UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 or 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of February, 2022

Commission File Number: 001-14946

CEMEX, S.A.B. de C.V.
(Translation of Registrant's name into English)

Avenida Ricardo Margáin Zozaya #325, Colonia Valle del Campestre,
San Pedro Garza García, Nuevo León 66265, México
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐

Contents

1. CEMEX, S.A.B. de C.V.'s (NYSE: CX) ("CEMEX") and its subsidiaries consolidated financial statements for the years ended December 31, 2021, 2020, and 2019.

2. CEMEX's individual financial statements for the years ended December 31, 2021, 2020 and 2019.

CEMEX's consolidated and individual financial statements are subject to approval by CEMEX's shareholders at the Ordinary Shareholders Meeting to be held on March 24, 2022.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, CEMEX, S.A.B. de C.V. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CEMEX, S.A.B. de C.V.
(Registrant)

Date: February 24, 2022

By: /s/ Rafael Garza Lozano
Name: Rafael Garza Lozano
Title: Chief Comptroller

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
1.	CEMEX, S.A.B. de C.V.’s (NYSE: CX) (“CEMEX”) and its subsidiaries consolidated financial statements for the years ended December 31, 2021, 2020, and 2019, subject to approval by CEMEX’s shareholders at the Ordinary Shareholders Meeting to be held on March 24, 2022.
2.	CEMEX’s individual financial statements for the years ended December 31, 2021, 2020 and 2019, subject to approval by CEMEX’s shareholders at the Ordinary Shareholders Meeting to be held on March 24, 2022.

Exhibit 1

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES

Consolidated Financial Statements

December 31, 2021, 2020 and 2019

(With Independent Auditor’s Report Thereon)

INDEX TO AUDITED CONSOLIDATED FINANCIAL STATEMENTS

CEMEX, S.A.B. de C.V. and Subsidiaries:

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES
Consolidated Statements of Operations
(Millions of U.S. dollars, except for earnings per share)

	Notes	Years ended December 31, 2021	2020	2019
Revenues	**4**	$14,548	12,814	12,959
Cost of sales	**3.17, 6**	(9,875)	(8,692)	(8,714)
Gross profit		**4,673**	**4,122**	**4,245**
Operating expenses	**3.17, 7**	(2,939)	(2,811)	(2,946)
Operating earnings before other expenses, net	**3.1**	**1,734**	**1,311**	**1,299**
Other expenses, net	**8**	(116)	(1,767)	(334)
Operating earnings (loss)		**1,618**	**(456)**	**965**
Financial expense	**9.1, 18**	(662)	(777)	(711)
Financial income and other items, net	**9.2**	(78)	(118)	(65)
Share of profit of equity accounted investees	**15.1**	54	49	49
Earnings (loss) before income tax		**932**	**(1,302)**	**238**
Income tax	**21**	(144)	(45)	(157)
Net income (loss) from continuing operations		**788**	**(1,347)**	**81**
Discontinued operations	**5.2**	(10)	(99)	98
CONSOLIDATED NET INCOME (LOSS)		**778**	**(1,446)**	**179**
Non-controlling interest net income	**22.4**	25	21	36
CONTROLLING INTEREST NET INCOME (LOSS)		**$ 753**	**(1,467)**	**143**
Basic earnings (loss) per share	**24**	$0.0171	(0.0332)	0.0031
Basic earnings (loss) per share from continuing operations	**24**	$0.0173	(0.0310)	0.0010
Diluted earnings (loss) per share	**24**	$0.0168	(0.0332)	0.0031
Diluted earnings (loss) per share from continuing operations	**24**	$0.0170	(0.0310)	0.0010

The accompanying notes are part of these consolidated financial statements.

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES
Consolidated Statements of Comprehensive Income (Loss)
(Millions of U.S. dollars)

		Years ended December 31,		
	Notes	**2021**	**2020**	**2019**
CONSOLIDATED NET INCOME (LOSS)		**$ 778**	**(1,446)**	**179**
Items that will not be reclassified subsequently to the statement of operations				
Net actuarial gains (losses) from remeasurements of defined benefit pension plans	**20**	263	(199)	(210)
Effects from strategic equity investments	**15.2**	(9)	(11)	(8)
Income tax recognized directly in other comprehensive income	**21**	(26)	41	29
Items that are or may be reclassified subsequently to the statement of operations		228	(169)	(189)
Derivative financial instruments designated as cash flow hedges	**18.4**	60	(5)	(137)
Currency translation results of foreign subsidiaries	**22.2**	(400)	(193)	60
Income tax recognized directly in other comprehensive income	**21**	70	19	49
		(270)	(179)	(28)
Total items of other comprehensive income, net		(42)	(348)	(217)
TOTAL COMPREHENSIVE INCOME (LOSS)		**736**	**(1,794)**	**(38)**
Non-controlling interest comprehensive income (loss)		14	(181)	(69)
CONTROLLING INTEREST COMPREHENSIVE INCOME (LOSS)		**$ 722**	**(1,613)**	**31**

The accompanying notes are part of these consolidated financial statements.

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES
Consolidated Statements of Financial Position
(Millions of U.S. dollars)

	Notes	December 31, 2021	December 31, 2020
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	**10**	$ 613	950
Trade accounts receivable	**11**	1,521	1,533
Other accounts receivable	**12**	558	477
Inventories	**13**	1,261	971
Assets held for sale	**14.1**	141	187
Other current assets	**14.2**	131	117
Total current assets		4,225	4,235
NON-CURRENT ASSETS			
Equity accounted investees	**15.1**	535	510
Other investments and non-current accounts receivable	**15.2**	243	275
Property, machinery and equipment, net and assets for the right-of-use, net	**16**	11,322	11,413
Goodwill and intangible assets, net	**17**	9,763	10,252
Deferred income tax assets	**21.2**	562	740
Total non-current assets		22,425	23,190
TOTAL ASSETS		**$26,650**	**27,425**
LIABILITIES AND STOCKHOLDERS' EQUITY			
CURRENT LIABILITIES			
Current debt	**18.1**	$ 73	179
Other financial obligations	**18.2**	867	879
Trade payables		2,762	2,571
Income tax payable		437	445
Other current liabilities	**19.1**	1,202	1,272
Liabilities directly related to assets held for sale	**14.1**	39	6
Total current liabilities		5,380	5,352
NON-CURRENT LIABILITIES			
Non-current debt	**18.1**	7,306	9,160
Other financial obligations	**18.2**	911	967
Employee benefits	**20**	999	1,339
Deferred income tax liabilities	**21.2**	485	658
Other non-current liabilities	**19.2**	1,298	997
Total non-current liabilities		10,999	13,121
TOTAL LIABILITIES		**16,379**	**18,473**
STOCKHOLDERS' EQUITY			
Controlling interest:			
Common stock and additional paid-in capital	**22.1**	7,810	7,893
Other equity reserves and subordinated notes	**22.2**	(1,371)	(2,453)
Retained earnings	**22.3**	3,388	2,635
Total controlling interest		9,827	8,075
Non-controlling interest and perpetual debentures	**22.4**	444	877
TOTAL STOCKHOLDERS' EQUITY		**10,271**	**8,952**
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		**$26,650**	**27,425**

The accompanying notes are part of these consolidated financial statements.

