current	-	-
Total	$105,230	$30,714

Financial assets measured at amortized cost were not pledged. Please refer to Note 12 for more details on credit risk.

(4) Notes receivable and notes receivable – related parties

	As of December 31,	
	2019	2018
Notes receivable arising from operating activities	$8,562,403	$4,853,940
Less: loss allowance	(40,611)	-
Subtotal	8,521,792	4,853,940
Notes receivable from related parties	99,656	101,590
Less: loss allowance	-	-
Subtotal	99,656	101,590
Total	$8,621,448	$4,955,530

As of December 31, 2019, the Group's discounted note receivable amounted to NTD246,942 thousand. Please refer to Note 6.(14) for more details on short-term loans.

The Group assesses impairments according to IFRS 9 to assess the impairment. Please refer to Note 6.(21) for more details on loss allowance and Note 12 for details on credit risk.

(5) Accounts receivable and accounts receivable – related parties

	As of December 31,	
	2019	2018
Accounts receivable	$4,453,886	$4,665,141
Less: loss allowance	(199,328)	(212,423)
Subtotal	4,254,558	4,452,718
Accounts receivable from related parties	84,742	68,429
Less: loss allowance	-	-
Subtotal	84,742	68,429
Total	$4,339,300	$4,521,147

Accounts receivables were not pledged.

Please refer to Note 12.(11) for disclosure on information of accounts receivable transferred.

Trade receivables are generally on 5-255 day terms. The total carrying amount as of December 31, 2019 and 2018 are NT$4,538,628 thousand and NT$4,733,570 thousand, respectively. Please refer to Note 6.(21) for more details on loss allowance of trade receivables for the years ended December 31, 2019 and 2018. Please refer to Note 12 for more details on credit risk management.

(6) Other receivables, net

	As of December 31,	
	2019	2018
Other receivables	$211,538	$246,175
Less: loss allowance	(30,319)	(31,573)
Total	$181,219	$214,602

Please refer to Note 6.(21) for more details on loss allowance of trade receivables for the years ended December 31, 2019 and 2018. Please refer to Note 12 for more details on credit risk management.

(7) Inventories, net

	As of December 31,	
	2019	2018
Raw materials	$2,654,596	$2,449,022
Supplies	685,497	746,507
Work in progress	606,236	601,466
Finished goods	5,098,417	5,053,849
Commodities	366	419
Total	$9,045,112	$8,851,263

The cost of inventories recognized in expenses amounted to NT$38,350,518 thousand and NT$38,755,048 thousand for the years ended December 31, 2019 and 2018, respectively, including:

	For the years ended December 31,	
	2019	2018
Losses for market price decline of inventories	$288,255	$283,044
(Gains) on physical inventory	(6,407)	(41,480)
Loss on work stoppage	560,414	363,866
Revenue from sale of scraps	(163,928)	(179,715)
Additions to operating costs	$678,334	$425,715

No inventories were pledged.

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

	As of December 31,	
	2019	2018
Equity instrument investments measured at fair value through other comprehensive income – non-current:		
Listed companies stocks	$210,970	$210,750
Unlisted companies stocks	46,697	52,582
Total	$257,667	$263,332

Financial assets at fair value through other comprehensive income were not pledged.

(9) Investments accounted for using the equity method

The following table lists the investments in the associate of the Group:

	As of December 31,			
	2019		2018	
Investees	Carrying amount	Percentage of Ownership	Carrying amount	Percentage of Ownership
Shihlien China Holding Co., Ltd.	$4,219,840	43.99%	$4,122,959	43.99%
Taibo Anhui Energy Co., Ltd.	11,711	20.00%	13,353	20.00%
Totals	$4,231,551		$4,136,312	

A. Information on the material associate of the Group:

Company name: Shihlien China Holding Co., Ltd. (SCH)

Nature of the relationship with the joint venture: SCH is in the business of manufacturing and selling related products in the Group's industry chain. The Group invested in SCH for the purpose of upstream/downstream integration.

Principal place of business (country of incorporation): Hong Kong

The summarized financial information of the associate is as follows:

	As of December 31,	
	2019	2018
Current assets	$5,718,324	$4,201,540
Non-current assets	20,225,286	22,832,238
Current liabilities	(6,941,809)	(8,093,682)
Non-current liabilities	(9,354,077)	(9,438,121)
Equity	9,647,724	9,501,975
the Group's ownership percentage	43.99%	43.99%
Subtotal	4,244,034	4,179,919
Eliminations from intercompany transactions	(24,194)	(56,960)
Carrying amount of the investment	$4,219,840	$4,122,959

	For the years ended December 31,	
	2019	2018
Operating revenue	$11,989,686	$11,596,190
Net income from continuing operations	727,343	532,595
Total other comprehensive income, net of tax	(581,594)	(724,500)
Total comprehensive income	145,749	(191,905)

B. The Group's investments in Taibo Anhui Energy Co., Ltd. (TRAE) is not individually material. The aggregate carrying amount of the Group's interests in TRAE was NT$11,711 thousand and NT$13,353 thousand for the years ended December 31, 2019 and 2018, respectively. The aggregate financial information based on the Group's share of TRAE is as follows:

	For the years ended December 31,	
	2019	2018
Net losses from continuing operations	$(1,159)	$(2,267)
Total other comprehensive income, net of tax	(483)	890
Total comprehensive income	(1,642)	(1,377)

The associates had no contingent liabilities or capital commitments as of December 31, 2019 and 2018, and were not pledged.

(10) Property, plant and equipment

A. Owner occupied property, plant and equipment

	Land	Buildings	Machinery and equipment	Transportation equipment	Other equipment	Lease assets	Construction in progress and equipment awaiting examination	Total
Cost:								
As of January 1, 2018	$3,805,822	$28,933,860	$73,559,875	$967,397	$2,607,374	$137,127	$2,110,574	$112,122,029
Additions	-	42,602	381,513	30,677	64,668	-	3,896,475	4,415,935
Disposals	-	-	(911,629)	(11,173)	(91,022)	(137,289)	(290)	(1,151,403)
Transfers	-	235,685	1,317,468	18,116	30,347	-	(1,601,616)	-
Exchange effect	314	(363,127)	(870,325)	(12,740)	(38,264)	162	(78,897)	(1,362,877)
Other changes	-	9,734	(185,365)	7,056	80,854	-	900,841	813,120
As of December 31, 2018	3,806,136	28,858,754	73,291,537	999,333	2,653,957	-	5,227,087	114,836,804
Additions	-	149,360	255,092	10,807	115,954	-	1,883,207	2,414,420
Disposals	-	(650)	(509,487)	(38,523)	(52,793)	-	-	(601,453)
Transfers	-	1,314,464	4,567,970	11,385	25,568	-	(5,919,387)	-
Exchange effect	(241)	(871,306)	(2,141,841)	(29,000)	(90,064)	-	(35,710)	(3,168,162)
Other changes	-	741	34,812	25,765	13,645	-	1,025,367	1,100,330
As of December 31, 2019	$3,805,895	$29,451,363	$75,498,083	$979,767	$2,666,267	$-	$2,180,564	$114,581,939

	Land	Buildings	Machinery and equipment	Transportation equipment	Other equipment	Lease assets	Construction in progress and equipment awaiting examination	Total
Depreciation and impairment:								
As of January 1, 2018	$-	$13,268,443	$44,223,750	$651,443	$2,011,236	$35,805	$-	$60,190,677
Depreciation	-	1,167,036	3,832,730	30,356	110,941	1,433	-	5,142,496
Transfers	-	-	376,672	-	-	-	-	376,672
Disposals	-	-	(838,872)	(10,248)	(82,579)	(37,280)	-	(968,979)
Transfers	-	-	-	-	-	-	-	-
Exchange effect	-	(153,628)	(571,527)	(7,308)	(30,482)	42	-	(762,903)
Other changes	-	4,758	(31,647)	-	53,210	-	-	26,321
As of December 31, 2018	-	14,286,609	46,991,106	664,243	2,062,326	-	-	64,004,284
Depreciation	-	1,159,446	3,864,136	35,868	154,201	-	-	5,213,651
Disposals	-	(283)	(425,691)	(37,231)	(50,421)	-	-	(513,626)
Transfers	-	-	-	-	-	-	-	-
Exchange effect	-	(380,865)	(1,385,097)	(16,990)	(71,746)	-	-	(1,854,698)
Other changes	-	(577)	27	-	-	-	-	(550)
As of December 31, 2019	$-	$15,064,330	$49,044,481	$645,890	$2,094,360	$-	$-	$66,849,061
Net carrying amount as of:								
December 31, 2019	$3,805,895	$14,387,033	$26,453,602	$333,877	$571,907	$-	$2,180,564	$47,732,878
December 31, 2018	$3,806,136	$14,572,145	$26,300,431	$335,090	$591,631	$-	$5,227,087	$50,832,520

With respect to the flat glass business department, some of the subsidiaries in China suffered operating loss due to market impact and economic outlook, as a result the Group wrote off some machinery equipment to recoverable amount, and its fair value hierarchy was categorized at Level 3. The above fair value was evaluated by an independent external appraiser, and the evaluation methods adopted include comparison method and cost method. The key assumptions included replacement costs, physical depreciation, and economic devaluation. Based on the assessment results, the Group recognized impairment loss in the amount of NT$376,672 thousand in 2018 under other gains and losses. Please refer to Note 6.(25) for more details.

B. Capitalized borrowing costs of property, plant and equipment are as follows:

Item	For the years ended December 31, 2019	2018
Construction in progress	$27,170	$21,040
Capitalization rate of borrowing costs	1.43%~5.23%	1.53%~5.20%

C. Components of machinery and equipment that have different useful lives are furnace and platinum, which are depreciated over 12 years and 20 years, respectively.

D. Please refer to Note 8 for more details on property, plant and equipment under pledge.

(11) Intangible assets

	Development costs	Mining rights	Other intangible assets	Total
Cost:				
As of January 1, 2018	$66,730	$109,273	$33,251	$209,254
Addition-internal development	-	-	3,418	3,418
Addition-acquired separately	-	-	(295)	(295)
Transfers	-	-	5,467	5,467
Exchange effect	(1,160)	(1,900)	(120)	(3,180)
As of December 31, 2018	65,570	107,373	41,721	214,664
Addition-internal development	-	-	2,188	2,188
Addition-acquired separately	-	-	-	-
Transfers	-	-	-	-
Exchange effect	(2,606)	(4,267)	(327)	(7,200)
As of December 31, 2019	$62,964	$103,106	$43,582	$209,652
Amortization and impairment:				
As of January 1, 2018	$51,849	$42,099	$24,226	$118,174
Amortization	14,898	8,349	6,060	29,307
Disposal	-	-	(295)	(295)
Transfers	-	880	(880)	-
Exchange effect	(1,177)	(903)	(99)	(2,179)
As of December 31, 2018	65,570	50,425	29,012	145,007
Amortization	-	8,069	6,847	14,916
Disposal	-	-	-	-
Transfers	-	-	-	-
Exchange effect	(2,606)	(2,336)	(238)	(5,180)
As of December 31, 2019	$62,964	$56,158	$35,621	$154,743
Net carrying amount as of:				
December 31, 2019	$-	$46,948	$7,961	$54,909
December 31, 2018	$-	$56,948	$12,709	$69,657

Amortization expense of intangible assets under the statement of comprehensive income:

	For the years ended December 31,	
	2019	2018
Operating costs	$1,930	$16,852
General and administrative expenses	10,986	10,455
Research and development costs	-	-
Other losses	2,000	2,000
Total	$14,916	$29,307

(12) Prepaid rent

	As of December 31,	
	2019(Note)	2018
Current (recorded as prepayments)		$84,680
Non-current (recorded as long-term prepaid rent)		2,887,765
Total		$2,972,445

Prepaid rent above is the land use right for the subsidiaries in Mainland China.

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

(13) Other non-current assets

	As of December 31,	
	2019	2018
Investment property	$17,926	$17,938
Advance payments in equipment	18,056	-
Overdue receivables	772,210	772,210
Less: loss allowance	(772,210)	(772,210)
Overdue receivables, net	-	-
Others	28,644	25,402
Net	$64,626	$43,340

No investment property was pledged.

Please refer to Note 6.(21) for more details on loss allowance of trade receivables for the years ended December 31, 2019 and 2018. Please refer to Note 12 for more details on credit risk management.

Investment properties held by the Group are not measured at fair value but for which the fair value is disclosed. The fair value measurements of the investment properties are categorized within Level 3. The fair value of investment properties is NT$173,677 thousand and NT$172,543 thousand, as of December 31, 2019 and 2018 respectively. The fair value has been determined based on valuations performed by an independent appraiser. The valuation method used is direct capitalized method and market approach, and the inputs used are as follows:

Direct capitalization method:

	As of December 31,	
	2019	2018
Income capitalization rate	1.42%~2.24%	1.42%~2.24%

(14) Short-term loans

	As of December 31,	
	2019	2018
Discounted note receivable	$246,942	$-
Unsecured bank loans	2,348,095	2,123,766
Secured bank loans	5,368,250	4,916,894
Total	$7,963,287	$7,040,660
Discount rates	2.90%~3.40%	-
Unsecured interest rates	0.90%~4.57%	1.00%~5.44%
Secured interest rates	1.63%~6.09%	3.76%~6.41%

A. The Group's unused short-term lines of credits amounted to NT$2,390,677 thousand and NT$3,260,074 thousand as of December 31, 2019 and 2018 respectively.

B. The above loans were guaranteed by the Company, its subsidiaries and other related parties. Please refer to Note 7.(16) for more details. Furthermore, please refer to Note 8 for more details on pledge.

(15) Short-term bills payable

	As of December 31,	
	2019	2018
Short-term bills payable	$3,750,000	$3,300,000
Less: unamortized discount	(8,994)	(4,430)
Net	$3,741,006	$3,295,570
Interest rates	1.388%~1.568%	1.388%~1.400%

(16) Long-term loans

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

				As of December 31,		
Lenders	Terms	Credit Line	Interest Rate	2019	2018	Redemption
Chang-Hwa Bank	2015.09.01-2020.09.01	NTD1,200,000	Floating interest rate	$200,000	$400,000	8 equal installments of the principal made every 6 months from the sixth year after borrowing date
Hua-Nan Bank	2015.12.23-2022.12.29	NTD3,000,000	〃	1,800,000	2,400,000	Repayable semiannually from June 23, 2018.
Hua-Nan Bank	2017.05.26-2019.05,26	NTD1,000,000	〃	-	1,000,000	Principal repaid at maturity
Hua-Nan Bank	2019.05.27-2021.05,27	NTD1,000,000	〃	1,000,000	-	Principal repaid at maturity
King's Town Bank	2016.03.30-2023.03.30	NTD1,100,000	〃	700,000	900,000	Repayable semiannually from March 30, 2018
COTA Commercial Bank	2016.09.05-2019.09.05	NTD100,000	〃	-	24,940	12 quarter installments of principal and interest from December 5, 2016
KGI Bank	2017.01.05-2019.01.05	NTD300,000	〃	-	260,000	Principal repaid at maturity

Lenders	Terms	Credit Line	Interest Rate	As of December 31, 2019	2018	Redemption
KGI Bank	2019.01.04-2021.01,04	NTD300,000	〃	300,000	-	Principal repaid at maturity
O-Bank	2016.12.06-2019.12.06	NTD1,000,000	〃	-	1,000,000	Principal repaid at maturity
O-Bank	2019.11.15-2022.11.15	NTD1,000,000	〃	1,000,000	-	Principal repaid at maturity
Mega Bank	2019.06.20-2022.06.20	NTD300,000	〃	300,000	-	The 12-month period following the drawdown is the first installment, and each of the three following months is deemed one installment. The credit limit is reduced by 30%, 30%, and 40%.
Taichung Commercial Bank	2017.12.20-2020.12.20	NTD500,000	〃	500,000	-	Principal repaid at maturity
JihSun Bank	2017.12.25-2019.12.25	NTD300,000	〃	-	300,000	Principal repaid at maturity
JihSun Bank	2019.08.09-2020.06.27	NTD300,000	〃	300,000	-	6 equal installments of the principal made every month from January 1, 2020.
Far Eastern International Bank	2017.12.07-2019.12.07	NTD500,000	〃	-	500,000	Principal repaid at maturity
Far Eastern International Bank	2019.12.06-2021.12.06	NTD500,000	〃	500,000	-	Principal repaid at maturity
Bank of PanShin	2017.12.14-2019.12.14	NTD200,000	〃	-	200,000	Principal repaid at maturity
Bank of PanShin	2019.12.16-2021.12.16	NTD200,000	〃	200,000	-	Principal repaid at maturity
Bank of Kaohsiung	2017.12.14-2019.12.14	NTD300,000	〃	-	300,000	Principal repaid at maturity
Bank of Kaohsiung	2019.12.13-2021.12.13	NTD300,000	〃	300,000	-	Principal repaid at maturity
Union Bank of Taiwan	2017.09.07-2019.03.07	NTD600,000	〃	-	600,000	Principal repaid at maturity
Union Bank of Taiwan	2019.03.07-2020.09.07	NTD600,000	〃	600,000	-	Principal repaid at maturity
Taiwan Cooperative Bank	2018.06.25-2021.06.25	NTD500,000	〃	500,000	500,000	12 equal installments of principal and interest from July 25, 2020.
Bank of China	2019.02.01-2021.01.31	NTD400,000	〃	400,000	-	Principal repaid at maturity
Shin Kong Commercial Bank	2018.06.27-2020.08.06	NTD300,000	〃	300,000	300,000	Principal repaid at maturity
The Export-Import Bank of the Republic of China	2018.08.01-2023.08.01	NTD600,000	〃	533,333	600,000	9 equal installments of the principal made every 6 months from August 1, 2019.
EnTie Commercial Bank	2018.08.20-2020.08.20	NTD500,000	〃	500,000	500,000	Principal repaid at maturity
Shanghai Commercial & Savings Bank	2018.09.05-2021.09.05	NTD200,000	〃	200,000	200,000	Principal repaid at maturity
Taiwan Business Bank	2018.10.18-2025.10.18	NTD1,000,000	〃	1,000,000	1,000,000	11 equal installments of the principal made every 6 months from October 18, 2020.

