Orbia Advance Corporation, S.A.B de C.V. (formerly Mexichem, S.A.B. de C.V.) and Subsidiaries (Subsidiary of Kaluz, S.A. de C.V.)

Consolidated Financial Statements for the Years Ended December 31, 2019, 2018 and 2017, and Independent Auditors' Report Dated February 24, 2020

Orbia Advance Corporation, S.A.B de C.V. (formerly Mexichem, S.A.B. de C.V.) and Subsidiaries
(Subsidiary of Kaluz, S.A. de C.V.)

Independent Auditors' Report and Consolidated Financial Statements 2019, 2018 and 2017

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Independent Auditors' Report to the Board of Directors and Stockholders of Orbia Advance Corporation, S.A.B de C.V. (formerly Mexichem, S.A.B. de C.V.) and Subsidiaries

(In Thousands of US dollars)

Opinion

We have audited the accompanying consolidated financial statements of Orbia Advance Corporation, S.A.B. de C.V. (formerly Mexichem S.A.B. de C.V.) and Subsidiaries (herein referred to as Orbia or the Entity), which comprise the consolidated statements of financial position as of December 31, 2019, 2018 and 2017, and the consolidated statements of income and other comprehensive income, the consolidated statements of changes in stockholders' equity and the consolidated statements of cash flows for the years then ended, and the notes to the consolidated financial statements including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of Orbia Advance Corporation, S.A.B. de C.V. and Subsidiaries as of December 31, 2019, 2018 and 2017, and their consolidated financial performance and their consolidated cash flows, for the years then ended, in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board.

Basis for Opinion

We conducted our audits in accordance with International Standards on Auditing (ISA). Our responsibilities under those standards are further described in the *Independent Auditors' Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Entity in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and with the ethical requirements that are relevant to our audit of the consolidated financial statements in accordance with the Code of Ethics issued by the Mexican Institute of Public Accountants A.C. (IMCP Code), and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code and with the IMCP Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements as of December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

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i) Adoption of the New Accounting Standard on Leases, see Note 3

As discussed in Note 3 to the consolidated financial statements, as of January 1, 2019, the Entity adopted the new accounting standard *IFRS 16 - Leases,* which establishes a series of new lease accounting requirements that generated significant changes in Orbia's accounting in its capacity as lessee. The Entity decided to apply the retrospective with the cumulative effect approach without restatement of prior years. At December 31, 2019, the right-of-use asset is $336,890, while the lease liability at that date is $345,529. Notwithstanding the judgments, decisions and significant estimates made by management to adopt this standard, a high degree of auditor judgment is required for this purpose, together with a significantly increased audit effort, the incorporation of our capital markets specialists to review the mathematical models and our experts in technology and IFRS.

How the Key Audit Matter Was Addressed in the Audit:

Our audit procedures included the following, among others:

i. In conjunction with the Entity's Management and the specialists hired for this purpose, we analyzed the adoption methodology, the identification of assets subject to the accounting procedures detailed in this standard, the variables and hypotheses to be considered for each lease and the mathematical models used to account these items.
ii. We reviewed the design, implementation and operating effectiveness of the internal controls applied by the Entity to the information input into the model and software that determined the adoption effects arising at the year-end close.
iii. We selected a random sample from the universe of contracts and verified that they were included and accounted according with IFRS 16; we evaluated the determination of the lease terms and the feasibility of their extension, and challenged projected cash flows and the discount rate utilized by Management.
iv. With the assistance of our specialists, we tested the mathematical accuracy of the model and the adequate data input based on the main variables and hypotheses of the mathematical model used by the Entity;
v. We reviewed the adoption effect at January 1, 2019, together with the amounts that affected the consolidated statements of income and other comprehensive income for the year ended December 31, 2019 and closing balances at that date;
vi. We reviewed the disclosure completeness of the notes to the consolidated financial statements to verify their compliance with the new standard.

The results of our work were satisfactory and we have reached a conclusion concerning the fairness of the adoption of this standard in the current consolidated financial statements. See Note 3a.

ii) Impairment of Long-Lived Assets, Goodwill and Intangible Assets, see Notes 4 and 15

The Entity has identified several cash-generating units related to the plants that attend to different business and/or geographical segments for which an annual impairment analysis focused on tangible and intangible assets is performed. Accordingly, the Entity determines the recoverable value in conformity with *IAS 36, Impairment of Assets*, which requires that Management utilize judgments and significant estimates for future revenues, cash flows, and operating margins and to select an appropriate discount rate to determine whether the value of assets has become impaired. A risk exists whereby the assumptions used by Management to calculate future cash flows, the discount rate and the utilized model may not be fair based on current and foreseeable future conditions.

How the Key Audit Matter Was Addressed in the Audit:

Our audit procedures included the following, among others:

i) We involved our expert specialists so as to:

- Assess the fairness of the model utilized by Management to calculate the value-in-use of cash generating units and ensure its compliance with the requirements of IAS 36.
- Independently evaluate the assumptions used by the Entity to determine appropriate discount rates in each case.
- Verify the consistency of projected cash flows with historical information and, based on our knowledge of the business, the normalization of any nonrecurring effect.
- Selectively recalculate projections to validate the original calculations.

ii) We tested the design and implementation of internal controls and applied certain substantive procedures related to the completeness and accuracy of the information input into the financial model.

iii) We analyzed the methodology utilized by the Entity's Management to analyze impairment and assess its fairness, while also verifying that it utilizes assumptions that are comparable with historical performance, expected future perspectives and industry growth. We also challenged the discount rates applied by the Entity to determine their adequacy under the circumstances.

The results of our audit tests were fair. As discussed in Notes 4m, 4o, 4p and 15 to the consolidated financial statements, the Entity did not identify the impairment adjustments required by long-lived assets, goodwill and intangible assets.

iii) Revenue Recognition, see Note 4ee

The Entity recognizes revenues at a given point in time and over time. The first recognition occurs when control of the goods in question is transferred to the customer, though on contractual terms and conditions, while the second recognition takes place when the performance of Orbia creates or improves an asset controlled by the customer. The recognition of revenues at a specific point in time implies the risk of a revenue cutoff based on the different agreements affecting the universe of the Entity's customers because varying sales negotiations result in the transfer of control to customers at different times.

How the Key Audit Matter Was Addressed in the Audit:

Our procedures included, among other:

i) Understanding of the Entity's internal controls to identify the different contractual and commercial agreements with customers and their parameterization in the accounting system to determine the unrealized sales amount at yearend.

ii) Analyzing agreements signed with customers, identifying the performance obligations established therein and ensuring that revenues are recognized only when risks have been transferred and the performance obligations have been fulfilled.

iii) Random review of merchandise shipments to confirm the commercial terms in the agreements and determine when the risks are transferred to the customers depending on such conditions (free on board, delivered at place, etc.), and consequently identify whether they have been correctly included as revenues at yearend.

The results of our audit tests regarding the judgment used by the Entity's Management to record revenues once risks have been transferred and the performance obligations have been fulfilled, are reasonable. See Note 3b.

iv) *Income Taxes, Deferred Tax Asset Realization – Determination of Future Tax Income - see Note 23*

The Entity recognizes deferred taxes on the temporary differences between the book value of the assets and liabilities included in the financial statements and the respective tax bases used to determine the tax result; benefits from tax loss carryforwards and certain tax credits are also included. Deferred tax assets are recognized only when there is a high likelihood that the Entity will apply such temporary differences against future tax profits. We have identified a possible risk in the valuation of deferred income tax assets mainly because the future tax profit forecasts may be incorrect due to: a) use of inappropriate or inadequately supported assumptions, b) consideration of operating assumptions outside the regular course of business, c) not considering a reasonable recovery period or, d) incorrect calculations.

How the Key Audit Matter Was Addressed in the Audit:

Our audit procedures included, among other:

i) Involving our internal tax specialists to:
   - Clearly understand the tax laws of every country in which the Entity operates.
   - Review the tax and accounting result reconciliations of each subsidiary and identify temporary and permanent items.
   - Review cash flow projections to confirm the application of tax losses by the Entity's subsidiaries during the recovery term established and supported by relevant tax laws.

ii) Validating of future cash flows based on business trends and supported by the Entity's prior experience and historical results, confirming that existing tax losses will very probably be applied before their expiration.

iii) Assessing of current operating strategies and their impact on future cash flows projections.

During 2019, the Entity's Management recorded a deferred tax asset of approximately $88,800 based on the deferred tax derived from tax losses that had been reserved in prior years and which primarily resulted from a series of measures that the Entity will implement in the near future and which have increased the probability of their utilization.

Other Matter

The accompanying consolidated financial statements have been translated into English for the convenience of readers.

Additional Information Other than the Consolidated Financial Statements and the Independent Auditors' Report

The Entity's Management is responsible for the additional information. The additional information is composed by: *i*) the information that will be included in the Annual Report, which the Entity must prepare according to Article 33 Section I, paragraph b) of Title Fourth, Chapter First of the General Provisions Applicable to Issuers and Other Stock Market Participants in Mexico and the accompanying Guidelines (the Provisions). The Annual Report is expected to be available for our reading after the date of this audit report; and *ii*) other additional information, which is not specifically required by IFRS and has been included so as to provide an additional explanation for investors and the main readers of the Entity's consolidated financial statements regarding its level of indebtedness, net debt and loan costs in relation to its Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA). This information is presented in Note 11.

Our opinion of the consolidated financial statements does not cover the other information and we do not provide any assurance in this regard.

As regards our audit of the consolidated financial statements, our responsibility will be to read the Annual Report when it becomes available and, when doing so, consider whether the information contained therein is materially inconsistent with the consolidated financial statements, the knowledge we obtained during the audit or whether it appears to contain material misstatement. Likewise, in relation to our audit of the consolidated financial statements, our responsibility is to read the other information which, in this case, is not required by IFRS and, when doing so, consider whether the other information contained therein is materially inconsistent with the consolidated financial statements, the knowledge we obtained during the audit or whether it appears to contain material misstatement. If, based on the work we have performed, we conclude that the other information contains material misstatement; we would have to report this fact. We have nothing to report in this regard. When we read the Annual Report, we will issue the respective declaration, as required by Article 33, Section I, paragraph b) numeral 1.2. of the Provisions.

Responsibilities of Management and the Audit Committee for the Consolidated Financial Statements

Management is responsible for the preparation and reasonable presentation of the accompanying consolidated financial statements under IFRS, and for such internal control as management determines is necessary to enable the preparation and presentation of financial statements that are free from material misstatement, due to fraud or error.

In preparing the consolidated financial statements, Management is responsible for assessing the Entity's ability to continue as a Going Concern, disclosing any Going Concern issues and using the Going Concern basis of accounting unless Management either intends to liquidate the Entity or to cease operations, or has no realistic alternative to do so.

The members of the Entity's Audit Committee are responsible for overseeing the Entity´s financial reporting process.

Independent Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISA will always detect a material misstatement when it exists. Misstatements may 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 conformity with ISA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, 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, deceit, intentional omissions, misrepresentations, or override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate under the circumstances, but not for expressing an opinion on the effectiveness of the Entity's internal control.

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- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.

- 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 Entity's ability to continue as a Going Concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a Going Concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a way that constitutes fair presentation.

- Obtain sufficient and appropriate audit evidence about the Entity's consolidated financial information and its business activities to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision, and performance of the audit group. 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 or other matters that may be reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year 2019 and are therefore the key audit matters. We describe these matters in our audit report unless law or regulation precludes public disclosure about the matters 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.

Galaz, Yamazaki, Ruiz Urquiza, S.C.
Member of Deloitte Touche Tohmatsu Limited

C.P.C. Carlos M. Pantoja Flores

Mexico City, Mexico
February 24, 2020

Orbia Advance Corporation, S.A.B de C.V. (formerly Mexichem, S.A.B. de C.V.) and Subsidiaries
(Subsidiary of Kaluz, S.A. de C.V.)

Consolidated Statements of Financial Position
As of December 31, 2019, 2018, and 2017
(In Thousands of U.S. dollars)

Assets

	Notes	2019	2018	2017
Current assets:				
Cash and cash equivalents	8	$ 586,409	$ 699,878	$ 1,899,840
Accounts receivable, Net	9	1,352,028	1,317,549	1,329,994
Due from related parties	20a	4,757	5,371	2,193
Inventories, Net	10	834,438	865,799	674,888
Prepaid expenses		65,280	78,299	35,623
Derivate financial instruments	12 and 13	107	-	-
Assets classified as held for sale		9,096	10,277	9,402
Total current assets		2,852,115	2,977,173	3,951,940
Non-current assets:				
Property, plant and equipment, Net	14 and 17	3,348,821	3,507,386	3,626,495
Right-of-use assets	3g	336,890	-	-
Investment in shares of associates	41	33,843	35,533	31,247
Other assets, Net		88,760	100,893	86,403
Deferred income taxes	22b	125,649	95,879	152,883
Employee benefit asset	17	13,781	13,856	16,596
Intangible assets, Net	15a	1,765,538	1,851,547	1,211,956
Goodwill	15b	1,491,684	1,492,691	698,455
Total non-current assets		7,204,966	7,097,785	5,824,035
Total assets		$ 10,057,081	$ 10,074,958	$ 9,775,975

See accompanying notes to the consolidated financial statements.

Liabilities and Stockholders' Equity

	Notes	2019	2018	2017
Current liabilities				
Bank loans and current portion of long-term debt	16	$ 322,346	$ 395,928	$ 45,422
Suppliers		679,080	794,306	664,903
Credit letters		584,522	619,363	697,163
Due to related parties	20a	100,533	116,555	64,512
Other accounts payable and accrued liabilities		478,448	461,814	463,695
Dividends payable		134,482	155,619	83,917
Provisions	18	52,391	22,003	8,589
Employee benefits		128,451	102,081	41,645
Short-term lease liability	3h	78,149	17,666	36,772
Derivative financial instruments	12 and 13	12,716	15,629	14,830
Liabilities associated with assets held for sale		6,243	7,023	9,100
Total current liabilities		2,577,361	2,707,987	2,130,548
Non-current liabilities:				
Bank loans and long-term debt	16	3,128,620	3,175,497	3,209,944
Employee benefits	17	229,253	195,883	202,525
Long-term provisions	18	22,813	17,896	33,300
Long-term other liabilities		36,110	44,007	32,684
Redeemable non-controlling interest	13b	264,287	245,799	-
Derivative financial instruments	12 and 13	66,781	112,658	166,069
Deferred income taxes	22b	335,490	348,680	231,219
Long-term lease liability	3h	267,380	15,384	39,336
Long-term income taxes	22	34,575	41,327	49,471
Total non-current liabilities		4,385,309	4,197,131	3,964,548
Total liabilities		6,962,670	6,905,118	6,095,096
Stockholders' equity:				
Paid-in capital -				
Nominal	19a	256,482	256,482	256,482
Additional paid-in capital		1,474,827	1,474,827	1,474,827
Cumulative effect of restatement		23,948	23,948	23,948
		1,755,257	1,755,257	1,755,257
Earned capital -				
Retained earnings		1,058,949	1,052,546	1,075,239
Redeemable non-controlling interest	6d and 13b	(227,205)	(227,205)	-
Buy-back shares program reserve	19b	295,530	328,920	379,802
Other comprehensive (loss) income		(507,537)	(501,162)	(407,722)
		619,737	653,099	1,047,319
Controlling interest		2,374,994	2,408,356	2,802,576
Non-controlling interest		719,417	761,484	878,303
Total stockholders' equity		3,094,411	3,169,840	3,680,879
Total liabilities and stockholders' equity		$ 10,057,081	$ 10,074,958	$ 9,775,975

Orbia Advance Corporation, S.A.B de C.V. (formerly Mexichem, S.A.B. de C.V.) and Subsidiaries
(Subsidiary of Kaluz, S.A. de C.V.)

Consolidated Statements of Income and Other Comprehensive Income

For the years ended December 31, 2019, 2018 and 2017
(In Thousands of U.S. dollars, except gain (loss) basic per share expressed in U.S. dollars)

	Notes	2019	2018	2017
Continuing operations:				
Net sales		$ 6,987,182	$ 7,198,136	$ 5,828,333
Cost of sales	21a	5,028,919	5,199,495	4,319,090
Gross profit		1,958,263	1,998,641	1,509,243
Selling and development expenses	21b	624,701	588,151	438,193
Administrative expenses	21c	467,834	449,113	336,474
Other expenses, Net	21d	42,707	26,563	26,431
Exchange gain		(49,384)	(84,052)	(8,785)
Exchange loss		67,781	131,592	56,379
Interest expense		272,073	250,674	194,896
Interest income		(14,195)	(19,847)	(18,245)
Change in fair value of redeemable non-controlling interest		18,488	18,593	-
Monetary position gain		(151)	(12,671)	(48,723)
Equity in income of associated entities		(4,142)	(4,272)	(2,185)
Profit before income taxes		532,551	654,797	534,808
Income tax expense	22d	205,542	194,680	177,691
Profit for the year from continuing operations		327,009	460,117	357,117
Discontinued operations:				
(Loss) income net from discontinued operations, Net	23b	(107)	22,829	(143,179)
Consolidated profit for the year		326,902	482,946	213,938
Other comprehensive income (loss):				
Items that will not be reclassified subsequently to profit or loss-				
Actuarial (losses) gains recognized during the year		(19,971)	(12,886)	8,593
Income taxes		6,700	3,866	(2,578)
		(13,271)	(9,020)	6,015
Items that may be reclassified subsequently to profit or loss-				
(Loss) gain in translation effects of foreign operations		(41,685)	(126,881)	144,532
Gain (loss) in the valuation of financial instruments		34,956	37,007	(90,520)
Income taxes		(10,694)	(11,102)	27,156
		(17,423)	(100,976)	81,168
Other comprehensive income (loss) for the year		(30,694)	(109,996)	87,183
Consolidated comprehensive income for the year		$ 296,208	$ 372,970	$ 301,121

(Continued)

	Notes	2019	2018	2017
Consolidated net income for the year:				
Owners of the Entity		$ 206,731	$ 354,888	$ 194,301
Non-controlling interests		120,171	128,058	19,637
		$ 326,902	$ 482,946	$ 213,938
Comprehensive income attributable to:				
Owners of the Entity		$ 187,084	$ 252,428	$ 276,982
Non-controlling interests		109,124	120,522	24,139
		$ 296,208	$ 372,950	$ 301,121
Earnings per share attributable to owners of the Entity:				
From continuing operations		$ 0.10	$ 0.16	$ 0.12
From discontinued operations		$ 0.00	$ 0.01	$ (0.03)
Basic earnings per share		$ 0.10	$ 0.17	$ 0.09
Weighted average common shares outstanding		2,100,000,000	2,100,000,000	2,100,000,000

(Concluded)

See accompanying notes to the consolidated financial statements.

Orbia Advance Corporation, S.A.B de C.V. (formerly Mexichem, S.A.B. de C.V.) and Subsidiaries
(Subsidiary of Kaluz, S.A. de C.V.)

Consolidated Statements of Changes in Stockholders' Equity

For the years ended December 31, 2019, 2018 and 2017
(In Thousands of U.S. dollars)

	Paid-in capital			Accumulated results				Other comprehensive results				
	Nominal	Additional paid in capital	Cumulative effect of restatement	Legal reserve	Retained earnings	Redeemable non-controlling interest	Buy-back shares program reserve	Translation effects of foreign operations	Valuation of financial instruments	Controlling interest	Non-controlling interest	Total stockholders' equity
Balances as of December 31, 2016	$ 256,482	$ 1,474,827	$ 23,948	$ 51,298	$ 804,046	$ -	$ 551,579	$ (547,079)	$ 62,691	$ 2,677,792	$ 903,814	$ 3,581,606
Dividends declared	-	-	-	-	(147,000)	-	-	-	-	(147,000)	-	(147,000)
Purchase of shares	-	-	-	-	-	-	(5,198)	-	-	(5,198)	-	(5,198)
Partial cancellation of the buy-back shares program reserve	-	-	-	-	551,579	-	(551,579)	-	-	-	-	-
Increase in buy-back shares program reserve	-	-	-	-	(385,000)	-	385,000	-	-	-	-	-
Additional non-controlling equity derived from business acquisition	-	-	-	-	-	-	-	-	-	-	38,500	38,500
Distribution capital to non-controlling	-	-	-	-	-	-	-	-	-	-	(88,150)	(88,150)
Other comprehensive income (loss) of the year	-	-	-	-	6,015	-	-	140,030	(63,364)	82,681	4,502	87,183
Consolidated profit for the year	-	-	-	-	194,301	-	-	-	-	194,301	19,637	213,938
Balances as of December 31, 2017	256,482	1,474,827	23,948	51,298	1,023,941	-	379,802	(407,049)	(673)	2,802,576	878,303	3,680,879
Dividends declared	-	-	-	-	(318,000)	-	-	-	-	(318,000)	-	(318,000)
Purchase of shares	-	-	-	-	736	-	(67,160)	-	-	(66,424)	-	(66,444)
Partial cancellation of the buy-back shares program reserve	-	-	-	-	359,876	-	(359,876)	-	-	-	-	-
Increase in buy-back shares program reserve	-	-	-	-	(376,154)	-	376,154	-	-	-	-	-
Additional non-controlling equity derived from business acquisition	-	-	-	-	-	-	-	-	-	-	32,032	32,032
Redeemable non-controlling interest	-	-	-	-	-	(227,205)	-	-	-	(227,205)	-	(227,205)

(Continued)

	Paid-in capital			Accumulated results				Other comprehensive results				
	Nominal	Additional paid in capital	Cumulative effect of restatement	Legal reserve	Retained earnings	Redeemable non-controlling interest	Buy-back shares program reserve	Translation effects of foreign operations	Valuation of financial instruments	Controlling interest	Non-controlling interest	Total stockholders' equity
Distribution capital to non-controlling	-	-	-	-	-	-	-	-	-	-	(145,050)	(145,050)
Purchase of minority interest	-	-	-	-	(35,019)	-	-	-	-	(35,019)	(124,323)	(159,342)
Other comprehensive income (loss) of the year	-	-	-	-	(9,020)	-	-	(119,325)	25,905	(102,460)	(7,536)	(109,996)
Consolidated profit for the year	-	-	-	-	354,888	-	-	-	-	354,888	128,058	482,946
Balances as of December 31, 2018	256,482	1,474,827	23,948	51,298	1,001,248	(227,205)	328,920	(526,394)	25,232	2,408,356	761,484	3,169,840
Dividends declared	-	-	-	-	(180,000)	-	-	-	-	(180,000)	-	(180,000)
Purchase of shares	-	-	-	-	(8,357)	-	(32,090)	-	-	(40,447)	-	(40,447)
Partial cancellation of the buy-back shares program reserve	-	-	-	-	335,379	-	(335,379)	-	-	-	-	-
Increase in buy-back shares program reserve	-	-	-	-	(334,079)	-	334,079	-	-	-	-	-
Distribution capital to non-controlling	-	-	-	-	-	-	-	-	-	-	(151,191)	(151,191)
Other comprehensive income (loss) of the year	-	-	-	-	(13,271)	-	-	(30,775)	24,400	(19,646)	(11,047)	(30,693)
Consolidated profit for the year	-	-	-	-	206,731	-	-	-	-	206,731	120,171	326,902
Balances as of December 31, 2019	$ 256,482	$ 1,474,827	$ 23,948	$ 51,298	$ 1,007,651	$ (227,205)	$ 295,530	$ (557,169)	$ 49,632	$ 2,374,994	$ 719,417	$ 3,094,411

(Concluded)

See accompanying notes to the consolidated financial statements.

Orbia Advance Corporation, S.A.B de C.V. (formerly Mexichem, S.A.B. de C.V.) and Subsidiaries
(Subsidiary of Kaluz, S.A. de C.V.)