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES
Consolidated Statements of Cash Flows
(Millions of U.S. dollars)

	Notes	Years ended December 31, 2021	2020	2019
OPERATING ACTIVITIES				
Consolidated net income (loss)		$ **778**	**(1,446)**	**179**
Discontinued operations		(10)	(99)	98
Net income (loss) from continuing operations		788	(1,347)	81
Adjustments for:		(600)	—	—
Gain on sale of emission allowances	**3.19, 8**			
Depreciation and amortization of assets	**6, 7**	1,127	1,110	1,039
Impairment losses of longed-lived assets	**8**	536	1,520	64
Share of profit of equity accounted investees	**15.1**	(54)	(49)	(49)
Results on sale of subsidiaries, other disposal groups and others		(21)	(4)	(49)
Financial expense, financial income and other items, net		740	895	776
Income taxes	**21**	144	45	157
Changes in working capital, excluding income taxes		(143)	198	98
Cash flows provided by operating activities from continuing operations		**2,517**	**2,368**	**2,117**
Interest paid		(524)	(679)	(665)
Income taxes paid		(170)	(124)	(168)
Net cash flows provided by operating activities from continuing operations		1,823	1,565	1,284
Net cash flows provided by operating activities from discontinued operations		32	48	71
Net cash flows provided by operating activities		**1,855**	**1,613**	**1,355**
INVESTING ACTIVITIES				
Purchase of property, machinery and equipment, net	**16**	(801)	(536)	(651)
Disposal of subsidiaries and other disposal groups, net	**5, 15.1**	122	628	500
Sale of emission allowances	**3.19, 8**	600	—	—
Intangible assets	**17**	(192)	(53)	(116)
Non-current assets and others, net		(10)	50	5
Cash flows provided by (used in) investing activities from continuing operations		(281)	89	(262)
Net cash flows used in investing activities from discontinued operations		(4)	—	—
Net cash flows provided by (used in) investing activities		**(285)**	**89**	**(262)**
FINANCING ACTIVITIES				
Proceeds from new debt instruments	**18.1**	3,960	4,210	3,331
Debt repayments	**18.1**	(5,897)	(4,572)	(3,284)
Issuance of subordinated notes	**22.2**	994	—	—
Other financial obligations, net	**18.2**	(313)	(794)	(233)
Shares repurchase program	**22.1**	—	(83)	(50)
Changes in non-controlling interests and repayment of perpetual debentures	**22.4**	(447)	(105)	(31)
Derivative financial instruments		(41)	12	(56)
Securitization of trade receivables		25	(26)	(6)
Dividends paid and coupons on perpetual debentures and subordinated notes	**22.1, 22.2, 22.4**	(24)	(24)	(179)
Non-current liabilities, net		(109)	(138)	(96)
Net cash flows used in financing activities		**(1,852)**	**(1,520)**	**(604)**
Increase (decrease) in cash and cash equivalents from continuing operations		(310)	134	418
Increase in cash and cash equivalents from discontinued operations		28	48	71
Foreign currency translation effect on cash		(55)	(20)	(10)
Cash and cash equivalents at beginning of period		950	788	309
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**10**	$ **613**	**950**	**788**
Changes in working capital, excluding income taxes:				
Trade receivables		$ (20)	25	(8)
Other accounts receivable and other assets		94	(22)	33
Inventories		(341)	24	96
Trade payables		290	20	(41)
Other accounts payable and accrued expenses		(166)	151	18
Changes in working capital, excluding income taxes		$ **(143)**	**198**	**98**

The accompanying notes are part of these consolidated financial statements.

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES
Statements of Changes in Stockholders' Equity
(Millions of U.S. dollars)

	Notes	Common stock	Additional paid-in capital	Other equity reserves and subordinated notes	Retained earnings	Total controlling interest	Non-controlling interest	Total stockholders' equity
Balance as of January 1, 2018		**$ 318**	**10,013**	**(2,472)**	**1,622**	**9,481**	**1,572**	**11,053**
Effects from adoption of IFRIC 23		—	—	—	6	6	—	6
Balance as of January 1, 2019		**318**	**10,013**	**(2,472)**	**1,628**	**9,487**	**1,572**	**11,059**
Net income for the period		—	—	—	143	143	36	179
Other comprehensive income (loss) for the period		—	—	(112)	—	(112)	(105)	(217)
Total other comprehensive income (loss) for the period	**22.2**	—	—	(112)	143	31	(69)	(38)
Dividends	**22.1**	—	—	—	(150)	(150)	—	(150)
Effects of mandatorily convertible securities		—	151	(151)	—	—	—	—
Own shares purchased under share repurchase program	**22.1**	—	(75)	25	—	(50)	—	(50)
Share-based compensation	**23**	—	17	15	—	32	—	32
Coupons paid on perpetual debentures	**22.4**	—	—	(29)	—	(29)	—	(29)
Balance as of December 31, 2019		**318**	**10,106**	**(2,724)**	**1,621**	**9,321**	**1,503**	**10,824**
Net loss for the period		—	—	—	(1,467)	(1,467)	21	(1,446)
Other comprehensive income (loss) for the period		—	—	(146)	—	(146)	(202)	(348)
Total of other comprehensive income (loss) for the period	**22.2**	—	—	(146)	(1,467)	(1,613)	(181)	(1,794)
Own shares purchased under share repurchase program	**22.1**	—	(50)	(33)	—	(83)	—	(83)
Restitution of retained earnings	**22.3**	—	(2,481)	—	2,481	—	—	—
Changes in non-controlling interest	**22.4**	—	—	445	—	445	(445)	—
Share-based compensation	**23**	—	—	29	—	29	—	29
Coupons paid on perpetual debentures	**22.4**	—	—	(24)	—	(24)	—	(24)
Balance as of December 31, 2020		**318**	**7,575**	**(2,453)**	**2,635**	**8,075**	**877**	**8,952**
Net income for the period		—	—	—	753	753	25	778
Other comprehensive income (loss) for the period		—	—	(31)	—	(31)	(11)	(42)
Total of other comprehensive income (loss) for the period	**22.2**	—	—	(31)	753	722	14	736
Own shares purchased under share repurchase program	**22.1**	—	(83)	83	—	—	—	—
Issuance of subordinated notes	**22.2**	—	—	994	—	994	—	994
Changes in non-controlling interest and repayment of perpetual debentures	**22.4**	—	—	—	—	—	(447)	(447)
Share-based compensation	**23**	—	—	77	—	77	—	77
Coupons paid on perpetual debentures and subordinated notes	**22.2, 22.4**	—	—	(41)	—	(41)	—	(41)
Balance as of December 31, 2021		**$ 318**	**7,492**	**(1,371)**	**3,388**	**9,827**	**444**	**10,271**

The accompanying notes are part of these consolidated financial statements.

1) DESCRIPTION OF BUSINESS

CEMEX, S.A.B. de C.V., entity that started doing business in 1906, is a publicly traded variable stock corporation *(Sociedad Anónima Bursátil de Capital Variable)* organized under the laws of the United Mexican States, or Mexico, and is a holding company (parent) of entities whose main activities are oriented to the construction industry, through the production, marketing, sale and distribution of cement, ready-mix concrete, aggregates and other construction materials and services, including urbanization solutions. In addition, CEMEX, S.A.B. de C.V. performs significant business and operational activities in Mexico.