Lenders	Terms	Credit Line	Interest Rate	As of December 31, 2019	2018	Redemption
Chang Hwa Bank	2018.12.21-2021.12.21	NTD500,000	〃	500,000	500,000	4 equal installments of the principal made every 6 months from June 21, 2020.
Bank SinoPac	2019.03.28-2021.03.27	NTD500,000	〃	500,000	-	Principal repaid at maturity
Cathay United Bank	2018.11.20-2023.11.20	USD25,000	〃	749,500	460,725	7 equal installments of principal and interest made every 6 months from November 20, 2020
Mega Bank	2018.01.22-2023.01.16	USD60,000	〃	1,798,800	1,842,900	7 installments of principal and interest made every 6 months from January 22, 2020
Mega Bank	2018.06.12-2021.06.12	USD30,000	〃	899,400	921,450	3 installments of principal and interest starting from June 12, 2020
Shanghai Commercial & Savings Bank	2016.04.07-2019.04.07	USD10,000	〃	-	46,073	6 equal installments of the principal made every 6 months. US$1.7 million were repaid for the first 5 installments, and the last installment were repaid at US$1.5 million.
Shanghai Commercial & Savings Bank	2016.04.19-2019.04.18	USD15,000	〃	-	76,788	6 equal installments of the principal made from October 18, 2016.
Shanghai Commercial & Savings Bank	2018.12.20-2021.07.24	USD15,000	〃	499,700	307,150	Principal repaid US$ 10 million on December 19, 2021 and US$ 5 million on July 24, 2022
Far Eastern International Bank	2018.12.24-2020.12.24	USD15,000	〃	449,700	460,725	Principal repaid at maturity
Bank of Kaohsiung	2018.12.24-2021.12.24	USD10,000	〃	299,800	307,150	Principal repaid at maturity
KGI Bank	2018.11.27-2020.11.27	USD16,000	〃	-	491,440	Principal repaid at maturity
O-Bank	2017.08.17-2020.08.17	USD7,000	〃	89,940	153,575	6 installments of the principal made every 6 months from February 17, 2018. US$1 million were repaid for the first 5 periods , and the last installment were repaid at US$2 million.
O-Bank	2018.05.14-2021.05.14	USD10,000	〃	164,890	261,078	6 equal installments of the principal made every 6 months from November 14, 2018. US$1.5 million were repaid for the first 5 installments, and the last installment were repaid at US$2.5 million.

Lenders	Terms	Credit Line	Interest Rate	As of December 31, 2019	2018	Redemption
First bank	2018.05.28-2021.05.28	USD12,000	〃	176,886	233,000	6 installments of principal and interest starting from November 28, 2019. 10% each repaid in the first 4 installments and 30% each in the last two installments.
Chailease International Finance Corporation	2017.07.06-2020.05.30	RMB12,000	Fixed Rate	4,693	19,502	Principal repaid by month.
Rural Commercial Bank	2018.10.16-2021.10.15	RMB50,000	〃	177,056	75,185	10 equal installments of the principal made from February 8, 2019. RMD300 thousand repaid at the first 5 installments, RMB24,100 thousand at the 9th repayment, and RMB15,300 thousand the last repayment
Subtotal				17,393,698	17,141,681	
Less: current portion of long-term loans				(5,975,364)	(5,594,435)	
Total				$11,418,334	$11,547,246	

Note 1: As of December 31, 2019 and 2018, part of long-term loans contained covenants that required the Group to maintain certain financial ratios such as (1) the current ratio, (2) the ratio of the total liabilities to the net tangible assets, (3) the ratio of EBITDA to interest expense and (4) the tangible assets net worth amount.

Note 2: The above loans were guaranteed by the Company, its subsidiaries and other related parties. Please refer to Note 7.(16) for more details. Furthermore, please refer to Note 8 for more details on pledge.

(17) Long-term deferred revenue

Government grant

	For the years ended December 31, 2019	2018
Beginning balance	$1,249,590	$1,332,855
Received during the period	118,423	41
Released to the statement of comprehensive income	(72,897)	(61,270)
Exchange effect	(51,535)	(22,036)
Ending balance	$1,243,581	$1,249,590

	As of December 31, 2019	2018
Non-current deferred revenue - government grants related to assets	$1,243,581	$1,249,590

Government grants have been received for prepaid long-term rent and property, plant and equipment. There are no unfulfilled conditions or contingencies attached to these grants.

(18) Post-employment benefits

Defined contribution plan

The Company and its domestic subsidiaries adopt a defined contribution plan in accordance with the Labor Pension Act of the R.O.C. Under the Labor Pension Act, the Company and its domestic subsidiaries will make monthly contributions of no less than 6% of the employees' monthly wages to the employees' individual pension accounts. The Company and its domestic subsidiaries have made monthly contributions of 6% of each individual employee's salaries or wages to employees' pension accounts.

Subsidiaries located in the People's Republic of China will contribute social welfare benefits based on a certain percentage of employees' salaries or wages to the employees' individual pension accounts.

Pension benefits for employees of overseas subsidiaries are provided in accordance with the local regulations.

Pension expenses under the defined contribution plan for the years ended December 31, 2019 and 2018 were NT$322,181 thousand and NT$324,419 thousand, respectively.

Defined benefits plan

The Company and its domestic subsidiaries adopt a defined benefit plan in accordance with the Labor Standards Act of the R.O.C. The pension benefits are disbursed based on the units of service years and the average salaries in the last month of the service year. Two units per year are awarded for the first 15 years of services while one unit per year is awarded after the completion of the 15th year. The total units shall not exceed 45 units. Under the Labor Standards Act, the Company and its domestic subsidiaries contribute an amount equivalent to 2% of the employees' total salaries and wages on a monthly basis to the pension fund deposited at the Bank of Taiwan in the name of the administered pension fund committee. Before the end of each year, the Company and its domestic subsidiaries assess the balance in the designated labor pension fund. If the amount is inadequate to pay pensions calculated for workers retiring in the same year, the Company and its domestic subsidiaries will make up the difference in one appropriation before the end of March the following year.

The Ministry of Labor is in charge of establishing and implementing the fund utilization plan in accordance with the Regulations for Revenues, Expenditures, Safeguard and Utilization of the Labor Retirement Fund. The pension fund is managed in-house or under a mandate, based on a passive-aggressive investment strategy for long-term profitability. The Ministry of Labor establishes checks and risk management mechanism based on the assessment of risk factors including market risk, credit risk and liquidity risk, in order to maintain adequate manager flexibility to achieve targeted return without over-exposure of risk. With regard to utilization of the pension fund, the minimum earnings in the annual distributions on the final financial statement shall not be less than the earnings attainable from the amounts accrued from two-year time deposits with the interest rates offered by local banks. Treasury Funds can be used to cover the deficits after the approval of the competent authority. As the Group does not participate in the operation and management of the pension fund, no disclosure on the fair value of the plan assets categorized in different classes could be made in accordance with paragraph 142 of IAS 19. The Group expects to contribute NT$77,843 thousand to its defined benefit plan during the 12 months beginning after December 31, 2019.

Apart from the abovementioned pension funds, the Group has another fund managed by the pension fund management committee, and the plan is categorized as follows:

	As of December 31,	
	2019	2018
Investments with quoted prices in an active market		
Equity instruments-domestic	92%	96%
Debt instruments-domestic	8%	4%
Others	0%	0%

The durations of the defined benefits plan obligation as of December 31, 2019 and 2018 are 5 and 6 years, respectively.

Pension costs recognized in profit or loss for the years ended December 31, 2019 and 2018 are as follows:

	For the years ended December 31,	
	2019	2018
Current period service costs	$36,217	$40,542
Interest income or expense	3,634	694
Past service cost	-	-
Payments from the plan	-	-
Total	$39,851	$41,236

Changes in the defined benefit obligation and fair value of plan assets are as follows:

	As of		
	December 31, 2019	December 31, 2018	January 1, 2018
Defined benefit obligation at January 1,	$2,098,802	$2,203,668	$2,181,935
Plan assets at fair value	(1,608,471)	(1,736,406)	(2,082,853)
Other non-current liabilities - Accrued pension liabilities recognized on the consolidated balance sheets	$490,331	$467,262	$99,082

Reconciliation of liability (asset) of the defined benefit plan is as follows:

	Defined benefit obligation	Fair value of plan assets	Benefit liability (asset)
As of January 1, 2018	$2,181,935	$2,082,853	$99,082
Current period service costs	40,542	-	40,542
Net interest expense (income)	15,274	14,580	694
Subtotal	2,237,751	2,097,433	140,318
Remeasurements of the net defined benefit liability (asset):			
Actuarial gains and losses arising from changes in demographic assumptions	(983)	-	(983)
Actuarial gains and losses arising from changes in financial assumptions	(4,852)	-	(4,852)
Experience adjustments	83,983	-	83,983
Return on plan assets	-	(316,980)	316,980
Subtotal	78,148	(316,980)	395,128
Payments from the plan	(112,231)	(112,231)	-
Contributions by employer	-	68,184	(68,184)
Effect of changes in foreign exchange rates	-	-	-
As of December 31, 2018	2,203,668	1,736,406	467,262
Current period service costs	36,217	-	36,217
Net interest expense (income)	17,172	13,538	3,634
Subtotal	2,257,057	1,749,944	507,113
Remeasurements of the net defined benefit liability (asset):			
Actuarial gains and losses arising from changes in demographic assumptions	443	-	443
Actuarial gains and losses arising from changes in financial assumptions	4,241	-	4,241
Experience adjustments	31,950	-	31,950
Return on plan assets	-	(28,631)	28,631
Subtotal	36,634	(28,631)	65,265
Payments from the plan	(194,889)	(194,889)	-
Contributions by employer	-	82,047	(82,047)
Effect of changes in foreign exchange rates	-	-	-
As of December 31, 2019	$2,098,802	$1,608,471	$490,331

The following significant actuarial assumptions are used to determine the present value of the defined benefit obligation:

	As of December 31,	
	2019	2018
Discount rate	0.66%	0.76%~0.78%
Expected rate of salary increases	1.00%	1.00%

A sensitivity analysis for significant assumption as of December 31, 2019 and 2018 is as shown below:

	Effect on the defined benefit obligation			
	2019		2018	
	Increase in defined benefit obligation	Decrease in defined benefit obligation	Increase in defined benefit obligation	Decrease in defined benefit obligation
Discount rate increase by 0.5%	$-	$17,010	$-	$28,325
Discount rate decrease by 0.5%	124,801	-	102,981	-
Future salary increase by 0.5%	123,458	-	101,747	-
Future salary decrease by 0.5%	-	17,035	-	28,399

The sensitivity analyses above are based on a change in a significant assumption (for example: change in discount rate or future salary), keeping all other assumptions constant. The sensitivity analyses may not be representative of an actual change in the defined benefit obligation as it is unlikely that changes in assumptions would occur in isolation of one another.

There was no change in the methods and assumptions used in preparing the sensitivity analyses compared to the previous period.

(19) Equities

A. Common stock

The Company's authorized capital were both NT$30,000,000 thousand as of December 31, 2019 and 2018. The Company's issued capital were both NT$29,080,608 thousand as of December 31, 2019 and 2018, each at a par value of NT$10. The Company has issued both 2,908,061 thousand common shares as of December 31, 2019 and 2018. Each share has one voting right and a right to receive dividends.

B. Capital surplus

	As of December 31,	
	2019	2018
Additional paid-in capital	$1,540,300	$1,540,300
Increase through changes in ownership interests in subsidiaries	258,091	258,091
Expired employee stock warrants	23,661	23,661
Gains on disposal of assets	103,166	103,166
Total	$1,925,218	$1,925,218

According to the Company Act, the capital reserve shall not be used except for making good the deficit of the company. When a company incurs no loss, it may distribute the capital reserves related to the income derived from the issuance of new shares at a premium or income from endowments received by the company. The distribution could be made in cash or in the form of dividend shares to its stockholders in proportion to the number of shares being held by each of them.

C. <u>Rained earnings and dividend policies</u>

According to the Company's Articles of Incorporation, the Company's annual earnings, if any, shall first set aside 1.5% as employee bonuses and no higher than 1.5% as directors and supervisor's remunerations. Nevertheless, the Company shall first make up for losses if there is accumulated losses. The Company shall make distributions from its net income (less any deficit) in the following order:

a. Offset an accumulated deficit.
b. Set aside 10% as legal reserve.
c. Set aside or reverse special reserve.
d. Following distributions of items "a" to "c" indicated above, the remaining amount, if any, shall be proposed by the board of directors at a board meeting to be distributed as shareholders dividends and bonuses.

Based on the Company's plan to achieve healthy financial standing, whether to distribute the beginning undistributed earnings should consider the actual operation of the year and the budget planning for the following year, to evaluate the necessity of providing funding via earnings distribution so as to determine the most appropriate dividend policy for sustainable business development. The said shareholders dividend and bonus distribution shall not be less than 50% of the distributable earnings after deducting the above items "a" to "c" from current net income. The Company's Articles of Incorporation further provide that no more than 1% of the dividends to shareholders, if any, could be paid in the form of share dividends. At least 20% of the dividends must be paid in the form of cash.

According to the Company Act, the Company needs to set aside amount to legal reserve unless where such legal reserve amounts to the total authorized capital. The legal reserve can be used to make good the deficit of the Company. When the Company incurs no loss, it may distribute the portion of legal serve which exceeds 25% of the paid-in capital by issuing new shares or by cash in proportion to the number of shares being held by each of the stockholders.

Following the adoption of TIFRS, the FSC on April 6, 2012 issued Order No. Financial-Supervisory-Securities-Corporate-1010012865, which sets out the following provisions for compliance:

On a public company's first-time adoption of the TIFRS, for any unrealized revaluation gains and cumulative translation adjustments (gains) recorded to stockholders' equity that the company elects to transfer to retained earnings by application of the exemption under IFRS 1, the company shall set aside an equal amount of special reserve. Following a company's adoption of the TIFRS for the preparation of its financial reports, when distributing distributable earnings, it shall set aside to special reserve, from the profit/loss of the current period and the undistributed earnings from the previous period, an amount equal to "other net deductions from stockholders' equity for the current fiscal year, provided that if the company has already set aside special reserve according to the requirements in the preceding point, it shall set aside supplemental special reserve based on the difference between the amount already set aside and other net deductions from stockholders' equity. For any subsequent reversal of other net deductions from stockholders' equity, the amount reversed may be distributed. The special reserves booked from first-time adoption of International Financial Reporting Standards were both NT$3,232,749 thousand as of December 31, 2019 and 2018, respectively. The Company did not reverse special reserve to retained earnings for using, disposing of or reclassifying relevant assets in 2019 and 2018.

Details of the 2019 and 2018 earnings distribution and dividends per share as approved by Board of Directors' meeting on March 16, 2020 and by the stockholders' meeting on June 19, 2019, respectively, are as follows:

	Appropriation of earnings		Dividend per share (NT$)	
	2019	2018	2019	2018
Legal reserve	$-	$106,629	$-	$-
Common stock-cash dividend	-	872,418	-	0.3
Common stock-stock dividend	-	-	-	-

Please refer to Note 6.(24) for further details on employees' compensation and remuneration to directors.