Consolidated Statements of Cash Flows

For the years ended December 31, 2019, 2018 and 2017
(In Thousands of U.S. dollars)

	2019	2018	2017
Cash flows from operating activities:			
Consolidated profit for the year	$ 326,902	$ 482,946	$ 213,938
Adjustments for:			
Income tax expense	205,542	194,680	177,691
Loss (gain) from discontinued operations	107	(22,829)	143,179
Net labor obligation cost	14,020	12,442	11,681
Depreciation and amortization	542,183	461,732	397,812
Loss on sale of fixed assets	1,739	4,432	1,557
Unrealized exchange loss	18,396	47,337	32,876
Change in fair value of redeemable non-controlling interest	18,488	18,593	-
Equity in income of associated entities	(4,142)	(4,272)	(2,185)
Interest income	(14,195)	(19,847)	(18,245)
Interest expense	272,073	250,674	194,896
	1,381,113	1,425,888	1,153,200
Changes in working capital:			
(Increase) decrease in:			
Accounts receivable	(34,479)	20,997	(136,206)
Inventories	31,361	(19,549)	(70,795)
Other assets	(16,948)	244,120	(13,519)
Assets classified as held for sale	1,181	(875)	11,648
Increase (decrease) in:			
Suppliers	(133,769)	(99,763)	92,362
Related parties	(15,949)	(61,337)	31,906
Other liabilities	90,216	(31,644)	43,359
Paid income taxes	(233,240)	(225,669)	(101,830)
Liabilities associated with assets held for sale	(780)	20,752	(4,107)
Interest received	14,195	19,847	18,245
Net cash provided by operating activities	1,082,901	1,292,767	1,024,263
Cash flows from investing activities:			
Acquisition of machinery and equipment	(261,000)	(282,652)	(253,969)
Investments in other assets and intangible assets	(35,631)	(71,252)	(34,772)
Sale of machinery and equipment	23,045	3,789	6,195
Acquisition of subsidiaries, net of cash acquired	-	(1,426,574)	-
Net cash used in investing activities	(273,586)	(1,776,689)	(282,546)

(Continued)

	2019	2018	2017
Cash flows from financing activities:			
Issuance bond, net	-	-	1,000,000
Costs by issuance of debt	-	-	(14,700)
Loans	83,130	297,232	-
Loan repayments	(200,105)	(128,904)	(29,244)
Interest paid	(275,767)	(221,653)	(168,186)
Lease payment	(91,570)	-	-
Dividends paid	(218,000)	(196,926)	(105,501)
Purchase of minority interest	-	(159,342)	-
Distribution capital to non-controlling	(151,191)	(145,050)	(88,150)
Purchase of shares	(40,447)	(67,160)	(5,198)
Net cash (used in) provided by financing activities	(893,950)	(621,803)	589,021
Adjustment to cash flows due to exchange rate fluctuations	(28,834)	(94,237)	(144,505)
Net (decrease) increase in cash and cash equivalents	(113,469)	(1,199,962)	1,186,233
Cash and cash equivalents at the beginning of the year	699,878	1,899,840	713,607
Cash and cash equivalents at the end of the year	$ 586,409	$ 699,878	$ 1,899,840

(Concluded)

See accompanying notes to the consolidated financial statements.

Notes to the Consolidated Financial Statements

For the years ended December 31, 2019, 2018 and 2017
(In Thousands of U.S. dollars)

1. Activities

Orbia Advance Corporation, S.A.B de C.V. (formerly Mexichem, S.A.B. de C.V.) and Subsidiaries (the Entity or Orbia), whose main address and place of business is in Paseo de la Reforma No. 483 Piso 47, Alcaldía Cuauhtémoc, C.P. 06500 Mexico City, is an entity that holds the shares of a group of companies located in the American and European continents, some Asian countries and Africa. Orbia is a leading supplier of goods and solutions in multiple sectors, from the construction, infrastructure, agriculture and, irrigation, health, transportation, telecommunications, energy, to petrochemical, among others. It is one of the largest manufacturers of pipes, connectors and plastic irrigation drippers, as well as fluorite worldwide.

The Entity's operating segments are included in the three business groups that comprise the Fluent, Fluor and Vinyl. The main products of these segments are: i) pipes and connectors made of PVC, polyethylene (PE) and polypropylene (PP), of high-density polyethylene (HDPE) and geosynthetic and irrigation drippers; ii) as well as fluorite, fluorocomposites, hydrofluoric acid, refrigerant gases and medical propellants, and finally, iii) polyvinyl chloride (PVC) resins and compounds, among others.

2. Significant events

a. ***Change of corporate denomination*** -The Entity's stockholders' meeting held on August 26, 2019 approved the change of corporate denomination to Orbia Advance Corporation, S.A.B. de C.V. This change reflects the new restructuring and global reorganization strategy implemented by the Entity, which also implies relaunching its identity and image in accordance with its mission, vision and philosophy.

b. ***Establishment and acquisition of new businesses*** - During 2018, Orbia established and acquired the businesses described below:

   i. ***Acquisition of Netafim*** - On February 7, 2018, Orbia announced that it completed the acquisition of 80% of the stock of Netafim, Ltd. (Netafim), a company backed by the Fondo Permira, after having obtained all the government authorizations and fulfilled the conditions precedent required under the Stock Purchase Agreement. Signed off in august 2018. The price paid for the acquisition was $1,424,093 million. Kibbutz Hatzerim will retain the remaining 20% of the common stock of Netafim. Similarly, Orbia executed a "Put/Call Rights" agreement whereby after the fifth anniversary of the closing date of Netafim's acquisition contract, Kibbutz Hatzerim will have a ten-year period right to sell its equity in Netafim to the Entity ("Hatzerim Put Option") and the Entity will have the obligation to acquire it at the price agreed within the agreement. Similarly, after the eighth anniversary of the closing date of Netafim's acquisition contract, the Entity will have a ten-year period right to buy the equity of Kibbutz Hatzerim in Netafim ("Purchaser Call Option") and Kibbutz Hatzerim will have the obligation to sell it in the terms stated in the respective agreement. This transaction represents a significant step forward in Orbia's long-term strategy to position itself as a worldwide leader in specialized products and solutions, serving high growth markets. Orbia consolidates Netafim in the Fluent Business Group.

   The acquisition was mainly financed as follows: (i) $239,000 million in cash, (ii) a new short-term loan of $200,000 million and, (iii) cash flows from the issuance of a long-term bond of $985,000.

ii. ***Acquisition of SylvinTechnologies*** - On January 22, 2018, Orbia announced that it acquired Sylvin Technologies Inc. (Sylvin), a specialized manufacturer of PVC compounds located in Denver, Pennsylvania, at a cost of $39 million, free from cash and debt. Sylvin has a 30-year track record serving a wide range of industries that include electricity, industrial, automotive, medical and food products. Orbia will consolidate Sylvin into the Vinyl Business Group, as part of the Compounds Business.

c. ***Petroquímica Mexicana de Vinilo, S.A. de C.V. (PMV)***- On July 6, 2018, Orbia announced that, in line with its key business consolidation strategy, it had reached an agreement to acquire 44.09% of the shares representative of the common stock of Petroquímica Mexicana de Vinilo, S.A. de C.V. (PMV) held by Pemex, through its affiliate PPQ Cadena Productiva S.L., after the approval of the Boards of Directors of both Pemex and Orbia. The transaction amount was approximately $159.3 million, a value which is within the valuation ranges of comparable companies and previous transactions in the petrochemical sector.

d. ***Line of credit*** - On December 20, 2017, Orbia announced that it had signed a line of credit with BBVA Bancomer for up to $200 million at 80.5 basis points at the 12-month LIBOR rate. The proceeds from this line of credit were used to complete the acquisition of Netafim.

e. ***Issuance of bond*** - On September 27, 2017, Orbia successfully completed the 144A / Reg S bonds offering for $1 billion. The offering is composed of two tranches: $500 million in bonds at a 4% fixed rate, maturing in October 2027, and $500 million at a 5.50% fixed rate, maturing in January 2048. The proceeds from the offering were mainly used to finance the acquisition of Netafim.

f. ***Beginning operations of cracker*** - On February 27, 2017, the joint venture formalized on October 31, 2013, between Orbia and Occidental Chemical Corporation (OxyChem), with equal equity denominated Ingleside Ethylene LLC, which is located at OxyChem's Ingleside, Texas complex, began operations on schedule and within budget. The ethylene cracker began operations during second trimester of 2017. The cracker has the capacity to produce 1.2 billion pounds (550,000 metric tons) of ethylene per year and provide OxyChem with an ongoing source of ethylene for manufacturing vinyl chloride monomer (VCM), which Orbia will use to produce polyvinyl chloride (PVC resin) and PVC piping systems.

The joint venture also includes the gas pipeline and the storage facility in Markham, Texas. The plant has 150 permanent employees. Construction started in the second trimester of 2014.

g. ***Discontinuation of operations and effect of the incident at the VCM plant in the subsidiary Petroquímica Mexicana de Vinilo, S.A. de C.V. (PMV)*** - On April 20, 2016, an explosion occurred at the Pajaritos Petrochemicals Complex, where two of the three plants of the subsidiary PMV are located; these two plants produce VCM and Ethylene. The VCM plant (Clorados III) suffered the greatest damage, and its greatest economic impact was the recognition of the loss of assets and the plant closure. At a separate site, PMV has the chlorine and caustic soda manufacturing plant, where the installations were not affected, but the business was interrupted due to a lack of raw materials that this plant supplied to the VCM plant. The economic effects of this incident are $320 million, composed as follows: (i) loss of the assets of the VCM plant for $276 million (property damage), and (ii) costs related to the plant closure (third-party damages/civil damages), civil liability, environmental liability, attorneys, advisers, partial disassembly, etc., for the amount of $44 million.

In 2016, PMV obtained sufficient information and elements to recognize the accounts receivable related to the insurance policies and their coverages. During 2017 and 2016, total revenues for $283 million were recognized, related to property damage, third-party damage (civil liability) and the insurance policy for directors and officers. The difference between this last-mentioned report and the $320 million noted in the preceding paragraph, depend on the assembly policy, whose claim is currently being filed. Furthermore, PMV recognized $48 million as accounts receivable related to the coverage for interrupted business in the VCM and Ethylene plants and $23 million for the chlorine/caustic soda plant, while Orbia Resinas recognized $18 million related to its PVC plants.

On December 20, 2017, Orbia announced the decision of the PMV stockholders to not reconstruct its VCM production capacity. Consequently, the VCM business and the assets and liabilities associated with the production of ethylene and secondary services associated with VCM and ethylene were classified on that date as discontinued operations in its consolidated statements of income and other comprehensive income (loss) retroactively to such businesses. Accordingly, all the impacts and recognized revenues related to the incident at the VCM plant are presented as discontinued operations. During 2018, Orbia was recorded $22.8 million of revenues in the same discontinued operations headline as supplements to the estimates made in the previous year. Additionally, PMV's decision to not reconstruct the VCM plant resulted in the cancellation of the assets of the ethylene plants and the secondary services related with the VCM and Ethylene plants for $196 million, also presented as discontinued operations.

In May 2018, $267.5 million were collected from insurance companies covering the assembly, property damage and business disruption policy. After acquiring the percentage that Pemex had in PMV, the latter continues to operate the Chloro-Sosa plant and is pending resolution of some legal problems arising from the explosion.

3. Basis of presentation

a. *Application of new and revised International Financing Reporting Standards ("IFRSs" or "IAS") that are mandatorily effective for the current year*

In the current year, the Entity has applied for the first time the following IFRS effective for accounting period that begins on January 1, 2019:

- IFRS 16, Leases
- IFRS 9, Financial Instruments, application phase of hedge accounting

The Entity has determined the effects for the consolidated financial statements derived from the new requirements contained in the new standards, as well the effect arising for the business operation, internal information generation processes, accounting records, systems and controls.

General Impact for application of IFRS 16 Leases

a) IFRS 16, "Leases", was published in January 2016 for accounting periods starting on January 1, 2019, and replaces IAS 17, "Leases", and its related interpretations, while also permitting early adoption. The Entity decided to apply this IFRS for the first time when it took effect on January 1, 2019.

b) The Entity chose the retroactive application with a cumulative effect, in conformity with IFRS 16: C5 numeral (b), for all the effects recognized retroactively with the cumulative effect derived from the first application of the Standard recognized at the initial application date.

c) IFRS 16 provides a comprehensive model for identifying lease agreements and their treatment in the financial statements for both lessors and leaseholders. This new standard encourages the presentation of most leases in the consolidated statement of changes in financial position for leaseholders under a single model, thereby eliminating the distinction between operating and capital leases. However, the accounting procedure utilized by lessors has conserved the difference between these lease classifications. Under IFRS 16, leaseholders recognize a right-of-use asset and the respective lease liability. The right-of-use asset is treated in a similar way to any other non-financial asset, together with its respective depreciation, while the liability includes interest. This typically produces an accelerated expense recognition profile (unlike operating leases according to IAS 17, in which expenses were recognized according to the straight-line method), due to the straight-line depreciation of the right-of-use asset and the decreasing interest derived from the financial liability result in the general reduction of the expense throughout the year.

d) As discussed in the preceding paragraph b., given that the Entity opted to apply the retroactive method with a cumulative effect, it did not modify comparative information, while applying the practical solution that allows a leaseholder to exclude initial direct costs for the measurement of the right-of-use asset at the initial application date of this Standard. Accordingly, the Entity did not recognize any cumulative effect as an adjustment to the opening accrued results balance (or another component of stockholders' equity) at the initial application date.

The Entity utilized the following practical solutions and available exemptions during the transition to IFRS 16:

- It did not reevaluate whether a contract is or contains a lease. Consequently, it continues to apply the definition of a lease according to IAS 17 and IFRIC 4 to those leases recorded or amended prior to January 1, 2019.

- It applied a single discount rate to the portfolio of leases with reasonably similar features (such as leases executed for similar periods for a similar class of underlying asset in a similar economic environment).

- It decided not to recognize a right-of-use asset in the statement of changes in financial position for leases expiring within 12 months of the initial application date, as well as those leases in which the underlying asset is of low value.

- It utilized the retrospective approach when determining the lease period, while also considering lease extension or termination options.

e) As of January 1, 2019:

- Evaluated, for all new contracts starting after the adoption date, whether these contracts are or contain a lease, subsequently recognizing a right-of-use asset and a lease liability.

- It will continue to use the retrospective approach to determine the lease period, while also considering lease extension or termination options.

f) The reconciliation of the initial lease liability at January 1, 2019 is detailed below, based on the contractual commitments resulting from operating leases at December 31, 2018:

			January 1, 2019
	Lease commitments off-the-balance-sheet at 31/12/2018	$	306,992
(-)	Current leases for periods of 12 months or less (short-term leases)		(46,241)
(-)	Leases involving low-value assets (low-value leases)		(5,102)
	Operating lease obligations at January 1, 2019 (gross, without discount)		255,649
	Operating lease obligations at January 1, 2019 (net, discounted)		207,952
(+)	Reasonably certain extension or termination options		44,215
	Lease liabilities resulting from the initial application of IFRS 16 as of January 1, 2019		252,167
(+)	Liabilities derived from prior-year financial leases according to IAS 17		33,045
	Total lease liabilities as of January 1, 2019	$	285,212

The weighted average lessees incremental borrowing rate applied to lease liabilities recognized in the statement of financial position on 1 January 2019 is 4.61%.

In 2018 and 2017, the annual average weighted interest rates underlying all the obligations derived from capital lease contracts were 5.41% and 5.32%, respectively.

g) Based on the initial lease liability, the opening right-of-use asset balance at January 1, 2019 is:

Total lease liabilities as of January 1, 2019	$	285,212
Advance lease payments previously recognized		1,723
Total right-of-use asset at January 1, 2019	$	286,935

Right-of-use assets

	Balance as of January 1, 2019	Additions	Disposals	Transfer	Translation effect	Balance as of December 31, 2019
Investment:						
Land	$ 20,531	$ 14,308	$ (5,936)	$ -	$ -	$ 28,903
Buildings	142,144	41,878	-	1,723	(1,067)	184,678
Machinery and equipment	65,612	15,889	(7,513)	-	(1,462)	72,526
Furniture and fixtures	6,661	2,301	-	-	(628)	8,334
Vehicles	80,313	63,470	(678)	-	(923)	142,182
Anticipated lease payments	1,723	-	-	(1,723)	-	-
Total investment	316,984	137,846	(14,127)	-	(4,080)	436,623
Depreciation:						
Land	653	1,138	-	-	-	1,791
Buildings	8,362	25,930	-	-	(437)	33,855
Machinery and equipment	9,782	12,472	-	-	(288)	21,966
Furniture and fixtures	336	1,571	-	-	-	1,907
Vehicles	10,916	29,976	-	-	(678)	40,214
Total accumulated depreciation	30,049	71,087	-	-	(1,403)	99,733
Net investment	$ 286,935	$ 66,759	$ (14,127)	$ -	$ (2,677)	$ 336,890

Under IFRS 16, assets for use rights are tested for impairment in accordance with IAS 36.

a) ***Lease liability***

		Amount
Balance of the lease liability as of January 1, 2019	$	285,212
New leases liabilities		137,846
Cash outflow for lease payments		(76,560)
Traslation effect		(969)
Balance of the lease liability as of December 31, 2019		345,529
Short-term lease liabilities		(78,149)
Long-term lease liabilities	$	267,380

Expiration Analysis	Leases according to IFRS 16 2019	Financial leases according to IAS 17 2018	2017
One year	$ 78,149	$ 17,666	$ 36,772
Two years	56,296	5,877	22,957
Three years	40,653	1,282	8,696
Four years	32,158	1,249	2,019
More than four years	138,273	6,976	5,664
	$ 345,529	$ 33,050	$ 76,108

b) ***Amounts recognized in income for the 12 months ended December 31, 2019 related to the lease liability:***

		Amount
Interest expense for lease liabilities	$	15,019
Expense related to short-term leases		21,449
Expense related to low value asset leases		1,052
	$	37,520

The adoption of IFRS 16 did not affect the Entity's calculation of the profit per annual average basic or diluted share.

- As discussed in the preceding paragraph b., as the Entity chose the retrospective application with a cumulative effect according to IFRS 16: C5 numeral (b), the initial effects are recognized at January 1, 2019 without modifying prior comparative periods.

- The Entity accounted for the accounting policy change derived from the initial application of IFRS 16 in conformity with its temporary provisions. As it opted to apply the retrospective application with a cumulative effect discussed in paragraph C5 (b) of this Standard, it did not modify prior periods and applied the accounting policy change as of January 1, 2019.

IFRS 9, Financial Instruments, Hedge Accounting

a) The Entity adopted IFRS 9, *Financial Instruments*, phase three, which deals with Hedge Accounting, for the first time as of January 1, 2019.

b) The Entity elected to continue applying IAS 39 according to the accounting policy option provided by IFRS 9 in which entities could continue to apply this Standard. This accounting policy choice was only applied to hedge accounting and does not affect the implementation of the other two phases of IFRS 9; i.e., "classification and measurement" and "impairment".

c) Phase three of the new IFRS 9, *Financial Instruments*, Hedge Accounting, which took effect as of January 1, 2019, was adopted by the Entity as of January 1, 2019. IFRS 9 introduces increased flexibility to classify different instrument types for hedge accounting purposes, specifically increasing the types of qualifying instruments and the types of risk components of nonfinancial items that are eligible for hedge accounting. Furthermore, effectiveness tests have been reviewed and replaced by the concept of 'economic relationship'. Accordingly, a retrospective effectiveness evaluation is not required, while improved disclosure requirements for the Entity's risk management have also been introduced.

d) As a result of its analysis, the Entity has concluded that the derivative financial instruments maintained in its position at the adoption date did not generate any accounting economic effects as a result of the transition to the new IFRS 9, *Financial Instruments*, Hedge Accounting. However, in order to fulfill the new requirements established by this standard, current formal documentation will be supplemented by new requirements regarding the conservation of derivative financial instruments designated as hedging instruments.

Since January 1, 2019, for all new contracted derivative financial instruments starting after the adoption date, the Entity prepares formal documentation in conformity with the new requirements to conserve derivative financial instruments designated as hedging instruments.

Impact of application of Other amendments to IFRS Standards and Interpretations effective for periods beginning on or after January 1, 2019:

In the current year, the Entity has applied a number of amendments to IFRS and Interpretations issued by the IASB that are effective for an annual period that begins on or after January 1, 2019. Their adoption has not had any material impact on the disclosures or on the amounts reported in these consolidated financial statements.

Annual Improvements to IFRS Standards 2015–2017

Amendments to IFRS 3, Business Combinations, IFRS 11, Joint Arrangements, IAS 12, Income Taxes and IAS 23, Borrowing Costs

Orbia has adopted the amendments included in the Annual Improvements to IFRS Standards 2015–2017 Cycle for the first time in the current year. The Annual Improvements include amendments to four Standards.

IAS 12, *Income Taxes*

The amendments clarify that the Entity should recognize the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the Entity originally recognized the transactions that generated the distributable profits. This is the case irrespective of whether different tax rates apply to distributed and undistributed profits

IAS 23, *Borrowing Costs*

The amendments clarify that if any specific borrowing remains outstanding after the related asset is ready for its intended use or sale, that borrowing becomes part of the funds that an entity borrows generally when calculating the capitalization rate on general borrowings.

IFRS 3, *Business Combinations*

The amendments clarify that when the Entity obtains control of a business that is a joint operation, the Entity applies the requirements for a business combination achieved in stages, including remeasuring its previously held interest (PHI) in the joint operation at fair value. The PHI to be remeasured includes any unrecognized assets, liabilities and goodwill relating to the joint operation.

IFRS 11, *Joint Arrangements*

The amendments clarify that when a party that participates in, but does not have joint control of, a joint operation that is a business obtains joint control of such a joint operation, the Entity does not remeasure its PHI in the joint operation.

Amendments to IAS 19, *Employee Benefits Plan Amendment, Curtailment or Settlement*

The Entity has adopted the amendments of IAS 19 for the first time in the current year. The amendments clarify that the past service cost (or of the gain or loss on settlement) is calculated by measuring the defined benefit liability (asset) using updated assumptions and comparing benefits offered and plan assets before and after the plan amendment (or curtailment or settlement) but ignoring the effect of the asset ceiling (that may arise when the defined benefit plan is in a surplus position). IAS 19 is now clear that the change in the effect of the asset ceiling that may result from the plan amendment (or curtailment or settlement) is determined in a second step and is recognized in the normal manner in other comprehensive income.

	The paragraphs that relate to measuring the current service cost and the net interest on the net defined benefit liability (asset) have also been amended. The Entity will now be required to use the updated assumptions from this remeasurement to determine current service cost and net interest for the remainder of the reporting period after the change to the plan. In the case of the net interest, the amendments make it clear that for the period post plan amendment, the net interest is calculated by multiplying the net defined benefit liability (asset) as remeasured under IAS 19:99 with the discount rate used in the remeasurement (also taking into account the effect of contributions and benefit payments on the net defined benefit liability (asset)).
IFRIC 23, *Uncertainty over Income Tax Treatments*	The Entity has adopted IFRIC 23 for the first time in the current year. IFRIC 23 sets out how to determine the accounting tax position when there is uncertainty over income tax treatments. The Interpretation requires the Entity to: • determine whether uncertain tax positions are assessed separately or as a group; and • assess whether it is probable that a tax authority will accept an uncertain tax treatment used, or proposed to be used, by an entity in its income tax filings: o If yes, the Entity should determine its accounting tax position consistently with the tax treatment used or planned to be used in its income tax filings. o If no, the Entity should reflect the effect of uncertainty in determining its accounting tax position using either the most likely amount or the expected value method.

The adoption of these Annual Improvements in the Entity's consolidated financial statements had no effect.

a. ***New and revised IFRS Standards in issue but not yet effective***

At the date of authorization of these financial statements, The Entity has not applied the following new and revised IFRS Standards that have been issued but are not yet effective:

IFRS 17	*Insurance Contracts*
IFRS 10 and IAS 28 (amendments)	*Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*
Amendments to IFRS 3	*Definition of a business*
Amendments to IAS 1 and IAS 8,	*Definition of material*
Conceptual Framework	Conceptual Framework *in IFRS Standards*

The management does not expect that the adoption of the Standards listed above will have a material impact on the financial statements of the Entity in future periods, except as noted below:

IFRS 17, Insurance Contracts

IFRS 17 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts and supersedes IFRS 4, *Insurance Contracts*.

IFRS 17 outlines a general model, which is modified for insurance contracts with direct participation features, described as the variable fee approach. The general model is simplified if certain criteria are met by measuring the liability for remaining coverage using the premium allocation approach.

The general model uses current assumptions to estimate the amount, timing and uncertainty of future cash flows and it explicitly measures the cost of that uncertainty. It takes into account market interest rates and the impact of policyholders' options and guarantees.

The Standard is effective for annual reporting periods beginning on or after January 1, 2021, with early application permitted. It is applied retrospectively unless impracticable, in which case the modified retrospective approach or the fair value approach is applied. An exposure draft Amendments to IFRS 17 addresses concerns and implementation challenges that were identified after IFRS 17 was published. One of the main changes proposed is the deferral of the date of initial application of IFRS 17 by one year to annual periods beginning on or after January 1, 2022.

For the purpose of the transition requirements, the date of initial application is the start if the annual reporting period in which the entity first applies the Standard and the transition date is the beginning of the period immediately preceding the date of initial application.

IFRS 10 and IAS 28 (amendments), Sale or Contribution of Assets between and Investor and its Associate or Joint Venture

The amendments to IFRS 10 and IAS 28 deal with situations where there is a sale or contribution of assets between an investor and its associate or joint venture. Specifically, the amendments state that gains or losses resulting from the loss of control of a subsidiary that does not contain a business in a transaction with an associate or a joint venture that is accounted for using the equity method, are recognized in the parent's profit or loss only to the extent of the unrelated investors' interests in that associate or joint venture. Similarly, gains and losses resulting from the remeasurement of investments retained in any former subsidiary (that has become an associate or a joint venture that is accounted for using the equity method) to fair value are recognized in the former parent's profit or loss only to the extent of the unrelated investors' interests in the new associate or joint venture.