The shares of CEMEX, S.A.B. de C.V. are listed on the Mexican Stock Exchange ("MSE") as Ordinary Participation Certificates ("CPOs") (*Certificados de Participación Ordinaria*) under the symbol "CEMEXCPO". Each CPO represents two series "A" shares and one series "B" share of common stock of CEMEX, S.A.B. de C.V. In addition, CEMEX, S.A.B. de C.V.'s shares are listed on the New York Stock Exchange ("NYSE") as *American Depositary Shares* ("ADSs") under the symbol "CX." Each ADS represents ten CPOs.

The terms "CEMEX, S.A.B. de C.V." and/or the "Parent Company" used in these accompanying notes to the financial statements refer to CEMEX, S.A.B. de C.V. without its consolidated subsidiaries. The terms the "Company" or "CEMEX" refer to CEMEX, S.A.B. de C.V. together with its consolidated subsidiaries.

The issuance of these consolidated financial statements was authorized by the Board of Directors of CEMEX, S.A.B. de C.V. on February 3, 2022 considering the favorable recommendation of its Audit Committee. These financial statements will be submitted for approval to the Annual General Ordinary Shareholders' Meeting of the Parent Company on March 24, 2022.

2) RELEVANT EVENT DURING THE PERIOD AND AS OF THE ISSUANCE DATE OF THE FINANCIAL STATEMENTS

COVID-19 Pandemic

As of December 31, 2021, the outbreak of the Coronavirus SARS-CoV-2 and its strains that causes the disease known as COVID-19, declared as a pandemic by the World Health Organization on March 11, 2020 (the "COVID-19 Pandemic"), continued to affect the Company's operations in various aspects. During the year ended December 30, 2021, in general, the restrictive and confinement measures to contain the spread of the pandemic that affected the construction industry in the countries where the Company operates were not so significant. Conversely, in 2020, mainly during the second quarter, the impact caused by the pandemic on the Company's results was very significant, primarily attributable to the restrictive and confinement measures in effect from the middle of March 2020, much of the second quarter of 2020, and in some cases also during the third quarter of 2020. The recovery of the economic activity in general, and of the construction sector in particular, in most of the countries where the Company operates was very significant during the first half of 2021, however the recovery started to slow down during the third and fourth quarters of 2021. As of December 31, 2021, to a lesser degree than in 2020, the Company continues to be affected by the COVID-19 Pandemic, mainly by the closing of several corporate offices and certain production slowdowns or stoppages and disruptions in the delivery systems, as well as disruptions or delays in the supply chains.

From the beginning of the COVID-19 Pandemic and abiding by official dispositions in the countries in which CEMEX operates, CEMEX implemented strict hygiene, sanitary, and security measures guidelines in all its operations and modified its manufacturing, selling and distributions processes to assure physical distancing, aiming to protect the health and safety of its employees and their families, customers and communities. In this respect, for the years 2021 and 2020, since the start of the COVID-19 Pandemic, CEMEX has identified certain incremental costs and expenses associated with implementing and maintaining these measures of $26 and $48, respectively (note 8).

According to the measures implemented in each case by the local authorities, CEMEX's most important segments were affected as follows:

- In Mexico, the lockdown measures in place from the third week of March until May 13, 2020, except for certain sectors and construction activities of public works designated as essential by the government during the COVID-19 Pandemic, significantly impacted the economic activity in general and the Company's results. Beginning on May 14, 2020 the reopening of social, educational and economic activities was allowed. Therefore, companies dedicated to construction and mining industry activities were able to resume full operations as long they complied with the applicable health and safety protocols and guidelines established by the government. As of December 31, 2021 no additional official decrees were issued requiring the construction industry in Mexico to halt all or part of its operations.
- In the United States of America (the "United States"), except for a few ready-mix concrete plants in the San Francisco area that were temporarily shut down during part of 2020, all sites that were operational before the COVID-19 Pandemic have remained active. During November and December of 2020, certain states in the United States continued to implement certain degrees of lockdowns, which had an impact on the Company's operations and demand for its products and services. The main negative impacts from the COVID-19 Pandemic in the United States during 2021 and 2020 have been related to the shortage of freight services by reduced drivers and bottlenecks in certain maritime docks and distribution centers which have increased the costs of logistics, supplies, raw materials and fuels, among others.
- In CEMEX's Europe, Middle East, Africa and Asia ("EMEAA") region, the main effects were experienced in Spain, the Philippines and the United Arab Emirates, where operations either operated on a limited basis or were temporarily halted during portions of 2020. However, CEMEX's operations in the EMEAA region in general were not halted in 2021 and 2020. Other countries have experienced negative effects on the market side, with drops in demand resulting in temporary site closures. During November and December of 2020, certain countries like France, Germany and the United Kingdom implemented certain degrees of lockdowns, which affected the operations and demand for CEMEX's products and services. CEMEX's operations in the United Kingdom and other regions in Europe have also been significantly affected by the shortage of drivers which have increased the costs of logistics, supplies, raw materials and fuels, among others.

COVID-19 Pandemic – continued

- In most of CEMEX's South America, Central America and Caribbean ("SCA&C") region, considering governmental requirements, the Company's operations were temporarily affected in 2020. In Colombia, CEMEX temporarily halted production and related activities beginning on March 25, 2020, partially resuming from April 13 to April 27, 2020 to attend to certain allowed needs and beginning on April 27, 2020 the supply of material and supplies for infrastructure works, public works and general construction was permitted. In Panama, the closing of the Company's operations was initially effective from March 25, 2020 through May 24, 2020, partially resuming for certain approved activities and finally, on September 4, 2020, the supply for construction works in general was allowed. In Trinidad and Tobago and Barbados operations were temporarily halted from the last week of March until May 14, 2020. There were no significant lockdowns in 2021 in the SCA&C region. Nonetheless, the COVID-19 Pandemic continues to affect several supply chains and has generated increases in fuels and transportation costs.

During the year ended December 31, 2021, the Company's revenues increased 14% compared to the previous year. This increase in revenues was generated considering certain general economic recovery during 2021, and by the significant reduction in sales volumes during 2020 resulting from the aforementioned adverse effects of the COVID-19 Pandemic. The increase in revenues was partially offset by increases in costs of raw materials, fuels and transportation in the main countries in which CEMEX operates. However, these increases in costs were partially offset considering the measures implemented by the Company for the reduction and control of its operating costs and expenses. Considering the above, as well as the sale of CO2 emission allowances of $600 in 2021 (note 8) and the reduction in asset impairment losses from $ 1,520 in 2020 to $536 in 2021 described in the following paragraph, operating earnings increased from operating losses of $456 in 2020 to operating earnings of $1,618 in 2021. Moreover, during the year ended December 31, 2021, CEMEX's Operating EBITDA (operating earnings before other expenses, net, plus depreciation and amortization (note 3.1)) increased 18.1% from $2,421 in 2020 to $2,861 in 2021.

Considering in 2021 and 2020 the negative effects of the pandemic and its impact on the valuation of the Company's assets and the future operating plans of certain assets, CEMEX recognized non-cash impairment losses related to goodwill and other intangible assets in 2021 and idle assets, operating permits and goodwill in 2020 for aggregate amounts of $536 and $1,520, respectively (note 8). The Company considers that, taking into account that even with more persons being vaccinated around the world, the pandemic is still ongoing and new strains have caused infection numbers to grow as the negative impacts of such pandemic could remain and there would not be a significant global economic recovery, thus the significant negative effects occurred during 2021 and 2020 could be repeated in the future mainly in connection with: (i) increases in estimated credit losses on trade accounts receivable (note 11); as well as (ii) impairment of long-lived assets including goodwill (notes 16.1 and 17.1). The most relevant aspects regarding the potential negative effects mentioned above as of the date of approval of these consolidated financial statements as of December 31, 2021 are disclosed in the explanatory notes.