D. Non-controlling interests

	For the years ended December 31,	
	2019	2018
Beginning balance	$3,486,885	$3,574,702
The effects arising from adoption of IFRS 16	(13)	-
Net gains (losses) attributable to non-controlling interests	(158,328)	(34,306)
Other comprehensive income, attributable to non-controlling interests, net of tax:		
Exchange differences resulting from translating the financial statements of foreign operations	(115,878)	(54,734)
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	(15,431)	(18,552)
Actuarial (losses) gains on defined benefit	(105)	(502)
Acquisition of new shares in a subsidiary not in proportionate to ownership interest	-	(221)
Changes in associates accounted for using equity method	-	(11,576)
Capital increased by cash	-	58,332
Cash dividends from a subsidiary	-	(8,000)
Other	-	(18,258)
Ending balance	$3,197,130	$3,486,885

(20) Operating revenues

	For the years ended December 31,	
	2019	2018
Sale of goods	$41,775,507	$46,091,494

Analysis of revenue from contracts with customers during the years ended December 31, 2019 and 2018 are as follows:

A. Disaggregation of revenue:

The timing of revenue recognition was at a point in time. Please refer to Note 14 Segment Information for more details.

B. Contract balances

a. Contract assets - current

	December 31, 2019	December 31, 2018	January 1, 2018
Sales of goods	$314,267	$410,376	$661,467
Less: loss allowance	(15,136)	(14,622)	-
Net	$299,131	$395,754	$661,467

Please refer to Note 6.(21) for more details on the impairment impact

The significant changes in the Group's balances of contract assets during the years ended December 31, 2019 and 2018 are as follows:

	For the years ended December 31,	
	2019	2018
The opening balance transferred to trade receivables	$395,754	$661,467
Acquisition	314,267	410,376
Impairment	(15,136)	(14,622)

b. Contract liabilities - current

	December 31 2019	December 31 2018	January 1, 2018
Sales of goods	$812,294	$960,526	$1,199,590

The significant changes in the Group's balances of contract liabilities for the years ended December 31, 2019 and 2018 are as follows:

	For the years ended December 31,	
	2019	2018
The opening balance transferred to revenue	$960,526	$1,199,590
Increase in receipts in advance during the period (excluding the amount incurred and transferred to revenue during the period)	812,294	960,526

C. Assets recognized from costs to obtain or fulfil a contract: None.

(21) Expected credit losses/ (gains)

	For the years ended December 31,	
	2019	2018
Operating expenses – Expected credit losses/(gains)		
Contract assets	$(1,142)	$(14,898)
Notes receivables	(39,219)	-
Accounts receivables	(8,921)	56,011
Total	$(49,282)	$41,113

Please refer to Note 12 for more details on credit risk.

The Group measures the loss allowance of its contract assets and accounts receivables (including note receivables, accounts receivables, other receivables and overdue receivables) at an amount equal to lifetime expected credit losses. The assessment of the Group's loss allowance as of December 31, 2019 and 2018 are as follows:

A. The total carrying amount of contract asset for the years ended December 31, 2019 and 2018 amounted to NT$314,267 thousand and NT$410,376 thousand, respectively. Loss allowance for the years ended December 31, 2019 and 2018 were NT$15,136 thousand and NT$14,622 thousand which were both measured at expected credit loss ratio of 0% ~ 20%.

B. The Group considered the grouping of accounts receivables by counterparties' credit rating, by geographical region and by industry sector and its loss allowance is measured by using a provision matrix, details are as follows:

As of December 31, 2019

Group 1		Overdue			
	Not yet due	31-90 days	91-360 days	>=361 days	Total
Total carrying amount	$-	$-	$-	$1,053,610	$1,053,610
Loss ratio	-	-	-	96.59%	
Lifetime expected credit losses	-	-	-	(1,017,653)	(1,017,653)
Subtotal	-	-	-	35,957	35,957

Group 2		Overdue			
	Not yet due	31-90 days	91-360 days	>=361 days	Total
Total carrying amount	$3,597,543	$524,960	$156,870	$-	$4,279,373
Loss ratio	0.28%	1.30%	5.00%	0%	
Lifetime expected credit losses	(10,160)	(6,804)	(7,851)	-	(24,815)
Subtotal	3,587,383	518,156	149,019	-	4,254,558

Group 3		Overdue			
	Not yet due	31-90 days	91-360 days	>=361 days	Total
Total carrying amount	$8,851,452	$-	$-	$-	$8,851,452
Loss ratio	0%	0%	0%	0%	
Lifetime expected credit losses	-	-	-	-	-
Subtotal	8,851,452	-	-	-	8,851,452
Carrying amount					$13,141,967

As of December 31, 2018

Group 1		Overdue			
	Not yet due	31-90 days	91-360 days	>=361 days	Total
Total carrying amount	$-	$-	$-	$1,034,788	$1,034,788
Loss ratio				96.30%	
Lifetime expected credit losses	-	-	-	(996,456)	(996,456)
Subtotal	-	-	-	38,332	38,332

Group 2		Overdue			
	Not yet due	31-90 days	91-360 days	>=361 days	Total
Total carrying amount	$3,832,515	$555,482	$84,471	$-	$4,472,468
Loss ratio	0.27%	0.95%	4.87%	0%	
Lifetime expected credit losses	(10,376)	(5,263)	(4,111)	-	(19,750)
Subtotal	3,822,139	550,219	80,360	-	4,452,718

Group 3		Overdue			
	Not yet due	31-90 days	91-360 days	>=361 days	Total
Total carrying amount	$5,200,229	$-	$-	$-	$5,200,229
Loss ratio	0%	0%	0%	0%	
Lifetime expected credit losses	-	-	-	-	-
Subtotal	5,200,229	-	-	-	5,200,229
Carrying amount					$9,691,279

Group 1: The Group has exercised recourse against the individual assessment of accounts receivables, other receivables and overdue receivables.

Group 2: The Group's accounts receivables are overdue but not for more than one year.

Group 3: The Group's notes receivables, accounts receivables- related parties and other receivables are not yet due.

The movement in the provision for impairment of contract assets, note receivables, accounts receivables, other receivables and overdue receivables during 2019 and 2018 was as follows:

	Contract assets	Notes receivables	Accounts receivables	Other receivables	Overdue receivables
As of January 1, 2019	$14,622	$-	$212,423	$31,573	$772,210
Reversal for the current period	1,142	39,219	8,921	-	-
Write off	-	-	(10,758)	-	-
Reclass	-	3,008	(3,008)	-	-
Foreign exchange effects	(628)	(1,616)	(8,250)	(1,254)	-
As of December 31, 2019	$15,136	$40,611	$199,328	$30,319	$772,210
As of January 1, 2018	$-	$-	$280,928	$32,132	$793,103
Reversal for the current period	14,898	-	(56,011)	-	-
Write off	-	-	(9,164)	-	(20,893)
Foreign exchange effects	(276)	-	(3,330)	(559)	-
As of December 31, 2018	$14,622	$-	$212,423	$31,573	$772,210

(22) Net amount of other revenues and gains and expenses and losses

	For the years ended December 31,	
	2019	2018
Gains (losses) on disposal of property, plant, and equipment	$(23,448)	$74
Gain on disposal of right-of-use asset	99	-
	$(23,349)	$74

(23) Leases

A. Group as a lessee (applicable to the disclosure requirement under IFRS 16)

The Group leases various properties, including real estate such as land and buildings, machinery and equipment, transportation equipment, office equipment and other equipment. The lease terms range from three to five years. There are no restrictions placed upon the Group by entering into these leases.

The Group's leases effect on the financial position, financial performance and cash flows are as follow:

a. Amounts recognized in the balance sheet

i. Right-of-use assets

The carrying amount of right-of-use assets

	As of December 31,	
	2019	2018 (Note)
Land	$3,000,969	
Buildings	12,785	
Other equipment	27,246	
Total	$3,041,000	

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

During the years ended December 31, 2019, the Group's additions to right-of-use assets amounting to NT$195,792 thousand.

ii. Lease liabilities

	As of December 31,	
	2019	2018 (Note)
Current	$38,138	
Non-current	72,881	
Lease liabilities	$111,019	

Please refer to Note 6.(25)(c) for the interest on lease liabilities recognized during the years ended December 31, 2019 and refer to Note 12.(5) Liquidity Risk Management for the maturity analysis for lease liabilities as of December 31, 2019.

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

b. Amounts recognized in the statement of profit or loss

Depreciation charge for right-of-use assets

	For the years ended December 31,	
	2019	2018 (Note)
Land	$112,010	
Buildings	6,013	
Other equipment	11,354	
Total	$129,377	

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

c. Income and costs relating to leasing activities

	For the years ended December 31,	
	2019	2018 (Note)
The expenses relating to short-term leases	$15,768	
The expenses relating to leases of low-value assets (Not including the expenses relating to short-term leases of low-value assets)	4,656	

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

d. Cash outflow relating to leasing activities

During the year ended December 31, 2019, the Group's total cash outflows for leases amounting to NT$228,073 thousand.

B. Operating lease commitments - Group as a lessee (applicable to the disclosure requirement in IAS 17)

The Group has entered into commercial leases on certain offices and plants. These leases have an average life of three to five years with no renewal option included in the contracts. There are no restrictions placed upon the Group by entering into these leases.

Future minimum rentals payable under non-cancellable operating leases as of December 31, 2019 and 2018 are as follows:

	As of December 31,	
	2019(Note)	2018
Not later than one year		$26,611
Later than one year and not later than five years		74,286
Total		$100,897

Operating lease expenses recognized are as follows:

	For the years ended December 31,	
	2019(Note)	2018
Minimum lease payments		$38,888

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

(24) Summary statement of employee benefits, depreciation and amortization expenses by function:

	For the years ended December 31,					
	2019			2018		
	Operating costs	Operating expenses	Total	Operating costs	Operating expenses	Total
Employee benefits expense						
Salaries	$4,658,969	$1,064,426	$5,723,395	$4,791,033	$1,199,927	$5,990,960
Labor and health insurance	370,490	59,346	429,836	369,943	59,724	429,667
Pension	258,355	103,590	361,945	257,905	107,670	365,575
Other employee benefits expense	144,848	34,463	179,311	138,331	37,453	175,784
Depreciation(Note)	4,934,283	362,063	5,296,346	4,854,851	258,981	5,113,832
Amortization(Note)	1,930	10,986	12,916	16,852	10,455	27,307

Note: The differences between the amount stated above and the depreciation stated in the Consolidated Statements of Cash Flows was recognized in other gains and losses.

According to the Company’s Articles of Incorporation, when there is profit of the current year, the Company shall distribute 1.5% of profit of the current year as employees’ compensation and no higher than 1.5% of profit of the current year as remuneration to directors. However, the Company's accumulated losses shall have been covered. Information on the Board of Directors’ resolution regarding the employees’ compensation and remuneration to directors can be obtained from the “Market Observation Post System” on the website of the TWSE.

Based on the profit for the current year, the Company did not estimate the amounts of the employees’ compensation and remuneration to directors for the year ended December 31, 2019. As such, employees’ compensation and remuneration to directors for the year ended December 31, 2018 amounted to both NT$17,194 thousand, recognized as salaries expense.

A resolution was approved at the board meeting held on March 18, 2019 to distribute NT$17,194 thousand in cash as employees’ compensation and remuneration to directors of 2018. No material differences existed between the estimated amount and the actual distribution of the employee compensation and remuneration to directors for the year ended December 31, 2018.

(25) Non-operating income and expenses

A. Other income

	For the years ended December 31,	
	2019	2018
Interest income		
Financial assets measured at amortized cost	$94,408	$50,625
Rental income	52,444	10,570
Dividend income	7,493	13,998
Others	552,508	598,470
Total	$706,853	$673,663

B. Other gains and losses

	For the years ended December 31,	
	2019	2018
Foreign exchange (losses) , net	$(187,442)	$(336,786)
Impairment losses (Note)	-	(376,672)
Loss on disposal of investment	-	(86)
Others	(204,510)	(207,779)
Total	$(391,952)	$(921,323)

Note: The Group wrote off part of machinery equipment to recoverable amount in 2018. Please refer to Note 6.(10).

C. Finance costs

	For the years ended December 31,	
	2019	2018
Interest on borrowings from bank	$785,189	$664,981
Interest on borrowings from intercompany	7,788	46,406
Interest on lease liabilities	1,714	(Note)
Interest for finance lease	(Note)	41
Interest on factoring of accounts receivable	3,077	4,902
Total	$797,768	$716,330

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

(26) Components of other comprehensive income

Year ended December 31, 2019

	Arising during the period	Reclassification adjustments during the period	Other comprehensive income, before tax	Income tax relating to components of other comprehensive income	Other comprehensive income, net of tax
Not to be reclassified to profit or loss in subsequent periods:					
Remeasurements of defined benefit plans	$(65,265)	$-	$(65,265)	$13,283	$(51,982)
To be reclassified to profit or loss in subsequent periods:	(5,665)	-	(5,665)	-	(5,665)
Exchange differences resulting from translating the financial statements of foreign operations					
Unrealized gains from available-for-sale financial assets	(1,580,000)	-	(1,580,000)	-	(1,580,000)
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	(256,326)	-	(256,326)	-	(256,326)
Total	$(1,907,256)	$-	$(1,907,256)	$13,283	$(1,893,973)

Year ended December 31, 2018

	Arising during the period	Reclassification adjustments during the period	Other comprehensive income, before tax	Income tax relating to components of other comprehensive income	Other comprehensive income, net of tax
Not to be reclassified to profit or loss in subsequent periods:					
Remeasurements of defined benefit plans	$(395,128)	$-	$(395,128)	$102,614	$(292,514)
To be reclassified to profit or loss in subsequent periods:					
Exchange differences resulting from translating the financial statements of foreign operations	(900)	-	(900)	-	(900)
Unrealized gains from available-for-sale financial assets	(688,092)	-	(688,092)	-	(688,092)
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	(317,817)	-	(317,817)	-	(317,817)
Total	$(1,401,937)	$-	$(1,401,937)	$102,614	$(1,299,323)

(27) Income tax

Based on the amendments to the Income Tax Act announced on February 7, 2018, the Company’s applicable corporate income tax rate for the year ended December 31, 2018 has changed from 17% to 20%. The corporate income surtax on undistributed retained earnings has changed from 10% to 5%.