The effective date of the amendments has yet to be set by the Board; however, earlier application of the amendments is permitted. The directors of the Entity anticipate that the application of these amendments may have an impact on the Entity's consolidated financial statements in future periods should such transactions arise.

Amendments to IFRS 3, Definition of a Business

The amendments clarify that while businesses usually have outputs, outputs are not required for an integrated set of activities and assets to qualify as a business. To be considered a business an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs.

Additional guidance is provided that helps to determine whether a substantive process has been acquired.

The amendments introduce an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business. Under the optional concentration test, the acquired set of activities and assets is not a business if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar assets.

The amendments are applied prospectively to all business combinations and asset acquisitions for which the acquisition date is on or after the first annual reporting period beginning on or after January 1, 2020, with early application permitted.

Amendments to IAS 1 and IAS 8, Definition of material

The amendments are intended to make the definition of material in IAS 1 easier to understand and are not intended to alter the underlying concept of materiality in IFRS Standards. The concept of 'obscuring' material information with immaterial information has been included as part of the new definition.

The threshold for materiality influencing users has been changed from 'could influence' to 'could reasonably be expected to influence'.

The definition of material in IAS 8 has been replaced by a reference to the definition of material in IAS 1. In addition, the IASB amended other Standards and the Conceptual Framework that contain a definition of material or refer to the term 'material' to ensure consistency.

The amendments are applied prospectively for annual periods beginning on or after January 1, 2020, with earlier application permitted.

Conceptual Framework in IFRS Standards

Together with the revised Conceptual Framework, which became effective upon publication on March 29, 2018, the IASB has also issued Amendments to References to the Conceptual Framework in IFRS Standards. The document contains amendments to IFRS 2, 3, 6, 14, IAS 1, 8, 34, 37, 38, IFRIC 12, 19, 20, 22, and SIC-32.

Not all amendments, however, update those pronouncements with regard to references to and quotes from the framework so that they refer to the revised Conceptual Framework. Some pronouncements are only updated to indicate which version of the Framework they are referencing to (the IASC Framework adopted by the IASB in 2001, the IASB Framework of 2010, or the new revised Framework of 2018) or to indicate that definitions in the Standard have not been updated with the new definitions developed in the revised Conceptual Framework.

The amendments, where they actually are updates, are effective for annual periods beginning on or after January 1, 2020, with early application permitted.

b. ***Classification of cost and expenses -*** These are presented according to their function because this is the practice of the industry to which the Entity belongs.

4. Significant accounting policies

a. *Statement of compliance*

The consolidated financial statements have been prepared in accordance with IFRS as issued by the International Accounting Standards Board. The standards include provisions known as IFRS, IAS, IFRIC and SIC.

b. *Basis of measurement*

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measure at revalued amounts or fair values at the end of each reporting period, as explained in the accounting policies below.

i. *Historical cost*

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

ii. *Fair value*

Fair value is the price that would be received when and if the asset is sold or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique.

In estimating the fair value of an asset or a liability, the Entity takes into account the characteristics of the asset or liability if market participants would consider those characteristics when pricing the asset or liability at the measurement date.

Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such basis, except for share-based payment transactions that are within the scope of IFRS 2, leasing transactions that are within the scope of IAS 17, and measurements that have some similarities to fair value but are not fair value, such as net realizable value in IAS 2 or value in use in IAS 36.

In addition, for financial reporting purposes, fair value measurements are categorizing into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

c. *Basis of financial statements consolidation*

The consolidated financial statements incorporate the financial statements of the Orbia Advance Corporation, S.A.B de C.V. Control is achieved when Orbia:

- Has power over the investee;
- Is exposed, or has rights, to variable returns from its involvement with the investee; and
- Has the ability to use its power to affect its returns.

Orbia reassesses 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 listed above.

When Orbia has less than a majority of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. Orbia considers all relevant facts and circumstances in assessing whether or not the Orbia's voting rights in an investee are sufficient to give it power, including:

- The size of Orbia holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- Potential voting rights held by Orbia, other vote holders or other parties;
- Rights arising from other contractual arrangements; and
- Any additional facts and circumstances that indicate that the Orbia has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

Consolidation of a subsidiary begins when Orbia obtains control over the subsidiary and ceases when the Entity loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Entity gains control until the date when the Entity ceases to control the subsidiary.

Net income (loss) and each component of other comprehensive income are attributed to the owners of controlling and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of controlling and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Orbia's accounting policies.

All intragroup balances and transactions between Orbia members are eliminated in full on consolidation.

Orbia's shareholding interest in the subsidiaries as of December 31, 2019, 2018 and 2017 per business group, is as follows:

Group	Country	% Ownership
Vinyl:		
Mexichem Derivados, S.A. de C.V.	Mexico	100
Mexichem Compuestos, S.A. de C.V.	Mexico	100
Mexichem Resinas Vinílicas, S.A. de C.V.	Mexico	100
VESTO PVC Holding GmbH, Marl	Germany	100
Mexichem Specialty Compounds, Inc.	USA	100
Mexichem Specialty Compounds, Ltd	UK	100
Vinyl Compounds Holdings, Ltd	UK	100
Mexichem Resinas Colombia, S.A.S.	Colombia	100
Mexichem Speciality Resins, Inc.	USA	100
C.I. Mexichem Compuestos Colombia, S.A.S.	Colombia	100
Petroquímica Mexicana de Vinilo, S.A. de C.V. (In 2018 and 2017 the ownership was 55.91%)	Mexico	100
Ingleside Ethylene LLC	USA	50
Sylvin Technologies Inc.	USA	100

Group	Country	% Ownership
Fluor:		
Mexichem Flúor, S.A. de C.V.	Mexico	100
Mexichem Flúor Comercial, S.A. de C.V.	Mexico	100
Fluorita de México, S.A. de C.V.	Mexico	100
Mexichem Fluor Inc.	USA	100
Mexichem Fluor Canada Inc.	Canada	100
Mexichem UK Ltd	UK	100
Mexichem Fluor Japan Ltd.	Japan	100
Mexichem Fluor Taiwan Ltd.	Taiwan	100
Fluent:		
Dura-Line Holdings, Inc.	USA	100
Mexichem Canada Holding, Inc. (antes Gravenhurst Plastics, Inc.)	Canada	100
Mexichem Soluciones Integrales Holding, S.A. de C.V.	Mexico	100
Mexichem Amanco Holding, S.A. de C.V.	Mexico	100
Mexichem Soluciones Integrales, S.A. de C.V.	Mexico	100
Mexichem Guatemala, S.A.	Guatemala	100
Mexichem Honduras, S.A.	Honduras	100
Mexichem El Salvador, S.A.	El Salvador	100
Mexichem Nicaragua, S.A.	Nicaragua	100
Mexichem Costa Rica, S.A.	Costa Rica	100
Mexichem Panamá, S.A.	Panama	100
Mexichem Colombia, S.A.S.	Colombia	100
Pavco de Venezuela, S.A.	Venezuela	100
Mexichem Ecuador, S.A.	Ecuador	95
Mexichem del Perú, S.A.	Peru	100
Mexichem Argentina, S.A.	Argentina	100
Mexichem Brasil Industria de Transformação Plástica, Ltda.	Brazil	100
Wavin N.V.	Netherlands	100
Wavin Nederland B.V.	Netherlands	100
Wavin Belgium N.V.	Belgium	100
Wavin (Foshan) Piping Systems Co. Ltd.	China	100
Wavin Ekoplastik S.R.O.	Czech Republic	100
Nordisk Wavin A/S	Denmark	100
Norsk Wavin A/S	Norway	100
Wavin Estonia OU	Estonia	100
Wavin-Labko Oy	Finland	100
Wavin France S.A.S.	France	100
Wavin GmbH	Germany	100
Wavin Hungary Kft.	Hungary	100
Wavin Ireland Ltd.	Ireland	100
Wavin Italia SpA	Italy	100
Wavin Latvia SIA	Latvia	100
UAB Wavin Baltic	Lithuania	100
Wavin Metalplast-BUK Sp.zo.o.	Poland	100
Wavin Romania s.r.l.	Romania	100
OOO Wavin Rus	Russia	100
Wavin Balkan d o.o.	Serbia	100
AB Svenska Wavin	Sweden	100
Pilsa A.S.	Turkey	100
Wavin Ltd.	UK	100
Warmafl oor (GB) Ltd.	UK	100
Wavin Ukrain O.O.O.T.O.V.	Ukraine	100
Netafim, LTD	Israel	80

Changes in the Entity's ownership interests in existing subsidiaries

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

When the Entity loses control of a subsidiary, a gain or loss is recognized in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. All amounts previously recognized in other comprehensive income in relation to that subsidiary are accounted for as if the Entity had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IAS 39, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

d. ***Recognition of the effects of inflation*** **-** The Entity recognizes the effect of inflation for entities that operate in highly-inflationary economies, which is when inflation over the preceding three years is greater than 100%. The Entity in 2019, 2018 and 2017 recognized the effects of inflation in its Venezuelan operations. As of 2018, in its operations in Argentina.

e. ***Translation of financial statements of foreign subsidiaries*** **-** The individual financial statements of each subsidiary of the Entity are presented in the currency of the primary economic environment in which the entity operates (its functional currency). To consolidate the financial statements of foreign subsidiaries are translated from the functional currency into U.S. dollars (the reporting currency), considering the following methodology:

Foreign operations whose functional currency is not the same as the currency in which transactions are recorded, translate their financial statements using the following exchange rates: i) the closing exchange rate in effect at the balance sheet date for assets and liabilities and ii) historical exchange rates for stockholders' equity and (iii) month average for revenues, costs and expenses. Translation effects are recorded in other comprehensive profit (loss). Exchange rate differences resulting from financial instruments that are initially recognized in other comprehensive income are reclassified to profit or loss when the net foreign investment is partially or fully sold. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

For foreign entities that operate in a hyperinflationary economy, their financial statements are first restated in currency of purchasing power as of the date of the consolidated statement of financial position, using the price index of the country of origin of the functional currency and then they are translated using the official exchange rate of closing for all items The transaction in Venezuela has been expressed with the annual inflation rate of 12,903%, 1,698,484% and 2,616% for 2019, 2018 and 2017, respectively. The Entity determined in 2019 and 2018 a theoretical exchange rate that is related to the effects of inflation whereby the amounts would have been converted at the exchange rate was 284,052,162 and 223,090,269 bolivars to the dollar, respectively. As of December 31, 2017, the official exchange rate of 3,345.00 bolivars to the dollar, is applied. A summary of the main items of the financial statements of this operation is shown below:

Venezuela

	2019	2018	2017
Total assets	$ 771	$ 17,372	$ 104,264
Stockholders' equity	$ 26	$ 11,032	$ 69,437
Net sales	$ 147	$ 2,566	$ 31,094
Net income	$ 2,107	$ 5,060	$ 39,542

In 2018, the Argentinian operation became a hyperinflationary economy given that its compound inflation of the last three years is greater than 100%; therefore, it has been restated with the annual official inflation rate of 53.8 % and 47.86% in 2019 and 2018, respectively. As of December 31, 2019, 2018, and 2017, the official exchange rates of 58.89, 37.70, and 18.65 Argentinian pesos per US dollar, respectively, were used to translate their balances. Below is a summary of the main financial statement line items of this operation:

Argentina

	2019	2018	2017
Total assets	$ 20,755	$ 20,608	$ 26,129
Stockholders' equity	$ 13,796	$ 378	$ 3,950
Net sales	$ 32,315	$ 33,608	$ 45,398
Net loss	$ (2,316)	$ (5,283)	$ (2,597)

The exchange rate differences are recognized in profit or loss in the period in which they arise except for exchange differences on foreign currency loans relating to assets under construction qualifying for capitalization of interest, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency loans.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing exchange rate. The resulting exchange differences are recognized in other comprehensive income.

Transactions denominated in foreign currencies are recorded at the exchange rate prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are converted to functional currency at the exchange rate prevailing at the date of the financial statements. Exchange rate fluctuations are recorded in profit and loss.

When there are several exchange rates available, that in which the future cash flows can be settled is used.

The subsidiaries with different functional currency to the U.S. dollar are the following:

Entity	Functional currency	Country	Business Group
VESTO PVC Holding GmbH, Marl	Euro	Germany	Vinyl
Mexichem Specialty Compounds	Pound sterling	UK	Vinyl
Vinyl Compounds Holdings	Pound sterling	UK	Vinyl
Mexichem UK	Pound sterling	UK	Fluor
Mexichem Fluor Japan	Japanese yen	Japan	Fluor

Entity	Functional currency	Country	Business Group
Mexichem Soluciones Integrales	Mexican peso	Mexico	Fluent
Mexichem Canadá Holding	Canadian dollar	Canada	Fluent
Mexichem Guatemala	Guatemalan quetzal	Guatemala	Fluent
Mexichem Honduras	Honduran lempiras	Honduras	Fluent
Mexichem Nicaragua	Nicaraguan cordoba	Nicaragua	Fluent
Mexichem Costa Rica	Costa Rican colon	Costa Rica	Fluent
Mexichem Panamá	Panamanian balboa	Panama	Fluent
Mexichem Colombia	Colombian peso	Colombia	Fluent
Pavco de Venezuela	Venezuelan bolivar	Venezuela	Fluent
Mexichem Argentina	Argentine peso	Argentina	Fluent
Mexichem Brasil Industria de Transformação Plástica	Brazilian real	Brazil	Fluent
Wavin N.V. and subsidiaries	Manly Euro	Europe	Fluent

f. ***Cash and cash equivalents*** - Cash and cash equivalents consist mainly of bank deposits in checking accounts and short-term investments, highly liquid and easily convertible into cash. Cash is carried at nominal value and cash equivalents are measured at fair value.

g. ***Inventories*** - Inventories are carried at the lower of cost and net realizable value (estimated selling price less all estimated costs of completion necessary to make the sale). Costs, including an appropriate portion of fixed and variable overhead expenses, are assigned to inventories by the method most appropriate to the particular class of inventory, being valued on average costs method. Reductions in the value of inventories are recognized via reserves, which represent the impairment of inventory.

h. ***Assets classified as held for sale*** - Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

When the Entity is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Entity will retain a non-controlling interest in its former subsidiary after the sale.

When the Entity is committed to a sale plan involving disposal of an investment, or a portion of an investment in an associate or joint venture, the investment, or the portion of the investment that will be disposed of is classified as held for sale when the criteria described above are met, and the Entity discontinues the use of the equity method in relation to the portion that is classified as held for sale. Any retained portion of an investment in an associate or a joint venture that has not been classified as held for sale continues to be accounted for using the equity method. The Entity discontinues the use of the equity method at the time of disposal when the disposal results in the Entity losing significant influence over the associate or joint venture (see Note 41).

After the disposal takes place, the Entity accounts for any retained interest in the associate or joint venture in accordance with IAS 39 unless the retained interest continues to be an associate or a joint venture, in which case the Entity uses the equity method (see the accounting policy regarding investments in associates or joint ventures above).

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell.

i. ***Property, plant and equipment*** - Property, plant and equipment are initially recorded at acquisition cost, less accumulated depreciation or accumulated impairment losses.

The cost of debt incurred during the period of construction and installation of qualifying property, plant and equipment, are capitalized.

The gain or loss arising from the sale or retirement of an item of property, plant and equipment, is calculated as the difference between the proceeds received from the sale and the carrying value of the asset, which is recognized in profit or loss.

Properties that are in the process of construction for purposes of production are recorded at cost less any impairment loss recognized. Cost includes professional fees and, in the case of qualifying assets, the costs of loan capitalized in accordance with the accounting policy of the Entity. The depreciation of these assets is initiated when assets are ready for their planned use.

Depreciation is recognized and is carried to results based on the related cost, different from land and work in process, less residual value, over the useful lives, by the straight-line method. The estimated useful life, the residual value and appreciation are revised at the end of each year, and the effect of any change in the estimate recorded is recognized prospectively.

The remaining averages useful lives of property, plant and equipment are:

	Years
Buildings and constructions	19
Machinery and equipment	9
Furniture and fixtures	4
Vehicles	4 to 16

j. ***Leases –***

The Entity as leaseholder:

The Entity evaluates whether a contract initially contains a lease. The Entity recognizes a right-of-use asset and the respective lease liability for all lease contracts in which it acts as leaseholder, except for short-term leases (for periods of 12 months for less) and those involving low-value assets (such as electronic tablets, personal computers and small office furniture items and telephones). For these leases, the Entity recognizes lease payments as an operating expense according to the straight-line method over the lease period, unless another method is more representative of the period of time during which the economic benefits derived from the consumption of these assets arise.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the lessee uses its incremental borrowing rate.

Lease payments included in the measurement of the lease liability comprise:

- Fixed lease payments (including in-substance fixed payments), less any received lease incentive;
- Variable lease payments that depend on an index or rate are initially measured using the index or rate at the commencement date;
- The amount that is expected to be paid by the leaseholder according to residual value guarantees;
- The price of exercising purchase options if the leaseholder is reasonably certain to exercise them; and
- Penalty payments resulting from lease termination if the lease period indicates the exercise of a lease termination option.

The lease liability is presented as a separate item in the consolidated statement of changes in financial position.

The lease liability is subsequently measured based on the increasing book value to reflect the interest accrued by the lease liability (by using the effective interest method) and reducing the book value to reflect lease payments.

The Entity remeasures the lease liability (and makes the corresponding adjustment to the related right-of-use asset), as long as:

- The lease term has changed or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate.

- The lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value, in which cases the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used).

- A lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

Right-of-use assets comprise the initial measurement of the corresponding lease liability, the lease payments made at or prior to the commencement date, less any received lease incentive and initial direct cost. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Whenever the Entity incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognized and measured under IAS 37. To the extent that the costs relate to a right-of-use asset, the costs are included in the related right-of-use asset, unless those costs are incurred to produce
inventories.

Right-of-use assets are depreciated over the shorter of the lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Entity expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. Depreciation starts at the commencement date of the lease.

Right-of-use assets are presented as a separate item in the consolidated statement of changes in financial position.

The Entity applies IAS 36 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss according to the 'Property, plant and equipment' policy.

Variable rents that do not depend on an index or rate are not included in the measurement of the lease liability and right-of-use asset. The related payments are recognized as an expense in the period in which the event or condition that triggers those payments occurs and are included under the heading of "Leases" in the consolidated statement of profit and other comprehensive income (see Note 21).

As a practical expedient, IFRS 16 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Entity has not used this practical expedient. For a contracts that contain 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.

Policies applicable prior to 1 January 2019

As at December 31, 2018, leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, are assets so specific that only the lessee can use it without making substantial changes or lease presents most of the economic life of the asset. All other leases are classified as operating leases.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Entity's general policy on loan costs. Contingent rentals are recognized as expenses in the periods in which they are incurred.

k. ***Loan cost*** - Loan costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use. Investment income earned on the temporary investment of specific loans pending their expenditure on qualifying assets is deducted from the loan costs eligible for capitalization. All other loan costs are recognized in profit or loss in the period in which they are incurred.

l. ***Investment in shares of associates and other entities*** **-** An associated entity is an entity over which significant influence is held and is initially recognized based on the fair value of its identifiable assets and liabilities at the incorporation or acquisition date. If indications of impairment are detected, investments in associated entities are subjected to impairment tests.

Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

Following its initial recognition, the comprehensive income of associated entities and the distribution of profits or capital reimbursements are presented in the consolidated financial statements by using the equity method unless the investment is classified as held for sale, in which case it is recorded in conformity with IFRS 5, *Non-current Assets Held for Sale and Discontinued Operations*. When the equity held by Orbia in the losses of the associated entity exceeds the investment value, the recognition of equity in these losses is discontinued. Additional losses are recognized when Orbia has the legal obligation to settle payments in the name of its associated entity.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Entity's share of the net fair value of the identifiable assets and liabilities of the investee is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Entity's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognized immediately in profit or loss in the period in which the investment is acquired.

The requirements of IAS 39 are applied to determine whether it is necessary to recognize any impairment loss with respect to the Entity's investment in an associate or a joint venture. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with IAS 36, *Impairment of Assets*, as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized in accordance with IAS 36 to the extent that the recoverable amount of the investment subsequently increases.

The Entity discontinues the use of the equity method from the date when the investment ceases to be an associate or a joint venture, or when the investment is classified as held for sale. When the Entity retains an interest in the former associate or joint venture and the retained interest is a financial asset, the Entity measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition in accordance with IAS 39. The difference between the carrying amount of the associate or joint venture at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part of an interest in the associate or joint venture is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Entity accounts for all amounts previously recognized in other comprehensive income in relation to that associate or joint venture on the same basis as would be required if that associate or joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Entity reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) when the equity method is discontinued.

Investment in associates in 2019, 2018 and 2017 correspond to 40% of GF Wavin AG (Switzerland), 25% of Salzg. Westfalen GmbH (Germany), and 41% of Netafim Agricultural Financing Agency Ltd. (NAFA) equivalent to $33,843, $35,533 and $31,247, in these years, and an equity in income of $4,142, $4,272 and $2,185, respectively.

Interest in joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

When an entity undertakes its activities under joint operations, the Entity as a joint operator recognizes in relation to its interest in a joint operation:

- Its assets, including its share of any assets held jointly.
- Its liabilities, including its share of any liabilities incurred jointly.
- Its revenue from the sale of its share of the output arising from the joint operation.
- Its share of the revenue from the sale of the output by the joint operation.
- Its expenses, including its share of any expenses incurred jointly.

The Entity accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the IFRSs applicable to the particular assets, liabilities, revenues and expenses.

When a group Entity transacts with a joint operation in which a group Entity is a joint operator (such as a sale or contribution of assets), the Entity is considered to be conducting the transaction with the other parties to the joint operation, and gains and losses resulting from the transactions are recognized in the Entity's consolidated financial statements only to the extent of other parties' interests in the joint operation.

When an entity transacts with a joint operation in which a group Entity is a joint operator (such as a purchase of assets), the Entity does not recognize its share of the gains and losses until it resells those assets to a third party.

m. ***Intangible assets*** - Intangible assets corresponds to non-compete agreement, the use of trademarks, intellectual property and customer portfolios. Intangible assets with finite useful lives are amortized over the straight-line method based on their remaining useful lives. Those that have indefinite useful life are not amortized, but are subject to annual impairment testing or more frequently if there is any indication that they may have been impaired. The estimated useful life, the residual value and amortization method are reviewed at the end of each year, with the effect of any changes in estimates being accounted for on a prospective basis.

Intangible assets acquired in a business combination and recognized separately from goodwill are initially recognized at their fair value at the acquisition date. Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost, which is the fair value at the acquisition date less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

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

Government grants whose primary condition is that the Entity should purchase, construct or otherwise acquire non-current assets are recognized as deferred revenue in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

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

For the purposes of impairment testing, goodwill is allocated to each of the Entity's cash-generating units (or groups of cash-generating units) that is expected to benefit from the synergies of the combination.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

The Entity's policy for goodwill arising on the acquisition of an associate and a joint venture is described at Note 4l.

p. ***Impairment of tangible and intangible assets other than goodwill*** - The Entity reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. Where it is not possible to estimate the recoverable amount of an individual asset, the Entity estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units; otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified. Intangible assets having an indefinite useful life are tested for impairment at least annually or sooner if an indication that the asset may have been impaired exists.

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

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

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

q. ***Business combinations*** - Acquisitions of subsidiaries and businesses are accounted for using the acquisition method. The consideration for each acquisition is measured at the aggregate of the fair values (at the date of exchange) of assets given and liabilities incurred or assumed. Acquisition-related costs are recognized in profit or loss as incurred.

The acquirer's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition under IFRS 3, *Business Combinations*, are recognized at their fair value at the acquisition date, except that:

i. Deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognized and measured in accordance with IAS 12, *Income Taxes*, and IAS 19, *Employee Benefits*, respectively;
ii. Liabilities or equity instruments related to the replacement by the Entity of an acquirer's share-based payment awards are measured in accordance with IFRS 2, *Share-based Payment*; and
iii. Assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5, *Non-current Assets Held for Sale and Discontinued Operations*, are measured in accordance with that standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquire, and the fair value of the acquirer's previously held equity interest in the acquire (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment; the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquire and the fair value of the acquirer's previously held interest in the acquire (if any), the excess is recognized immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognized amounts of the acquirer's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS.

The measurement period is the date of acquisition until the Entity obtains all information on the facts and circumstances that existed at the date of acquisition, which is subject to a maximum of one year.

In the case of a payment made for an acquisition that includes an asset or liability derived from a contingent payment agreement and which is valued at fair value at the acquisition date, subsequent changes to that fair value are adjusted based on the acquisition cost whenever they are classified as adjustments of the valuation period. All other changes to the fair value of the contingent payment, classified as an asset or liability according with IAS 39, or IAS 37 - *Provisions, Contingent Liabilities and Contingent Assets*, are directly recognized in results. However, changes to the fair value of a contingent payment classified as capital are not recognized.