The degree to which the COVID-19 Pandemic would affect again the Company's liquidity, financial situation and results of operations will depend on the evolution of future developments that are highly uncertain, including among these, the duration and spread of the pandemic, its severity, the spread of even more infectious strains of the virus, the actions, in particular measures ordered by governments, to contain the virus or treat its impact and how fast and to which extent the economic and operational conditions can return, within a new normality with limited activities, until more effective vaccination initiatives are put in place in more countries around the world and how willing of the world's population is to receive the vaccines. In the countries where the Company operates, vaccination against COVID-19 generally maintained a positive rhythm in 2021 due to the availability of vaccines, which has helped to contain the level of outbreaks and severity of infections. The Company's management carries out proactive efforts with the authorities in each country to facilitate to the extent possible the vaccination of its employees and their families in order to mitigate the potential risk in the operation that could be affected by future waves of contagion.

During 2020, CEMEX dealt with liquidity risks during the deepest phase of suspension of activities within the COVID-19 Pandemic, maintaining sufficient cash, to the extent possible, through obtaining financing in the bonds market and with commercial banks. From March through September 2020, CEMEX issued notes, negotiated new loans and borrowed from its committed lines of credit a total of $3,478, of which, as of December 31, 2020 an aggregate of $2,785 had been repaid. In addition, CEMEX, S.A.B. de C.V. suspended its share repurchase program and did not pay dividends during 2021 and 2020. During 2021, CEMEX significantly continued to improve its capital structure seeking to reach an investment grade from rating agencies using cash flows provided by operations and the sale of assets to pay down debt and through the issuance on June 8, 2021 of $1,000 of its subordinated notes with no fixed maturity (note 22.2), proceeds that were applied fully to the repayment of debt. Furthermore, on October 29, 2021, CEMEX closed a new $3,250 syndicated sustainability-linked credit agreement (the "2021 Credit Agreement"), under terms consistent with an investment grade capital structure, and used a portion of the proceeds to fully repay its previous 2017 Facilities Agreement, as amended several times (note 18.1). In addition, on December 23, 2021, CEMEX closed a new credit agreement for the Mexican peso equivalent of $250 (the "2021 Pesos Credit Agreement"), under terms substantially similar to those of the 2021 Credit Agreement. The Company projects it will continue to generate sufficient cash flows from operations, which would enable the Company to meet its current obligations. Moreover, as of December 31, 2021, CEMEX had $1,750 available on its committed revolving line of credit under the 2021 Credit Agreement (note 18.1).

Other measures that contributed to easing liquidity risks that were applied beginning on April 8, 2020 and that were maintained in 2021 are as follows: a) all non-critical capital expenditures or not associated with the management of the COVID-19 Pandemic were streamlined; b) operating expenses were also streamlined strictly according to the Company's markets evolution and demand; c) the Company's production was adjusted, to the extent permitted by quarantine measures, only to supply the volume of products required by the markets; and, d) all activities not related to managing basic operations were suspended.

3) SIGNIFICANT ACCOUNTING POLICIES

3.1) BASIS OF PRESENTATION AND DISCLOSURE

The consolidated financial statements as of December 31, 2021 and 2020 and for the years ended December 31, 2021, 2020 and 2019, were prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Presentation currency and definition of terms

The consolidated financial statements and the accompanying notes are presented in dollars of the United States of America ("United States"), except when specific reference is made to a different currency. When reference is made to U.S. dollars or "$" it means dollars of the United States. All amounts in the financial statements and the accompanying notes are stated in millions, except when references are made to earnings per share and/or prices per share. When reference is made to "Ps" or "pesos", it means Mexican pesos. When reference is made to "€" or "euros," it means the currency in circulation in a significant number of European Union ("EU") countries. When reference is made to "£" or "pounds", it means British pounds sterling. When it is deemed relevant, certain amounts in foreign currency presented in the notes to the financial statements include between parentheses a convenience translation into dollars and/or into pesos, as applicable. Previously reported convenience translations of prior years are not restated unless the transaction is still outstanding, in which case those are restated using the closing exchange rates as of the reporting date. These translations should not be construed as representations that the amounts in dollars or pesos, as applicable, represent those dollar or peso amounts or could be converted into dollar or peso at the rate indicated.

Amounts disclosed in the notes in connection with outstanding tax and/or legal proceedings (notes 21.4 and 26), which are originated in jurisdictions where currencies are different from the dollar, are presented in dollar equivalents as of the closing of the most recent year presented. Consequently, without any change in the original currency, such dollar amounts will fluctuate over time due to changes in exchange rates.

Discontinued operations (note 5.2)

Considering the disposal of entire reportable operating segments as well as the sale of significant businesses, CEMEX's Statements of Operations present in the single line item of "Discontinued operations," the results of: a) the operating segments in Costa Rica and El Salvador for the years 2021, 2020 and 2019; b) the white cement business sold in Spain for the period from January 1 to July 9, 2021 and for the years 2020 and 2019; c) the assets sold in the United Kingdom for the period from January 1 to August 3, 2020 and for the year 2019; d) the assets sold in the United States for the period from January 1 to March 3, 2020 and for the year 2019; e) the French assets sold for the period from January 1 to June 28, 2019; f) the German assets sold for the period from January 1 to May 31, 2019; and g) the Baltic and Nordic businesses sold for the period from January 1 to March 29, 2019.

Statements of operations

CEMEX includes the line item titled "Operating earnings before other expenses, net" considering that it is a relevant operating measure for CEMEX's management. The line item "Other expenses, net" consists primarily of revenues and expenses not directly related to CEMEX's main activities or which are of a non-recurring nature, including impairment losses of long-lived assets, non-recurring sales of emission allowances (note 3.19), results on disposal of assets and restructuring costs, among others (note 8). Under IFRS, the inclusion of certain subtotals such as "Operating earnings before other expenses, net" and the display of the statement of operations vary significantly by industry and company according to specific needs.

Considering that it is an indicator of CEMEX's ability to internally fund capital expenditures and to measure its ability to service or incur debt under financing agreements, for purposes of notes 5.3 and 18, CEMEX presents "Operating EBITDA" (operating earnings before other expenses, net, plus depreciation and amortization). This is not an indicator of CEMEX's financial performance, an alternative to cash flows, a measure of liquidity or comparable to other similarly titled measures of other companies. In addition, this indicator is used by CEMEX's management for decision-making purposes.

Statements of cash flows

The statements of cash flows exclude the following transactions that did not represent sources or uses of cash:

Financing activities:

- In 2021, 2020 and 2019, the increases in other financing obligations in connection with lease contracts negotiated during the year for $227, $213 and $274, respectively (note 18.2); and
- In 2019, in connection with the CPOs issued as part of the executive share-based compensation programs (note 23), the total increases in equity of $17.

Investing activities:

- In 2021, 2020 and 2019, in connection with the leases negotiated during the year, the increases in assets for the right-of-use related to lease contracts for $227, $213 and $274, respectively (note 16.2).