The major components of income tax expense (benefit) are as follows:

Income tax expense recognized in profit or loss

	For the years ended December 31,	
	2019	2018
Current income tax expense:		
Current income tax charge	$356,259	$466,519
Adjustments in respect of current income tax of prior periods	25,180	42,153
Deferred tax expense (benefit):		
Deferred tax expense (benefit) relating to origination and reversal of temporary differences	(75,084)	13,067
Deferred income tax related to changes in tax rates	-	946
Total income tax expense	$306,355	$522,685

Income tax relating to components of other comprehensive income

	For the years ended December 31,	
	2019	2018
Deferred tax expense:		
Deferred income tax related to changes in tax rates	$-	$23,589
Remeasurement of defined benefit plans	13,283	79,025
Total	$13,283	$102,614

Reconciliation between tax expense and the product of accounting profit multiplied by applicable tax rates is as follows:

	For the years ended December 31,	
	2019	2018
Accounting (loss) profit before tax from continuing operations	$(1,300,423)	$1,554,665
Tax at the domestic rates applicable to profits in the country concerned	(515,965)	373,028
Net investment income accounted for using the equity method	83,943	(274,793)
Tax effect of revenues exempt from taxation	(1,474)	(2,727)
Tax effect of expenses not deductible for tax purposes	56,327	2,770
Tax effect of income tax deduction	(84,003)	(16,460)
Non-deductible offshore tax	11,093	5,243
Corporate income surtax on undistributed retained earnings	-	63,624
Tax effect of other deferred tax assets/liabilities	687,768	325,759
Adjustments in respect of current income tax of prior periods	27,778	39,750
Deferred income tax related to changes in tax rates	-	937
Others	40,888	5,554
Total income tax expense recognized in profit or loss	$306,355	$522,685

Deferred tax assets (liabilities) relate to the following:

For the year ended December 31, 2019

	Beginning balance as of January 1, 2019	Recognized in profit or loss	Recognized in other comprehensive income	Exchange differences	Ending balance as of December 31, 2019
Temporary differences					
Depreciation difference for tax purpose	$(67,760)	$1,682	$-	$-	$(66,078)
Loss allowance	312	(270)	-	-	42
Unrealized allowance for receivables	9,436	3,590	-	(523)	12,503
Prepaid pension cost difference	91,920	(7,137)	13,283	-	98,066
Employee benefits	4,211	(2,120)	-	-	2,091
Unrealized loss due to market price decline of inventories	247,787	46,432	-	(1,199)	293,020
Unrealized intragroup profits and losses	5,240	3,529	-	-	8,769
Capitalization of interest	4,318	(1,201)	-	-	3,117
Provisions of employee benefit obligations	23,066	807	-	-	23,873
Unrealized loss on foreign exchange	-	58	-	-	58
Unrealized gain on foreign exchange	(22,291)	4,345	-	-	(17,946)
Government grants	(337,777)	29,538	-	12,205	(296,034)
Amortization of government grants	24,279	(2,736)	-	(851)	20,692
Others	1,655	(1,433)	-	-	222
Land value increment tax	(204,145)	-	-	-	(204,145)
Deferred tax income/ (expense)		$75,084	$13,283	$9,632	
Net deferred tax assets/(liabilities)	$(219,749)				$(121,750)
Reflected in balance sheet as follows:					
Deferred tax assets	$412,224				$462,453
Deferred tax liabilities	$(631,973)				$(584,203)

For the year ended December 31, 2018

	Beginning balance as of January 1, 2019	Recognized in profit or loss	Recognized in other comprehensive income	Exchange differences	Ending balance as of December 31, 2019
Temporary differences					
Depreciation difference for tax purpose	$(60,627)	$(7,133)	$-	$-	$(67,760)
Loss allowance	929	(617)	-	-	312
Unrealized allowance for receivables	20,664	(11,074)	-	(154)	9,436
Prepaid pension cost difference	16,467	(27,161)	102,614	-	91,920
Employee benefits	5,381	(1,170)	-	-	4,211
Unrealized loss due to market price decline of inventories	227,970	20,052	-	(235)	247,787
Unrealized intragroup profits and losses	17,525	(12,285)	-	-	5,240
Capitalization of interest	4,691	(373)	-	-	4,318
Provisions of employee benefit obligations	17,736	5,330	-	-	23,066
Unrealized loss on foreign exchange	39	(39)	-	-	-
Unrealized gain on foreign exchange	(15,965)	(6,326)	-	-	(22,291)
Government grants	(373,768)	30,050	-	5,941	(337,777)
Amortization of government grants	27,797	(3,092)	-	(426)	24,279
Others	1,830	(175)	-	-	1,655
Land value increment tax	(204,145)	-	-	-	(204,145)
Deferred tax income/ (expense)		$(14,013)	$102,614	$5,126	
Net deferred tax assets/(liabilities)	$(313,476)				$(219,749)
Reflected in balance sheet as follows:					
Deferred tax assets	$341,029				$412,224
Deferred tax liabilities	$(654,505)				$(631,973)

The following table contains information of the unused tax losses of the Group:

Year	Tax losses for the period	Unused tax losses as of December 31, 2019	2018	Expiration year
2012	$38,793	$8,881	$8,881	2022
2013	337,600	47,427	47,427	2023
2014	2,582,174	838,435	1,702,939	2019
2014	236,539	76,462	76,462	2024
2015	4,155,645	2,424,314	2,584,028	2020
2015	97,612	97,612	97,612	2025
2016	2,202,249	1,451,985	1,593,611	2021
2016	53,200	53,200	53,200	2026
2017	1,131,146	984,299	1,164,206	2022
2017	173,796	111,265	173,796	2027
2018	1,125,237	1,083,849	1,348,796	2023
2018	216,746	172,945	216,746	2028
2019	1,500,226	1,403,693	-	2024
2019	851,450	851,450	-	2029
Total		$9,605,817	$9,067,704	

Unrecognized deferred tax assets

As of December 31, 2019 and 2018, deferred tax assets that have not been recognized as they may not be used to offset taxable profits amounted to NT$2,450,973 thousand and NT$2,157,421 thousand, respectively.

Unrecognized deferred tax liabilities relating to the investment in subsidiaries

The Group did not recognize any deferred tax liability for taxes that would be payable on the unremitted earnings of the Group's overseas subsidiaries, as the Group has determined that undistributed profits of its subsidiaries will not be distributed in the foreseeable future. As of December 31, 2019 and 2018, the taxable temporary differences associated with investment in subsidiaries, for which deferred tax liability has not been recognized, aggregated to NT$3,255,307 thousand and NT$2,341,393 thousand, respectively.

The assessment of income tax returns

As of December 31, 2019, the assessment of the income tax returns of the Company and its subsidiaries is as follows:

	The assessment of income tax returns
The Company	Assessed and approved up to 2017
TAG	Assessed and approved up to 2017
TVIG	Assessed and approved up to 2017
TGCH	Not required
TAGH	Not required
Subsidiaries in Mainland China	Assessed and approved up to 2018

(28) Earnings per share

Basic earnings per share amounts are calculated by dividing net (loss) profit for the year attributable to ordinary equity holders of the parent entity by the weighted average number of ordinary shares outstanding during the year.

Diluted earnings per share amounts are calculated by dividing the net (loss) profit attributable to ordinary equity holders of the parent entity (after adjusting for interest on the convertible preference shares) by the weighted average number of ordinary shares outstanding during the year plus the weighted average number of ordinary shares that would be issued on conversion of all the dilutive potential ordinary shares into ordinary shares.

	For the years ended December 31,	
	2019	2018
Basic earnings per share		
Profit attributable to ordinary equity holders of the Company (in thousands)	$(1,448,450)	$1,066,286
Weighted average number of ordinary shares outstanding for basic earnings per share (in thousands)	2,908,061	2,908,061
Basic earnings per share (NT$)	$(0.50)	$0.37

	For the years ended December 31,	
	2019	2018
Diluted earnings per share		
Profit attributable to ordinary equity holders of the Company (in thousands)		$1,066,286
Weighted average number of ordinary shares outstanding for basic earnings per share (in thousands)		2,908,061
Effect of dilution:		
Employees' compensation		1,333
Weighted average number of ordinary shares outstanding after dilution (in thousands)		2,909,394
Diluted earnings per share (NT$)		$0.37

There were not potential ordinary shares as of year ended December 31, 2019, hence not necessary to calculate diluted earnings per share.

There have been no other transactions involving ordinary shares or potential ordinary shares between the reporting date and the date of completion of the financial statements.

(29) Changes in parent's interest in subsidiaries

Losing control of a subsidiary

The Company disposed of 50% ownership of HTG on May 31, 2018 and lost its control. The price was NT$18,258 thousand.

As of May 31, 2018, the book value of HTG's assets and liabilities is as follows:

	Book value
Cash and cash equivalents	$33,598
Receivables	3,669
Prepayments	22
Refundable deposits	9
Payables	(135)
Current income tax liabilities	(628)
Other current liabilities	(19)
Identifiable net assets	$36,516

Proceeds of disposal (under other receivable)	$18,258
Add: non-Controlling interest (50% of identifiable net assets)	18,258
Less: identifiable net assets	(36,516)
Net	$-

Acquisition of new shares in a subsidiary not in proportion to ownership interest

For the year ended December 31, 2018 the Company paid additional cash to acquire TGCH's new shares issued in the amount of US$46,782 thousand (NT$1,434,797 thousand), and consequently its ownership interest in TGCH was increased to 93.98%. Following is a schedule of interests owned in TGCH including changes in non-controlling interests and adjustments to accumulated other comprehensive income:

	For the years ended December 31,	
	2019	2018
Cash consideration receive	$-	$-
Adjustment to non-controlling interests	-	221
Recognized in the capital reserve attributable to parent company	$-	$221

(30) Subsidiaries that have material non-controlling interests

Financial information of subsidiaries that have material non-controlling interests is provided below:

Proportion of equity interest held by non-controlling interests:

		As of December 31,	
Name	Country of Incorporation and operation	2019	2018
TGCH and subsidiaries	Bermuda	6.02%	6.02%

	As of December 31,	
	2019	2018
Accumulated balances of material non-controlling interest:		
TGCH and subsidiaries	$3,080,632	$3,344,154

	For the years ended December 31,	
	2019	2018
Profit (losses) allocated to material non-controlling interest:		
TGCH and subsidiaries	$(132,588)	$(13,415)

The summarized financial information of these subsidiaries is provided below. This information is based on amounts before inter-company eliminations.

Summarized information of profit or loss of TGCH and subsidiaries for the years ended December 31, 2019 and 2018:

	For the years ended December 31,	
	2019	2018
Operating revenue	$29,989,090	$33,304,357
Profit or loss for the period from continuing operations	(493,727)	1,398,229
Total comprehensive income for the period	(2,320,663)	382,245

Summarized information of financial position of TGCH and subsidiaries of December 31, 2019 and 2018:

	As of December 31,	
	2019	2018
Current assets	$24,773,919	$20,267,755
Non-current assets	39,259,745	42,752,634
Current liabilities	16,307,055	10,932,179
Non-current liabilities	5,047,626	7,088,487

Summarized cash flow information of TGCH and subsidiaries for the years ended December 31, 2019 and 2018:

	For the years ended December 31,	
	2019	2018
Operating activities	$1,550,388	$3,904,730
Investing activities	(2,376,075)	(4,949,784)
Financing activities	707,682	1,018,422
Net increase in cash and cash equivalents	3,830,132	108,218

7. Related party transactions

The significant transactions for 2019 and 2018 are summarized below:

Name and Relationship of Related Parties

Name of related parties	Relationship with the Company
Shihlien Chemical Industrial (Jiangsu) Co., Ltd. (SCJ)	Associates
Taibo Anhui Energy Co., Ltd.	〃
Tai Fong Investment Co., Ltd.	Other related parties
Ho Ho Investment Co., Ltd.	〃
Tai Cheng Investment Co., Ltd.	〃
Tai Yu Investment Co., Ltd.	〃
Tai Chia Investment Co., Ltd.	〃
Lim Ken Seng Kah Kai Co., Ltd.	〃
Tai Fong Golf Club	〃
Shihlien Apex Huaian Technology Co., Ltd.	〃
Shihlien Apex Yancheng Technology Co., Ltd.	〃
Shihlien Apex EV Leasing Jiangsu	〃
Shihlien Apex EV Leasing Huaian	〃
Shihlien International Investment Co., Ltd.	〃
Shihlien Fine Chemical Co., Ltd.	〃
Power Source New Energy Jian	〃
Shenzhen Taizhi Photoelectric Materials Technology Co., Ltd. (TPMT)	〃
Xue Xue Institute	〃
Xue Xue Foundation	〃
Dongfeng Yueda Kia Motors Co., Ltd. (DYK)	〃
Jiangsu Yueda Mobis Trade Co., Ltd.	〃
Jiangsu Yueda Group Co., Ltd.	〃
Jiangsu Yueda Group Finance Co., Ltd.	〃
Yueda Automobile Development Co., Ltd.	〃
Jiangsu Yueda Xingye Auto Parts Co., Ltd.	〃
Jiangsu Yueda Printing Co., Ltd.	〃
Jiangsu Yueda Auto Parts Logistics Co., Ltd.	〃

Name of related parties	Relationship with the Company
Jiangsu Yueda Advertising Media Co., Ltd.	〃
Jiangsu Yueda Package & Transportation Co., Ltd.	〃
Yancheng Yueda Can Green Photovoltaic Power Co., Ltd.	〃
Jiangsu Yueda Health Management Service Co., Ltd.	〃
Global Car Sharing & Rental Yueda Yancheng Co., Ltd.	〃
Jiangsu Yueda Glovis Logistic Co., Ltd.	〃
TECO Nanotech Co., Ltd.	〃
TECO Electric & Machinery Co., Ltd.	〃
Tong-An Investment Co., Ltd.	〃
Information Technology Total Services Corp.	〃
T E S Solutions Co., Ltd.	〃
KAH HUNG CORP.	〃
Nippon Parts Co., Ltd.	〃
Pilkington Automotive Belgium NV.	〃
Pilkington Automotive Finland OY	〃
Nippon Sheet Glass Co., Ltd.	〃
NSG Purchase&Supply Co., Ltd.	〃
Pilkington North America Inc.	〃
Pilkington Technology Management Limited	〃
HARIO Co., Ltd. (Note)	〃

Note: Since May 31, 2018, it was no longer Group's related party.

Significant transactions with related parties

(1) Sales

	For the years ended December 31,	
	2019	2018
Associates	$29,920	$19,469
Other related parties	469,231	504,554
Total	$499,151	$524,023

The sales price to the above related parties was determined through mutual agreement based on the market rates. The collection period for related parties was month-end 90 days. The outstanding balance at December 31, 2019 and 2018 was unsecured, non-interest bearing and must be settled in cash. The receivables from the related parties were not guaranteed.

(2) Purchases

	For the years ended December 31,	
	2019	2018
Associates	$2,227,343	$2,520,085
Other related parties	13,427	44,736
Total	$2,240,770	$2,564,821

The purchase price to the above related parties was determined through mutual agreement based on the market rates. The payment terms from the related party suppliers are comparable with third party suppliers and are paid on delivery.

(3) Lease

Rental expense

	For the years ended December 31,	
	2019	2018(Note)
Other related parties	$378	$26,422

The Group has leased offices, land and cars for the year ended December 31, 2019.

The Group has leased offices, plant, warehouse land and cars for the year ended December 31, 2018. The rents were based on local market price and prepaid for 1 year.

Rental income

	For the years ended December 31,	
	2019	2018
Other related parties	$2,766	$2,789

Other receivables

	As of December 31,	
	2019	2018
Other related parties	$394	$412

Other payables

	As of December 31,	
	2019	2018
Other related parties	$422	$-

Right-of-use asset

	As of December 31,	
	2019	2018
Other related parties	$74,954	(Note)

Current lease liabilities

	As of December 31,	
	2019	2018
Other related parties	$25,804	(Note)

Non-current lease liabilities

	As of December 31,	
	2019	2018
Other related parties	$50,338	(Note)

Interest expense

	For the years ended December 31,	
	2019	2018
Other related parties	$1,253	(Note)

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

(4) Notes receivable

	As of December 31,	
	2019	2018
Associates	$-	$56,389
Other related parties	99,656	45,201
Total	$99,656	$101,590

(5) Accounts receivable

	As of December 31,	
	2019	2018
Associates	$2,884	$122
Other related parties	81,858	68,307
Total	84,742	68,429
Less: loss allowance	-	-
Net	$84,742	$68,429

(6) Notes payable

	As of December 31, 2019	As of December 31, 2018
Associate	$15,041	$-

(7) Accounts payable

	As of December 31, 2019	As of December 31, 2018
Associates		
Shihlien Chemical Industrial (Jiangsu) Co., Ltd. (SCJ)	$729,229	$297,211
Others	6,336	-
Subtotal	735,565	297,211
Other related parties	2,869	2,465
Total	$738,434	$299,676

(8) Short-term loans

	For the year ended December 31, 2019				
	Maximum balance	Ending balance	rate	Interest expense	Interest payables
Other related parties	$45,993 (RMB10,000 thousand)	$-	6%	$725	$-

	For the year ended December 31, 2018				
	Maximum balance	Ending balance	rate	Interest expense	Interest payables
Other related parties	$133,915 (RMB28,681 thousand)	$-	6%	$2,803	$-

(9) Other payables

A. Rental payable, technical service fee and others

	As of December 31, 2019	As of December 31, 2018
Other related parties	$13,509	$15,124

B. Financing

	For the year ended December 31, 2019				
	Maximum balance	Ending balance	rate	Interest expense	Interest payables
Tai Fong Investment Co., Ltd.	$200,000	$200,000	3%	$1,606	$1,751
Ho Ho Investment Co., Ltd.	880,000	880,000	3%	3,255	3,541
Tai Yu Investment Co., Ltd.	500,000	500,000	3%	153	164
Other related parties	14,043 (RMB3,200 thousand)	13,752	6%	2,049	147
		$1,593,752		$7,063	$5,603

Note: Interest expense including capitalized interest was NT$442 thousand.

	For the year ended December 31, 2018				
	Maximum balance	Ending balance	rate	Interest expense	Interest payables
Other related parties	$1,570,691 (USD53,800 thousand)	$14,321	3%~6%	$43,603	$36,881

(10) Others

The Group's other transactions with associates and other related parties are as follows:

	As of December 31,	
Other current assets	2019	2018
Associates	$1,772	$22,433
Other related parties	8,752	10,376
Total	$10,524	$32,809

	As of December 31,	
	2019	2018
Other non-current assets		
Other related parties	$93	$119

	As of December 31,	
	2019	2018
Other current liabilities		
Other related parties	$2,064	$-

	As of December 31,	
	2019	2018
Other non-current liabilities		
Other related parties	$2,183	$2,685

	For the years ended December 31,	
	2019	2018
Operating expense		
Other related parties	$18,485	$16,885

	For the years ended December 31,	
	2019	2018
Other income		
Associates	$1,823	$2,095
Other related parties	5,935	5,968
Total	$7,758	$8,063

(11) The payment term to related parties has no significant difference to other third parties. The outstanding balance at December 31, 2019 and 2018 was unsecured, non-interest bearing and must be settled in cash. The receivables from and the payables to the related parties were not guaranteed.