When a business combination is achieved in stages, the Entity's previously held equity interest in the acquire is remeasured to fair value at the acquisition date (the date when the Entity obtains control) and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquire prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial recognition of a business combination has not been completed at the end of the reporting period in which the combination occurs, the Entity reports provisional amounts for items whose recognition is incomplete. During the valuation period, the acquirer recognizes adjustments to the provisional amounts or recognizes additional assets or liabilities necessary to reflect the new information obtained on facts and circumstances that existed on the date of acquisition and, which, if known, would have affected the valuation of the amounts recognized on that date.

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

s. ***Financial assets*** - All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

All recognized financial assets are measured subsequently in their entirety at either amortized cost or fair value, depending on the classification of the financial assets.

Classification of Financial Assets

Debt instruments that meet the following conditions are measured subsequently at amortized cost:

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

Debt instruments that meet the following conditions are measured subsequently at fair value through other comprehensive income:

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

By default, all other financial assets are measured subsequently at fair value through profit or loss.

Amortized cost and effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating interest income over the relevant period.

For financial assets that were not purchased or originated by credit-impaired financial assets (i.e. assets that have credit-impaired on initial recognition), the effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) excluding expected credit losses, throughout the expected life of the debt instrument, or, where appropriate, a shorter period, to the gross carrying amount of the debt instrument on initial recognition. For purchased or originated credit-impaired financial assets, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including expected credit losses, to the amortized cost of the debt instrument on initial recognition.

The amortized cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of a financial asset before adjusting for any loss allowance.

Interest income is recognized using the effective interest method for debt instruments measured subsequently at amortized cost and at FVTOCI. For financial assets other than purchased or originated credit-impaired financial assets, interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired (see below). For financial assets that have subsequently become credit-impaired, interest income is recognized by applying the effective interest rate to the amortized cost of the financial asset. If, in subsequent reporting periods, the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognized by applying the effective interest rate to the gross carrying amount of the financial asset

For purchased or originated credit-impaired financial assets, the Entity recognizes interest income by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition. The calculation does not revert to the gross basis even if the credit risk of the financial asset subsequently improves so that the financial asset is no longer credit-impaired.

Interest income is recognized in profit or loss and is included in the "finance income - interest income".

A financial asset is held for trading if:

- it has been acquired principally for the purpose of selling it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Entity manages together and has evidence of a recent actual pattern of short-term profit-taking; or
- it is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

Investments in equity instruments at FVTOCI are initially measured at fair value plus transaction costs. Subsequently, they are measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in the investments revaluation reserve. The cumulative gain or loss is not being reclassified to profit or loss on disposal of the equity investments, instead, it is transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss in accordance with IFRS 9, unless the dividends clearly represent a recovery of part of the cost of the investment.

Financial assets at Fair Value Through Profit or Loss (FVTPL)

- Investments in equity instruments are classified as at FVTPL, unless the Entity designates an equity investment that is neither held for trading nor a contingent consideration arising from a business combination as at FVTOCI on initial recognition

- Debt instruments that do not meet the amortized cost criteria or the FVTOCI criteria (see (i) and (ii) above) are classified as at FVTPL. In addition, debt instruments that meet either the amortized cost criteria or the FVTOCI criteria may be designated as at FVTPL upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency (so called 'accounting mismatch') that would arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases. The Entity has not designated any debt instruments as at FVTPL.

Foreign exchange gains and losses

The carrying amount of financial assets that are denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of each reporting period.

Impairment of financial assets

The Entity always recognizes lifetime expected credit losses for trade receivables, contract assets and lease receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Entity's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other financial instruments, the Entity recognizes lifetime expected credit losses when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Entity measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses.

Lifetime expected credit losses represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

i. Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Entity compares the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition. In making this assessment, the Entity considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort. Forward-looking information considered includes the future prospects of the industries in which the Entity's debtors operate, obtained from economic expert reports, financial analysts, governmental bodies, relevant think-tanks and other similar organizations, as well as consideration of various external sources of actual and forecast economic information that relate to the Entity's core operations.

In particular, the following information is take into account when assessing whether credit risk has increased significantly since initial recognition:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk for a particular financial instrument, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor, or the length of time or the extent to which the fair value of a financial asset has been less than its amortized cost;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor;
- significant increases in credit risk on other financial instruments of the same debtor;
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

ii. Definition of default

The Entity considers the following as constituting an event of default for internal credit risk management purposes as historical experience indicates that financial assets that meet either of the following criteria are generally not recoverable:

–
– when there is a breach of financial covenants by the debtor; or
– information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Entity, in full (without taking into account any collateral held by the Entity).

Irrespective of the above analysis, the Entity considers that default has occurred when a financial asset is more than 90 days past due unless the Entity has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

iii. Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

– significant financial difficulty of the issuer or the borrower;
– a breach of contract, such as a default or past due event (see (ii) above);
– the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
– it is becoming probable that the borrower will enter bankruptcy or other financial reorganization; or
– the disappearance of an active market for that financial asset because of financial difficulties.

iv. Write-off policy

The Entity writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Entity's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognized in profit or loss.

v. Measurement and recognition of expected credit losses

The measurement of expected credit losses is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information as described above. As for the exposure at default, for financial assets, this is represented by the assets gross carrying amount at the reporting date; for financial guarantee contracts, the exposure includes the amount drawn down as at the reporting date, together with any additional amounts expected to be drawn down in the future by default date determined based on historical trend, the Entity's understanding of the specific future financing needs of the debtors, and other relevant forward-looking information.

Derecognition of financial assets

The Entity derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Entity neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Entity recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Entity retains substantially all the risks and rewards of ownership of a transferred financial asset, the Entity continues to recognize the financial asset and recognizes a collateralized borrowing for the proceeds received.

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

On derecognition of a financial asset other than in its entirety (e.g. when the Entity retains an option to repurchase part of a transferred asset), the Entity allocates the previous carrying amount of the financial asset between the part it continues to recognize under continuing involvement, and the part it no longer recognizes on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognized and the sum of the consideration received for the part no longer recognized and any cumulative gain or loss allocated to it that had been recognized in other comprehensive income is recognized in profit or loss. A cumulative gain or loss that had been recognized in other comprehensive income is allocated between the part that continues to be recognized and the part that is no longer recognized on the basis of the relative fair values of those parts.

Financial liabilities at fair value through profit and loss

Financial liabilities are classified as at fair value through profit and loss when the financial liability is (i) contingent consideration that may be paid by an acquirer as part of a business combination to which IFRS 3 applies, (ii) held for trading, or (iii) it is designated as at fair value through profit and loss.

A financial liability is classified as held for trading if:

- It has been incurred principally for the purpose of repurchasing it in the near term; or
- On initial recognition it is part of a portfolio of identified financial instruments that the Entity manages together and has a recent actual pattern of short-term profit-taking; or
- It is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading or contingent consideration that may be paid by an acquirer as part of a business combination may be designated as at fair value through profit and loss upon initial recognition if:

- Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Entity's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- It is part of a contract containing one or more embedded derivatives, and IAS 39, *Financial Instruments: Recognition and Measurement*", permits the entire combined hybrid contract (asset or liability) to be designated as at fair value through profit and loss.

Financial liabilities at fair value through profit and loss are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any dividend or interest on the financial liability and is included in the "other income" line item in the consolidated statements of profit or loss and other comprehensive income (loss). Fair value is determined in the manner described in Note 12.

Other financial liabilities

Other financial liabilities (including loans and trade and other payables) are subsequently measured at amortized cost using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

Derecognition of financial liabilities

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

t. ***Derivative financial instruments*** - Due to the Entity's national and international operations, it is exposed to the risks of fluctuation of prices in raw materials in the chemical industry, as well as interest rate risks related to the financing of its projects.

The Entity's policy is to use certain hedges to mitigate the volatility of the prices of certain raw materials and interest rate and foreign exchange rate risks in its financing activities, all of which are related to its business.

Derivatives are initially recognized at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The Entity designates certain hedging instruments as fair value, of recognized assets or liabilities or firm commitments (fair value hedges), hedges of highly probable forecasted transactions or hedges of foreign exchange risk on firm commitments (cash flow hedges), hedges of net investment in a foreign business.

Embedded derivatives

The Entity reviews all executed contracts to identify embedded derivatives which have to be separated from the host contract for purposes of their accounting valuation and recognition. When an embedded derivative is identified in other financial instruments or in other contracts (host contracts), they are treated as separate derivatives when their risks and characteristics are not strictly related to those of the host contracts, and when such contracts are not recorded at fair value through profit and loss.

u. ***Hedge accounting*** - The Entity designates certain hedging instruments, which include foreign currency derivatives, interest rates and commodities and non-derivatives in respect of foreign currency risk, as either fair value hedges, cash flow hedges, or hedges of net investments in foreign operations. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

At the inception of the hedge relationship, the Entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Entity documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item.

Note 13 sets out details of the fair values of the derivative instruments used for hedging purposes.

Cash flow hedges

The Entity documents the relationship of the hedge and the objective and strategy of management of risk for the Entity. Such documentation will include the method the Entity will use to measure the effectiveness of the instrument to hedge the risk of changes in the fair value cash flows of the item being hedged.

The Entity recognizes all of the assets or liabilities arising from transactions with derivative financial instruments in the consolidated statements of financial position at fair value, regardless of its intent for holding them. The fair value is determined based on recognized market prices and when not listed on a market, based valuation techniques accepted in the financial markets. The decision to enter into hedges is based on the conditions of the markets and expectations in the national and international economic environments.

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

Amounts previously recognized in the other comprehensive income and accumulated in stockholders' equity are reclassified to profit or loss in the periods when the hedged item is recognized in profit or loss, in the same line of the statement of comprehensive income as the recognized hedged item. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously accumulated in equity are transferred from stockholders' equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability.

Hedge accounting is discontinued when the Entity revokes the hedging relationship, the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. Any gain or loss accumulated in stockholders' equity at that time remains in stockholders' equity and is recognized when the forecast transaction is ultimately recognized in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in stockholders' equity is recognized immediately in profit or loss.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in profit or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk. The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognized in the line of the consolidated statement of comprehensive income relating to the hedged item.

Hedge accounting is discontinued when the Entity revokes the hedging relationship, when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortized to profit or loss from that date.

Hedges of net investments in foreign operations

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognized in other comprehensive income and accumulated under the heading translation effects of foreign operations. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss, and is included in the "other income" line item.

Gains and losses on the hedging instrument relating to the effective portion of the hedge accumulated in the foreign currency translation effects are reclassified to profit or loss in the same way that the exchange rate differences relating to the foreign operation.

v. ***Provisions*** - Provisions are recognized when the Entity has a present obligation (legal or constructive) as a result of a past event, it is probable that the Entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, the carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

w. ***Restructuring*** - The Entity recognizes a provision for restructuring when it has developed a detailed formal plan for the restructuring, and has raised a valid expectation in those affected by it, either by starting to implement the plan or announcing its main features to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are both necessarily entailed by the restructuring and not associated with the ongoing activities of the Entity.

x. ***Contingent liabilities acquired in a business combination*** - Contingent liabilities acquired in a business combination are initially measured at fair value at the acquisition date. At the end of subsequent reporting periods, such contingent liabilities are measured at the higher of the amount that would be recognized in accordance with IAS 37, *Provisions, Contingent Liabilities and Contingent Assets,* and the amount initially recognized less cumulative amortization recognized in accordance with IAS 18, *Revenue.*

y. ***Short-term employee benefits*** - All employee benefits expected to be settled within 12 months after the end of the annual reporting period, in which employees provide services related to:

(a) Wages and salaries and social security contributions;
(b) Rights related to paid time off and sick leave;
(c) Profit sharing and incentives; and
(d) Non-monetary benefits to current employees.

z. ***Buy-back shares program reserve*** - Purchases and sales of shares are recorded directly in the buy-back shares program reserves at their acquisition cost. Any profit or loss generated is recorded in retained earnings

aa. ***Income taxes*** - Income tax expense represents the sum of current income tax and deferred income tax.

i. Current income taxes - The current tax calculated refers to income tax (ISR) and is recorded in results of the year that it is incurred.

ii. Deferred taxes are recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized. Such deferred tax assets and liabilities are not recognized if the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. In addition, deferred tax liabilities are not recognized if the temporary difference arises from the initial recognition of goodwill.

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

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

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

bb. ***Cost for direct employee benefits and retirement*** - Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

For defined benefit retirement benefit plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. Remeasurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected immediately in the statement of financial position with a charge or credit recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss. Past service costs are recognized in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset.

Defined benefit costs are categorized as follows:

- Service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements).
- Net interest expense or income.
- Remeasurement.

The Entity presents the first two components of defined benefit costs in profit or loss in the line item. Gains and losses for reduction of service are accounted as past service costs.

The retirement benefit obligation recognized in the consolidated statement of financial position represents the actual deficit or surplus in the Entity's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plan.

A liability for a termination benefit is recognized at the earlier of when the entity can no longer withdraw the offer of the termination benefit or when the entity recognizes any related restructuring costs.

Employee or third-party contributions to defined benefit plans

The discretionary contributions made by employees or third parties reduce the service cost by the payment of such contributions to the plan.

When the formal terms of the plan specify that there will be employee or third-party contributions, the respective accounting depends on whether the contributions are related to the service, as follows:

- If the contributions are not related to the service (for example, contributions are required to reduce the deficit which arises from the losses in the plan assets or from the actuarial losses), which are reflected in the new measurement of the net liability (asset) for defined benefits.

- If the contributions are related to the services, they reduce the service costs. Based on the contribution amount depends on the number of years of service, the Entity reduces the service cost by attributing the contributions to the years of service, using the attribution method required by IAS 19, paragraph 70, for the gross benefits.

cc. ***Share-based payments***

Orbia has a compensation plan known as Long-Term Incentive Plan (LTIP), for a group of executives, whose purpose is to align executive compensation with the interests of shareholders, by conditioning the payment of this incentive upon the Entity's financial performance. In accordance with this program, Orbia annually grants a determined amount of phantom shares aligned with the value of the real shares of the Entity, based on two vehicles: payments based on restricted phantom shares and payments based on phantom shares for performance, which may be exercised for payment provided that the financial objectives of Orbia are achieved under the conditions established in the plan.

Each year the value of the LTIP is granted to the active executives selected, who have been rendering services for at least six months at the time of the allocation. The amount of the allocation will be based on the value of the share calculated according to the average price of the daily close of the period from July 1 through December 31 of the year immediately prior to the allocation.

Payments based on restricted phantom shares: of the total value assigned, 40% is paid in three equal annual installments only if Orbia's annual performance conditions, established in the plan, are fulfilled and eligible personnel is active at the time of payment. The amount payable is calculated based on the average daily closing price of the month prior to that in which restricted phantom shares are paid.

Payment based on phantom shares for performance: 60% of the total value will be paid in the third year of the allocation, only if the financial performance targets of Orbia accumulated for the three years are achieved, as established in the plan. The amount payable is calculated based on the average price of the daily close of the month immediately prior to that in which the phantom shares for performance are paid.

The liability is accrued insofar as the employees render their services during the labor period. Payments are only made to employees active in payroll when the exercise of phantom shares is approved.

The methodology used to project share prices is in accordance with the Black & Scholes methodology, calculated in Mexican pesos, and payable in the local currency of each entity at the exchange rate in effect at the settlement date.

Current options represent liability instruments. The information on the share option plan is as follows:

	LTIP restricted	LTIP for performance	Total
Balance at December 31, 2016	$ 1,779	$ 2,668	$ 4,447
Charge to profit and loss and adjustments	250	9,028	9,278
Balance at December 31, 2017	2,029	11,696	13,725
Charge to profit and loss and adjustments	7,237	5,328	12,565
Balance at December 31, 2018	9,266	17,024	26,290
Charge to profit and loss and adjustments	4,424	(11,320)	(6,896)
Balance at December 31, 2019	$ 13,690	$ 5,704	$ 19,394

dd. ***Valuation of options at fair value and accounting recognition***

The current options qualify as liability instruments and are valued at their fair value estimated at the financial statements date, with the changes in valuation recognized in the statement of income and other comprehensive results. The fair value of the options was determined considering the remaining life of the instruments and expected dividend, volatility, and interest rate assumptions based on fair market conditions, in accordance with the Black & Scholes methodology.

ee. ***Earnings per share*** - (i) The basic earnings per common share from continuing operations is calculated by dividing the profit or loss attributable to owners (controlling interest) by the weighted average number of common outstanding shares during the year; (ii) basic earnings (losses) per common share from discontinued operations is calculated by dividing the net income from discontinued operations by the weighted average number of common shares outstanding during the year.

ff. ***Revenue recognition*** - Revenue from ordinary activities is recognized in such a way that it represents the transfer of control of the goods or services committed to customers for an amount that reflects the consideration to which the entity expects to have the titles passed for the sale of goods or services.

The guarantees related to asset sales cannot be acquired separately and serve to guarantee that the goods sold comply with the agreed-upon specifications. Consequently, Orbia accounts for guarantees in accordance with IAS 37 - *Provisions, Contingent Liabilities and Contingent Assets*, consistent with the previous accounting treatment.

1) ***Sale of goods***

Orbia obtains revenues from the sale of goods at a point in time and throughout time in the following business groups:

i. ***Vinyl*** - This business group consists of five manufacturing processes: (i) the chloride-soda process, which produces chloride, caustic soda, sodium hypochlorite, hydrochloric acid and phosphates; (ii) the vinyl process, which produces PVC resins; (iii) the plasticizer process, which produces phthalic anhydride and plasticizers used in PVC resin processing, (iv) the compounds process, which produces PVC and non-PVC compounds used in different production processes such as pipes, connectors, cables, medical applications, synthetic leather, and window frames; and (v) specialty resins used for flooring, wallpaper, coatings, among others.

ii. ***Fluor*** - This business group is divided into three processes: (i) the fluorite process, which consists of the extraction of fluorite, used to produce hydrofluoric acid for the cement, steel, ceramic and glass industries, (ii) the hydrofluoric acid and aluminum fluoride process and (iii) the cooling gas process.

For the business groups described in the two paragraphs above, revenues are recognized at a point in time, once control over the goods is transferred to the customer, which generally occurs upon shipment or delivery, depending on the terms and conditions of the contracts with customers.

iii. ***Fluent*** - This business group produces PVC, polyethylene and polypropylene pipes and connectors, production of geosynthetics and geotextiles, and development, production and distribution of advanced irrigation solutions. The products in this business group are used for: i) irrigation water, ii) drinking water, iii) agricultural, iv) greenhouse, v) landscaping, vi) mining, vii) sewage, viii) heating, ix) surface cooling, x) water treatment, including waste and land application, xii) gas and xiii) telecommunications systems.

In this business group, revenues are recognized:

- At a point in time upon transferring control over the sale of pipes and connectors, when goods are delivered to the customer, once control over the goods has been transferred to the customer, which generally occurs upon shipment or delivery, depending on the terms and conditions in the contracts with the customers.

- Throughout time using the method of results achieved on the sale of the various systems described in section iii. above, as Orbias's performance creates or improves a customer-controlled asset.

Regarding the revenues described in the above paragraphs, Orbia recognizes an account receivable when goods are delivered to the customer, as this represents the moment in which the right to consideration becomes unconditional, assuming that only the passage of time is required for the payment to become due.

2) ***Variable consideration***

In all the business groups described above, the consideration amount may vary due to discounts, reimbursements, etc., which are recognized based on an appropriate estimate using all customer information available. Based on such estimates, the Net sales line item reflects the actual consideration expected to be received from customers.

Per the terms of Orbia's contracts, customers have a 30-day return term. When a sale is made, a reimbursement liability and an adjustment related to revenues on goods expected to be returned are recognized. Orbia uses its historical experience to estimate the number of returns using the expected value method. Orbia believes that a significant reversal of recognized accrued revenues is not likely to occur given the consistent return level in prior years.

gg. ***Net sales***

The following table represents a disaggregation of revenues by Net sales per business group, which are grouped in accordance with the vertical integration of their raw materials; based on such disaggregation, the Entity makes operating decisions to assign resources and assess the performance of each business group:

	Segment	As of December 31, 2019	As of December 31, 2018	As of December 31, 2017
PVC paste and resins, compounds, chloride and caustic soda	Vinyl	$ 2,333,796	$ 2,462,100	$ 2,318,387
Fluorite, fluorocarbons and hydrofluoric acid	Fluor	805,187	837,383	680,860
Pipes, natural gas and high-pressure water pipes, telecommunications/data com, (i)	Fluent	3,999,157	4,077,455	3,022,666
Service revenues	Holding	136,220	28,978	25,461
Eliminations and Other	Other	(287,178)	(207,780)	(219,041)
		$ 6,987,182	$ 7,198,136	$ 5,828,333

(i) Includes other minor revenues mainly related to the provision of services, real property leases and royalty revenues related to goods and technologies.

5. Critical accounting judgments and key sources of estimation uncertainty

In the application of accounting policies, the Entity's management is required to make judgments, estimates and assumptions about the carrying amounts of certain assets and liabilities. The estimates and associated assumptions are based on experience and other factors that are considered as relevant. Actual results could differ from estimates.

The estimates and underlying assumptions are reviewed on a regular basis. Revisions to accounting estimates are recognized in the review period and future periods if the revision affects both the current period and subsequent periods.

Critical accounting judgments and key sources of uncertainty when determining estimates included in the consolidated financial statements, and which could have a significant risk adjustment to the carrying value of assets and liabilities during the next financial period are as follows:

a. For impairment testing of assets, the Entity is required to estimate the value-in-use of its property, plant and equipment, as well as the determination of its cash-generating units, in the case of certain assets. The value-in-use calculations require the Entity to determine the future cash flows for its cash-generating units and an appropriate discount rate to calculate their present value. The Entity forecasts it´s cash flows based on income projections using market assumptions, determination of prices and volumes of production and sale.

b. The Entity uses estimates to determine allowance for obsolete inventories and allowance for doubtful accounts. Factors that the Entity considers for allowance for obsolete inventory are production and sales volumes and changes in the demand for certain of its products. The factors which the Entity considers in the allowance for doubtful accounts are mainly the expected losses estimation of unsecured accounts that consists to observe the increase that the client's total exposure has, within its credit limit.

c. The Entity periodically assesses the estimates of its mineral reserves (fluorite and salt), which represent the Entity's estimate of the remaining amount not exploited in its mines, which may be produced and sold for profit. Such estimates are based on engineering estimates derived from samples and assumptions of market prices and production costs in each of the respective mines. The Entity updates the estimate for mineral reserves at the beginning of each year.

d. Discount rate used to determine the book value of the Entity's defined benefits obligations. The Entity's defined benefits obligations are discounted at the rate established in the market rates for high-quality corporate bonds at the end of the reporting period. Professional judgment must be used to establish the criteria for the bonds that should be included for the population from which the yield curve is derived. The most important criteria considered for the selection of the bonds include the size of the issue of the corporate bonds, their rating and the identification of the atypical bonds which are excluded.

e. The Entity is subject to transactions or contingent events for which it uses professional judgment in the development of estimates of probability of occurrence. Factors that are considered in these estimates are the current legal situation at the date of the estimate and, the opinion of the legal advisors.

f. Control over Ingleside Ethylene LLC - Note 4c states that Ingleside Ethylene LLC is a subsidiary of Orbia, which holds 50% of the stock of Ingleside Ethylene LLC. Based on the contractual agreements between Orbia and the other investor, as a result of its participation in the Entity's Board of Directors, Orbia takes the decisions regarding the control over the Entity's operation and management.

g. The Entity makes financial projections of each legal entity where it maintains control in order to determine if fiscal Assets may be used in the future, in particular the tax losses to be amortized. In response to these projections, tax losses are activated or reserved in each jurisdiction where the Entity operates.

h. The Entity evaluates the assets subject to leasing and defines those that are less than those that are not. Those subject to the registration of rights of use are analyzed to determine the contractual validity terms and the possibilities of renewal based on economic benefits, projections of the committed payments and the discount rates used by type of asset to determine the amount to register.