(Millions of U.S. dollars)

Basis of presentation and disclosure – continued

Newly issued IFRS adopted in the reported periods

Beginning January 1, 2021, CEMEX adopted prospectively standard amendments that did not result in any material impact on its results or financial position, and which are explained as follows:

Standard	Main topic
Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16, phases 1 and 2 - *The Reform of the Reference Interest Rates*	Beginning January 1, 2021, the amendments refer to the replacement of the Interbank Reference Rates (IBOR) and provide temporary relief in several aspects, such as hedge accounting, when an IBOR rate is replacement by an alternative nearly risk-free rate (PFR) (see note 18.5).

3.2) PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include those of CEMEX, S.A.B. de C.V. and those of the entities over which the Parent Company exercises control, including structured entities (special purpose entities), by means of which the Parent Company, directly or indirectly, is exposed, or has rights, to variable returns from its involvement with the investee, and has the ability to affect those returns through its power over the investee's relevant activities. Balances and operations between related parties are eliminated in consolidation.

Investments are accounted for by the equity method when CEMEX has significant influence which is generally presumed with a minimum equity interest of 20%. The equity method reflects the investee's original cost and CEMEX's share of the investee's equity and earnings after acquisition. The financial statements of joint ventures, which relate to those arrangements in which CEMEX and other third-party investors have joint control and have rights to the net assets of the arrangements, are recognized under the equity method. During the reported periods, CEMEX did not have joint operations, referring to those cases in which the parties that have joint control of the arrangement have rights over specific assets and obligations for specific liabilities relating to the arrangements. The equity method is discontinued when the carrying amount of the investment, including any long-term interest in the investee or joint venture, is reduced to zero, unless CEMEX has incurred or guaranteed additional obligations of the investee or joint venture.

3.3) USE OF ESTIMATES AND CRITICAL ASSUMPTIONS

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenues and expenses during the period. These assumptions are reviewed on an ongoing basis using available information. Actual results could differ from these estimates. The items subject to significant estimates and assumptions by management include impairment tests of long-lived assets, recognition of deferred income tax assets and uncertain tax positions, the measurement of financial instruments at fair value, the assets and liabilities related to employee benefits, legal proceedings and provisions regarding assets retirements obligations and environmental liabilities. Significant judgment is required by management to appropriately assess the amounts of these concepts.

3.4) CLIMATE CHANGE AND COMMITMENTS FOR THE REDUCTION OF CARBON DIOXIDE ("CO_2") EMISSIONS

The cement industry releases CO_2 as part of the production process, mainly during the calcination of limestone, as well as CO_2 released through the use of fossil fuels in the kilns. It is estimated that currently the whole cement industry releases between 5% to 7% (unaudited) of global CO_2 emissions per year. In CEMEX, from approximately 50 million tons (unaudited) of gross CO_2 emissions per year, 60% (unaudited) are directly related to the production process (Scope 1), 20% (unaudited) are indirect emissions from electricity consumption (Scope 2) and the remaining 20% (unaudited) arise from activities of supply and transportation (Scope 3). CEMEX has an agenda of medium-term and long-term initiatives aiming at significantly reduce its CO_2 emissions in order to align the Company's efforts with the Paris Agreement objectives of limiting global warming to well-below 2ºC above pre-industrial levels and pursuing efforts to limit the temperature increase even further to 1.5 degrees Celsius. In 2021, CEMEX enhanced its goals by redefining its medium-term and long-term targets, which are mainly: 1) a 35% (unaudited) reduction in CO_2 emissions by 2025 and reaching a reduction greater than 40% (unaudited) by 2030, compared to its 1990 baseline in Scope 1 emissions; 2) achieve a 42% (unaudited) reduction in Scope 2 emissions by 2030 compared to a 2020 baseline, which represents reaching a 55% (unaudited) clean electricity consumption; and 3) delivery of net-zero CO_2 concrete for all geographies by 2050. CEMEX's targets for its cement business were verified by the Science-Based Targets initiative ("SBTi") to be in line with the well-below 2ºC scenario. SBTi, the foremost authority on science-based climate action goals, drives ambitious climate action in the private sector by enabling companies to set science-based emissions reductions targets. During 2021, CEMEX also signed its commitment to the Business Ambition for 1.5 Degrees program of the We Mean Business Coalition, establishing that CEMEX's future CO_2 reduction targets beyond 2030 will be aligned to the 1.5 degrees scenario, when such a scenario is available for the cement industry. Furthermore, CEMEX also joined the Race To Zero campaign of the United Nations Framework Convention on Climate Change ("UNFCCC") in the run-up to the UN Climate Change Conference 26 ("COP26") in Glasgow, Scotland, finalized on November 12, 2021. By doing this, CEMEX reaffirmed its ambition to deliver globally net-zero carbon concrete by 2050.

To meet CEMEX's 2030 targets, the objectives have been included in the variable compensation scheme of the Chief Executive Officer and top senior management and CEMEX has detailed yearly CO_2 roadmaps developed for each cement plant which include, among other factors: a) the increasing use of alternative fuels and electricity from clean sources as well as energy efficiency enhancers such as hydrogen, b) the increasing use of decarbonated raw materials and decarbonated cementitious materials to reduce the clinker factor, as well as, c) a roll-out of other proven CO_2 reduction technologies and the investments required for their implementation.

(Millions of U.S. dollars)

Climate change and commitments for the reduction of carbon dioxide (“co$_2$”) emissions – continued

Furthermore, to achieve the net-zero CO_2 concrete target globally by 2050, CEMEX is working through an open innovation platform in which it partners and collaborates with start-ups, universities, other industry players and entities from other industries to develop a robust research and development portfolio of projects aimed at identifying the most promising technologies to capture, store and utilize CO_2. These new technologies will contribute beyond 2030 to fully decarbonize CEMEX’s operations and its value chain. To build this portfolio, CEMEX is tapping into government funding in Europe and the United States, where there are well established programs to foster innovation in the green technologies of the future. CEMEX continues to pursue its strategy in the different markets where it operates.

As of the reporting date, there are no internal plans or commitments with local authorities to shut down operating assets due to climate change issues or concerns.

3.5) FOREIGN CURRENCY TRANSACTIONS AND TRANSLATION OF FOREIGN CURRENCY FINANCIAL STATEMENTS

Transactions denominated in foreign currencies are recorded in the functional currency at the exchange rates prevailing on the dates of their execution. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the statement of financial position date, and the resulting foreign exchange fluctuations are recognized in earnings, except for exchange fluctuations arising from: 1) foreign currency indebtedness associated with the acquisition of foreign entities; and 2) fluctuations associated with related parties’ balances denominated in foreign currency, whose settlement is neither planned nor likely to occur in the foreseeable future and as a result, such balances are of a permanent investment nature. These fluctuations are recorded against “Other equity reserves”, as part of the foreign currency translation adjustment (note 22.2) until the disposal of the foreign net investment, at which time, the accumulated amount is recognized through the statement of operations as part of the gain or loss on disposal.

The financial statements of foreign subsidiaries, as determined using their respective functional currency, are translated to U.S. dollars at the closing exchange rate for statement of financial position accounts and at the closing exchange rates of each month within the period for statements of operations accounts. The functional currency is that in which each consolidated entity primarily generates and expends cash. The corresponding translation effect is included within “Other equity reserves” and is presented in the statement of other comprehensive income for the period as part of the foreign currency translation adjustment (note 22.2) until the disposal of the net investment in the foreign subsidiary.