(12) The Group purchased intangible assets and property, plant and equipment from other related parties in amount of NT$11,409 thousand and NT$113,515 thousand for the years ended December 31, 2019 and 2018, respectively.

(13) The Group disposed of property, plant and equipment to other related parties in the amount of NT$9,067 thousand and recognized gain on disposal of property, plant and equipment in the amount of NT$1,665 thousand for the year ended December 31, 2019. No such occurrence for the year ended December 31, 2018.

(14) The Group purchased right-of-use asset from other related parties in the amount of NT$4,347 thousand for the year ended December 31, 2019.

(15) The Group derecognized right-of-use assets and lease liabilities from other related parties and recognized loss on disposal of right-of-use assets was NT$54 thousand for the year ended December 31, 2019.

(16) As of December 31, 2019 and 2018, other related parties guaranteed for the Company's subsidiaries' bank loans. The balances as of December 31, 2019 and 2018 were RMB107,000 thousand and RMB127,000 thousand, respectively. Thus, the subsidiaries were entitled to a guaranteed fee of NT$1,755 thousand and NT$1,914 thousand for the years ended December 31, 2019 and 2018, respectively, recorded as non-operating expense.

(17) Key management personnel compensation

	For the years ended December 31,	
	2019	2018
Short-term employee benefits	$35,792	$55,455
Post-employment benefits	1,943	1,952
Total	$37,735	$57,407

8. Assets pledged as security

As of December 31, 2019:

Assets pledged for security	Carrying amount	Obligee	Secured liabilities
Bank savings (other financial assets - current)	$24,474	Rural Commercial Bank	Performance bond
〃	8,815	Industrial and Commercial Bank of China	〃
〃	27,053	Bank of China	〃
〃	8,419	Bank of Communications	〃
〃	9,799	Bank of Nanjing	〃
〃	3,249	China Merchant Bank	〃
〃	76,065	Zheshang Bank	〃
〃	300	Mizuho Bank	〃
〃	9,760	Bank of China	Marginal deposit
Machinery equipment	46,628	Chailease International Finance Corporation	Long-term loans
Notes receivables	90,338	Industrial and Commercial Bank of China	Discounted notes receivable
〃	146,570	Industrial Bank	〃
〃	10,034	Postal Savings Bank of China	〃
Total	$461,504		

As of December 31, 2018:

Assets pledged for security	Carrying amount	Obligee	Secured liabilities
Bank savings (other financial assets - current)	$23,495	Rural Commercial Bank	Performance bond
〃	54,364	Industrial and Commercial Bank of China	〃
〃	33,626	Bank of China	〃
〃	8,712	Bank of Communications	〃
〃	6,574	Bank of Nanjing	〃
〃	9,363	First Bank	〃
〃	456	China Merchant Bank	〃
〃	11,193	Bank of China	Marginal deposit
〃	17,983	First Bank	〃
Machinery equipment	79,660	Chailease International Finance Corporation	Long-term loans
Total	$245,426		

9. Commitments and contingencies

As of December 31, 2019, the contingency and off balance sheet commitments are as follows:

(1) As of December 31, 2019, the outstanding promissory notes signed for business needs, including importing equipment, purchase of equipment, performance bond, and loan guarantee, totaled NT$17,144,990 thousand.

(2) Commodity tax and export tariff were NT$21,213 thousand.

(3) Discounted notes receivable was RMB1,000 thousand.

(4) Unsecured balance of letters of credit is as follows:

Currency	Unused Balance (in thousands)
JPY	$91,201
USD	5,342
EUR	489
SEK	967
RMB	27,718

(5) Significant contracts of construction in progress and equipment are as follows:

Items	Contract amount	Amount paid	Amount unpaid
Significant contracts of construction in progress and equipment	$1,622,441	$1,070,573	$551,868

The above amount paid was recognized as construction in progress under property, plant and equipment and prepayment for equipment under other noncurrent assets.

10. Losses due to major disasters

None.

11. Significant subsequent events

On March 16, 2020, the board of directors of the company approved the proposal for the Subsidiary, Taiwan Glass China Holdings Co., Ltd., to reduce capital in the amount of US$ 80,000 and repatriate the share capital.

12. Others

Financial Instruments

(1) Categories of financial instruments

Financial assets	As of December 31,	
	2019	2018
Financial assets at fair value through profit or loss:		
Designated at fair value through profit or loss at initial recognition	$608,823	$478,859
Financial assets at fair value through other comprehensive income	257,667	263,332
Financial assets measured at amortized cost:		
Cash and cash equivalents (excluding cash on hand)	6,243,030	4,705,088
Financial assets measured at amortized cost	105,230	30,714
Receivables	13,141,967	9,691,279
Other financial assets	167,934	165,766
Refundable deposits	159,228	197,392
Subtotal	19,817,389	14,790,239
Total	$20,683,879	$15,532,430

Financial liabilities	As of December 31,	
	2019	2018
Financial liabilities at amortized cost:		
Short-term loans	$7,963,287	$7,040,660
Short-term bills payable	3,741,006	3,295,570
Payables	11,185,203	6,164,947
Long-term loans (including current portion)	17,393,698	17,141,681
Lease liabilities	111,019	(Note)
Deposits-in	208,775	187,999
Total	$40,602,988	$33,830,857

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

(2) Financial risk management objectives and policies

The Group's principal financial risk management objective is to manage the market risk, credit risk and liquidity risk related to its operating activates. The Group identifies, measures and manages the aforementioned risks based on the Group's policy and risk appetite.

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

(3) Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of the changes in market prices. Market prices comprise currency risk, interest rate risk and equity risk.

In practice, it is rarely the case that a single risk variable changes independently from other risk variables, there are usually interdependencies between risk variables. The sensitivity analysis disclosed below does not take into account the interdependencies between risk variables.

Foreign currency risk

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

The Group has certain foreign currency receivables to be denominated in the same foreign currency with certain foreign currency payables, therefore natural hedge is received. Hedge accounting is not applied as they did not qualify for hedge accounting criteria. Furthermore, as net investments in foreign subsidiaries are for strategic purposes, they are not hedged by the Group.

The foreign currency sensitivity analysis of the possible change in foreign exchange rates on the Group's profit is performed on significant monetary items denominated in foreign currencies as at the end of the reporting period. The Group's foreign currency risk is mainly related to the volatility in the exchange rates for US dollars and RMB. The information of the sensitivity analysis is as follows:

A. When NTD weakens/strengthens against US dollars by 1%, the profit for the years ended December 31, 2019 and 2018 is decreased/increased by NT$21,292 thousand and NT$24,757 thousand, respectively.

B. When CNY strengthens/weakens against US dollars by 1%, the profit for the years ended December 31, 2019 and 2018 is increased/decreased by NT$10,869 thousand and NT$55,531 thousand, respectively.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's debt instrument investments and receivables at variable interest rates, bank borrowings with fixed interest rates and variable interest rates.

The Group manages its interest rate risk by having a balanced portfolio of fixed and variable loans and borrowings.

The interest rate sensitivity analysis is performed on items exposed to interest rate risk as at the end of the reporting period, including investments and borrowings with variable interest rates and interest rate swaps. At the reporting date, a change of 10 basis points of interest rate in a reporting period could cause the profit for the years ended December 31, 2019 and 2018 to decrease/increase by NT$17,545 thousand and NT$13,727 thousand, respectively.

Equity price risk

The fair value of the Group's listed and unlisted equity securities are susceptible to market price risk arising from uncertainties about future values of the investment securities. The Group's listed and unlisted equity securities are classified under financial assets measured at fair value through other comprehensive income. The Group manages the equity price risk through diversification and placing limits on individual and total equity instruments. Reports on the equity portfolio are submitted to the Group's senior management on a regular basis. The Group's Board of Directors reviews and approves all equity investment decisions.

The amount of the investment in the unlisted equity securities is not significant. Therefore, a change in the overall earnings stream of the valuations performed on the invested company would not have a significant impact on the income nor equity attributable to the Group for the years ended December 31, 2019 and 2018.

At the reporting date, a change of 10% in the price of the listed equity securities measured at fair value through profit or loss could increase/decrease the Group's profit for the years ended December 31, 2019 and 2018 by NT$21,097 thousand and NT$21,075 thousand, respectively.

(4) Credit risk management

Credit risk is the risk that a counter party will not meet its obligations under a contract, leading to a financial loss. The Group is exposed to credit risk from operating activities (primarily for accounts receivables and notes receivables) and from its financing activities, including bank deposits and other financial instruments.

Customer credit risk is managed by each business unit subject to the Group's established policy, procedures and control relating to customer credit risk management. Credit limits are established for all customers based on their financial position, rating from credit rating agencies, historical experience, prevailing economic condition and the Group's internal rating criteria etc. Certain customer's credit risk will also be managed by taking credit enhancing procedures, such as requesting for prepayment or insurance.

As of December 31, 2019 and 2018, accounts receivables from top ten customers represented amounts less than 10% of the total accounts receivables of the Group. The credit concentration risk of accounts receivables is insignificant.

Credit risk from balances with banks, fixed income securities and other financial instruments is managed by the Group's treasury in accordance with the Group's policy. The Group only transacts with counterparties approved by the internal control procedures, which are banks and financial institutions, companies and government entities with good credit ratings and with no significant default risk. Consequently, there is no significant credit risk for these counter parties.

The Group adopted IFRS 9 to assess the expected credit losses. Except for contract assets and trade receivables, the remaining debt instrument investments which are not measured at fair value through profit or loss, low credit risk for these investments is a prerequisite upon acquisition and by using their credit risk as a basis for the distinction of categories.
The Group makes an assessment at each reporting date as to whether the debt instrument investments are still considered low credit risk, and then further determines the method of measuring the loss allowance and the loss rates. The details of the assessment for the credit risk of the Group are described as follows:

			Total carrying amount	
			As of December 31,	
Level of credit risk	Indicator	Measurement method for expected credit losses	2019	2018
Low credit risk	Counterparty with good credit risk	Lifetime expected credit losses	$105,230	$30,714
Credit-impaired	Other impaired evidence	Lifetime expected credit losses	1,053,610	1,034,788
Simplified approach (Note)	(Note)	Lifetime expected credit losses	13,445,092	10,083,073

Note: By using simplified approach (loss allowance is measured at lifetime expected credit losses), including contract assets, accounts receivables and other receivables.

Financial assets are written off when there is no realistic prospect of future recovery (the issuer or the debtor is in financial difficulties or bankruptcy).

(5) Liquidity risk management

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of cash and cash equivalents, highly liquid equity investments and bank borrowings. The table below summarizes the maturity profile of the Group's financial liabilities based on the contractual undiscounted payments and contractual maturity. The payment amount includes the contractual interest. The undiscounted payment relating to borrowings with variable interest rates is extrapolated based on the estimated interest rate yield curve as at the end of the reporting period.

Non-derivative financial instruments

	Less than 1 year	2 to 3 years	4 to 5 years	> 5 years	Total
As of December 31, 2019					
Short-term loans	$8,112,886	$-	$-	$-	$8,112,886
Short-term bills payable	3,750,000	-	-	-	3,750,000
Payables	11,185,203	-	-	-	11,185,203
Long-term loans	6,303,427	10,415,776	1,083,330	184,911	17,987,444
Lease liabilities	37,407	64,830	9,554	1,402	113,193
As of December 31, 2018					
Short-term loans	$7,169,821	$-	$-	$-	$7,169,821
Short-term bills payable	3,300,000	-	-	-	3,300,000
Payables	6,164,947	-	-	-	6,164,947
Long-term loans	6,023,934	9,078,803	2,661,886	370,115	18,134,738

(6) Reconciliation of liabilities arising from financing activities

Reconciliation of liabilities for the year ended December 31, 2019:

	Short-term loans	Short-term bills payable	Long-term loans	Other payable	Lease payable	Total liabilities from financing activities
As of January 1, 2019	$7,040,660	$3,300,000	$17,141,681	$14,321	$129,692	$27,626,354
Cash flows	1,104,753	450,000	381,890	1,580,000	(43,941)	3,472,702
Non-cash changes:	-	-	-	-	25,508	25,508
Foreign exchange movement	(182,126)	-	(129,873)	(569)	(240)	(312,808)
As of December 31, 2019	$7,963,287	$3,750,000	$17,393,698	$1,593,752	$111,019	$30,811,756

Reconciliation of liabilities for the year ended December 31, 2018:

	Short-term loans	Short-term bills payable	Long-term loans	Other payable	Lease payable	Total liabilities from financing activities
As of January 1, 2018	$6,373,954	$2,200,000	$14,319,892	$1,601,088	$9,357	$24,504,291
Cash flows	599,904	1,100,000	2,677,143	(1,607,425)	(9,357)	2,760,265
Non-cash changes:						
Foreign exchange movement	66,802	-	144,646	20,658	-	232,106
As of December 31, 2018	$7,040,660	$3,300,000	$17,141,681	$14,321	$-	$27,496,662

(7) Fair values of financial instruments

A. The methods and assumptions applied in determining the fair value of financial instruments:

The fair value of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. The following methods and assumptions were used to estimate the fair values:

a. The carrying amount of cash and cash equivalents, receivables, payables, refundable deposits and deposits-in approximate their fair value.

b. For financial assets and liabilities traded in an active market with standard terms and conditions, their fair value is determined based on market quotation price (including listed equity securities and bonds) at the reporting date.

c. Fair value of equity instruments without market quotations (including unquoted public company and private company equity securities) are estimated using the market method valuation techniques based on parameters such as recent fund raising activities, valuation of similar companies, individual company's development, market conditions and other economic indicators.

d. The fair value of derivatives which are not options and without market quotations, is determined based on the counterparty prices or discounted cash flow analysis using interest rate yield curve for the contract period. Fair value of option-based derivative financial instruments is obtained using the counterparty prices or appropriate option pricing model (for example, Black-Scholes model) or other valuation method (for example, Monte Carlo Simulation).

B. Fair value of financial instruments measured at amortized cost

The carrying amount of the Group's financial assets and liabilities measured at amortized cost approximate their fair value.

C. Fair value measurement hierarchy for financial instruments

Please refer to Note 12.(8) for fair value measurement hierarchy for financial instruments of the Group.

(8) Assets measured at fair value

A. Fair value measurement hierarchy

All asset and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, based on the lowest level input that is significant to the fair value measurement as a whole. Level 1, 2 and 3 inputs are described as follows:

Level 1: Quoted (unadjusted) market prices in active markets for identical assets or liabilities that the entity can access at the measurement date.

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

Level 3: Unobservable inputs for the asset or liability.

For assets and liabilities that are recognized in the financial statements on a recurring basis, the Group determines whether transfers have occurred between Levels in the hierarchy by re-assessing categorization at the end of each reporting period.

B. Fair value measurement hierarchy of the Group's assets and liabilities

The Group does not have assets that are measured at fair value on a non-recurring basis. Fair value measurement hierarchy of the Group's assets and liabilities measured at fair value on a recurring basis is as follows:

As of December 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at fair value through profit or loss				
Structured deposit	$-	$-	$565,849	$565,849
Guaranteed financial products	-	-	42,974	42,974
Financial assets at fair value through other comprehensive income				
Equity securities	210,970	-	46,697	257,667

As of December 31, 2018

	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at fair value through profit or loss				
Guaranteed financial products	$-	$-	$478,859	$478,859
Available-for-sale financial assets				
Equity securities	210,750	-	52,582	263,332

During the years ended December 31, 2019 and 2018, there were no transfers between Level 1 and Level 2 fair value measurements.

Reconciliation for fair value measurements in Level 3 of the fair value hierarchy is as follows:

	Assets		
	At fair value through profit or loss	At fair value through other comprehensive income	
	Structured deposit and Guaranteed financial product	Stocks	Total
Beginning balances as of January 1, 2018	$683,936	$44,159	$728,095
Total gains and losses recognized for the year ended December 31, 2018:			
Amount recognized in profit or loss	-	-	-
Amount recognized in OCI	-	8,423	8,423
Acquisition for the year ended December 31, 2018	1,469,648	-	1,469,648
Disposals	(1,666,485)	-	(1,666,485)
Exchange effect	(8,240)	-	(8,240)
Ending balances as of December 31, 2018	478,859	52,582	531,441
Total gains and losses recognized for the year ended December 31, 2019:			
Amount recognized in profit or loss	7,486	-	7,486
Amount recognized in OCI	-	(5,885)	(5,885)
Acquisition for the year ended December 31, 2019	3,034,411	-	3,034,411
Disposals	(2,886,500)	-	(2,886,500)
Exchange effect	(25,433)	-	(25,433)
Ending balances as of December 31, 2019	$608,823	$46,697	$655,520

Total gains and losses recognized for the years ended December 31, 2019 and 2018 contained gains and losses related to securities and derivatives on hand as of December 31, 2019 and 2018 in the amount of NT$(5,885) thousand and NT$8,423 thousand, respectively.