6. Business combination

a. During 2018, Orbia acquired Netafim y Sylvin Technologies's businesses. The results of these businesses have been included in these consolidated financial statements from the date of acquisition. These acquisitions are mentioned in detail in Note 2, the most significant being that corresponding to 80% of the shares of Netafim, Ltd. at $ 1,424 million.

b. ***Consideration transferred***

Netafim, LTD	$	1,424,093
Sylvin Technologies, Inc.		39,607
	$	1,463,700

c. ***Assets acquired and liabilities assumed at the 2018 acquisition date***

As of December 31, 2018, the Entity completed the identification and measurement of the assets acquired and the liabilities assumed from the acquisitions made in 2018, based on their fair values at the acquisition date. The balances presented in this Note, regarding 2018 acquisitions, are final and are as follows:

2018		Netafim, Ltd		Sylvin Technologies, Inc.
Assets				
Cash and cash equivalents	$	37,126	$	-
Accounts receivable and others		297,372		4,758

2018	Netafim, Ltd	Sylvin Technologies, Inc.
Inventories	172,233	2,115
Property, plant and equipment	159,096	5,653
Other non-current assets	755,794	15,284
Deferred income taxes	12,303	-
Liabilities:		
Suppliers and other accounts payable	(337,388)	(2,980)
Bank loans and long-term debt	(115,394)	-
Other non-current liabilities	(234,303)	(669)
Total net assets	746,839	24,161
Less: market value of non-controlling interest	(149,368)	-
Total net assets of controlling interest	$ 597,471	$ 24,161

d. ***Redeemable non-controlling interest -***

In accordance with the Stockholders' Agreement executed with the minority stockholders which retained the remaining 20% of Netafim's the common stock (see Note 2a.), hold a "Put option" which gives them the option to sell their capital stock, with the corresponding obligation for the Entity to buy, after the fifth anniversary of the transaction and for ten years thereafter. The option value will depend on Netafim's market value and certain conditions referred to the share value multiple. The Entity recognized the future value based on estimated scenarios, considering the present value of the assumed obligation. This option is identified as redeemable non-controlling interest and is directly recorded with a debit to retained earnings in the consolidated statement of changes in stockholders' equity and a credit to long-term liabilities of $227,205. This effect was recorded in these consolidated financial statements as of the date acquisition of Netafim. The liability value as of December 31, 2019 and 2018 amounts to $264,287 and $245,799, respectively.

e. ***Goodwill from acquisitions***

2018	Consideration transferred	Assumed Liabilities	Value of the acquired net assets	Goodwill
Netafim, LTD.	$ 1,424,093	$ 38,670	$ 597,471	$ 787,952
Sylvin Technologies, Inc.	39,607	-	24,161	15,446
	$ 1,463,700	$ 38,670	$ 621,632	$ 803,398

Goodwill generated from the acquisitions results from the fact that the consideration paid for the business combination effectively included amounts in relation to the benefits of the expected synergies, revenue growth and further development of the market. These benefits are not recognized separately from goodwill, because they do not meet the criteria for recognition of identifiable intangible assets.

f. ***Net cash flow from acquisition of subsidiaries***

	2018
Consideration paid in cash	$ 1,463,700
Less: balances of cash and cash equivalents acquired	(37,126)
Net	$ 1,426,574

g. ***Effect of acquisitions in the Orbia results (unaudited)***

Below are Orbia's proforma (unaudited) consolidated statements of financial position as of December 31, 2018 and December 31, 2017, and the proforma (unaudited) consolidated statements of income as of December 31, 2018, and 2017, considering the financial position of the acquisitions as if they had occurred at the beginning of January 2017. This proforma information does not necessarily present actual balances which would have been obtained had the acquisitions been performed at that date.

	2018	2017 (Proforma unaudited)
Consolidated and Condensed Statements of Financial Position		
Cash and cash equivalent	$ 699,878	$ 719,000
Accounts receivable, Net	1,317,549	1,199,000
Other current assets	959,746	1,302,000
Total current assets	2,977,173	3,220,000
Non-current assets	7,097,785	7,219,000
Total assets	$ 10,074,958	$ 10,439,000
Bank loans and current portion of long-term debt	$ 395,928	$ 266,000
Suppliers and credit letters	1,413,669	1,504,000
Other current liabilities	898,390	828,000
	2,707,987	2,598,000
Bank loans and long-term debt	3,175,497	3,295,000
Other non-current liabilities	1,021,634	766,000
Total liabilities	6,905,118	6,659,000
Share capital	1,755,257	1,755,257
Accumulated results	653,099	1,100,743
Controlling interest	2,408,356	2,856,000
Non-controlling interest	761,484	924,000
Total shareholders' equity	3,169,840	3,780,000
Total liabilities and shareholders' equity	$ 10,074,958	$ 10,439,000

	For the year ended December 31, 2018 (Proforma unaudited)	For the year ended December 31, 2017 (Proforma unaudited)
Consolidated and Condensed Statements of Profit or Loss		
Net sales	$ 7,256,916	$ 6,779,000
Cost of sales	5,301,998	5,026,000
Gross profit	1,954,919	1,753,000
General expenses	1,017,349	947,000
Other comprehensive income	267,904	198,00
Equity in income of associated	(4,272)	(3,000)
Profit before income taxes	673,938	611,000
Income tax expense	195,015	195,000
Profit before discontinued operations	478,923	416,000
Discontinued operations	(22,829)	144,000
Consolidated net profit	$ 501,752	$ 272,000

7. Transactions which did not result in cash flows

The Entity makes strategic investments through leasing. These transactions in 2019, 2018 and 2017 are $313,498, $3,560 and $6,280, respectively.

8. Cash and cash equivalents

	2019	2018	2017
Cash	$ 361,577	$ 509,481	$ 594,875
Cash equivalents:			
Bank paper	34,516	7,745	30,060
Time deposits	190,316	182,652	1,270,207
Bank deposits certificates	-	-	4,698
	$ 586,409	$ 699,878	$ 1,899,840

9. Accounts receivable

	2019	2018	2017
Customers	$ 1,217,249	$ 1,208,211	$ 981,081
Less - Allowance for doubtful accounts	(58,915)	(58,320)	(42,193)
	1,158,334	1,149,891	938,888
Accounts receivable from insurance companies (PMV)	-	7,206	275,410
Recoverable taxes and other	193,694	160,452	115,696
	$ 1,352,028	$ 1,317,549	$ 1,329,994

Trade receivables -

The average credit period on sales of goods is 53 days as of December 31, 2019. In general, no interest is charged on trade receivables unless some agreement is reached for restructuring payments. The Entity has recognized an estimate credit value impairment that represents 4.8% of all trade receivables, determined by the potential exposure of each client.

Before accepting any new customer, the Entity uses an external credit scoring system to assess the potential customer's credit quality and defines credit limits by customer. Limits and scoring attributed to customers are reviewed once a year or whenever evidence of possible losses exists.

Customer's receivables, which are not past due or impaired, have the best credit rating attributable based on the credit rating systems used by the Entity. Due to the number of customers, no single customer represents more than 1.9% of the receivables balance.

The accounts receivable from customers disclosed in the preceding paragraphs include the amounts that are due at the end of the reporting period (see below the analysis of antiquity greater than 60 days), but for which the Entity has not recognized any estimate for uncollectible accounts because there has been no significant change in credit quality and the amounts are still considered recoverable. The Entity, in some cases, has certain accounts receivable secured and does not maintain any collateral or other credit enhancements on those balances, nor does it have the legal right to offset them against any amount owed by the counterparty Entity.

	2019	2018	2017
60-90 days	$ 23,050	$ 18,294	$ 5,915
91-120 days	64,154	55,599	26,028
Total	$ 87,204	$ 73,893	$ 31,943
Average age (days)	53	52	50

Movement in the allowance for doubtful debts:

	2019	2018	2017
Balance at the beginning of the year	$ 58,320	$ 42,193	$ 34,445
Business combination	-	22,205	-
Charge to results	11,442	5,239	11,889
Applications	(8,533)	(7,136)	(3,080)
Translation effects	(2,314)	(4,181)	(1,061)
Balance at the end of the year	$ 58,915	$ 58,320	$ 42,193

In determining the recoverability of a trade receivable, the Entity considers any change in the credit quality of the trade receivable from the date credit was initially granted up to the end of the reporting period. The concentration of credit risk is limited due to the fact that the customer base is large and unrelated.

10. Inventories

	2019	2018	2017
Finished products	$ 596,175	$ 585,027	$ 452,484
Raw materials	203,548	229,160	170,984
Goods in-transit	57,473	73,085	58,791
Spare parts	40,566	43,522	39,477
	897,762	930,794	721,736
Less - Allowance for obsolete and slow-moving inventory	(63,324)	(64,995)	(46,848)
	$ 834,438	$ 865,799	$ 674,888

At December 31, 2019, 2018 and 2017 the inventories recognized in the cost of goods sold for consumption of inventories during the period regarding continuing operations was $4,655 $4,936 and $4,067 million, respectively. During 2019, 2018 and 2017, there were no write-downs of inventory to the net realizable value.

The movement in the allowance for obsolete and slow-moving inventory is:

	2019	2018	2017
Balance at beginning of the year	$ 64,995	$ 46,848	$ 30,164
Charge to results	2,706	7,139	18,811
Applications	(4,202)	(2,804)	(2,511)
Business combination	-	16,785	-
Translation effects	(175)	(2,973)	384
Balance at end of the year	$ 63,324	$ 64,995	$ 46,848

11. Financial instruments

The Entity has exposure to market risks, operating risks and financial risks arising from the use of financial instruments that involves interest rates, credit risks, liquidity risks and exchange rate risks, which are managed centrally. The Board of Directors establishes and monitors policies and procedures to measure and manage those risks, which are described below.

a. ***Capital management*** - The Entity manages its capital to ensure that it will continue as an "ongoing business", while it maximizes returns to its shareholders through the optimization of the balances of debt and equity. The Entity is not exposed to any externally imposed capital requirements.

The Entity's management reviews, on monthly basis, the net debt position and the cost of debts and their relationship with Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA), is presented as part of the Entity's financial projections that is part of its business plan presented to the Board of Directors and shareholders of the Entity.

Net debt with cost includes in 2019, 2018 and 2017, $50, $365 and $942, respectively, related to letters of credit and suppliers at over 180 days, which for financial restriction purposes is considered as financial debt.

The net indebtedness ratio of the reporting period is as follows:

	2019	2018	2017
Net debt with cost	2,864,607	2,871,912	1,356,468
EBITDA Pro Forma non-audited (12 months)	1,365,205	1,401,149	1,105,957
Indebtedness ratio	2.10	2.05	1.23
EBITDA Pro Forma (12 months)	1,365,205	1,401,149	1,105,957
Total interest expenses	224,232	211,695	167,398
Interest coverage ratio	6.09	6.62	6.61
Net debt with cost	2,864,557	2,871,912	1,356,468
EBITDA **	1,365,205	1,396,546	1,105,957
Indebtedness ratio	2.10	2.06	1.23
EBITDA **	1,365,205	1,396,546	1,105,957
Total interest expenses	224,232	211,695	167,398
Interest coverage rate	6.09	6.60	6.61

** For purposes of this calculation is considered the actual EBITDA, EBITDA only includes businesses acquired from their dates of incorporation.

b. ***Interest rate risk management*** - The Entity is mainly exposed to interest rate risks because it has entered into debt at variable rates. The risk is managed by the Entity through the use of interest rate swap contracts when the variations of projected rates exceed a range of 100 to 200 basis points per quarter. The Entity's hedging activities are regularly monitored so that they align with interest rates and their related risk, ensuring the implementation of the most profitable hedging strategies.

The Entity's exposures to interest-rate risk are mainly related to changes in the Mexican Interbank TIIE and LIBOR with respect to the Entity's financial liabilities. The Entity prepares sensitivity analyses based on its exposure to interest rates on its variable-rate debt with financial institutions that is not hedged. The analyses are prepared assuming that the ending period balance as at year end was an outstanding balance during the whole year. The Entity internally reports to the Board of Directors about its interest rate risks.

If the TIIE and LIBOR interest rates have had an increase of 100 basis points in each reporting period and all the other variables had remained constant, income before taxes for the year in 2019, 2018 and 2017 would have decreased by $4 million, $4 million and $1 million, respectively. This is mainly attributable to the exposure of the Entity to LIBOR and TIIE interest rates on their long-term loans it is not significant, because most bank loans and long-term debt cause interest at fixed rates.

e. ***Credit risk management*** - Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in a financial loss for the Entity, and stems mainly from trade accounts receivable and liquid funds. Credit risk with respect to cash and cash equivalents and derivative financial instruments is limited because counterparties are banks with high credit ratings assigned by credit rating agencies. The maximum exposure to credit risk is primarily represented by the balance of financial assets in the trade accounts receivable. The Entity sells products to customers in different economic environments primarily in Mexico, South America, Europe and United States of America, that demonstrates their economic solvency.

The total accounts receivable from all segments of business are comprised of more than 30,000 customers, which such customers do not represent a concentration of credit risk individually. However, the accounts receivable balance represents the maximum credit risk exposure to the Entity. The Entity periodically evaluates the financial condition of its customers and purchases collection insurance for export sales, while domestic sales generally require a guarantee. The Entity does not believe that there is a significant risk of loss from a concentration of credit with respect to its customer base and believes that any potential credit risk is adequately covered by its allowance for doubtful accounts, which represents its best estimate of impairment losses on receivables.

c. ***Liquidity risk management*** - Ultimate responsibility for liquidity risk management rests with management of the Entity, which has established appropriate policies for the control of such risk through the monitoring of working capital, allowing management of the Entity's short-, medium-, and long-term funding requirements. The Entity maintains cash reserves and available credit lines, continuously monitoring projected and actual cash flows, reconciling the profiles of maturity of financial assets and financial liabilities.

The following table details the remaining contractual maturities of the Entity's non-derivative financial assets and financial liabilities, based on contractual repayment periods. The table has been designed based on un-discounted projected cash flows of financial assets and liabilities based on the date on which the Entity must make payments and expects to receive collections. The table includes both projected cash flows related to interest and capital on financial debt in the consolidated statements of financial position and the interest that will be earned on financial assets. Where the contractual interest payments are based on variable rates, the amounts are derived from interest rate curves at the end of the period. The contractual maturity is based on earliest date in which the Entity is required to make payment.

As of December 31, 2019	Effective interest rate	3 months	6 months	1 year	Between 1 and 3 years	More than 3 years	Total
Bank loans and general market	5.55%	$ 271,631	$ 107,165	$ 87,598	$ 1,218,983	$ 4,035,130	$ 5,720,507
Suppliers and credit letters	1.00%	849,874	400,612	13,116	-	-	1,263,602
Other accounts payable and others		400,722	296,592	150,843	55,694	244,244	1,148,095
Redeemable non-controlling interest		-	-	-	-	264,287	264,287
Finance lease	4.61%	25,885	31,550	29,548	133,335	173,269	393,587
Derivative financial instruments (Net cash flow)		6,019	-	6,697	26,788	39,993	79,497
Total		1,554,131	835,919	287,802	1,434,800	4,756,923	8,869,575
Cash and cash equivalents		586,279	130	-	-	-	586,409
Trade accounts receivable and others		1,138,000	132,529	86,256	-	-	1,356,785
Total		1,724,279	132,659	86,256	-	-	1,943,194
Net		$ 170,148	$ (703,260)	$ (201,546)	$ (1,434,800)	$ (4,756,923)	$ (6,926,381)

As of December 31, 2018	Effective interest rate	3 months	6 months	1 year	Between 1 and 3 years	More than 3 years	Total
Bank loans and general market	5.53%	$ 138,845	$ 36,586	$ 504,748	$ 315,216	$ 4,901,995	$ 5,897,390
Suppliers and credit letters	1.00%	1,040,812	357,432	15,425	-	-	1,413,669
Other accounts payable and others		437,654	196,566	119,101	90,682	12,547	856,550
Redeemable non-controlling interest		-	-	-	-	245,799	245,799
Finance lease	5.41%	5,409	9,066	4,543	9,538	11,346	39,902
Derivative financial instruments (Net cash flow)		8,254	-	7,375	21,912	90,746	128,287
Total		1,630,974	599,650	651,192	437,348	5,262,433	8,581,597
Cash and cash equivalents		696,073	3,805	-	-	-	699,878
Trade accounts receivable and others		1,158,101	115,990	48,829	-	-	1,322,920
Total		1,854,174	119,795	48,829	-	-	2,022,798
Net		$ 223,200	$ (479,855)	$ (602,363)	$ (437,348)	$ (5,262,433)	$ (6,558,799)

As of December 31, 2017	Effective interest rate	3 months	6 months	1 year	Between 1 and 3 years	More than 3 years	Total
Bank loans and general market	5.56%	$ 86,166	$ 38,070	$ 88,146	$ 425,105	$ 5,216,532	$ 5,854,019
Suppliers and credit letters	1.00%	779,709	581,512	845	-	-	1,362,066
Other accounts payable and others		456,844	89,506	80,810	107,862	7,593	742,615
Finance lease	5.32%	6,874	7,669	25,866	36,779	32,175	109,363
Derivative financial instruments (Net cash flow)		7,415	-	7,415	40,275	125,793	180,898
Total		1,337,008	716,757	203,082	610,021	5,382,093	8,248,961

As of December 31, 2017	Effective interest rate	3 months	6 months	1 year	Between 1 and 3 years	More than 3 years	Total
Cash and cash equivalents		1,899,840	-	-	-	-	1,899,840
Trade accounts receivable and others		1,249,304	67,858	15,025	-	-	1,332,187
Total		3,149,144	67,858	15,025	-	-	3,232,027
Net		$ 1,812,136	$ (648,899)	$ (188,057)	$ (610,021)	$ (5,382,093)	$ (5,016,934)

The amounts included for debt with financial institutions includes both fixed and variable interest rate instruments. The financial liabilities at variable rates are subject to change if the changes in variable rates differ from the estimates of rates determined at the end of the reporting period is presented at fair value.

The Entity expects to meet its obligations with the cash flows from operations and resources received from the maturity of financial assets. In addition, as of December 31, 2019, the Entity has access to a line of revolving credit with a balance not executed of $1,500 million.

d. ***Foreign exchange risk management*** - The Entity carries out transactions denominated in foreign currency; consequently, it is exposed to fluctuations in exchange rates, which are managed within the parameters of the approved policies, using, where appropriate, forward exchange rate contracts, when considered effective.

The carrying values of monetary assets and monetary liabilities denominated in foreign currency at the end of the period are as follows (foreign currencies in thousands):

	Assets			Liabilities		
	2019	2018	2017	2019	2018	2017
Euros	150,338	270,437	170,198	1,359,928	1,146,383	1,125,419
Brazilian real	408,219	393,292	440,751	242,631	149,921	220,139
Mexican pesos	1,816,540	1,881,784	2,372,308	6,854,320	5,751,198	3,689,435
Colombian pesos	230,940,505	195,082,639	204,492,631	186,265,520	181,157,856	156,820,208
Pounds	107,706	113,692	140,821	156,948	156,034	204,358

- A Foreign currency sensitivity analysis

The following table details the sensitivity of Orbia to 10% increases and decreases of the Mexican pesos against the relevant foreign currencies. The 10% represents the rate of sensitivity used when the exchange rate risk is reported internally to key management personnel, and represents the evaluation of the management on possible change in the exchange rates. The sensitivity analysis includes only the monetary items denominated in foreign currency and adjusts their conversion with a 10% fluctuation at the end of the period. The sensitivity analysis includes external loans as well as loans from foreign operations inside the Entity where the loan is denominated in a currency other than the U.S. dollar. A negative or positive figure, respectively, (as shown in the following table) indicates a (decrease) or increase in the results derived from a 10% weakening of the foreign currency against the foreign currency in question:

	2019	2018	2017
Euros	123,152	91,130	114,083
Brazilian real	(3,735)	(5,740)	(6,669)
Mexican pesos	24,302	(17,872)	6,674
Colombian pesos	(1,239)	390	(1,598)
Pounds	(5,879)	(4,888)	(5,776)

Sensitivity analyses is not representative of the inherent foreign exchange risk, which may not necessarily reflect the exposure during the year.

At December 31, the exchange rates for the U.S. dollar in the following countries where the Entity operates were as follows:

	2019	2018	2017
Brazil	4.43	3.87	3.30
Colombia	3,604.85	3,249.75	2,984.00
Mexico	18.85	19.68	19.73
United Kingdom	0.83	0.78	0.74
European Union (Euro)	0.98	0.87	0.84

e. ***Financial risk management objectives*** - Orbia's Corporate Treasury function provides services to the business, co-ordinates access to domestic and international financial markets, monitors and manages the financial risks relating to the operations of the Entity through internal risk reports, which analyze exposures by degree and magnitude of risks. These risks include market risk (including currency risk, interest rate risk and other price risk), credit risk, liquidity risk and interest rate risk of cash flow.

The Entity seeks to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives is governed by the Entity's policies approved by the board of directors, which provide written principles on foreign exchange risk, interest rate risk, credit risk, the use of financial derivatives and non-derivative financial instruments, and the investment of excess liquidity. Compliance with policies and exposure limits is reviewed on a continuous basis. The Entity does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

f. ***Market risk*** - The Entity's activities expose it primarily to the financial risks of changes in foreign currency exchange rates (see subsection e. of this Note) and interest rates (see subsection b. of this Note). The Entity enters into a variety of derivative financial instruments to manage its exposure to foreign currency risk and interest rate risk, including:

- Mexican peso-US dollar and US Dollar-Euro Cross Currency Swaps to mitigate the exposure in debts in Mexican pesos and intercompany debt in Euros.

- Foreign currency Principal Only Swaps to hedge exchange risks arising in the translation of the Entity's investment in foreign operations into Euros, which is the functional currency.

- Interest rate swap, which serves to exchange variable interest rates of Euro-denominated debt for a fixed rate.

- Euro-dollar, Euro-Israeli shekel (ILS), US Dollar-Turkish lira, and US Dollar-South African rand (ZAR) exchange rate forwards to mitigate the exposure in debt with financial institutions and intercompanies in such currencies.

- Euro-dollar and Euro-Israeli shekel options to mitigate the exposure in results denominated in such currencies

Market risk exposures are measured using a sensitivity analysis.

There has been no change to the Entity's exposure to market risks or the manner in which these risks are managed and measured.

b. ***Cross Currency Swap*** - According to the cross currency swap contracts, the Entity agrees to exchange Peso-Dollar flows calculated on the amounts of the notional values and interest rates established in such contracts. To hedge bank debt exposure in Mexican pesos and with related parties in Euros, respectively.

Principal Only Swaps - According to the cross country swap contracts, the Entity agrees to exchange Dollar-Euro cash flows on the principal and a fixed rate in dollars, as established in such contracts, which enable the Entity to mitigate the risk of fluctuations in the exchange rates due to the exposure generated by its Mexican peso debt and the investment in Euros for the acquisition of its subsidiaries in Europe, Wavin and Vestolit. The fair value of the cross currency swaps at the end of the reporting period is determined by discounting the future cash flows using the curves and exchange rates in effect at the date of the determination.

Interest rate swap agreements - Per the interest rate swap agreements, which hedge long-term financial debt in Euros, the Entity agrees to exchange a variable interest rate for a fixed interest rate.

Exchange rate forward agreements and options - The Entity executes exchange rate forwards and options in different currencies other than its functional currency to hedge the exchange exposure in balance sheet and income statement line items. The hedged line items in currencies other than the Entity's functional currency are mainly denominated in: Euros (EUR), Israeli shekels (ILS), Indian rupees (INR), South African rand (ZAR) and Turkish lira (TRY). These contracts are executed for periods under one year.

Orbia is an entity whose functional currency is the US dollar. Orbia has issued: i) debt for 3,000 million Mexican pesos at 10 years, at a fixed rate of 8.12%, ii) debt for 3,000 million Mexican pesos at 8 years, at TIIE variable rate plus 0.825 percentage points, iii) debt for 1,566 million Mexican pesos at six months, at a TIIE variable rate plus .15 percentage points, iv) debt through the issuance of an international bond for $ 750 million with a 30-year maturity, at fixed rates ranging between 4% and 8.75% and v) debt in euros for a notional amount of EUR $70.7 million due in March 2020, at a variable rate of Euribor 3M + 3.84%

The aforementioned cross currency swaps have been formally designated as hedge transactions for accounting purposes, as follows:

Orbia currently has five US Dollar-Euro Principal Only-Swaps, which are designated as net investment hedge relationships of European subsidiaries.

Similarly, the Entity has five Mexican peso-US dollar Cross Currency Swaps, which have been designated as cash flow hedge relationships to hedge the Entity's exchange fluctuations related to the revaluation of debt in Mexican pesos.

The Entity has an Interest Rate Swap for $70.6 million Euros to mitigate the exposure in long-term debt. The Entity agrees to exchange variable interest rates for a fixed rate. The Entity accounts for these transactions as hedge accounting and it expires in 2020.

Orbia has evaluated and measured the effectiveness, and concluded that the hedge strategy is highly effective as of December 31, 2019, 2018 and 2017. The Entity uses the ratio analysis method, based on the hypothetical derivative model to simulate the behavior of the element hedged. Such method consists of comparing the changes in the fair value of the hedge instruments with the changes in the fair value of the hypothetical derivative that would result in a perfect coverage of the element hedged.

As of December 31, 2019, 2018 and 2017, the fair value of the currency swaps represents a liability of $79 million, $128 million and $181 million, respectively. The effect recognized in equity for the hedge of the investment in the foreign subsidiaries is $24 million, $27 million and $(63) million, with a deferred income tax effect. With regard to the portion covering the debt in Mexican pesos, the effect of the change in fair value is $6.6 million, $1.6 million and $0.3 million, respectively, and is recognized in results of the period to cover the revaluation of the hedged item. The amount to be carried to results of the period during the next 12 months will depend on the behavior in the exchange rates.