Considering its integrated activities, for purposes of functional currency, the Parent Company is considered to have two divisions, one related with its financial and holding company activities, in which the functional currency is the dollar for all assets, liabilities and transactions associated with these activities, and another division related with the Parent Company’s operating activities in Mexico, in which the functional currency is the peso for all assets, liabilities and transactions associated with these activities.

The most significant closing exchange rates for statement of financial position accounts and the approximate average exchange rates (as determined using the closing exchange rates of each month within the period) for income statement accounts for the main functional currencies to the U.S. dollar as of December 31, 2021, 2020 and 2019, were as follows:

	2021		2020		2019	
Currency	**Closing**	**Average**	**Closing**	**Average**	**Closing**	**Average**
Mexican peso	20.5000	20.4266	19.8900	21.5766	18.9200	19.3500
Euro	0.8789	0.8467	0.8183	0.8736	0.8917	0.8941
British Pound Sterling	0.7395	0.7262	0.7313	0.7758	0.7550	0.7831
Colombian Peso	3,981	3,783	3,433	3,730	3,277	3,300

3.6) CASH AND CASH EQUIVALENTS (note 10)

The balance in this caption is comprised of available amounts of cash and cash equivalents, mainly represented by highly liquid short-term investments, which are readily convertible into known amounts of cash, and which are not subject to significant risks of changes in their values, including overnight investments, which yield fixed returns and have maturities of less than three months from the investment date. These fixed-income investments are recorded at cost plus accrued interest. Accrued interest is included in the income statement as part of “Financial income and other items, net.”

To the extent that any restriction will be lifted in less than three months from the statement of financial position reporting date, the amount of cash and cash equivalents in the statement of financial position includes restricted cash and investments, when applicable, comprised of deposits in margin accounts that guarantee certain of CEMEX’s obligations, except when contracts contain provisions for net settlement, in which case, these restricted amounts of cash and cash equivalents are offset against the liabilities that CEMEX has with its counterparties. When the restriction period is greater than three months, any restricted balance of cash and investments is not considered cash equivalents and is included within short-term or long-term “Other accounts receivable,” as appropriate.

3.7) FINANCIAL INSTRUMENTS

Classification and measurement of financial instruments

Financial assets are classified as "Held to collect" and measured at amortized cost when they meet both of the following conditions and are not designated as at fair value through profit or loss: a) are held within a business model whose objective is to hold assets to collect contractual cash flows; and b) its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. Amortized cost represents the net present value ("NPV") of the consideration receivable or payable as of the transaction date. This classification of financial assets comprises the following captions:

- Cash and cash equivalents (notes 3.6 and 10).
- Trade receivables, other current accounts receivable and other current assets (notes 11 and 12). Due to their short-term nature, CEMEX initially recognizes these assets at the original invoiced or transaction amount less expected credit losses, as explained below.
- Trade receivables sold under securitization programs, in which certain residual interest in the trade receivables sold in case of recovery failure and continued involvement in such assets is maintained, do not qualify for derecognition and are maintained in the statement of financial position (notes 11 and 18.2).
- Investments and non-current accounts receivable (note 15.2). Subsequent changes in effects from amortized cost are recognized in the income statement as part of "Financial income and other items, net".

Certain strategic investments are measured at fair value through other comprehensive income within "Other equity reserves" (note 15.2). CEMEX does not maintain financial assets "Held to collect and sell" whose business model has the objective of collecting contractual cash flows and then selling those financial assets.

The financial assets that are not classified as "Held to collect" or that do not have strategic characteristics fall into the residual category of held at fair value through the income statement as part of "Financial income and other items, net" (note 15.2).

Debt instruments and other financial obligations are classified as "Loans" and measured at amortized cost (notes 18.1 and 18.2). Interest accrued on financial instruments is recognized within "Other accounts payable and accrued expenses" against financial expense. During the reported periods, CEMEX did not have financial liabilities voluntarily recognized at fair value or associated with fair value hedge strategies with derivative financial instruments.

Derivative financial instruments are recognized as assets or liabilities in the statement of financial position at their estimated fair values, and the changes in such fair values are recognized in the income statement within "Financial income and other items, net" for the period in which they occur, except in the case of hedging instruments as described below (note 18.4).

Impairment of financial assets

Impairment losses of financial assets, including trade accounts receivable, are recognized using the Expected Credit Loss model ("ECL") for the entire lifetime of such financial assets on initial recognition, and at each subsequent reporting period, even in the absence of a credit event or if a loss has not yet been incurred, considering for their measurement past events and current conditions, as well as reasonable and supportable forecasts affecting collectability. For purposes of the ECL model of trade accounts receivable, CEMEX segments its accounts receivable in a matrix by country, type of client or homogeneous credit risk and days past due and determines for each segment an average rate of ECL, considering actual credit loss experience over the last 24 months and analyses of future delinquency, that is applied to the balance of the accounts receivable. The average ECL rate increases in each segment of days past due until the rate is 100% for the segment of 365 days or more past due.

Costs incurred in the issuance of debt or borrowings

Direct costs incurred in debt issuances or borrowings, as well as debt refinancing or non-substantial modifications to debt agreements that did not represent an extinguishment of debt by considering that the holders and the relevant economic terms of the new instrument are not substantially different to the replaced instrument, adjust the carrying amount of the related debt and are amortized as interest expense as part of the effective interest rate of each instrument over its maturity. These costs include commissions and professional fees. Costs incurred in the extinguishment of debt, as well as debt refinancing or modifications to debt agreements, when the new instrument is substantially different from the old instrument according to a qualitative and quantitative analysis, are recognized in the income statement as incurred.

Leases (notes 3.9, 16 and 18.2)

At the inception of a contract, CEMEX assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period in exchange for consideration. CEMEX uses the definition of a lease in IFRS 16, *Leases* ("IFRS 16") to assess whether a contract conveys the right to control the use of an identified asset.

Leases (notes 3.9, 16 and 18.2) – continued

Based on IFRS 16, leases are recognized as financial liabilities against assets for the right-of-use, measured at their commencement date as the net present value ("NPV") of the future contractual fixed payments, using the interest rate implicit in the lease or, if that rate cannot be readily determined, CEMEX's incremental borrowing rate. CEMEX determines its incremental borrowing rate by obtaining interest rates from its external financing sources and makes certain adjustments to reflect the term of the lease, the type of the asset leased and the economic environment in which the asset is leased.

CEMEX does not separate the non-lease component from the lease component included in the same contract. Lease payments included in the measurement of the lease liability comprise contractual rental fixed payments, less incentives, fixed payments of non-lease components and the value of a purchase option, to the extent that option is highly probable to be exercised or is considered a bargain purchase option. Interest incurred under the financial obligations related to lease contracts is recognized as part of the "Interest expense" line item in the income statement.

At commencement date or on modification of a contract that contains a lease component, CEMEX allocates the consideration in the contract to each lease component based on their relative stand-alone prices. CEMEX applies the recognition exception for lease terms of 12 months or less and contracts of low-value assets and recognizes the lease payment of these leases as rental expense in the income statement over the lease term. CEMEX defined the lease contracts related to office and computer equipment as low-value assets.

The lease liability is measured at amortized cost using the effective interest method as payments are incurred and is remeasured when: a) there is a change in future lease payments arising from a change in an index or rate, b) if there is a change in the amount expected to be payable under a residual guarantee, c) if the Company changes its assessment of whether it will exercise a purchase, extension or termination option, or d) if there is a revised in-substance fixed lease payment. When the lease liability is remeasured, an adjustment is made to the carrying amount of the asset for the right-of-use or is recognized within "Financial income and other items, net" if such asset has been reduced to zero.