Information on significant unobservable inputs to valuation

Description of significant unobservable inputs to valuation of recurring fair value measurements categorized within Level 3 of the fair value hierarchy is as follows:

As of December 31, 2019

	Valuation techniques	Significant unobservable inputs	Quantitative information	Relationship between inputs and fair value	Sensitivity of the input to fair value
Financial assets:					
At fair value through profit or loss					
Structured deposit and Guaranteed financial product	Market approach	Financial product pricing	Not applicable	No need to apply	Because it is mainly a currency transaction, its value is equal to its fair value.
Financial assets at fair value through other comprehensive income					
Stocks	Market approach	Discount for lack of marketability	-	The higher the discount for lack of marketability, the lower the fair value of the stocks	1% increase (decrease) in the discount for lack of marketability would result in (decrease) increase in the Group’s equity by NT$467 thousand

As of December 31, 2018

	Valuation techniques	Significant unobservable inputs	Quantitative information	Relationship between inputs and fair value	Sensitivity of the input to fair value
Financial assets:					
At fair value through profit or loss					
Guaranteed financial product	Market approach	Financial product pricing	Not applicable	No need to apply	Because guaranteed financial products are currency transactions, their value is equivalent to fair value.
Financial assets at fair value through other comprehensive income					
Stocks	Market approach	Discount for lack of marketability	-	The higher the discount for lack of marketability, the lower the fair value of the stocks	1% increase (decrease) in the discount for lack of marketability would result in (decrease) increase in the Group’s equity by NT$526 thousand

Valuation process used for fair value measurements categorized within Level 3 of the fair value hierarchy

The Group is responsible for validating the fair value measurements and ensuring that the results of the valuation are in line with market conditions, based on independent and reliable inputs which are consistent with other information, and represent exercisable prices. The Department analyses the movements in the values of assets and liabilities which are required to be re-measured or re-assessed as per the Group's accounting policies at each reporting date.

C. Fair value measurement hierarchy of the Group's assets and liabilities not measured at fair value but for which the fair value is disclosed

As of December 31, 2019

	Level 1	Level 2	Level 3	Total
Financial assets not measured at fair value but for which the fair value is disclosed:				
Investment property (please refer to Note 6.(13))	$-	$-	$173,677	$173,677

As of December 31, 2018

	Level 1	Level 2	Level 3	Total
Financial assets not measured at fair value but for which the fair value is disclosed:				
Investment property (please refer to Note 6.(13))	$-	$-	$172,543	$172,543

(9) Significant assets and liabilities denominated in foreign currencies

Information regarding the significant assets and liabilities denominated in foreign currencies is listed below:

(in thousands)

	As of					
	December 31, 2019			December 31, 2018		
	Foreign currencies	Foreign exchange rate	NTD	Foreign currencies	Foreign exchange rate	NTD
Financial assets						
Monetary items:						
USD	$57,122	29.98	$1,712,524	72,523	30.715	2,227,545
RMB	4,170,979	4.2975	17,924,651	2,641,755	4.4753	11,822,692

	As of					
	December 31, 2019			December 31, 2018		
	Foreign currencies	Foreign exchange rate	NTD	Foreign currencies	Foreign exchange rate	NTD
Non-Monetary items:						
USD	140,755	29.98	4,219,840	134,233	30.715	4,122,959
RMB	2,725	4.2975	11,711	2,984	4.4753	13,353
Financial liabilities						
Monetary items:						
USD	279,321	29.98	8,374,051	288,071	30.715	8,848,100
RMB	2,461,922	4.2975	10,580,034	1,527,371	4.4753	6,835,468

The above information is disclosed based on the carrying amount of foreign currency (after conversion to functional currency).

Since there were various functional currencies used within the subsidiaries of the Group, the Group was unable to disclose foreign exchange gains (losses) towards each foreign currency with significant impact. The realized and unrealized foreign exchange (losses) gains was NT$(187,442) thousand and NT$(336,786) thousand for the years ended December 31, 2019 and 2018, respectively.

(10) Capital management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximize stockholder value. The Group manages its capital structure and makes adjustments to it, in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may adjust dividend payment to stockholders, return capital to stockholders or issue new shares.

(11) Information of financial asset transferred

A. Transferred financial assets that are partially-derecognized in their entirety

The Group entered into a factoring agreement with a financial institution, which is partly with recourse and partly non-recourse. The Group has transferred the right on those non-recourse factoring, and in accordance with the contract, the Group shall not be liable for the credit risks associated with uncollectable receivables (except for commercial disputes), which met the requirements for derecognizing financial assets. The related information is as follows:

As of December 31, 2019

Transferee	Amount transferred	Amount	Advanced amount	Interest rate range	Credit
O-Bank	$320,661	$288,595	$288,529	1.08%	$605,000

As of December 31, 2018

Transferee	Amount transferred	Amount	Advanced amount	Interest rate range	Credit
O-Bank	$438,775	$394,898	$397,010	1.07%~1.08%	$800,000

13. Other disclosure

(1) Information at significant transactions

A. Lending fund to others: Please refer to Attachment 1.
B. Endorsement/guarantee provided to others: Please refer to Attachment 2.
C. Securities held at the end of the period: Please refer to Attachment 3.
D. Individual securities acquired or disposed of with accumulated amount exceeding NT$300 million or 20 percent of the capital stock or more: Please refer to Attachment 4.
E. Acquisition of real estate with amount exceeding NT$300 million or 20 percent of the capital stock or more: None.
F. Disposal of real estate with amount exceeding NT$300 million or 20 percent of the capital stock or more: None.
G. Related party transactions for purchases and sales amounts exceeding NT$100 million or 20 percent of the capital stock or more: Please refer to Attachment 5.
H. Receivables from related parties with amounts exceeding NT$100 million or 20 percent of capital stock or more: Please refer to Attachment 6.
I. Financial instruments and derivative transactions: None.
J. Business relationship between the parent and the subsidiaries and between each subsidiary, and the circumstances and accounts of any significant transactions between them: Please refer to Attachment 7.

(2) Information on investees

Information of the investees in which the Company directly or indirectly has significant influence or control: Please refer to Attachment 8.

(3) Information on investments in Mainland China

A. Investee’s name, main businesses and products, total amount of capital, method of investment, accumulated inflow and outflow of investments from Taiwan, percentage of ownership, investment income or loss, carrying value of the investments, inward remittance of earnings and limits on investments in Mainland China: Please refer to Attachment 9.

B. Directly or indirectly significant transactions through other regions with the investees in Mainland China, including price, payment terms, unrealized gain or loss, and other events with significant effects on the operating results and financial condition are disclosed as follows:

a. Accumulated amount and percentage of purchase and related payables at the end of the period: None. *
b. Accumulated amount and percentage of sales and related receivables at the end of the period: None. *
c. Amount of property transaction and related gain or loss: None. *
d. Endorsement/guarantee provided to others at the end of the period: None. *
e. Financing provided to others at the end of the period: None. *
f. Other significant transactions, such as service provided or received: None. *

* The transactions have been eliminated in the consolidation financial statements.

14. Segment information

(1) General Information

For management purposes, the Group is organized into business units based on their products and services and has three reportable operating segments as follows:

A. Flat Glass Segment: Manufacturing and selling of flat glasses.
B. Glass Container Segment: Manufacturing and selling of glass containers.
C. Glass Fiber Segment: Manufacturing and selling of glass fibers.

No operating segments have been aggregated to form the above reportable operating segments.

Management monitors the operating results of its business units separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on operating profit or loss and is measured based on accounting policies consistent with those in the consolidated financial statements. However income taxes are managed on a group basis and are not allocated to operating segments.

Transfer prices between operating segment are on an arm's length basis in a manner similar to transactions with third parties.

(2) Reportable segment information

For the year ended December 31, 2019

	Flat Glass	Glass Container	Glass Fiber	Subtotal	Other Operating Segments (Note 1)	Adjustment and Elimination	Consolidated
Revenue							
External customer	$28,760,531	$3,451,644	$9,362,244	$41,574,419	$201,088	$-	$41,775,507
Inter-segment (Note 2)	43,003	1,521	386	44,910	257,348	(302,258)	-
Total revenue	$28,803,534	$3,453,165	$9,362,630	$41,619,329	$458,436	$(302,258)	$41,775,507
Depreciation	$3,572,041	$409,758	$1,263,164	$5,244,963	$98,078	$-	$5,343,041
Segment profit	$90,713	$(83,431)	$(1,184,389)	$(1,177,107)	$7,986	$-	$(1,169,121)

For the year ended December 31, 2018

	Flat Glass	Glass Container	Glass Fiber	Subtotal	Other Operating Segments (Note 1)	Adjustment and Elimination	Consolidated
Revenue							
External customer	$31,640,421	$3,527,071	$10,871,007	$46,038,499	$52,995	$-	$46,091,494
Inter-segment (Note 2)	43,358	70	327	43,755	374,062	(417,817)	-
Total revenue	$31,683,779	$3,527,141	$10,871,334	$46,082,254	$427,057	$(417,817)	$46,091,494
Depreciation	$3,696,487	$363,973	$997,546	$5,058,006	$84,691	$-	$5,142,697
Segment profit	$887,502	$72,574	$1,366,612	$2,326,688	$(3,114)	$-	$2,323,574

[1] Revenue from other operating segments are operating segments that do not meet the quantitative thresholds for reportable segments.

[2] Inter-segment revenues are eliminated on consolidation and recorded under the “adjustment and elimination” column.

(3) Other reconciliations of reportable segments

	For the years ended December 31, 2019	2018
Segment profit	$(1,177,107)	$2,326,688
Profit (losses) from other operating segments	7,986	(3,114)
Non-operating income and expenses	(131,302)	(768,909)
Income before income tax from continuing operations	$(1,300,423)	$1,554,665

(4) Geographical information

Revenue from external customers

	For the years ended December 31,	
	2019	2018
Taiwan	$6,516,331	$7,320,117
China	30,132,194	31,853,437
Other countries (not account for 10%)	5,126,982	6,917,940
Total	$41,775,507	$46,091,494

The revenue information above is based on the location of the customer.

Noncurrent assets

	As of December 31,	
	2019	2018
Taiwan	$16,045,464	$15,425,659
China	34,802,173	35,484,368
Other countries (not account for 10%)	17,132	10,088
Total	$50,864,769	$50,920,115

(5) Information about major customers (account for over 10% operating revenue)

The revenue from single external customer accounts for over 10% net consolidated operating revenue: None.

Attachment 1

Financing provided to others for the year ended December 31, 2019 (Dollar amount expressed in thousands of NTD unless otherwise specified)

No. (Note 1)	Financing Company	Counterparty	Financial Statement Account(Note 2)	Related Party	Maximum Balance for the Period (Note 3)	Ending Balance (In Thousands) (Note 8)	Actual Amount provided	Interest Rate	Nature of Financing (Note 4)	Transaction Amounts (Note 5)	Reason for Financing (Note 6)	Allowance for Bad Debt	Collateral Item	Collateral Value	Amount for Individual Counterparty (Note 7)	Financial Amount for Financing Company (Note 7)
1	TGCH	CFG	Other receivables	Yes	$632,000	$299,800	$254,830	4.03%	2	$-	Need for operating	$-	-	$ -	42,040,544 × 40%= 16,816,218(in thousand)	42,040,544 × 40%= 16,816,218(in thousand)
1	TGCH	QFG	〃	Yes	316,000	299,800	299,800	4.21%	2	-	Need for operating	-	-	-	"	"
1	TGCH	FPG	〃	Yes	729,111	524,291	524,291	4.00%~4.35%	2	-	Need for operating	-	-	-	"	"
1	TGCH	TJG	〃	Yes	2,334,367	702,739	642,779	4.00%~4.09%	2	-	Need for operating	-	-	-	"	"
1	TGCH	TAH	〃	Yes	2,176,300	1,049,300	884,410	3.90%	2	-	Need for operating	-	-	-	"	"
1	TGCH	TCD	〃	Yes	2,483,200	1,199,200	1,199,200	3.96%~4.11%	2	-	Need for operating	-	-	-	"	"
2	CFG	TYAU	〃	Yes	91,605	-	-	-	2	-	Need for operating	-	-	-	3,166,174 × 50%= 1,583,087(in thousand)	3,166,174 × 100%= 3,166,174(in thousand)
2	CFG	TWAR	〃	Yes	23,964	-	-	-	2	-	Need for operating	-	-	-	"	"
3	CDG	TYAU	〃	Yes	158,131	-	-	-	2	-	Need for operating	-	-	-	7,647,201 × 50%= 3,823,601(in thousand)	7,647,201 × 100%= 7,647,201(in thousand)
3	CDG	TYSM	〃	Yes	87,341	81,609	81,609	6.00%	2	-	Need for operating	-	-	-	"	"
3	CDG	HZSS	〃	Yes	149,107	131,932	131,932	0.35%	2	-	Need for operating	-	-	-	"	"
3	CDG	TTAR	〃	Yes	505,927	472,722	343,797	4.13%	2	-	Need for operating	-	-	-	"	"
3	CDG	TXY	〃	Yes	1,343,005	537,184	537,184	0.35%~4.42%	2	-	Need for operating	-	-	-	"	"
3	CDG	TWAR	〃	Yes	1,844,333	1,207,589	1,207,588	0.35%~4.13%	2	-	Need for operating	-	-	-	"	"
4	QFG	TQPT	〃	Yes	107,437	107,437	107,437	-	2	-	Need for operating	-	-	-	1,312,286 × 50%= 656,143(in thousand)	1,312,286 × 100%= 1,312,286(in thousand)
4	QFG	QRG	〃	Yes	183,973	171,899	165,987	-	2	-	Need for operating	-	-	-	"	"
5	HNG	ZZSS	〃	Yes	51,048	13,608	13,608	-	2	-	Need for operating	-	-	-	3,188,157 × 50%= 1,594,079(in thousand)	3,188,157 × 100%= 3,188,157(in thousand)
5	HNG	TJG	〃	Yes	183,664	171,899	159,006	2.10%	2	-	Need for operating	-	-	-	"	"

Attachment 1

Financing provided to others for the year ended December 31, 2019(Continue)

(Dollar amount expressed in thousands of NTD unless otherwise specified)

No. (Note 1)	Financing Company	Counterparty	Financial Statement Account(Note 2)	Related Party	Maximum Balance for the Period (Note 3)	Ending Balance (In Thousands) (Note 8)	Actual Amount provided	Interest Rate	Nature of Financing (Note 4)	Transaction Amounts (Note 5)	Reason for Financing (Note 6)	Allowance for Bad Debt	Collateral		Amount for Individual Counterparty (Note 7)	Financial Amount for Financing Company (Note 7)
													Item	Value		
6	TGF	TCD	Other receivables	Yes	$1,379,800	$859,494	$730,570	5.51%	2	$-	Need for operating	$-	-	$ -	6,079,568 × 50%= 3,039,784(in thousand)	6,079,568 × 100%= 6,079,568(in thousand)
6	TGF	TBF	〃	Yes	1,735,469	1,718,987	1,117,342	5.51%~5.62%	2	-	Need for operating	-	-	-	"	"
7	DHG	QFG	〃	Yes	100,081	48,089	48,089	4.00%	2	-	Need for operating	-	-	-	5,241,736 × 50%= 2,620,868(in thousand)	5,241,736 × 100%= 5,241,736(in thousand)
7	DHG	FPG	〃	Yes	1,720,151	1,607,253	1,607,253	4.00%	2	-	Need for operating	-	-	-	"	"
8	TAH	FYSS	〃	Yes	55,192	51,570	51,570	4.13%	2	-	Need for operating	-	-	-	1,955,054 × 50%= 977,527(in thousand)	1,955,054 × 100%= 1,955,054(in thousand)
9	HZSS	TXY	〃	Yes	25,761	-	-	-	2	-	Need for operating	-	-	-	123,471 × 50%= 61,736(in thousand)	123,471 × 100%= 123,471(in thousand)
10	TXY	TWAR	〃	Yes	7,277	-	-	-	2	-	Need for operating	-	-	-	2,702,805 × 50%= 1,351,403(in thousand)	2,702,805 × 100%= 2,702,805(in thousand)
Total							$10,108,282									

Note 1: The Company and its subsidiaries are coded as follows:

1. The Company is coded "0".
2. The subsidiaries are coded starting from "1" in numerical order.

Note 2: If the economic substance of transactions are financing to others, regardless of which component they recognized as in the financial statements, certain transactions are included herein.