12. Fair value of financial instruments

The fair value of financial instruments presented below has been determined by the Entity using information available in the markets or other valuation techniques that use assumptions that are based on market conditions existing at each consolidated statement of financial position date, but require judgment with respect to their development and interpretation. As a result, the estimated amounts presented below are not necessarily indicative of the amounts that the Entity could obtain in a current market exchange. The use of different assumptions and/or estimation methods could have a material effect on the estimated amounts of fair value.

The financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable are:

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

- Level 2 fair value measurements are those derived from inputs other than quoted prices included within level 1, that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Entity considers that the carrying amount of cash, cash equivalents, accounts receivable and accounts payable from third parties and related parties, the current portion of bank loans approximate their fair values because they have short-term maturities. The Entity's long-term debt is recorded at amortized cost and incurs interest at fixed and variable rates that are related to market indicators.

To obtain and disclose the fair value of long-term debt, the Entity uses quoted market prices or inputs or quoted prices on similar instruments. Other techniques are used to determine the fair value of other financial instruments such as cash flow projections, considering the dates of the cash flows in market curves, discounting such cash flows using discount rates that reflect the credit risk of the counterparty as well as the Entity's own credit risk over the referenced period. The fair value of interest rate swaps is calculated as the present value of estimated future net cash flows. The fair value of currency futures is determined using the exchange rate futures quotes listed at the date of the consolidated statement of financial position.

a. Fair value of the Entity's financial assets and liabilities, which are measured at fair value on a recurring basis.

   Some of the Entity's financial assets and liabilities are valued at fair value at the close of each year. The following table provides information on how the fair values of the financial assets and liabilities are determined (specifically, the valuation techniques and the entry data used).

Financial Assets/liabilities	31/12/2019	Fair value 31/12/2018	31/12/2017	hierarchy of fair value	Valuation methods and main input data
	Liabilities	Liabilities	Liabilities		
1) Exchange rate and interest rate Swap (see Note 13)	$ (23,036)	$ (47,287)	$ (64,758)	Level 2	The Entity uses the ratio analysis method under the hypothetical derivative market model to simulate the behavior of the hedged element, which consists of comparing changes in the fair value of the hedge instruments with the changes in the fair value of the hypothetical derivative which would result in a perfect coverage of the hedged item.
	Liabilities	Liabilities	Liabilities		
2) Principal-only swap EUR/USD (see Note 13)	(56,089)	(80,661)	(116,439)	Level 2	The Entity uses the ratio analysis method under the hypothetical derivative market model to simulate the behavior of the hedged element, which consists of comparing changes in the fair value of the hedge instruments with the changes in the fair value of the hypothetical derivative which would result in a perfect coverage of the hedged item.
	Liabilities	Liabilities	Assets		
3) Contracts forward (see Note 13)	(265)	(285)	298	Level 2	Discounted cash flow. Future cash flows are estimated on the basis of the forward exchange rates (based on observable exchange rates of the forward at the end of the reporting period) and the rates of the forward contract, discounted at a rate which reflects the credit risk of several counterparties.
	Assets	Liabilities	Assets		
3) Contracts options (see Note 13)	-	(54)	-	Level 2	Discounted cash flow. Future cash flows are estimated on the basis of the option exchange rates (based on observable exchange rates of the option at the end of the reporting period) and the rates of the plain vanilla contract, discounted at a rate which reflects the credit risk of several counterparties.
	(79,390)	(128,287)	(180,899)		
Less- current portion	(12,609)	(15,629)	(14,830)		
Total	$ (66,781)	$ (112,658)	$ (166,069)		

b. The carrying amounts of financial instruments by category and their related fair values at December 31 are as follows:

	2019		2018		2017	
	Carrying amount	Fair value	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets:						
Cash and cash equivalents	$ 586,409	$ 586,409	$ 699,878	$ 699,878	$ 1,899,840	$ 1,899,840
Loans and accounts receivable:						
Customers and other current assets	1,356,785	1,356,785	1,322,920	1,322,920	1,332,187	1,332,187
Accounts payable	(2,675,382)	(2,675,382)	(2,504,127)	(2,504,127)	(2,131,318)	(2,131,318)
Redeemable non-controlling interest	(264,287)	(264,287)	(245,799)	(245,799)	-	-
Bank loans and current portion of long-term debt	(3,450,966)	(3,623,143)	(3,398,019	(2,817,529)	(3,255,366)	(3,384,368)
Total	$ (4,447,441)	$ (4,619,618)	$ (4,125,147)	$ (3,544,657)	$ (2,154,657)	$ (2,283,659)

As of December 31, 2019, 2018 and 2017, hierarchy of the fair value of cash and cash equivalents for $586,409, $699,878 and $1,899,840, respectively, is Level 1.

The fair values shown at December 31, 2019, 2018 and 2017 do not differ from carrying values, except bank loans including current portion of the long-term debt, as the values observed in the market are very similar to those recorded as of such date.

During the period, there were no transfers between Level 1 and 2.

13. Derivative financial instruments

a. Exchange rate
Swap

i In 2019 and 2018, Netafim contracted Euro (EUR)/US dollar (USD), USD/Turkish lira (TRY) and USD/South African rand (ZAR) exchange rate forwards with Discount, HSBC, Leumi, Mizrachi and Union, in effect from October 10, 2019 to May 29, 2020; the agreed-upon exchange rates and notional amounts are shown in section d. of this Note.

ii. In July 2017, Wavin (European subsidiary), contracted an EUR/TRY exchange rate forward with Ak Bank in effect from July 27 to January 26, 2018, for a notional amount of EUR$8 million. The agreed-upon exchange rate was 4.406 Turkish lira per Euro. The instrument was renewed on July 24, 2018, maturing on January 25, 2019, for a notional amount of EUR$8 million at a 6.309 forward exchange rate.

b. Options

- With the acquisition of Netafim, EUR/USD options with HSBC, Leumi, Mizrachi and Poalim were incorporated, which had been contracted by Netafim in 2017, effective from November 2017 to November 2018 for a notional amount of EUR$19.4 million. The agreed-upon exchange rate ranges from 1.2050 to 1.2138 US dollars per Euro. Similarly, in 2018 EUR/USD options were contracted, effective from August 2018 to April 2019, as stated in section d. of this Note.

- "Put" option- Per the Stockholders' Agreement executed with the minority stockholders which retained the remaining 20% of the common stock (redeemable non-controlling interest) of Netafim (see Note 2a.), they have a sell option ("Put Option") which gives them the option to sell, with the corresponding obligation for the Entity to buy, after the fifth anniversary of the transaction and for ten years thereafter. The option value will depend on Netafim's market value and certain conditions referred to the share value multiple. The Entity recognized the future value based on estimated scenarios, considering the present value of the assumed obligation. The initial accounting record was a debit to stockholders' equity and a credit to liability long-term redeemable non-controlling interest of $227 million. As of December 31, 2019 and 2018, the option value was $264 and $245 million, recognizing the changes in fair value in results for the period.

c. Exchange Rate and Interest Rate Swap and Principal-Only Swaps

1. With the acquisition of Netafim, interest rate swaps with Hapoalim and Igud were incorporated; such swaps had been contracted by Netafim in 2015, maturing on March 19, 2020 for a notional amount of EUR$70.6 million and on June 19, 2018 for a notional amount of USD$63.7, respectively.

2. Swap contract transactions performed in 2019, 2018 and 2017 represent a hedge from an economic standpoint; for accounting purposes they were classified as for hedging and trading purposes. The fair value as of December 31, 2019, 2018 and 2017 was $79,125, $127,948 and $181,197 respectively. The variations in fair value were recognized in comprehensive income under the headings of interest, exchange gain and loss in the respective period.

d. The following exchange and interest rates swaps were contracted with different financial institutions, as follows:

Derivatives	Financial institution	Starting date	Ending date	2019 Notional amount	Amount Swap /Forward	Interest rate paid/Exchange rate agreed	Interest rate / Exchange rate at the close	Fair value at December 2019
Exchange Rate and Interest Rate Swap	J.P. Morgan	5/March/2018	05/March/2021	MXN$ 750,000,000	USD$ 56,775,170	4.11% / 13.2100	8.7800% /18.8452	$ (5,308)
Exchange Rate and Interest Rate Swap	Bank of America	5/March/2018	05/March/2021	MXN$ 750,000,000	USD$ 56,775,170	4.49% / 13.2100	8.7800% /18.8452	(5,345)
Exchange Rate and Interest Rate Swap	HSBC	23/January/2014	05/March/2021	MXN$1,500,000,000	USD$ 112,612,613	3.57% / 13.3200	8.7800% /18.8452	(10,175)
Exchange Rate and Interest Rate Swap	Banamex	16/June/2017	09/March/2022	MXN$1,500,000,000	USD$ 83,892,617	3.09% / 17.8800	8.5125% /18.8452	(3,260)
Exchange Rate and Interest Rate Swap	MUFG	05/November/19	05/May/2020	MXN$1,566,610,000	USD$ 82,000,000	2.16% / 19.1050	8.1050% /18.8452	1,324
Interest Rate Swap	Hapoalim	19/June /2015	19/March/2020	EUR$ 70,660,198	EUR$ 70,660,198	0.159%	0.355%	(272)
Principal-Only Swap EUR/USD	Morgan Stanley	10/June/2015	17/March/2022	USD$ 96,993,210	EUR$ 100,279,164	1.6006% / 0.9672	1.1198	(16,561)
Principal-Only Swap EUR/USD	Santander	11/June/2015	17/March/2022	USD$ 97,402,597	EUR$ 101,050,000	1.7200% / 0.9639	1.1198	(16,494)
Principal-Only Swap EUR/USD (i)	HSBC	17/September/2014	17/September/2024	USD$ 132,000,000	EUR$ 104,761,905	1.4350% / 1.2600	-	-
Principal-Only Swap EUR/USD	Bancomer	05/May/2015	18/March/2025	USD$ 228,316,800	EUR$ 204,000,000	1.7087% / 1.1192	1.1198	(3,507)
Principal-Only Swap EUR/USD	Banamex	03/December/2015	17/March/2025	USD$ 121,011,000	EUR$ 114,000,000	1.7500% / 1.0615	1.1198	(9,807)
Principal-Only Swap EUR/USD	Barclays	03/December/2015	17/March/2025	USD$ 121,011,000	EUR$ 114,000,000	1.5500% / 1.0615	1.1198	(9,720)
Exchange Rate Forward	Discount	15/October/2019	15/January/2020	USD$ 1,636,393	TRY$ 10,000,000	6.1110	5.9478	(38)
Exchange Rate Forward	FIBI	10/October/2019	28/February/2020	USD$ 5,559,876	EUR$ 5,008,700	1.1100	1.1198	(76)
Exchange Rate Forward	HSBC	02/December/2019	29/May/2020	USD$ 9,244,533	EUR$ 8,300,000	1.1138	1.1198	(94)
Exchange Rate Forward	Leumi	18/october2019	30/January/2020	USD$ 12,640,037	TRY$ 76,000,000	6.0126	5.9478	(28)
Exchange Rate Forward	Mizrachi	10/October/2019	30/September/2020	USD$ 15,806,276	EUR$ 14,095,000	1.1214	1.1198	(95)
Exchange Rate Forward	Poalim	31/December/2019	30/April/2020	USD$ 7,945,948	EUR$ 7,081,000	1.1222	1.1198	(41)
Exchange Rate Forward	HSBC	30/December/2019	30/January/2020	ILS$ 17,484,400	USD$ 5,050,000	3.4623	3.4612	13
Exchange Rate Forward	HSBC	28/December/2019	15/April/2020	USD$ 1,673,058	TRY$ 10,000,000	5.9771	5.9478	34
Exchange Rate Forward	Leumi	19/November/2019	15/April/2020	USD$ 1,012,356	TRY$ 6,000,000	5.9268	5.9478	29
Exchange Rate Forward	Leumi	30/December/2019	02/January/2020	USD$ 4,251,858	EUR$ 3,800,000	1.1189	1.1198	31
								$ (79,390)

(i) In May 2019, the Principal-Only swap EUR/USD contracted with Morgan Stanley was canceled.

Derivatives	Financial institution	Starting date	Ending date	2018 Notional amount	Amount Swap /Forward	Interest rate paid/Exchange rate agreed	Interest rate / Exchange rate at the close	Fair value at December 2018
Exchange Rate and Interest Rate Swap (i)	J.P. Morgan	5/March/2018	05/March/2021	MXN$ 750,000,000	USD$ 56,775,170	4.11% / 13.2100	8.105% /19.6829	$ (9,577)
Exchange Rate and Interest Rate Swap (ii)	Bank of America	5/March/2018	05/March/2021	MXN$ 750,000,000	USD$ 56,775,170	4.49% / 13.2100	8.105% /19.6829	(9,763)
Exchange Rate and Interest Rate Swap	HSBC	23/January/2014	05/March/2021	MXN$1,500,000,000	USD$ 112,612,613	3.57% / 13.3200	8.105% /19.6829	(18,454)
Exchange Rate and Interest Rate Swap	Banamex	16/June/2017	09/March/2022	MXN$1,500,000,000	USD$ 83,892,617	3.09% / 17.8800	8.105% /19.6829	(9,162)
Interest Rate Swap	Hapoalim	19/June /2015	19/March/2020	EUR$ 70,660,198	EUR$ 70,660,198	0.159%	0.355%	(331)
Principal-Only Swap EUR/USD	Morgan Stanley	10/June/2015	17/March/2022	USD$ 96,993,210	EUR$ 100,279,164	1.6006% / 0.9672	1.1444	(21,403)
Principal-Only Swap EUR/USD	Santander	11/June/2015	17/March/2022	USD$ 97,402,597	EUR$ 101,050,000	1.7200% / 0.9639	1.1444	(21,229)
Principal-Only Swap EUR/USD	HSBC	17/September/2014	17/September/2024	USD$ 132,000,000	EUR$ 104,761,905	1.4350% / 1.2600	1.1444	5,535
Principal-Only Swap EUR/USD	Bancomer	05/May/2015	18/March/2025	USD$ 228,316,800	EUR$ 204,000,000	1.7087% / 1.1192	1.1444	(13,307)
Principal-Only Swap EUR/USD	Banamex	03/December/2015	17/March/2025	USD$ 121,011,000	EUR$ 114,000,000	1.7500% / 1.0615	1.1444	(15,038)
Principal-Only Swap EUR/USD	Barclays	03/December/2015	17/March/2025	USD$ 121,011,000	EUR$ 114,000,000	1.5500% / 1.0615	1.1444	(15,219)
Exchange Rate Forward	Poalim	13/August/2018	28/June/2019	EUR$ 5,140,000	USD$ 5,946,764	1.1569	1.1444	15
Exchange Rate Forward	Leumi	31/October/2018	5/April/2019	USD$ 974,552	ILS$ 3,536,510	3.6280	3.7632	(24)
Exchange Rate Forward	HSBC	13/August/2018	31/July/2019	EUR$ 13,566,000	USD$ 15,393,510	1.1347	1.1444	6
Exchange Rate Forward	Ak Bank	24/July/2018	25/January/2019	EUR$ 8,000,000	TRY$ 50,472,000	6.309	6.0079	(282)
Plain Vanilla	FIBI	5/September/2018	29/March/2019	EUR$ 2,000,000	USD$ 2,310,000	1.155	1.1444	33
Plain Vanilla	Discount	7/September/2018	31/May/2019	EUR$ 6,400,000	USD$ 7,541,600	1.1783	1.1444	40
Plain Vanilla	Discount	25/October/2018	7/May/2019	USD$ 7,188,974	ILS$ 26,400,000	3.6722	3.7632	(29)
Plain Vanilla	HSBC	6/September/2018	28/June/2019	EUR$ 5,000,000	USD$ 5,870,500	1.1741	1.1444	20
Plain Vanilla	HSBC	17/October/2018	7/June/2019	USD$ 13,532,078	ILS$ 49,800,000	3.6801	3.7632	(70)
Plain Vanilla	Leumi	25/October/2018	7/May/2019	USD$ 5,988,581	ILS$ 22,000,000	3.6736	3.7632	(25)
Plain Vanilla	Poalim	25/October/2018	7/June/2019	USD$ 7,218,620	ILS$ 26,600,000	3.6849	3.7632	(23)
								$ (128,287)

(i) In March 2018, a novation was negotiated with J.P. Morgan transferring the total of the operation that previously had with Bancomer.
(ii) In March 2018, a novation was negotiated with Bank of America, transferring the total amount of the operation that previously had with Morgan Stanley.

Derivatives	Financial institution	Starting date	Ending date	2017 Notional amount	Amount Swap /Forward	Interest rate paid/Exchange rate agreed	Interest rate / Exchange rate at the close	Fair value at December 2017
Exchange Rate and Interest Rate Swap	Morgan Stanley	09/October/2013	05/March/2021	MXN$ 750,000,000	USD$ 56,775,170	3.88% / 13.2100	5.2385% /19.7354	$ (14,012)
Exchange Rate and Interest Rate Swap	Bancomer	10/September/2015	05/March/2021	MXN$ 750,000,000	USD$ 56,775,170	4.18% / 13.2100	5.2385% /19.7354	(14,192)
Exchange Rate and Interest Rate Swap	HSBC	23/January/2014	05/March/2021	MXN$1,500,000,000	USD$ 112,612,613	3.57% / 13.3200	5.2385% /19.7354	(26,902)
Exchange Rate and Interest Rate Swap	Banamex	16/January/2017	09/March/2022	MXN$1,500,000,000	USD$ 83,892,617	3.09% / 17.8800	8.12% /19.7354	(9,652)
Principal-Only Swap EUR/USD	Morgan Stanley	10/June/2015	17/March/2022	USD$ 96,993,210	EUR$ 100,279,164	1.6006% / 0.9672	1.1943	(26,877)
Principal-Only Swap EUR/USD	Santander	11/June/2015	17/March/2022	USD$ 97,402,597	EUR$ 101,050,000	1.7200% / 0.9639	1.1943	(26,360)
Principal-Only Swap EUR/USD	HSBC	17/September/2014	17/September/2024	USD$ 132,000,000	EUR$ 104,761,905	1.4350% / 1.2600	1.1943	320
Principal-Only Swap EUR/USD	Bancomer	05/May/2015	18/March/2025	USD$ 228,316,800	EUR$ 204,000,000	1.7087% / 1.1192	1.1943	(22,547)
Principal-Only Swap EUR/USD	Banamex	03/December/2015	17/March/2025	USD$ 121,011,000	EUR$ 114,000,000	1.7500% / 1.0615	1.1943	(20,471)
Principal-Only Swap EUR/USD	Barclays	03/December/2015	17/March/2025	USD$ 121,011,000	EUR$ 114,000,000	1.5500% / 1.0615	1.1943	(20,504)
Exchange Rate Forward	Ak Bank	27/July/2018	26/January/2018	EUR$ 8,000,000	TRY$ 28,272,000	3.534	3.775	298
								$ (180,899)

14. Property, plant and equipment

	Balance as of December 31, 2018	Additions	Acquisitions through business combinations	Fixed asset sales / discontinued	Transferred from property, plant and equipment	Sinister on plant and impairment effects	Net effect of inflation	Translation effect	Balances as of December 31, 2019
Investment:									
Land	$ 220,482	$ 835	$ -	$ (3,376)	$ 61	$ -	$ 83	$ (5,749)	$ 212,336
Buildings	995,559	4,610	-	(9,304)	29,293	-	221	(25,421)	994,958
Machinery and equipment	5,912,673	11,805	-	(68,506)	120,400	-	1,238	(21,161)	5,956,449
Furniture and fixtures	152,860	14,731	-	(8,598)	10,915	-	42	(4,035)	165,915
Vehicles	38,610	497	-	(1,944)	1,396	-	28	(223)	38,364
Construction in-progress	161,154	191,159	-	(1,010)	(162,065)	-	(115)	(2,723)	186,400
Total investment	7,481,338	223,637	-	(92,738)	-	-	1,497	(59,312)	7,554,422
Depreciation:									
Buildings	579,241	32,294	-	(2,121)	-	-	(1,086)	(10,598)	597,730
Machinery and equipment	3,247,917	279,008	-	(57,170)	-	-	(3,693)	(12,759)	3,453,303
Furniture and fixtures	120,197	19,067	-	(6,861)	-	-	(107)	(4,700)	127,596
Vehicles	26,597	2,267	-	(1,802)	-	-	(20)	(70)	26,972
Total accumulated depreciation	3,973,952	332,636	-	(67,954)	-	-	(4,906)	(28,127)	4,205,601
Net investment	$ 3,507,386	$ (108,999)	$ -	$ (24,784)	$ -	$ -	$ 6,403	$ (31,185)	$ 3,348,821

	Balance as of December 31, 2017	Additions	Acquisitions through business combinations	Fixed asset sales / discontinued	Transferred from property, plant and equipment	Sinister on plant and impairment effects	Net effect of inflation	Translation effect	Balances as of December 31, 2018
Investment:									
Land	$ 250,467	$ 9	$ 2,633	$ -	$ 5	$ -	$ 6,477	$ (39,109)	$ 220,482
Buildings	1,042,616	8,087	42,675	(7,398)	9,260	-	17,684	(117,365)	995,559
Machinery and equipment	5,693,016	59,606	324,418	(62,934)	77,351	-	20,105	(198,889)	5,912,673
Furniture and fixtures	121,442	11,349	39,263	(14,400)	3,699	-	249	(8,742)	152,860
Vehicles	38,549	324	3,567	(3,971)	1,793	-	185	(1,837)	38,610
Construction in-progress	102,550	154,977	685	(912)	(92,108)	-	-	(4,038)	161,154
Total investment	7,248,640	234,352	413,241	(89,615)	-	-	44,700	(369,980)	7,481,338
Depreciation:									
Buildings	588,127	32,606	15,670	(3,786)	-	-	11,870	(65,246)	579,241
Machinery and equipment	2,911,836	305,249	204,281	(60,407)	-	-	12,059	(125,101)	3,247,917
Furniture and fixtures	96,093	13,666	31,447	(14,313)	-	-	228	(6,924)	120,197
Vehicles	26,089	2,037	2,750	(2,888)	-	-	168	(1,559)	26,597
Total accumulated depreciation	3,622,145	353,558	254,148	(81,394)	-	-	24,325	(198,830)	3,973,952
Net investment	$ 3,626,495	$ (119,206)	$ 159,093	$ (8,221)	$ -	$ -	$ 20,375	$ (171,150)	$ 3,507,386

	Balance as of December 31, 2016	Additions	Acquisitions through business combinations	Fixed asset sales / discontinued	Transferred from property, plant and equipment	Sinister on plant and impairment effects	Net effect of inflation	Translation effect	Balances as of December 31, 2017
Investment:									
Land	$ 225,460	$ 5	$ -	$ (6,780)	$ (8,721)	$ -	$ 32,155	$ 8,348	$ 250,467
Buildings	922,494	1,920	-	(43,057)	29,376	-	79,269	52,614	1,042,616
Machinery and equipment	3,947,853	52,927	-	(107,867)	1,542,698	-	72,298	185,107	5,693,016
Furniture and fixtures	119,773	2,212	-	(14,247)	3,509	-	933	9,262	121,442
Vehicles	37,301	674	-	(2,413)	2,102	-	941	(56)	38,549
Construction in-progress	1,655,875	191,259	-	(177,465)	(1,568,964)	-	-	1,845	102,550
Total investment	6,908,756	248,997	-	(351,829)	-	-	185,596	257,120	7,248,640
Depreciation:									
Buildings	494,326	37,162	-	(16,008)	-	-	43,032	29,615	588,127
Machinery and equipment	2,545,621	293,066	-	(116,053)	-	-	35,801	153,401	2,911,836
Furniture and fixtures	95,068	8,435	-	(13,516)	-	-	766	5,340	96,093
Vehicles	24,148	2,296	-	(1,269)	-	-	836	78	26,089
Total accumulated depreciation	3,159,163	340,959	-	(146,846)	-	-	80,435	188,434	3,622,145
Net investment	$ 3,749,593	$ (91,962)	$ -	$ (204,983)	$ -	$ -	$ 105,161	$ 68,686	$ 3,626,495

15. Intangible assets and goodwill

a. ***Intangibles assets -***

	Useful life	2019	2018	2017
Non - compete agreements	5	$ 735	$ 1,067	$ 1,248
Customer portfolio	25	834,885	908,685	653,948
Use of trademark	Indefinite/definitive	596,505	602,808	416,477
Intellectual property	10	261,110	283,785	113,075
Other intangibles	5	72,303	55,202	27,208
		$ 1,765,538	$ 1,851,547	$ 1,211,956