Hedging instruments (note 18.4)

A hedging relationship is established to the extent the entity considers, based on the analysis of the overall characteristics of the hedging and hedged items, that the hedge will be highly effective in the future and the hedge relationship at inception is aligned with the entity's reported risk management strategy (note 18.5). The accounting categories of hedging instruments are: a) cash flow hedge; b) fair value hedge of an asset or forecasted transaction; and c) hedge of a net investment in a subsidiary.

In cash flow hedges, the effective portion of changes in fair value of derivative instruments are recognized in stockholders' equity within other equity reserves and are reclassified to earnings as the interest expense of the related debt is accrued, in the case of interest rate swaps, or when the underlying products are consumed in the case of contracts on the price of raw materials and commodities. In hedges of the net investment in foreign subsidiaries, changes in fair value are recognized in stockholders' equity as part of the foreign currency translation result within "Other equity reserves" (note 3.4), whose reversal to earnings would take place upon disposal of the foreign investment. During the reported periods, CEMEX did not have derivatives designated as fair value hedges. Derivative instruments are negotiated with institutions with significant financial capacity; therefore, CEMEX believes the risk of non-performance of the obligations agreed to by such counterparties to be minimal.

Embedded derivative financial instruments

CEMEX reviews its contracts to identify the existence of embedded derivatives. Identified embedded derivatives are analyzed to determine if they need to be separated from the host contract and recognized in the statement of financial position as assets or liabilities, applying the same valuation rules used for other derivative instruments.

Put options granted for the purchase of non-controlling interests

Under IFRS 9, represent agreements by means of which a non-controlling interest has the right to sell, at a future date using a predefined price formula or at fair market value, its shares in a consolidated subsidiary. When the obligation should be settled in cash or through the delivery of another financial asset, an entity should recognize a liability for the NPV of the redemption amount as of the reporting date against the controlling interest within stockholders' equity. A liability is not recognized under these agreements when the redemption amount is determined at fair market value at the exercise date and the entity has the election to settle using its own shares. As of December 31, 2021 and 2020, CEMEX did not have written put options.

Fair value measurements (note 18.3)

Under IFRS, fair value represents an "Exit Value" which is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, considering the counterparty's credit risk in the valuation. The concept of Exit Value is premised on the existence of a market and market participants for the specific asset or liability. When there are no market and/or market participants willing to make a market, IFRS establishes a fair value hierarchy that gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to measurements involving significant unobservable inputs (Level 3 measurements).

(Millions of U.S. dollars)

Fair value measurements (note 18.3) – continued

The three levels of the fair value hierarchy are as follows:

- Level 1.- represent quoted prices (unadjusted) in active markets for identical assets or liabilities that CEMEX can access at the measurement date. A quoted price in an active market provides the most reliable evidence of fair value and is used without adjustment to measure fair value whenever available.
- Level 2.- are inputs other than quoted prices in active markets that are observable for the asset or liability, either directly or indirectly, and are used mainly to determine the fair value of securities, investments or loans that are not actively traded. Level 2 inputs included equity prices, certain interest rates and yield curves, implied volatility and credit spreads, among others, as well as inputs extrapolated from other observable inputs. In the absence of Level 1 inputs, CEMEX determined fair values by iteration of the applicable Level 2 inputs, the number of securities and/or the other relevant terms of the contract, as applicable.
- Level 3.- inputs are unobservable inputs for the asset or liability. CEMEX used unobservable inputs to determine fair values, to the extent there are no Level 1 or Level 2 inputs, in valuation models such as Black-Scholes, binomial, discounted cash flows or multiples of Operating EBITDA, including risk assumptions consistent with what market participants would use to arrive at fair value.

3.8) INVENTORIES (note 13)

Inventories are valued using the lower of cost or net realizable value. The cost of inventories is based on weighted average cost formula and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. CEMEX analyzes its inventory balances to determine if, because of internal events, such as physical damage, or external events, such as technological changes or market conditions, certain portions of such balances have become obsolete or impaired. When an impairment situation arises, the inventory balance is adjusted to its net realizable value. In such cases, these adjustments are recognized against the results of the period. Advances to suppliers of inventory are presented as part of other current assets.

3.9) PROPERTY, MACHINERY AND EQUIPMENT AND ASSETS FOR THE RIGHT-OF-USE (note 16)

Property, machinery and equipment are recognized at their acquisition or construction cost, as applicable, less accumulated depreciation and accumulated impairment losses. Depreciation of fixed assets is recognized as part of cost and operating expenses (notes 6 and 7) and is calculated using the straight-line method over the estimated useful lives of the assets, except for mineral reserves, which are depleted using the units-of-production method.

As of December 31, 2021, the average useful lives by category of fixed assets, which are reviewed at each reporting date, were as follows:

	Years
Administrative buildings	29
Industrial buildings	26
Machinery and equipment in plant	16
Ready-mix trucks and motor vehicles	9
Office equipment and other assets	6

As of December 31, 2021, to the best of its knowledge, management considers that the commitments and climate actions will not affect the estimated average useful lives of its property, machinery and equipment described above (note 3.4).

Assets for the right-of-use related to leases are initially measured at cost, which comprises the initial amount of the lease liability adjusted by any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle, remove or restore the underlaying asset, less any lease incentives received. The asset for the right-of-use is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlaying asset to CEMEX by the end of the lease term or if the cost of the asset for the right-of-use reflects that CEMEX will exercise a purchase option. In that case the asset for the right- of-use would be depreciated over the useful life of the underlying asset, on the same basis as those of property, plant and equipment. In addition, assets for the right-of-use may be reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

CEMEX capitalizes, as part of the related cost of fixed assets, interest expense from existing debt during the construction or installation period of significant fixed assets, considering CEMEX’s corporate average interest rate and the average balance of investments in process for the period.

All waste removal costs or stripping costs incurred in the operative phase of a surface mine to access the mineral reserves are recognized as part of the carrying amount of the related quarries. The capitalized amounts are further amortized over the expected useful life of exposed ore body based on the units-of-production method.

Costs incurred in respect of operating fixed assets that result in future economic benefits, such as an extension in their useful lives, an increase in their production capacity or in safety, as well as those costs incurred to mitigate or prevent environmental damage, are capitalized as part of the carrying amount of the related assets. The capitalized costs are depreciated over the remaining useful lives of such fixed assets. Periodic maintenance of fixed assets is expensed as incurred. Advances to suppliers of fixed assets are presented as part of other long-term accounts receivable.

3.10) BUSINESS COMBINATIONS, GOODWILL AND OTHER INTANGIBLE ASSETS (notes 5.1 and 17)

Business combinations are recognized using the acquisition method, by allocating the consideration transferred to assume control of the entity to all assets acquired and liabilities assumed, based on their estimated fair values as of the acquisition date. Intangible assets acquired are identified and recognized at fair value. Any unallocated portion of the purchase price represents goodwill, which is not amortized and is subject to periodic impairment tests (note 3.11). Goodwill may be adjusted for any change to the preliminary assessment given to the assets acquired and/or liabilities assumed within the twelve-month period after purchase. Costs associated with the acquisition are expensed in the income statement as incurred.