Note 3: Maximum balance of the Company and its subsidiaries' financing to others for the year ended December 31, 2019

Note 4: Nature of financing is coded as follows:

1. The financing occurred due to business transactions
2. The financing occurred due to short-term financing

Note 5: Total amount of the financing is disclosed herein if the financing was related to business transactions. The amount shall mean the transaction amount between the lending entity and the borrower within the most recent year.

Note 6: The reasons and counterparties of the financing are addressed herein as the financing associated with short-term capital needs.

Note 7: The process of providing finance to others, the limits to individual counterparties and the total financing limit for the company should be noted, as well as the computations.

Note 8: If a listed company brings the financing proposal to the board of directors according to Paragraph 1, Article 1 of the Regulations Governing Loaning of Funds and Making of Endorsements/Guarantees by Public Companies,

the company still needs to disclose the resolution amount of the board in the balance to disclose the risk, even if the funds are not appropriated yet.

With the return of the funds afterward, the company should disclose the amount returned to reflect the adjusted risk.

If a listed company authorizes the chairman of the board of directors to appropriate or use certain limits of the funds several times in the period of a year according to Paragraph 2, Article 14 of Regulations Governing Loaning of Funds and Making of Endorsements/Guarantees by Public Companies,

the company still needs to disclose the amount approved by the board.

Note 9: All transactions listed above are eliminated in the consolidated financial statements.

Attachment 2

Endorsement/guarantee provided to others for the year ended December 31, 2019

(Dollar amount expressed in thousands of NTD unless otherwise specified)

No. (Note 1)	Endorser/ Guarantor	Endorsee Company Name	Endorsee Relationship	Limits of Endorsement /Guarantee Amount for	Maximum Balance	Ending Balance (Note 5)	Actual Amount drawn	Amount of Endorsement/	Percentage of Accumulated Endorsement/Guarantee to Net	Limit on the Endorsement/Guarantee Amount (Note 3)	Parent Company Endorsed or Guaranteed for	Subsidiaries Endorsed or	Endorsement or Guarantee for
0	TGI	TAG	2	$20,082,041	$230,500	$230,500	$151,617	$ -	1%	1. In accordance with Article 4 of the Procedures for Endorsement and Guarantee, the Company may provide endorsement/guarantee to others but shall not exceed 120% of its net assets. For endorsement/guarantee to an individual entity, the amount is limited to 50% of the Company's net assets. 2.Subsidiaries may provide endorsement/guarantee to others in the amount which shall not exceed 100% of their net assets. For endorsement/guarantee to an individual entity, the amount is limited to 60% of the subsidiary's net assets. 3.TGI： 40,164,081*120％= 48,196,897(in thousand) 4.TGF： 6,079,568*100％= 6,079,568(in thousand) 5.CFG： 3,166,174*100％= 3,166,174(in thousand) 6.DHG： 5,241,736*100％= 5,241,736(in thousand) 7.TGCH： 42,040,544*100％= 42,040,544(in thousand) 8.QFG： 1,312,286*100％= 1,312,286(in thousand)	Y		
0	TGI	TGCH	2	〃	6,111,625	4,582,135	4,582,135	-	11%		Y		
0	TGI	CFG	2	〃	181,552	-	-	-	0%		Y		Y
0	TGI	FPG	2	〃	464,952	-	-	-	0%		Y		Y
0	TGI	TCD	2	〃	68,505	68,505	-	-	0%		Y		Y
0	TGI	HNG	2	〃	453,450	158,250	158,250	-	0%		Y		Y
0	TGI	TYSM	2	〃	179,820	179,820	89,910	-	0%		Y		Y
0	TGI	TGF	2	〃	853,922	225,952	225,952	-	1%		Y		Y
0	TGI	TJG	2	〃	614,225	466,400	311,875	-	1%		Y		Y
0	TGI	TYAU	2	〃	781,513	527,082	508,505	-	1%		Y		Y
0	TGI	TGF	2	〃	783,650	528,090	528,090	-	1%		Y		Y
0	TGI	TXY	2	〃	1,325,474	874,124	462,600	-	2%		Y		Y
0	TGI	TAH	2	〃	1,995,500	1,387,200	1,235,125	-	3%		Y		Y
0	TGI	TBF	2	〃	4,130,918	4,130,918	3,519,855	-	10%		Y		Y
1	TGF	CFG	4	3,647,741	137,980	85,949	42,975	-	1%				Y
1	TGF	TBF	4	〃	451,802	429,747	63,611	-	7%				Y
1	TGF	TCD	4	〃	1,287,813	1,203,291	816,519	-	20%				Y
2	CFG	TTAR	4	1,899,704	275,960	257,848	162,088	-	8%				Y
2	CFG	TGF	4	〃	505,927	472,722	450,106	-	15%				Y
3	DHG	QFG	4	3,145,042	735,893	687,595	465,803	-	13%				Y
4	TGCH	TGI	3	25,224,326	100,000	50,000	50,000	-	0%			Y	
5	TCD	TQPT	2	787,372	276,412	256,845	216,072	-	20%		Y		Y

Note 1: The Company and its subsidiaries are coded as follows:
1. The Company is coded "0".
2. The subsidiaries are coded starting from "1" in numerical order.

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

Note 3: The process of providing finance to others, the limits to individual counterparties and the total financing limit for the company should be noted, as well as the computations.

Note 4: The maximum amount of the Company and its subsidiaries' endorsement or guarantee to others for the year ended December 31, 2019

Note 5: The Company bears the responsibility of endorsements or guarantees as long as the ceilings on the amount of guarantees or endorsements are approved by banks.
Other occurrences related to endorsement or guarantee shall be included in the balance.

Note 6: Fill in the actual amount drawn from the balance.

Note 7: Fill in "Y" if it belongs to "Parent Company Endorsement or Guarantee for the Subsidiaries", "Subsidiaries Endorsement or Guarantee for the Parent Company", or "Endorsement or Guarantee for Entities in China".

Note 8: All transactions listed above are eliminated in the consolidated financial statements.

Attachment 3

Securities held as of December 31, 2019

(Dollar amount expressed in thousands of NTD unless otherwise specified)

Company	Type and Name of the Securities (Note 1)	Relationship (Note 2)	Financial Statement Account	As of December 31, 2019 Shares	Carrying Value (Note 3)	Percentage of Ownership	Fair Value	Remark (Note 4)
TGI	Securities－							
	China Development Financial Holdings	-	Available-for-sale financial assets - non-current	21,681,340	$210,960	0.14%	$210,960	
	Chi-Ye Chemical Corp.	-	〃	659,000	46,697	3.30%	46,697	
	Chang Hwa Commercial Bank, Ltd.	-	〃	314	7	0.00%	7	
	Hua Nan Financial Holdings Co., Ltd.	-	〃	148	3	0.00%	3	
	Total				$257,667			
	Structured deposit－							
CDG	Nanyang Commercial Bank, Chengdu Branch		Financial assets at fair value through profit or loss - current	-	$565,849	-	$565,849	
	Financial products－							
FYSS	Commercial Bank of China branch in Fengyang	-	〃	-	$42,974	-	$42,974	

Note 1: The securities herein shall refer to stocks, bonds, beneficiary certificates and other marketable securities derived from the above items in the scope of IFRS 9-Financial Instruments.

Note 2: Securities issued by non-related parties are not required to fill in this column.

Note 3: For items measured at fair value, the carrying value is the balance of the book value adjusted by fair value valuation deducting accumulated impairment.

For items not measured at fair value, the carrying value is the book value balance of the historical cost or amortized cost after deducting accumulated impairment.

Note 4: Securities with restrictions because of being provided for security, as pledge or under other covenants should state the number of shares or dollar amount provided for security or pledge and the restriction terms.

Attachment 4

Individual securities acquired or disposed of with accumulated amount exceeding

NT$300 million or 20 percent of the capital stock for the year ended December 31, 2019

(Dollar amount expressed in thousands of NTD unless otherwise specified)

Company	Type and Name of the Securities (Note 1)	Financial Statement Account	Counterparty (Note 2)	Relationship (Note 2)	Beginning Balance		Acquisition (Note 3)		Disposal (Note 3)				Ending Balance	
					Shares	Amount	Shares	Amount	Shares	Selling Amount	Carrying Value	Gain or Loss on Disposal	Shares	Amount
CDG	Financial products－Bank of Communications, Qingbaijiang Branch	Financial assets at fair value through profit or loss - current	-	-	-	$478,859	-	$376,214 6,141 (Note4)	-	$880,796	$861,214	$19,582	-	$-
CDG	Structured deposit－Nanyang Commercial Bank, Chengdu Branch	Financial assets at fair value through profit or loss - current	-	-	-	-	-	2,061,786 (16,830) (Note4)	-	1,502,979	1,479,107	23,872	-	565,849

Note 1: The securities herein shall refer to stocks, bonds, beneficiary certificates and other securities derived from the above items.

Note 2: These columns are filled only if securities are investments accounted for using the equity method.

Note 3: Accumulated amount of securities purchased or sold are calculated at market value to determine whether they exceed NT$300 million or 20% of the capital stock.

Note 4: The amount includes foreign exchange adjustments.

Attachment 5
Related party transactions for purchases and sales amounts exceeding NT$100 million
or 20 percent of capital stock as of for the year ended December 31, 2019 (Dollar amount expressed in thousands of NTD unless otherwise specified)

Company	Counterparty	Relationship	Transaction Details				Details Different from Non-arm's Length Transactions (Note 1)		Notes and Accounts Receivable (Payable)		Remark (Note 2)
			Sale/Purchase	Amount	Percentage of Total Sales or Purchases	Term	Unit Price	Terms	Balance	Total Receivable (Payable)	
TGI	QFG	Parent-subsidiary	Sales	$(407,182)	(3)%	3 months	$-	-	$197,159	13%	
TGI	TGF	Parent-subsidiary	Sales	(117,920)	(1)%	3 months	-	-	407	0 %	
TAH	CFG	Affiliate Company	Sales	(260,762)	(9)%	3 months	-	-	159,987	15%	
TAH	TTAR	Affiliate Company	Sales	(390,085)	(14)%	3 months	-	-	294,468	27%	
TAH	TWAR	Affiliate Company	Sales	(265,615)	(10)%	3 months	-	-	176,128	16%	
TCD	TGF	Affiliate Company	Sales	(172,608)	(11)%	3 months	-	-	2,051	0%	
TBF	TGF	Affiliate Company	Sales	(469,931)	(60)%	3 months	-	-	202,146	51%	
QFG	TGUS	Affiliate Company	Sales	(244,961)	(12)%	3 months	-	-	24,399	3%	
QFG	TPMT	Other related party	Sales	(101,933)	(5)%	3 months	-	-	51,778	7%	
TJG	TGUS	Affiliate Company	Sales	(149,780)	(8)%	3 months	-	-	11,371	2%	
TXY	XYES	Parent-subsidiary	Sales	(200,777)	(6)%	3 months	-	-	63,685	8%	
TYAU	DYK	Other related party	Sales	(216,201)	(65)%	3 months	-	-	83,235	56%	
QFG	TGI	Parent-subsidiary	Purchases	407,182	23 %	3 months	-	-	(197,159)	(22)%	
TGF	TGI	Parent-subsidiary	Purchases	117,920	4 %	3 months	-	-	(407)	(0)%	
CFG	TAH	Affiliate Company	Purchases	260,762	10 %	3 months	-	-	(159,987)	(18)%	
TTAR	TAH	Affiliate Company	Purchases	390,085	41 %	3 months	-	-	(294,468)	(46)%	
TWAR	TAH	Affiliate Company	Purchases	265,615	35 %	3 months	-	-	(176,128)	(56)%	

Attachment 5

Related party transactions for purchases and sales amounts exceeding NT$100 million or 20 percent of capital stock as of for the year ended December 31, 2019(Continue)

(Dollar amount expressed in thousands of NTD unless otherwise specified)

Company	Counterparty	Relationship	Transaction Details				Details Different from Non-arm's Length Transactions (Note 1)		Notes and Accounts Receivable (Payable)		Remark (Note 2)
			Sale/Purchase	Amount	Percentage of Total Sales or Purchases	Term	Unit Price	Terms	Balance	Total Receivable (Payable)	
TGF	TCD	Affiliate Company	Purchases	$172,608	6 %	3 months	$-	-	(2,051)	(1)%	
TGF	TBF	Affiliate Company	Purchases	469,931	17 %	3 months	-	-	(202,146)	(68)%	
TGUS	QFG	Affiliate Company	Purchases	244,961	35 %	3 months	-	-	(24,399)	(100)%	
TGUS	TJG	Affiliate Company	Purchases	149,780	22 %	3 months	-	-	(11,371)	(60)%	
XYES	TXY	Parent-subsidiary	Purchases	200,777	100 %	3 months	-	-	(63,685)	(100)%	
HNG	SCJ	Affiliate Company	Purchases	436,498	25 %	3 months	-	-	(239,372)	(59)%	
DHG	SCJ	Affiliate Company	Purchases	523,152	29 %	3 months	-	-	(21,461)	(9)%	
TJG	SCJ	Affiliate Company	Purchases	185,524	13 %	3 months	-	-	(135,956)	(30)%	
QFG	SCJ	Affiliate Company	Purchases	218,689	13 %	3 months	-	-	(82,346)	(9)%	
TAH	SCJ	Affiliate Company	Purchases	338,800	17 %	3 months	-	-	(192,202)	(30)%	
TAH	TRAE	Affiliate Company	Purchases	214,522	11 %	3 months	-	-	(6,336)	(1)%	
CFG	SCJ	Affiliate Company	Purchases	297,090	12 %	3 months	-	-	(58,963)	(7)%	

Note 1: If the related parties' trading terms are different from the general trading terms, the differences and reasons for such differences should be stated in the "Unit price" and "Terms" columns.

Note 2: Transactions with advance receipts and prepayments should state the reasons, the terms of agreements, the amount and the difference from general transactions in the Remark column.

Note 3: Paid-in Capital shall refer to the paid-in capital of parent company.If the issuer's stock is not denominated or the denomination is not NT$10, the transaction amount of 20% of the paid-up capital shall be calculated as 10% of the equity of f the parent company on the balance sheet.

Note 4: All transactions listed above are eliminated in the consolidated financial statements except for SCJ, TPMT and DYK.

Attachment 6

Receivables from related parties with amounts exceeding NT$100 million

or 20 percent of capital stock as of for the year ended December 31, 2019 (Dollar amount expressed in thousands of NTD unless otherwise specified)

Company	Counterparty	Relationship	Ending Balance (Note 1)	Turnover	Overdue Receivables		Amount Received in Subsequent Period	Allowance for Bad Debts
					Amount	Collection		
TGCH	CFG	Parent-subsidiary	Other receivables $279,329	-	$-	-	$-	$-
TGCH	TJG	Parent-subsidiary	Other receivables 647,226	-	-	-	-	-
TGCH	FPG	Parent-subsidiary	Other receivables 527,625	-	-	-	-	-
TGCH	QFG	Parent-subsidiary	Other receivables 305,970	-	-	-	-	-
TGCH	TCD	Parent-subsidiary	Other receivables 1,211,705	-	-	-	-	-
TGCH	TAH	Parent-subsidiary	Other receivables 890,362	-	-	-	-	-
QFG	QRG	Parent-subsidiary	Other receivables 165,987	-	-	-	-	-
QFG	TQPT	Parent-subsidiary	Other receivables 107,437	-	-	-	-	-
CDG	TWAR	Affiliate Company	Other receivables 1,219,296	-	-	-	-	-
CDG	HZSS	Affiliate Company	Other receivables 132,009	-	-	-	-	-
CDG	TXY	Affiliate Company	Other receivables 540,401	-	-	-	-	-
CDG	TTAR	Affiliate Company	Other receivables 355,828	-	-	-	-	-

Attachment 6

Receivables from related parties with amounts exceeding NT$100 million

or 20 percent of capital stock as of for the year ended December 31, 2019(Continue) (Dollar amount expressed in thousands of NTD unless otherwise specified)

Company	Counterparty	Relationship	Ending Balance (Note 1)	Turnover	Overdue Receivables		Amount Received in Subsequent Period	Allowance for Bad Debts
					Amount	Collection		
TGF	TCD	Affiliate Company	Other receivables $731,859	-	$-	-	$-	$-
TGF	TBF	Affiliate Company	Other receivables 1,137,308	-	-	-	-	-
DHG	FPG	Affiliate Company	Other receivables 1,644,669	-	-	-	-	-
HNG	TJG	Affiliate Company	Other receivables 180,397	-	-	-	-	-
TGI	QFG	Parent-subsidiary	Accounts receivable 197,159	-	-	-	-	-
CFG	TTAR	Affiliate Company	Accounts receivable 123,247	-	-	-	-	-
TBF	TGF	Affiliate Company	Accounts receivable 202,146	-	-	-	-	-
TAH	CFG	Affiliate Company	Accounts receivable 159,987	-	-	-	-	-
TAH	TTAR	Affiliate Company	Accounts receivable 294,468	-	-	-	-	-
TAH	TWAR	Affiliate Company	Accounts receivable 176,128	-	-	-	-	-

Note 1: Fill in information such as related parties account receivables, notes receivable, other receivables, etc.