Cost	Non – compete agreement	Customer portfolio	Use of trademarks	Intellectual property	Other intangibles	Total
Balances as of December 31, 2016	$ 184,515	$ 884,367	$ 422,248	$ 177,729	$ 101,936	$ 1,770,795
New developments and investments	-	50	-	2,420	5,146	7,616
Effect of foreign currency exchange differences	(156)	36,059	16,189	7,551	3,608	63,251
Balances as of December 31, 2017 (cost)	184,359	920,476	438,437	187,700	110,690	1,841,662
Acquisitions through business combinations	-	292,660	197,246	193,553	21,342	704,801
New developments and investments	-	-	-	324	16,680	17,004
Effect of foreign currency exchange differences	168	10,271	(10,806)	(6,738)	(4,263)	(11,368)
Balances as of December 31, 2018 (cost)	184,527	1,223,407	624,877	374,839	144,449	2,552,099
Acquisitions through business combinations						
New developments and investments						
Effect of foreign currency exchange differences	-	-	2,176	485	32,970	35,631
	9	(22,915)	(8,479)	(5,397)	(2,754)	(39,536)
Balances as of December 31, 2019 (cost)	$ 184,536	$ 1,200,492	$ 618,574	$ 369,927	$ 174,665	$ 2,548,194

Amortization	Non – compete agreement	Customer portfolio	Use of trademark	Intellectual property	Other intangibles	Total
Balances as of December 31, 2016 (amortization)	$ 182,715	$ 233,894	$ 19,678	$ 64,174	$ 77,526	$ 577,987
Amortization	396	32,634	2,282	10,451	5,956	51,719
Balances as of December 31, 2017 (amortization)	183,111	266,528	21,960	74,625	83,482	629,706
Amortization	349	48,194	109	16,429	5,765	70,846
Balances as of December 31, 2018 (amortization)	183,460	314,722	22,069	91,054	89,247	700,552
Amortization	341	50,885	-	17,763	13,115	82,102
Balances as of December 31, 2019 (amortization)	$ 183,801	$ 365,607	$ 22,069	$ 108,817	$ 102,362	$ 782,656
Net Assets at December 31, 2019 (net)	$ 735	$ 834,885	$ 596,505	$ 261,110	$ 72,303	$ 1,765,538

b. ***Goodwill***

	2019	2018	2017
Netafim, Ltd.	$ 787,952	$ 787,952	$ -
Dura-Line Holdings, Inc.	166,356	166,356	166,356
Mexichem Resinas Vinílicas, S.A. de C.V.	101,176	101,176	101,176
Mexichem Amanco Holding, S.A. de C.V.	90,582	91,069	96,694
Mexichem Speciality Resins, Inc.	65,546	65,546	65,546
Mexichem Resinas Colombia, S.A.S.	54,593	54,593	54,593
Mexichem Specialty Compounds, Inc.	52,805	52,805	52,805
Fluorita de México, S.A. de C.V.	45,682	45,682	45,682
Wavin N.V.	27,545	28,148	29,375
VESTO PVC Holding GmbH	28,929	29,561	30,850
Other	70,518	69,803	55,378
Total	$ 1,491,684	$ 1,492,691	$ 698,455
Balance at the beginning of the year	$ 1,492,691	$ 698,455	$ 690,183
Business combinations which occurred during the year (Note 6d)	-	803,398	-
Effect of differences in foreign currency exchange rates	(1,007)	(9,162)	8,272
Balance at the end of the year	$ 1,491,684	$ 1,492,691	$ 698,455

16. Bank loans and long-term debt

Are integrated as follows:

	2019	2018	2017
Summary of agreements of loans in U.S. dollars, Euros, Mexican pesos and other currencies:			
Issuance of an International Bond to ten years for $500 million, which accrues semiannual interest at the fixed 4.00% rate. Principal will be settled through a single payment at maturity in October 2027.	$ 500,000	$ 500,000	$ 500,000
Issuance of an International Bond to thirty years for $500 million, which accrues semiannual interest at the fixed 5.50% rate. Principal will be settled through a single payment at maturity in January 2048.	500,000	500,000	500,000

	2019	2018	2017
Issuance of an International Bond to thirty years for $750 million, which accrues semiannual interest at the fixed 5.875% rate. Principal will be settled through a single payment at maturity in September 2044.	$ 750,000	$ 750,000	$ 750,000
Issuance of an International Bond to ten years for $750 million, which accrues semiannual interest at the fixed 4.875% rate. Principal will be settled through a single payment at maturity in September 2022.	750,000	750,000	750,000
Issuance of an International Bond to thirty years for $400 million, which accrues semiannual interest at the fixed 6.75% rate. Principal will be settled through a single payment at maturity in September 2042.	400,000	400,000	400,000
Issuance of an International Bond to ten years for $350 million bond that bears semi-annual interest at a fixed 8.75% rate. Principal is repaid in one installment at maturity in November 2019; in September 2012, an amount of $267.1 million was prepaid.	-	82,882	82,882
Scotiabank Bank loan of 1-year term for an amount of $200 million US dollars which accrues interests quarterly at a floating rate of LIBOR 1M plus an applicable margin of 0.496%. The principal amortizes in a payment at maturity. In December 2019, 49 million were prepaid and the credit was refinanced by changing the maturity to June 2020 and with a new rate at LIBOR 1M + .35%.	151,000	200,000	-
HSBC Line of credit of US $51 million, bearing quarterly interest at LIBOR plus 1.50 %. Principal is paid in one installment at maturity in April 2019.	-	51,000	51,000
Syndicated loan of 75 million US Dollars which accrues quarterly interests at a floating rate of LIBOR 3M plus an applicable margin of 3.96%. The loan had a grace period of 1.5 years and after that period the loan started amortizing 35% of the principal amount on a semiannual basis. A final installment of 65% is due in March 2020. $20 million were prepaid in March 2018. In March 2019, the entire credit was prepaid.	-	39,584	-

	2019	2018	2017
Syndicated loan of 70.7 million Euros, which accrues interests at a floating rate of EURIBOR 3M plus an applicable margin of 3.84%. The loan had a grace period of 1.5 years and after that period the loan started amortizing 35% of the principal amount on a semiannual basis. A final installment of 65% is due in March 2020. $18.6 million were prepaid in March 2018. In March 2019, the entire credit was prepaid.	$ -	$ 42,950	$ -
Rabobank 5-year Bank loan for $ 75 million that causes quarterly interest at a variable rate of LIBOR 3M + 1.75%. The principal is amortized quarterly with maturity on March 2024.	70,000	-	-
MUFG 5-year Bank loan for $ 50 million that causes quarterly interest at a variable rate of LIBOR 3M + 2.00%. The principal is amortized quarterly with maturity on March 25, 2024.	46,250	-	-
Revolving credit line with a line of credit up to $200 million. The interest rate is variable LIBOR + 2.30%.	-	38,669	-
Others	42,078	39,687	14,947
Loans in Mexican pesos			
Issuance of a local bond (Certificado Bursatil) for 3,000 million Mexican pesos accruing interests on a semiannual basis at a fixed rate of 8.12%. The principal amount will be settled in one installment at maturity in March 2022.	159,192	152,417	152,011
Citibanamex 6-month Bank Loan for 1,566 million that causes monthly interest at a variable rate of TIIE28 + 0.15%. The principal amortizes in a payment due in May 2020.	83,130	-	-
Bancomext Unsecured loan of 3,000 million and 69,443 thousand bearing quarterly interest at TIIE plus 0.825% and TIIE plus 0.71%, respectively. Principal are amortized semiannually from September 2017, through March 2021.	48,863	77,644	108,393
	3,500,513	3,624,833	3,309,233
Less: Current portion of bank loans and current portion of long-term debt	(322,346)	(395,928)	(45,422)
Less: Debt issuance costs	(49,547)	(53,408)	(53,867)
	$ 3,128,620	$ 3,175,497	$ 3,209,944

Maturities of long-term debt as of December 31, 2019, net of the related placement expenses, are as follows:

Payable during -		
2020	$	37,150
2021		921,344
2022		62,062
2023		2,108,064
2024 and thereafter		
	$	3,128,620

As of December 31, 2019, some of the credits establish specific covenants, which have been fulfilled and are calculated on consolidated balances of Orbia, the most important of which are as follows:

a. Certain restrictions regarding the application of new liens.
b. Maintain a consolidated interest hedge ratio of at least between 3.0 and 1.0.
c. Maintain an index of leverage on the profit before interest, taxes, depreciation and amortization not greater than 3.0 to 1.0.
d. Insure and maintain property, plant and equipment in good working condition.
e. Comply with all applicable laws, rules, regulations and provisions

17. Employee benefits

a. *Defined contribution plans*

In the Mexican subsidiaries are carried out payments on integrated salary of its employees to the contribution plan defined by concept of statutory retirement savings system.

Some subsidiaries have defined contribution retirement benefit plans for certain eligible employees. Plan assets are maintained separate from Entity assets in funds, under the control of trustees. If the employee abandons the plan before ten years, he does not acquire all contributions and the amount payable by the Entity is reduced by the lost contribution amount.

Employees in certain subsidiaries have a retirement benefit plan managed by local governments. To finance the plan, subsidiaries are obligated to contribute a specific percentage of the employees' consideration to the retirement benefit scheme. The Entity's only legal obligation in regard to these plans is to make the specified contributions.

Benefits of defined contribution plans are paid monthly.

b. *Defined benefit plans*

In certain subsidiaries the Entity sponsors funded defined benefit plans for qualifying employees of its subsidiaries. The defined benefit plans are administered by a separate Fund that is legally separated from the Entity. The board of the pension fund is responsible for the investment policy with regard to the assets of the fund.

On December 31, 2019, the defined benefit plan was canceled in Norway. All members of the pension plan will receive a payment equivalent to the period in which they participated. Beginning in January 2020, all employees will participate in a defined contribution plan.

The Entity's Mexican subsidiaries manage a plan that also covers seniority premium, which consists of a one-time payment of 12 days for each year worked based on the last wage, limited to twice the minimum wage established by law. The related liability and the annual cost of benefits are calculated by an independent actuary in accordance with the bases defined in the plans, using the projected unit credit method.

The Entity manages defined contributions plans for employees that qualify in its Mexican subsidiaries. According to these plans, the employees are entitled to withdrawal final benefits on reaching the age of retirement that is 65 years old; with 10 or more years of service. There is also the option of early retirement when the sum of years working plus sum employee age 55 years; with 10 or more years of service. No other post-retirement benefits are awarded.

The plans typically expose the Entity to actuarial risks such as: investment risk, interest rate risk, longevity risk and salary risk.

Investment risk	The present value of the defined benefit plan liability is calculated using a discount rate determined by reference to high quality corporate bond yields; if the return on plan asset is below this rate, it will create a plan deficit. Currently the plan has a relatively balanced investment in equity securities, debt instruments and real estates. Due to the long-term nature of the plan liabilities, the board of the pension fund considers it appropriate that a reasonable portion of the plan assets should be invested in equity securities and in real estate to leverage the return generated by the fund.
Interest risk	A decrease in the bond interest rate will increase the plan liability; however, this will be partially offset by an increase in the return on the plan's debt investments.
Longevity risk	The present value of the defined benefit plan liability is calculated by reference to the best estimate of the mortality of plan participants both during and after their employment. An increase in the life expectancy of the plan participants will increase the plan's liability.
Salary risk	The present value of the defined benefit plan liability is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the plan's liability.

The most recent actuarial valuation of the plan assets and the present value of the defined benefit obligation were carried out as of December 31, 2019 by independent actuaries. The present value of the defined benefit obligation, and the related current service cost and past service cost, were measured using the projected unit credit method.

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

	2019	2018	2017
Discount rate(s)	3.25%	4.47%	3.67%
Expected rate(s) of salary increase	2.45%	3.32%	3.06%
Expected yield on defined contribution plan assets	3.25%	4.47%	3.67%
Average longevity at retirement age for current pensioners (years)			
- Males	20.5	21.0	21.1
- Females	22.4	22.9	22.9
Expected return on plan assets			
Average longevity at retirement age for current employees (years)			
- Males	21.5	22.9	22.2
- Females	23.7	25.0	24.2

Amounts recognized in comprehensive income in respect of these defined benefit plans are as follows:

	2019	2018	2017
Service cost:			
Current service cost	$ 5,464	$ 5,571	$ 8,814
Past service cost and (gain)/loss from settlements	(35)	1,742	(841)
Net interest expense	8,591	5,129	3,708
Components of defined benefit costs recognized in profit or loss	14,020	12,442	11,681
Remeasurement on the net defined benefit liability:			
Return on plan assets (excluding amounts included in net interest expense)	(18,527)	8,205	(5,905)
Actuarial (gains) and losses arising from changes in demographic assumptions	24,020	15,111	(2,802)
Actuarial (gains) and losses arising from changes in financial assumptions	17,152	(7,415)	(1,064)
Actuarial (gains) and losses arising from experience adjustments	(2,674)	(3,015)	1,178
Components of defined benefit costs recognized in other comprehensive income	19,971	12,886	(8,593)
Total	$ 33,991	$ 25,328	$ 3,088

During 2017, past service costs and (gains) / losses from liquidations include the anticipated reduction of restructuring obligations and adjustments to the pension plans for $ (8,764) of the Vestolit and Wavin UK operations.

The current service and financial cost net of the year are included in benefits spending to employees in the consolidated statements of profit or loss and other comprehensive income (loss), both in selling and development expenses as in administrative expenses.

The remeasurement of the net defined benefit liability is included in other comprehensive income.

The amount included in the consolidated statement of financial position arising from the Entity's obligation in respect of its defined benefit plans is as follows:

	2019	2018	2017
Present value of funded defined benefit obligation	$ (525,018)	$ (465,697)	$ (503,957)
Fair value of plan assets	319,564	283,670	318,028
Net liability arising from defined benefit obligation	(205,454)	(182,027)	(185,929)
Share-based payments and other benefits	(10,018)	(18,078)	(7,171)
	(215,472)	(200,105)	(193,100)
Employee benefit asset	(13,781)	(13,856)	(16,596)
Long-term liabilities for employee benefits	$ 229,253	$ 213,961	$ 209,696

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

	2019	2018	2017
Opening defined benefit obligation	$ 465,697	$ 503,957	$ 458,608
Current service cost	5,464	5,571	8,814
Interest cost	17,943	6,923	13,023
Remeasurement (gains)/losses:			
Actuarial (gains) and losses arising from changes in financial assumptions	38,098	(10,661)	(2,722)
Actuarial (gains) and losses arising from changes in financial assumptions	17,174	(7,567)	3,582
(Gains) / losses actuarial arising from past adjustments	(1,667)	792	(3,357)
Past service cost, including losses/(gains) on curtailments	(35)	1,742	(841)
Liabilities assumed in a business combination	72	7,958	-
Exchange differences on foreign plans	4,183	(21,347)	45,574
Benefits paid	(22,329)	(21,944)	(18,844)
Contributions from plan participants	418	273	120
Closing defined benefit obligation	$ 525,018	$ 465,697	$ 503,957

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

	2019	2018	2017
Opening fair value of plan assets	$ 283,670	$ 318,028	$ 287,635
Interest income	9,351	1,795	9,316
Remeasurement (gains)/losses:			
Return on plan assets (excluding amounts included in net interest expense)	18,527	(8,205)	5,905
Contributions from the employer	9,785	5,791	6,181
Contributions from plan participants	43	(211)	(90)
Assets acquired in a business combination	-	3,887	-
Exchange differences on foreign plans	15,164	(19,787)	23,796
Benefits paid	(15,855)	(16,549)	(13,640)
Administrative cost	(1,121)	(1,079)	(1,075)
Closing fair value of plan assets	$ 319,564	$ 283,670	$ 318,028

The fair value of the plan assets at the end of the reporting period for each category, are as follows:

	2019	2018	2017
Equity investments	$ 75,608	$ 67,046	$ 92,733
Debt investments and debt investments	156,684	135,899	147,041
Funds' investments and others	87,272	80,725	78,254
Total	$ 319,564	$ 283,670	$ 318,028

The fair values of the above equity and debt instruments are determined based on quoted market prices in active markets.

As of December 31, 2019, 2018 and 2017, the plan assets include ordinary shares of the Entity with an accumulated fair value of $41, $46 and $45, respectively.

Significant actuarial assumptions for the determination of the defined obligation are discount rate, expected salary increase and mortality. The sensitivity analyses below have been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

In 2019, 2018 and 2017, if the discount rate was 1% higher or lower, the defined benefit obligation would have decreased or increased by $22,676, $18,458 and $14,537, respectively.

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

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

There was no change in the methods and assumptions used in preparing the sensitivity analysis from prior years.

Each year an Asset-Liability-Matching study is performed in which the consequences of the strategic investment policies are analyzed in terms of risk-and-return profiles. Investment and contribution policies are integrated within this study. Main strategic choices that are formulated in the actuarial and technical policy document of the Fund are:

Asset mix based on 69% equity instruments, 16% debt instruments and 15% cash.

There has been no change in the process used by the Entity to manage its risks from prior periods.

The main categories of plan assets, and the expected return rate in each category at the end of the reporting period, are:

	Expected return		
	2019	2018	2017
Equity instruments	0.77%	1.06%	1.07%
Debt instruments	2.48%	3.41%	2.60%
Weighted average expected return	3.25%	4.47%	3.67%

The overall expected rate of return is a weighted average of the expected returns on various categories of plan assets. The evaluation of management on expected returns is based on historical performance trends and analysts' predictions on the market for assets over the life of the related obligation.
The history of experience adjustments made, is as follows:

	2019	2018	2017
Present value of defined benefit obligation	$ 525,018	$ 465,697	$ 503,957
Fair value of plan assets	(319,564)	(283,670)	(318,028)
Net liability	$ 205,454	$ 182,027	$ 185,929
Adjustments based on experience on plan liabilities	$ (73)	$ 238	$ (4,535)
Adjustments based on experience on plan assets	$ 10,682	$ 145	$ (7,874)

Unfinanced obligations - Unfinanced obligations are composed by service awards and retirement commitments that qualify as other benefit plans for long-term employees and which are recognized in Dutch, Belgian, German, Danish, French, Irish, Polish, Italian and Turkish operating companies.

In the United Kingdom and Ireland, defined-benefit pension plans report deficits. As regards the defined-benefits scheme determined for 2019 and projected for 2020, Wavin UK and the administrators of the Wavin Plastics defined benefits scheme agreed that the Company would pay an additional contribution for the costs and deficit of GBP 4.6 million. In the case of the pension plan of Hepworth Building Products, the Company and trusts agreed that the Company would pay an additional contribution for costs and the deficit of GBP 1.9 million, which is also applicable in 2020. With regards to the personnel scheme of Wavin Ireland, the Company agreed to pay an additional EUR $0.6 million over the next seven years.

18. Provisions

	Legal	Restructuring	Guarantees	Other	Total
Balance at December 31, 2017	$ 4,722	$ 5,098	$ 4,973	$ 10,901	$ 25,694
(Credit) debit to results	19,341	4,451	678	(756)	23,714
Applications	(711)	(6,214)	(655)	(1,620)	(9,200)
Translation effects	(194)	564	627	684	1,681
Balance at December 31, 2017	23,158	3,899	5,623	9,209	41,889
Business Combination	2,601	-	2,179	-	4,780
(Credit) debit to results	18,257	(655)	1,436	548	19,586
Applications	(11,852)	(3,184)	(947)	(2,753)	(18,736)
Translation effects	(6,439)	498	(828)	(851)	(7,620)
Balance at December 31, 2018	25,725	558	7,463	6,153	39,899

	Legal	Restructuring	Guarantees	Other	Total
Business Combination	-	-	-	-	-
(Credit) debit to results	33,315	1,417	1,663	179	36,574
Applications	(1,285)	(737)	(1,322)	(719)	(4,063)
Translation effects	267	(278)	(42)	2,847	2,794
Balance at December 31, 2019	$ 58,022	$ 960	$ 7,762	$ 8,460	$ 75,204
Current	$ 44,872	$ 810	$ 5,845	$ 864	$ 52,391
Non-current	13,150	150	1,917	7,596	22,813
Balance at December 31, 2019	$ 58,022	$ 960	$ 7,762	$ 8,460	$ 75,204

The provisions recognized are generated during the normal course of business and are common in the industry in which these business activities take place. Commercial, tax and labor lawsuits are recorded based on the opinion of the Entity's internal and external attorneys, these contingencies have a risk level of less than probable and higher than remote of resulting in unfavorable verdicts for the Entity. In any case, the Entity considers that these legal proceedings will not have an adverse material effect on its consolidated financial position.

Restructuring - Provisions are created based on the plans announced in the Entity to those that will be affected by it. It is expected that they will be created within a term of one to two years as of the date of their dissemination.

Guarantees - A provision is recognized for the products sold on the basis of the claims received and the historical data related to the costs of the warranty. The reserve amount covers an estimated five-year period, mainly in the Wavin operations.

Legal - Legal provisions referred to risks identified in the Entity. The majority of the cash outlays related to legal provisions are expected to occur within one to five years.

Other provisions - The other provisions are generated in the normal course of the business, and are expected to be disbursed within a term of one to five years.

19. Stockholders' equity

a. *Paid-in capital*

At December 31, 2019, 2018 and 2017, common stock is represented by 2,100,000,000 common, nominative shares with voting rights and at no par value, which have been fully paid-in. Fixed capital is represented by nominative Class I shares without withdrawal rights. Variable capital is represented by nominative Class II shares at no par value, which must not exceed 10 times the Entity's minimum fixed capital. At December 31, 2019, 2018 and 2017, the number of shares and amount of common stock are composed as follows:

	Number of shares	Amount
Capital subscribed-		
Class I	308,178,735	$ 37,598
Class II	1,791,821,265	218,884
	2,100,000,000	$ 256,482

Basic earnings per share are equal to the diluted earnings per share because the Entity does not have potential shares that may result in the dilution of earnings per share.

b. ***Buy-back shares program reserve***

At a Stockholders' Ordinary General Meeting held on April 23, 2019, the stockholders approved a partial cancellation of the repurchase fund balance which was not used from April 24, 2018 through April 22, 2019 of $335,379; similarly, the stockholders agreed to increase such reserve by $334,079 as the maximum amount of resources which the Entity may use to purchase its own shares or credit instruments representing such shares. Any related gain or loss is recorded in retained earnings. As of December 31, 2019, 2018 and 2017, the reserve balance was $295,530, $328,920 and $379,802, respectively; as of such dates, the Entity has 47,891,427; 25,138,352 and 1,936,477 of its own shares, respectively.

At a Shareholders' Ordinary General Meeting held on April 23, 2018, the partial cancellation of the balance of the repurchase fund that was not used during the period from April 26, 2017 to April 22, 2018 for $359,876 was approved; It was also agreed to increase said reserve by $376,154 as a maximum amount of resources that the Entity may allocate to the purchase of own shares or credit titles that represent said shares.

At a Stockholders' Ordinary General Meeting held on April 25, 2017, the stockholders approved a partial cancellation of the repurchase fund balance which was not used from April 28, 2016 through April 24, 2017 of $551,579; similarly, the stockholders agreed to increase such reserve by $385,000 as the maximum amount of resources which the Entity may use to purchase its own shares or credit instruments representing such shares.

c. ***Earned capital***

At a Stockholders' Ordinary General Meeting held on December 2, 2019, the stockholders approved the payment of a cash dividend of $180 million, applied to retained earnings and the net tax income account (CUFIN), payable in four installments during 2020.

At a Stockholders' Ordinary General Meeting held on November 26, 2018, the stockholders approved the payment of a cash dividend of $168 million, applied to retained earnings and the net tax income account (CUFIN), payable in four installments during 2019.

At a Stockholders' Ordinary General Meeting held on August 20, 2018, the stockholders approved the payment of a cash dividend of $150 million, applied to retained earnings and the net tax income account (CUFIN) generated before December 31, 2013, payable in four installments during 2019.

At a Stockholders' Ordinary General Meeting held on November 16, 2017, the stockholders approved the payment of a cash dividend of $147 million, applied to retained earnings and the net tax income account (CUFIN) generated before December 31, 2013, payable in four installments during 2018.

Stockholders' equity, except for restated paid-in capital and tax retained earnings will be subject to income tax payable by the Entity at the rate in effect upon distribution. Any tax paid on such distribution may be credited against annual and estimated income tax of the year in which the tax on dividends is paid and the following two fiscal years.

Retained earnings include the statutory legal reserve. In Mexico, the General Corporate Law requires that at least 5% of net income of the year be transferred to the legal reserve until the reserve equals 20% of capital stock at par value (historical pesos). The legal reserve may be capitalized but may not be distributed unless the entity is dissolved. The legal reserve must be replenished if it is reduced for any reason. At December 31, 2019, 2018 and 2017, it already represents 20% of the nominal capital stock in Mexican pesos and its amount amounts to $51,298 in each of the periods.

Dividends paid from profits generated as of January 1, 2014 to Mexican resident individuals and foreign residents may be subject to an additional 10% income tax, which must be withheld by the Entity.