Note 2: Paid-in Capital shall refer to the paid-in capital of parent company.If the issuer's stock is not denominated or the denomination is not NT$10, the transaction amount of 20% of the paid-up capital shall be calculated as 10% of the equity of f the parent company on the balance sheet.

Note 3: All transactions listed above are eliminated in the consolidated financial statements.

Attachment 7

Significant intercompany transactions for the year ended December 31, 2019 (Dollar amount expressed in thousands of NTD unless otherwise specified)

No. (Note 1)	Related Party	Counterparty	Relationship with the Company (Note 2)	Transaction Details			
				Account	Amount	Terms	Percentage (Note 3)
0	TGI	QFG	1	Sales revenues	$407,182	The same as export sales	1%
0	〃	TGF	1	〃	117,920	〃	0%
1	TAH	CFG	3	〃	260,762	The same as domestic sales	1%
1	〃	TTAR	3	〃	390,085	〃	1%
1	〃	TWAR	3	〃	265,615	〃	1%
2	TCD	TGF	3	〃	172,608	〃	0%
3	TBF	TGF	3	〃	469,931	〃	1%
4	QFG	TGUS	3	〃	244,961	The same as export sales	1%
5	TJG	TGUS	3	〃	149,780	〃	0%
6	TXY	XYES	1	〃	200,777	The same as domestic sales	0%
0	TGI	QFG	1	Accounts receivable - related parties	197,159		0%
7	CFG	TTAR	3	〃	123,247		0%
3	TBF	TGF	3	〃	202,146		0%
1	TAH	CFG	3	〃	159,987		0%
1	〃	TTAR	3	〃	294,468		0%
1	〃	TWAR	3	〃	176,128		0%
8	TGCH	CFG	1	Other receivables - related parties	279,329		0%
8	〃	TJG	1	〃	647,226		1%
8	〃	FPG	1	〃	527,625		1%
8	〃	QFG	1	〃	305,970		0%
8	〃	TCD	1	〃	1,211,705		1%
8	〃	TAH	1	〃	890,362		1%
4	QFG	QRG	1	〃	165,987		0%
4	〃	TQPT	1	〃	107,437		0%
9	CDG	TWAR	3	〃	1,219,296		1%
9	〃	HZSS	3	〃	132,009		0%
9	〃	TXY	3	〃	540,401		1%
9	〃	TTAR	3	〃	355,828		0%
10	TGF	TCD	3	〃	731,859		1%
10	〃	TBF	3	〃	1,137,308		1%
11	DHG	FPG	3	〃	1,644,669		2%
12	HNG	TJG	3	〃	180,397		0%

Note 1: The Company and its subsidiaries are coded as follows:
1 The Company is coded "0".
2 Subsidiaries are coded consecutively starting from "1" in the order presented in the table above.

Note 2: Transactions are categorized as follows:
1. Parent company to subsidiary
2. Subsidiary to parent company
3. Subsidiary to subsidiary

Note 3: The percentage is determined by the ratio of the transaction amount to the consolidated revenues or the total assets. Items on the balance sheet are calculated by the ending balance to total consolidated assets; items on the income statement are calculated by their cumulative balance to the total consolidated income.

Note 4: The disclosure of significant intercompany transactions in this attachment is determined by the company based on the materiality.

Attachment 8

Names, locations and related information of investee companies as of December 31, 2019 (Dollar amount expressed in thousands of NTD unless otherwise specified)

Company	Investee (Note 1,2)	Area Within	Nature of Business	Initial Investment		Investment as of December 31, 2019			Profit or Loss of Investee (Note 2)	Gain or Loss on Investment (Note 2,3)	Remark
				Ending Balance	Beginning Balance	Shares	Percentage of Ownership	Carrying Value			
TGI	TGUS	US	Investment in QRG and selling of glasses.	$17,676 USD 461	$17,676 USD 461	4,612	100.00%	$391,684	$31,482	$31,482	
〃	TGCH	Bermuda	Investment in QRG, QFG, YNSS, TGF, CFG, FYSS, CDG, DHG, HZSS, HNG, TKG, TJG, FPG, TXY, TTAR, TYAU, TAH, TYSM, TWAR, TCD, TBF, and SCH.	41,724,578 USD 1,343,151	41,724,578 USD 1,343,151	1,354,033,322	93.98%	39,480,570	(358,069)	(333,951)	
〃	TAG	Taiwan	Investment in TAGH and selling of auto glasses.	263,582	263,582	26,100,000	87.00%	184,431	(80,132)	(69,822)	
〃	TVIG	Taiwan	Selling vacuum insulation glass	438,750	438,750	43,875,000	65.00%	164,673	(43,733)	(28,427)	
TGCH	SCH	Hong Kong	Investment in Shihlien Chemical Industrial (Jiangsu) Co., Ltd. (SCJ) and Huaian Shihyuan Brine Co., Ltd. (HSB).	7,861,681 USD 252,088	7,861,681 USD 252,088	1,904,445,986	43.99%	4,219,840	727,343	352,724	
TAG	TAGH	Bermuda	Investment in TYAU.	188,571 USD 6,000	188,571 USD 6,000	6,000,000	100.00%	66,979	(17,297)	(17,297)	

Note 1: A listed company which has a foreign holding company that uses the consolidated financial statements as the master financial report according to its local regulations may disclose information regarding foreign investees only to the extent of the holding company.

Note 2: Fill in information following the instruction below for matters not applied in Note 1 indicated above:

(1) The columns of "Name of investee", "Area Within", "Nature of Business", "Initial Investment" and "Investment as of December 31, 2019" should fill in information of the reinvestment of the listed company, reinvestment of every direct or indirect reinvestment of the investee, and disclose the relationship of the investees with the Company in the Remark column. (Such as subsidiary or sub-subsidiary)

(2) The column of "Profit or Loss of Investee" should fill in the current profit or loss of the investees.

(3) The column of "Gain or Loss on Investment" only require profit / loss of the direct investees and all investees accounted for under the equity method When filling in the above items, make sure the profit / loss of direct investee subsidiaries include the profit or loss of their reinvestments that are required to be recognized.

Note 3: All transactions listed above are eliminated in the consolidated financial statements except for SCH and its investments in mainland China.

Attachment 9

Investment in Mainland China as of December 31, 2019

(Dollar amount expressed in thousands of NTD unless otherwise specified)

Investee	Nature of Business	Total Amount of Paid-in Capital	Investment Method (Note 1)	Accumulated Outflows of Investment from Taiwan as of January 1, 2019	Investment Flows		Accumulated Outflows of Investment from Taiwan as of December 31, 2019	Profit or Loss of Investee company	Percentage of Ownership	Profit or Loss on Investment (Note 2(ii)c.)	Carrying Value as of December 31, 2019	Accumulated Inward Remittance of Earnings as of December 31, 2019
					Outflow	Inflow						
QRG	Manufacturing of photovoltaic glass	$878,204 USD 29,293 (Note20)	(i)	$32,199 USD 1,074	$- -	$- -	$32,199 USD 1,074	$(40,670)	94.96%	$(38,620)	$108,352	$-
QFG	Manufacturing of flat glasses	2,632,244 USD 87,800 (Note14、Note23)	(ii)	1,420,722 USD 47,389	- -	- -	1,420,722 USD 47,389	(167,352)	93.98%	(157,278)	1,233,286	-
YNSS	Manufacturing of silica sand	120,190 USD 4,009 (Note14)	(ii)	58,131 USD 1,939	- -	- -	58,131 USD 1,939	(20,840)	59.56%	(12,412)	86,680	-
CFG	Manufacturing of flat glasses & low-emission glasses	2,818,120 USD 94,000 （Note8、Note25）	(ii)	2,278,480 USD 76,000	- -	- -	2,278,480 USD 76,000	(23,695)	93.98%	(22,268)	2,975,571	-
FYSS	Manufacturing of silica sand	128,914 USD 4,300 (Note6)	(ii)	62,958 USD 2,100	- -	- -	62,958 USD 2,100	81,358	93.98%	76,460	193,018	-
TGF	Manufacturing of glass fabric & fiber	3,297,800 USD 110,000 (Note13)	(ii)	2,731,658 USD 91,116	- -	- -	2,731,658 USD 91,116	(125,741)	93.98%	(118,171)	5,713,578	-
CDG	Manufacturing of flat glasses & low-emission glasses	2,098,600 USD 70,000 (Note12)	(ii)	1,465,872 USD 48,895	- -	- -	1,465,872 USD 48,895	543,072	93.98%	510,379	7,186,840	-
HZSS	Manufacturing of silica sand	314,790 USD 10,500	(ii)	314,790 USD 10,500	- -	- -	314,790 USD 10,500	(37,287)	93.98%	(35,042)	116,038	-
HNG	Manufacturing of flat glasses & low-emission glasses	3,177,880 USD 106,000 (Note11)	(ii)	2,653,230 USD 88,500	- -	- -	2,653,230 USD 88,500	(17,743)	93.98%	(16,675)	2,996,230	-
DHG	Manufacturing of flat glasses	2,398,400 USD 80,000 (Note9、Note14、Note22)	(ii)	1,499,000 USD 50,000	- -	- -	1,499,000 USD 50,000	257,349	93.98%	241,857	4,926,184	-
TJG	Manufacturing of flat glasses & low-emission glasses	2,878,080 USD 96,000 （Note10、Note24）	(ii)	1,768,820 USD 59,000	- -	- -	1,768,820 USD 59,000	(172,469)	93.98%	(162,087)	589,808	-
FPG	Manufacturing of photovoltaic glass & cell module assembly	2,486,181 USD 82,928 (Note21)	(ii)	1,558,960 USD 52,000	- -	- -	1,558,960 USD 52,000	(417,937)	93.98%	(392,777)	(511,210)	-
SCJ	Manufacturing of soda ash	23,984,000 USD 800,000 (Note15)	(ii)	4,784,568 USD 159,592	- -	- -	4,784,568 USD 159,592	1,407,961	41.34%	582,051	7,834,989	-
HSB	Manufacturing Brine	959,360 USD 32,000 (Note16)	(ii)	179,880 USD 6,000	- -	- -	179,880 USD 6,000	139,400	41.34%	57,628	692,073	-
TXY	Manufacturing of flat glasses	2,998,000 USD 100,000 (Note17)	(ii)	1,948,700 USD 65,000	- -	- -	1,948,700 USD 65,000	268,433	93.98%	252,274	2,540,097	-
TTAR	Manufacturing of low-emission glasses	1,049,300 USD 35,000	(ii)	1,049,300 USD 35,000	- -	- -	1,049,300 USD 35,000	204,671	93.98%	192,350	769,853	-

Attachment 9

Investment in Mainland China as of December 31, 2019(Continue)

(Dollar amount expressed in thousands of NTD unless otherwise specified)

Investee	Nature of Business	Total Amount of Paid-in Capital	Investment Method (Note 1)	Accumulated Outflows of Investment from Taiwan as of January 1, 2019	Investment Flows		Accumulated Outflows of Investment from Taiwan as of December 31, 2019	Profit or Loss of Investee company	Percentage of Ownership	Profit or Loss on Investment (Note 2(ii)b.)	Carrying Value as of December 31, 2019	Accumulated Inward Remittance of Earnings as of December 31, 2019
					Outflow	Inflow						
TAH	Manufacturing of flat glasses	$2,548,300 USD 85,000	(ii)	$2,548,300 USD 85,000	$- -	$- -	$2,548,300 USD 85,000	$59,827	93.98%	$56,226	$1,837,359	$-
TYSM	Manufacturing of solar glasses	1,948,700 USD 65,000 (Note18)	(ii)	1,461,525 USD 48,750	- -	- -	1,461,525 USD 48,750	(123,129)	70.49%	(86,793)	375,307	-
TWAR	Manufacturing of low-emission glasses	1,049,300 USD 35,000	(ii)	1,049,300 USD 35,000	- -	- -	1,049,300 USD 35,000	(29,807)	93.98%	(28,012)	322,528	-
TYAU	Manufacturing of auto glasses	2,038,640 USD 68,000 (Note19)	(ii)	1,043,304 USD 34,800	- -	- -	1,043,304 USD 34,800	(191,688)	55.77%	(106,905)	451,579	-
TBF	Manufacturing of glass fabric	1,798,800 USD 60,000	(ii)	1,798,800 USD 60,000	- -	- -	1,798,800 USD 60,000	(693,983)	93.98%	(652,205)	673,794	-
TCD	Manufacturing of glass fabric	2,938,040 USD 98,000 (Note7)	(ii)	2,788,140 USD 93,000	- -	- -	2,788,140 USD 93,000	(257,398)	93.98%	(241,903)	2,412,677	-

(Dollar amount expressed in thousands of NTD; thousands of USD)

Accumulated Investment in Mainland China as of December 31, 2019	Investment Amount Authorized by Investment Commission, Ministry of Economic Affairs (Note 4)	Limit on Investment Amount to Mainland China
$34,496,637 USD 1,150,655	$40,383,451 USD 1,334,061 and CNY 90,356	(Note 5)

Note 1: The methods for engaging in investment in Mainland China include the following:
(i) Direct investment in Mainland China companies.
(ii) Investment in Mainland China companies through a company invested and established in a third region
(iii) Other methods

Note 2: In the column of profit or loss on investment:
(i) The investment still in preparation and not generating profit or loss yet should be noted.
(ii) The gain or loss on investment were determined based on the following:
a. The financial report was audited and certified by an international accounting firm in cooperation with an R.O.C. accounting firm
b. The financial statements certificated by the CPA of the parent company in Taiwan
c. Others

Note 3: The amount of this attachment are expressed in New Taiwan Dollars.
Note 4: The investment amount was authorized by Investment Commission, Ministry of Economic Affairs.
Note 5: The Company does not have a limit on investment in Mainland China since it qualified as operation headquarter approved by the Industrial Development Bureau, Ministry of Economic Affairs.
Note 6: The TGCH invested the other USD 2,200 thousand to the entity with its own capital.
Note 7: The TGCH invested the other USD 5,000 thousand to the entity with its own capital.
Note 8: The other USD 12,000 thousand was invested by third party through the TGCH.
Note 9: Third party invested USD 3,000 thousand to the entity through the TGCH.
Note 10: Third party invested USD 12,000 thousand to the entity through the TGCH.
Note 11: Third party invested USD 17,000 thousand to the entity through the TGCH; TGCH also invested to the entity USD 500 thousand with its own capital.
Note 12: Third party invested USD 21,000 thousand to the entity through the TGCH.
Note 13: Third party invested USD 17,000 thousand to the entity through the TGCH.
Note 14: The QFG, YNSS, and DHG invested USD 27,800 thousand, USD 592 thousand, and USD13,000 thousand, their unappropriated earnings, respectively to the subsidiary.
Note 15: The SCH, the investee of the TGCH, invested USD 640,408 thousand to the entity with its and third party's capital.
Note 16: The SCH invested USD 26,000 thousand to the entity with third party's capital.
Note 17: The USD 35,000 thousand earnings distributed by CFG and CDG was invested by TGCH. The Company did not provide any funding.
Note 18: The USD 16,250 thousand was invested by the third party. The Company did not provide any funding.
Note 19: The TAGH and third party invested additional USD 6,000 thousand and USD 27,200 thousand to the entity, respectively.
Note 20: The QFG and TGUS invested USD 23,319 thousand and USD 4,774 thousand to the entity, respectively.
Note 21: The FPG raised capital of USD 30,928 thousand through debt for equity swap. The Company did not provide any funding.
Note 22: The DHG raised capital of USD 14,000 thousand through debt for equity swap. The Company did not provide any funding.
Note 23: The QFG raised capital of USD 5,000 thousand through debt for equity swap. The Company did not provide any funding.
Note 24: The TJG raised capital of USD 25,000 thousand through debt for equity swap. The Company did not provide any funding.
Note 25: For the period ended September 30, 2019, the Company was merged with TKG. CFG is the surving company, and TKG is the dissolved company.
Note 26: All amount listed above are eliminated in the consolidated financial statements except for SCJ and HSB.