The balances of the stockholders' equity tax accounts as of December 31, are:

	2019	2018	2017
Contributed capital account	$ 1,621,179	$ 1,507,554	$ 1,434,268
CUFIN	$ 331,764	$ 449,552	$ 510,691

20. Balances and transactions with related parties

a. Balances due from and payable to related parties are as follows:

	2019	2018	2017
Due from related parties:			
Pochteca Materias Primas, S.A. de C.V.	$ 3,645	$ 2,631	$ 1,221
Eternit Colombiana, S.A.	373	411	409
Mexalit Industrial S.A. de C.V.	-	-	135
Elementia Servicios Administrativos, S.A. de C.V.	720	1,760	117
Elementia, S.A. de C.V.	-	-	73
Others	19	569	238
	$ 4,757	$ 5,371	$ 2,193
Due to related parties:			
Kaluz, S.A. de C.V.	$ 99,655	$ 116,097	$ 63,756
Pochteca Materias Primas, S.A. de C.V.	538	319	335
Others	340	139	421
	$ 100,533	$ 116,555	$ 64,512

b. The Entity carried out the following transactions with related parties:

	2019	2018	2017
Revenues from -			
Sales	$ 6,163	$ 6,261	$ 6,057
Administrative services	3,056	3,330	998
	$ 9,219	$ 9,591	$ 7,055
Expenses from -			
Administrative services	$ 13,551	$ 10,495	$ 10,172
Purchases	1,723	2,768	1,968
Donations	-	1,178	-
Others	314	719	699
	$ 15,588	$ 15,160	$ 12,839

c. The compensation paid to management and other key members of management during the year was as follows:

	2019	2018	2017
Short-term benefits	$ 7,200	$ 7,556	$ 8,471
Terminated benefits	1,819	873	159
	$ 9,019	$ 8,429	$ 8,630

21. Cost of sales and operating expenses

a. ***Cost of sales***

	2019	2018	2017
Changes in inventories of finished goods and work in progress and raw materials and consumables used	$ 4,655,274	$ 4,874,434	$ 4,010,762
Depreciation	373,645	325,061	308,328
	$ 5,028,919	$ 5,199,495	$ 4,319,090

b. ***Selling and development expenses***

	2019	2018	2017
Salaries, wages and other benefits	$ 338,110	$ 330,818	$ 239,324
Repair and maintenance	8,970	7,310	5,211
External services	66,334	80,530	32,262
Lease	12,582	25,300	18,330
Advertising and marketing	31,172	16,715	23,605
Commissions on sales	38,082	35,764	21,755
Taxes and duties	2,449	2,726	1,973
Insurance	9,491	4,357	2,491
Allowance for doubtful accounts	11,441	4,390	11,889
Others	54,977	47,746	51,669
Depreciation	31,889	13,382	13,908
Amortization	19,204	19,113	15,776
	$ 624,701	$ 588,151	$ 438,193

c. ***Administrative expenses***

	2019	2018	2017
Salaries, wages and other benefits	$ 203,417	$ 204,027	$ 153,101
External services	81,457	52,056	42,479
Taxes and duties	9,397	10,241	5,649
Telephone	4,219	2,616	3,999
Repair and maintenance	21,061	20,452	19,932
Insurance	7,137	6,936	4,244

	2019	2018	2017
Lease	$ 7,786	$ 14,251	$ 6,039
Administrative services affiliates	13,551	10,495	10,172
Others	2,365	23,863	31,059
Depreciation	19,338	18,101	16,963
Amortization	98,106	86,075	42,837
	$ 467,834	$ 449,113	$ 336,474

d. *Other expenses (income)*

	2019	2018	2017
Expenses:			
Provision judgments	$ 30,172	$ 16,406	$ 18,169
Extraordinary taxes	3,433	939	7,099
Loss on sale of fixed assets	1,739	4,432	1,557
Insurance recoveries	42	443	2,530
Expenses related to acquisitions	4,329	5,001	11,814
Restructure	6,692	998	-
Donations	406	1,520	403
Other	-	303	5,556
	46,813	30,042	47,128
Income:			
Gain on sale of waste materials	(2,014)	-	(1,966)
Account receivable related to business interruption	-	-	(16,826)
Recovery of insurances	-	(3,479)	-
Others	(2,092)	-	(1,905)
	(4,106)	(3,479)	(20,697)
Other expenses, net	$ 42,707	$ 26,563	$ 26,431

22. Income taxes

ISR is based on tax profit, which differs from the profit reported in the consolidated statements of profit and loss and other comprehensive income (loss), due to prior year taxable revenue, expense, or deductible line items and items, which are never taxable or deductible. The Entity's liability for current income tax payable using the tax rates enacted or substantially enacted at the end of the reporting period in the countries in which the Entity and its subsidiaries operate.

a. *ISR*

The income tax rates applicable in 2019 in the countries where the Entity operates are as follows:

	%		%
Germany	34	Ireland	13
Argentina	35	Italy	24
Austria	25	Japan	30
Belgium	29	Latvia	15
Brazil	34	Lithuania	15
Bulgaria	10	Mexico	30
Canada	27	Nicaragua	30
China	25	Norway	23
Colombia	37	Oman	15

	%		%
Costa Rica	30	Panama	25
Croatia	20	Peru	30
Denmark	22	Poland	19
Ecuador	22	United Kingdom	19
El Salvador	30	Czech Republic	19
Slovakia	21	Republic of Serbia	15
United States of America	21	Romania	16
Estonia	20	Russia	20
Finland	20	South Africa	28
France	33	Switzerland	22
Guatemala	25	Switzerland	27
Holland	25	Taiwan	17
Honduras	25	Turkey	22
Hungary	9	Ukraine	18
India	34	Venezuela	34
Israel	23		

b. ***Deferred taxes***

At December 31, the main items comprising the liability balance of deferred income tax are as follows:

	2019	2018	2017
Property, plant and equipment	$ 477,631	$ 471,928	$ 429,778
Inventories	52	(350)	446
Liabilities deductible upon payment	(42,362)	(24,323)	(12,997)
Tax loss carry forwards	(330,341)	(335,846)	(445,246)
Intangible assets	101,173	121,974	66,040
Others	3,688	19,418	40,315
	209,841	252,801	78,336
Deferred tax - asset	125,649	95,879	152,883
Deferred tax - liability	$ 335,490	$ 348,680	$ 231,219

c. ***A reconciliation of beginning and ending amount of the net deferred tax liability is as follows:***

	2019	2018	2017
Beginning balance	$ 252,801	$ 78,336	$ 84,825
Income tax provision applied to results	(37,292)	(30,989)	66,525
Effect of assets and liabilities of acquired companies	-	188,848	-
Effect of foreign currency conversion	(2,540)	14,058	19,835
Discontinued operations	(129)	9,784	(68,271)
Effect on capital of other comprehensive income entries	(2,999)	(7,236)	(24,578)
	$ 209,841	$ 252,801	$ 78,336

a. ***Reconciliation of the legal and effective rates***

Taxes on income and the reconciliation of the legal and effective rates expressed in amounts and as a percentage of profit before income taxes are as follows:

	2019	%	2018	%	2017	%
Profit before income taxes	$ 532,551	24.76	$ 654,797	26.33	$ 534,808	30.47
Permanent items that modified the tax base:						
Accruable annual adjustment for inflation	104,668	4.86	165,162	6.65	148,190	8.44
Non-accruable income	(114,259)	(5.31)	(90,099)	(3.63)	(38,377)	(2.18)
Non-deductible items	61,876	2.86	93,354	3.76	38,466	2.19
Assets for tax losses not recognized formerly and loss not recognized, net	(296,225)	(13.76)	88,925	3.58	(5,981)	(0.34)
Effect of changes in tax rate	6,295	0.29	(84,625)	(3.41)	(38,817)	(2.21)
Basis of others to the profit	96,970	4.51	23,668	0.95	6,198	0.35
Dividends, fixed asset and other tax incentives	206,276	9.58	(9,717)	(0.39)	(56,161)	(3.19)
Foreign exchange tax and translation effect, net	181,152	8.42	(90,478)	(3.64)	3,837	0.21
Others	43,767	2.03	(12,447)	(0.50)	(8,997)	(0.51)
Total permanent items	290,520	13.48	83,743	3.37	48,358	2.76
Base profit for income taxes	$ 823,071	38.24	$ 738,540	29.73	$ 583,166	33.23
Current income tax	$ 242,834		$ 225,669		$ 111,166	
Deferred income tax	(37,292)		(30,989)		66,525	
Total tax	$ 205,542		$ 194,680		$ 177,691	
Effective rate	38.24%		29.73%		33.23%	
Average legal rate	24.76%		26.36%		30.47%	

The benefits of tax loss carry forwards, restated for inflation as permitted by tax law in certain countries, for which the deferred income tax asset has been partially recognized, may be recovered subject to certain requirements. The years of expiration of the tax losses and recoverable asset tax of the individual entities and their restated amounts as of December 31, 2019 are as follows:

Years of expiration	Tax loss carry forwards
2021	$ 886
2022	1,311
2023	14,496
2024	47,302
2025	265,569
2026	372,751
2027	85,774
2028	79
2029 and thereafter	22,483
Without expiration	559,700
	$ 1,370,351

23. Discontinued operations

a. On December 20, 2017, Orbia announced its decision to not reconstruct its VCM production capacity and discontinue such business, as well as all the assets and liabilities associated to Ethylene and the secondary services associated to VCM and Ethylene, treating such businesses as discontinued operations in its consolidated financial statements for the years 2019, 2018 and 2017.

b. ***Analysis of profits for the year from discontinued operations***

The combined results of the discontinued operations included in the statement of income and other items of comprehensive income are detailed below. The comparative profits and cash flows derived from the discontinued operations have been presented again to include the operations classified as discontinued in the current period.

		2019		2018		2017
Sales	$	414	$	-	$	18,727
Cost of sales		(140)				(36,772)
Other income (expenses), Net		(295)		32,613		(192,660)
Financial income, Net		95		-		(745)
Income tax expense (benefit)		(181)		(9,784)		68,271
Net income (loss) from discontinued operations	$	(107)	$	22,829	$	(143,179)

24. Operating lease arrangements

As of December 31, 2019, the Entity has contractual commitments for operating leases in the amount of $2,960. In 2018 and 2017, it had commitments for operating leases in the amount of $306,991, and $55,094, respectively, under IAS 17.

Maturities of contractual commitments at December 31, 2019, are as follows:

Years		Amount
2020	$	1,548
2021		594
2022		336
2023		266
2024 and thereafter		216
	$	2,960

Operating lease concept		Balance 2019		Balance 2018		Balance 2017
Buildings	$	-	$	179,678	$	23,798
Machinery and equipment		1,195		100,311		29,189
Furniture and office equipment		1,113		1,258		611
Transportation equipment		652		25,744		1,496
	$	2,960	$	306,991	$	55,094

25. Contingent liabilities

On September 25, 2018, Orbia's subsidiary, Netafim Irrigation Inc. (Netafim), a subsidiary in the United States of America of Netafim. LTD, became aware that on September 22, 2018 Jain Irrigation Inc., Irrigation Design & Construction LLC. (IDC) y Agri Valley Irrigation LLC. (AVI) (collectively, the "Jain Parties") filed in the Fresno Division of the Eastern District of California, U.S. District Court, a federal antitrust complaint against Netafim. The complaint essentially alleges that Netafim, along with other manufacturers and distributors, engaged in a group boycott of the "Jain Parties" in alleged violations of state and federal antitrust law. As of the issuance date of these consolidated financial statements and given the phase in which this procedure is in, it is not possible for the management of the Entity to estimate reliably the possible impacts on the Orbia's financial results, if any. Netafim is disputing the allegation of wrongdoing and will continue defending itself vigorously in this matter.

26. Information by industry segment

Segment information is presented according to the business group, which are grouped according to the vertical integration of their raw materials; the Entity's operating decisions are made based on such segmentation for purposes of assigning resources and assessing the performance of each segment.

The Entity's operating segments are included in the three business groups: Fluent, Fluor and Vinyl. The main goods of such segments are: piping and connections of PVC, polyethylene (PE) and polypropylene (PP), high-density polyethylene (HDPE) and geosynthetic, as well as fluorite, flour compounds, hydrofluoric acid, cooling gases and medical propellants, and finally resins and polyvinyl chloride compounds (PVC), among others.

Below is a summary of the most significant line items of the consolidated financial statements for each business group:

	December 31, 2019					
	Vinyl	Fluor	Fluent	Holding Entity	Eliminations	Consolidated
Net sales	$ 2,333,796	$ 805,187	$ 3,999,157	$ 136,220	$ (287,178)	$ 6,987,182
Cost of sales	1,900,166	434,244	2,841,437	-	(146,928)	5,028,919
Gross profit	433,630	370,943	1,157,720	136,220	(140,250)	1,958,263
General expenses	190,898	86,057	794,638	83,541	(19,892)	1,135,242
Other expenses (income) related parties	61,016	26,689	21,783	10,870	(120,358)	-
Exchange loss (gain), Net	3,851	1,692	20,509	(7,655)	-	18,397
Interest expense	38,069	4,329	135,727	204,168	(110,220)	272,073
Interest income	(4,617)	(12,013)	(7,026)	(100,759)	110,220	(14,195)
Change in fair value of redeemable non-controlling interest	-	-	18,488	-	-	18,488
Monetary position loss	-	-	(151)	-	-	(151)
Equity in income of subsidiaries and associated entities	(9,829)	(6,586)	(4,303)	(218,351)	234,927	(4,142)
Profit before income taxes	154,242	270,775	178,055	164,406	(234,927)	532,551
Income tax	46,976	108,942	92,303	(42,679)	-	205,542
Profit for the year from continuing operations	107,266	161,833	85,752	207,085	(234,927)	327,009
Discontinued operations	(502)	318	291	-	-	107
Consolidated net profit	$ 107,768	$ 161,515	$ 85,461	$ 207,085	$ (234,927)	$ 326,902

	December 31, 2018					
	Vinyl	Fluor	Fluent	Holding Entity	Eliminations	Consolidated
Net sales	$ 2,460,074	$ 837,383	$ 4,077,455	$ 28,978	$ (205,754)	$ 7,198,136
Cost of sales	1,940,591	445,017	2,989,189	-	(175,302)	5,199,495
Gross profit	519,483	392,366	1,088,266	28,978	(30,452)	1,998,641
General expenses	162,495	79,886	770,695	81,203	(30,452)	1,063,827
Other expenses (income) related parties	56,113	18,752	24,042	(99,468)	561	-
Exchange loss (gain), Net	9,235	446	39,069	(649)	(561)	47,540
Interest expense	40,881	4,583	126,440	191,018	(112,248)	250,674
Interest income	(7,130)	(9,908)	(9,275)	(105,782)	112,248	(19,847)
Change in fair value of redeemable non-controlling interest	-	-	18,593	-	-	18,593
Monetary position loss	-	-	(12,671)	-	-	(12,671)
Equity in income of subsidiaries and associated entities	(15,590)	(17)	(5,142)	(112,593)	129,070	(4,272)
Profit before income taxes	273,479	298,624	136,515	75,249	(129,070)	654,797
Income tax	63,451	66,613	49,307	15,309	-	194,680
Profit for the year from continuing operations	210,028	232,011	87,208	59,940	(129,070)	460,117
Discontinued operations	20,727	1,937	165	-	-	22,829
Consolidated net profit	$ 230,755	$ 233,948	$ 87,373	$ 59,940	$ (129,070)	$ 482,946

	December 31, 2017					
	Vinyl	Fluor	Fluent	Holding Entity	Eliminations	Consolidated
Net sales	$ 2,316,777	$ 680,860	$ 3,022,666	$ 25,461	$ (217,431)	$ 5,828,333
Cost of sales	1,852,703	411,711	2,244,231	-	(189,555)	4,319,090
Gross profit	464,074	269,149	778,435	25,461	(27,876)	1,509,243
General expenses	139,128	63,519	544,468	82,628	(28,645)	801,098
Other expenses (income) related parties	49,010	15,134	25,164	(89,308)	-	-
Exchange loss (gain), Net	19,752	5,241	26,642	(4,810)	769	47,594
Interest expense	44,060	5,685	47,462	146,653	(48,964)	194,896
Interest income	(2,561)	(7,022)	(12,961)	(44,665)	48,964	(18,245)
Monetary position loss	-	-	(48,723)	-	-	(48,723)
Equity in income of subsidiaries and associated entities	(8,721)	-	(2,089)	(183,643)	192,268	(2,185)
Equity in income of associated	223,406	186,592	198,472	118,606	(192,268)	534,808
Profit before income taxes						
	61,215	32,095	43,680	40,701	-	177,691
Income tax expense	162,191	154,497	154,792	77,905	(192,268)	357,117
Profit before discontinued operations	(142,052)	158	(1,285)	-	-	(143,179)
Discontinued operations						
Consolidated net profit	$ 20,139	$ 154,655	$ 153,507	$ 77,905	$ (192,268)	$ 213,938

The accounting policies of the segments being reported are the same as the accounting policies of the Entity described in Note 4. This represents the valuation reported to the officer who takes the operating decisions for purposes of distribution of resources and evaluation of the performance of the business group.

	December 31, 2019					
	Vinyl	Fluor	Fluent	Holding Entity	Eliminations	Consolidated
Current assets:						
Cash and cash equivalents	$ 192,898	$ 120,591	$ 264,572	$ 8,348	$ -	$ 586,409
Accounts receivable, Net	444,641	199,627	743,725	13,044	(49,009)	1,352,028
Other current assets	264,912	384,608	580,713	487,281	(812,932)	904,582
Assets classified as held for sale	1,254	3,870	3,972	-	-	9,096
Total current assets	903,705	708,696	1,592,982	508,673	(861,941)	2,852,115
Property, plant and equipment, Net	2,091,671	301,585	947,116	8,449	-	3,348,821
Other assets, Net	783,145	271,633	3,094,827	5,868,640	(6,162,100)	3,856,145
Total assets	$ 3,778,521	$ 1,281,914	$ 5,634,925	$ 6,385,762	$ (7,024,041)	$ 10,057,081
Current liabilities:						
Bank loans and current portion of long-term debt	$ 16,288	$ 16,287	$ 55,641	$ 234,130	$ -	$ 322,346
Suppliers and credit letters	674,527	42,101	542,275	4,699		1,263,602
Other current liabilities	515,017	89,553	589,526	653,015	(861,941)	985,170
Liabilities classified as held for sale	-	5,605	638	-	-	6,243
Total current liabilities	1,205,832	153,546	1,188,080	891,844	(861,941)	2,577,361
Bank loans and long-term debt	8,067	8,043	100,943	3,011,567	-	3,128,620
Other non-current liabilities	614,494	201,472	2,123,107	98,147	(1,780,531)	1,256,689
Total liabilities	1,828,393	363,061	3,412,130	4,001,558	(2,642,472)	6,962,670
Total stockholders' equity	$ 1,950,128	$ 918,853	$ 2,222,795	$ 2,384,204	$ (4,381,569)	$ 3,094,411

	December 31,2018					
	Vinyl	Fluor	Fluent	Holding Entity	Eliminations	Consolidated
Current assets:						
Cash and cash equivalents	$ 146,954	$ 204,760	$ 311,250	$ 36,914	$ -	$ 699,878
Accounts receivable, Net	428,156	171,592	752,167	(34,366)	-	1,317,549
Other current assets	307,170	358,471	603,598	563,633	(883,403)	949,469
Assets classified as held for sale	1,804	4,025	4,448	-	-	10,277
Total current assets	884,084	738,848	1,671,463	566,181	(883,403)	2,977,173
Property, plant and equipment, Net	2,210,676	296,822	995,457	4,431	-	3,507,386
Other assets, Net	671,963	169,260	2,957,129	4,943,716	(5,151,669)	3,590,399
Total assets	$ 3,766,723	$ 1,204,930	$ 5,624,049	$ 5,514,328	$ (6,035,072)	$ 10,074,958
Current liabilities:						
Bank loans and current portion of long-term debt	$ 15,594	$ 15,594	$ 81,858	$ 282,882	$ -	$ 395,928
Suppliers and credit letters	744,996	51,028	610,694	6,951	-	1,413,669
Other current liabilities	569,407	46,051	535,052	632,520	(891,663)	891,367
Liabilities classified as held for sale	-	6,375	648	-	-	7,023
Total current liabilities	1,329,997	119,048	1,228,252	922,353	(891,663)	2,707,987
Bank loans and long-term debt	74,244	23,212	78,549	2,999,492	-	3,175,497
Other non-current liabilities	362,861	173,587	2,129,593	32,836	(1,677,243)	1,021,634
Total liabilities	1,767,102	315,847	3,436,394	3,954,681	(2,568,906)	6,905,118
Total stockholders' equity	$ 1,999,621	$ 889,083	$ 2,187,655	$ 1,559,647	$ (3,466,166)	$ 3,169,840

	December 31, 2017					
	Vinyl	Fluor	Fluent	Holding Entity	Eliminations	Consolidated
Current assets:						
Cash and cash equivalents	$ 206,095	$ 128,948	$ 452,079	$ 1,112,718	$ -	$ 1,899,840
Accounts receivable, Net	704,729	141,465	483,800	-	-	1,329,994
Other current assets	234,242	347,628	434,175	396,854	(700,195)	712,704
Assets classified as held for sale	-	4,228	5,174	-	-	9,402
Total current assets	1,145,066	622,269	1,375,228	1,509,572	(700,195)	3,951,940
Property, plant and equipment, Net	2,324,173	297,276	1,001,806	3,240	-	3,626,495
Other assets, Net	631,008	156,407	1,488,975	4,927,867	(5,006,717)	2,197,540
Total assets	$ 4,100,247	$ 1,075,952	$ 3,866,009	$ 6,440,679	$ (5,706,912)	$ 9,775,975
Current liabilities:						
Bank loans and current portion of long-term debt	$ 15,553	$ 15,553	$ 14,316	$ -	$ -	$ 45,422
Suppliers and credit letters	832,668	51,970	468,279	9,149	-	1,362,066
Other current liabilities	494,709	37,633	399,701	482,112	(700,195)	713,960
Liabilities classified as held for sale	-	8,215	885	-	-	9,100
Total current liabilities	1,342,930	113,371	883181	491,261	(700,195)	2,130,548
Bank loans and long-term debt	89,664	38,624	631	3,081,025	-	3,209,944
Other non-current liabilities	470,507	184,747	636,941	107,431	(645,022)	754,604
Total liabilities	1,903,101	336,742	1,520,753	3,679,717	(1,345,217)	6,095,096
Total stockholders' equity	$ 2,197,146	$ 739,210	$ 2,345,256	$ 2,760,962	$ (4,361,695)	$ 3,680,879

Below other information shown by segment of business group consolidated financial statements:

	Depreciation and amortization			Additions to property, plant and equipment		
	2019	2018	2017	2019	2018	2017
Vinyl	$ 232,316	$ 200,252	$ 182,510	$ 71,038	$ 85,466	$ 146,028
Fluor	57,840	49,942	53,624	31,655	36,554	24,120
Fluent	248,874	209,547	150,978	115,790	110,106	74,953
Other	997	1,031	1,031	-	272	1,747
Holding Entity	2,156	960	9,669	5,154	1,954	2,149
	$ 542,183	$ 461,732	$ 397,812	$ 223,637	$ 234,352	$ 248,997

Below is the financial information classified by geographical area:

Country	Net sales from external customers			Property, plant and equipment, net		
	At December 31, 2019	At December 31, 2018	At December 31, 2017	At December 31, 2019	At December 31, 2018	At December 31, 2017
Mexico	$ 1,322,888	$ 1,346,734	$ 1,208,832	$ 711,745	$ 710,467	$ 724,621
Northwest Europe	1,237,309	1,259,820	1,171,420	337,934	315,178	340,596
U.S.A.	1,174,672	1,174,991	877,786	1,440,955	1,543,180	1,608,990
Southwest Europe	894,272	797,650	655,350	154,742	122,599	123,897
Colombia	542,218	523,286	494,081	201,350	214,522	233,569
AMEA	473,155	474,142	210,356	64,640	68,693	53,104
Brazil	367,811	361,978	348,499	83,725	86,483	103,558
Central and Eastern Europe	237,123	280,573	242,220	75,401	122,268	76,752
Southeast Europe	41,552	226,598	154,926	5,049	31,101	31,943
Central America	196,839	180,224	182,495	65,016	65,541	72,597
Other	100,097	176,997	83,179	16,574	24,152	51,771
Israel	175,598	167,913	-	103,602	93,386	-
Peru	128,144	116,910	70,201	51,038	54,106	56,772
Ecuador	95,357	107,754	97,894	36,651	39,238	44,060
Venezuela	147	2,566	31,094	399	16,472	104,265
Total	$ 6,987,182	$ 7,198,136	$ 5,828,333	$ 3,348,821	$ 3,507,386	$ 3,626,495

27. Authorization to issue the Consolidated Financial statements

The consolidated financial statements for the year ended December 31, 2017 were approved by the Audit Committee, Board of Directors and at the Stockholders' Ordinary Meeting on February 21 and 25 and April 28, 2018, respectively; those for the year ended December 31, 2018, were approved on February 25 and 26 and April 23, 2019, respectively. On February 24, 2020, the issuance of the accompanying consolidated financial statements for the year ended December 31, 2019 was authorized by Edgardo Carlos, Finance and Administration Director and by the Audit Committee; consequently, they do not reflect events occurred after that date and they are subject to the approval of the Entity's Board of Directors and Ordinary Stockholders' Meeting, where they may be modified, based on provisions set forth in the Mexican General Corporate Law.

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