CEMEX capitalizes intangible assets acquired, as well as costs incurred in the development of intangible assets, when probable future economic benefits associated are identified and there is evidence of control over such benefits. Intangible assets are recognized at their acquisition or development cost, as applicable. Indefinite life intangible assets are not amortized since the period in which the benefits associated with such intangibles will terminate cannot be accurately established. Definite life intangible assets are amortized on a straight-line basis as part of operating costs and expenses (note 7).

Startup costs are recognized in the income statement as they are incurred. Costs associated with research and development activities (“R&D activities”), performed by CEMEX to create products and services, as well as to develop processes, equipment and methods to optimize operational efficiency and reduce costs are recognized in the operating results as incurred. Direct costs incurred in the development stage of computer software for internal use are capitalized and amortized through the operating results over the useful life of the software, which on average is approximately 5 years.

Costs incurred in exploration activities such as payments for rights to explore, topographical and geological studies, as well as trenching, among other items incurred to assess the technical and commercial feasibility of extracting a mineral resource, which are not significant to CEMEX, are capitalized when probable future economic benefits associated with such activities are identified. When extraction begins, these costs are amortized during the useful life of the quarry based on the estimated tons of material to be extracted. When future economic benefits are not achieved, any capitalized costs are subject to impairment.

CEMEX’s extraction rights have weighted-average useful lives of 83 years, depending on the sector and the expected life of the related reserves. As of December 31, 2021, except for extraction rights and/or as otherwise indicated, CEMEX’s intangible assets are amortized on a straight-line basis over their useful lives that range on average from 3 to 20 years.

3.11) IMPAIRMENT OF LONG-LIVED ASSETS (notes 16 and 17)

Property, machinery and equipment, assets for the right-of-use, intangible assets of definite life and other investments

These assets are tested for impairment upon the occurrence of internal or external indicators of impairment, such as changes in CEMEX’s operating business model or in technology that affect the asset, or expectations of lower operating results, to determine whether their carrying amounts may not be recovered. An impairment loss is recorded in the income statement for the period within “Other expenses, net,” for the excess of the asset’s carrying amount over its recoverable amount, corresponding to the higher of the fair value less costs to sell the asset, as generally determined by an external appraiser, and the asset’s value in use, the latter represented by the NPV of estimated cash flows related to the use and eventual disposal of the asset. The main assumptions utilized to develop estimates of NPV are a discount rate that reflects the risk of the cash flows associated with the assets and the estimations of generation of future income. Those assumptions are evaluated for reasonableness by comparing such discount rates to available market information and by comparing to third-party expectations of industry growth, such as governmental agencies or industry chambers.

When impairment indicators exist, for each intangible asset, CEMEX determines its projected revenue streams over the estimated useful life of the asset. To obtain discounted cash flows attributable to each intangible asset, such revenue is adjusted for operating expenses, changes in working capital and other expenditures, as applicable, and discounted to NPV using the risk adjusted discount rate of return. The most significant economic assumptions are: a) the useful life of the asset; b) the risk adjusted discount rate of return; c) royalty rates; and d) growth rates. Assumptions used for these cash flows are consistent with internal forecasts and industry practices. The fair values of these assets are significantly sensitive to changes in such relevant assumptions. Certain key assumptions are more subjective than others. In respect of trademarks, CEMEX considers that the most subjective key assumption is the royalty rate. In respect of extraction rights and customer relationships, the most subjective assumptions are revenue growth rates and estimated useful lives. CEMEX validates its assumptions through benchmarking with industry practices and the corroboration of third-party valuation advisors. Significant judgment by management is required to appropriately assess the fair values and values in use of the related assets, as well as to determine the appropriate valuation method and select the significant economic assumptions.

Goodwill is tested for impairment when required upon the occurrence of internal or external indicators of impairment or at least once a year, during the last quarter of such year. CEMEX determines the recoverable amount of the group of cash-generating units (“CGUs”) to which goodwill balances were allocated, which consists of the higher of such group of CGUs fair value less cost to sell and its value in use, the latter represented by the NPV of estimated future cash flows to be generated by such CGUs to which goodwill was allocated, which are determined over periods of 5 years. If the value in use of a group of CGUs to which goodwill has been allocated is lower than its corresponding carrying amount, CEMEX determines the fair value of such group of CGUs using methodologies generally accepted in the market to determine the value of entities, such as multiples of Operating EBITDA and by reference to other market transactions. An impairment loss is recognized within “Other expenses, net”, if the recoverable amount is lower than the net book value of the group of CGUs. Impairment charges recognized on goodwill are not reversed in subsequent periods.

Impairment of long-lived assets (notes 16 and 17) – continued

The reportable segments reported by CEMEX (note 5.3), represent CEMEX's groups of CGUs to which goodwill has been allocated for purposes of testing goodwill for impairment, considering: a) that after the acquisition, goodwill was allocated at the level of the reportable segment; b) that the operating components that comprise the reported segment have similar economic characteristics; c) that the reported segments are used by CEMEX to organize and evaluate its activities in its internal information system; d) the homogeneous nature of the items produced and traded in each operative component, which are all used by the construction industry; e) the vertical integration in the value chain of the products comprising each component; f) the type of clients, which are substantially similar in all components; g) the operative integration among components; and h) that the compensation system of a specific country is based on the consolidated results of the geographic segment and not on the particular results of the components. In addition, the country level represents the lowest level within CEMEX at which goodwill is monitored for internal management purposes.

Impairment tests are significantly sensitive to the estimation of future prices of CEMEX's products, the development of operating expenses, local and international economic trends in the construction industry, the long-term growth expectations in the different markets, as well as the discount rates and the growth rates in perpetuity applied. For purposes of estimating future prices, CEMEX uses, to the extent available, historical data; plus the expected increase or decrease according to information issued by trusted external sources, such as national construction or cement producer chambers and/or in governmental economic expectations. Operating expenses are normally measured as a constant proportion of revenues, following experience. However, such operating expenses are also reviewed considering external information sources in respect of inputs that behave according to international prices, such as oil and gas. CEMEX uses specific pre-tax discount rates for each group of CGUs to which goodwill is allocated, which are applied to discount pre-tax cash flows. The amounts of estimated undiscounted cash flows are significantly sensitive to the growth rate in perpetuity applied. The higher the growth rate in perpetuity applied, the higher the amount of undiscounted future cash flows by group of CGUs obtained. Moreover, the amounts of discounted estimated future cash flows are significantly sensitive to the weighted average cost of capital (discount rate) applied. The higher the discount rate applied, the lower the amount of discounted estimated future cash flows by group of CGUs obtained.

3.12) PROVISIONS

CEMEX recognizes provisions when it has a legal or constructive obligation resulting from past events, whose resolution would require cash outflows, or the delivery of other resources owned by the Company. As of December 31, 2021 and 2020, some significant proceedings that gave rise to a portion of the carrying amount of CEMEX's other current and non-current liabilities and provisions are detailed in note 26.1.

Considering guidance under IFRS, CEMEX recognizes provisions for levies imposed by governments when the obligating event or the activity that triggers the payment of the levy has occurred, as defined in the legislation.

Restructuring

CEMEX recognizes provisions for restructuring when the restructuring detailed plans have been properly finalized and authorized by management and have been communicated to the third parties involved and/or affected by the restructuring prior to the statement of financial position's date. These provisions may include costs not associated with CEMEX's ongoing activities.

Asset retirement obligations (note 19)

Unavoidable obligations, legal or constructive, to restore operating sites upon retirement of long-lived assets at the end of their useful lives are measured at the NPV of estimated future cash flows to be incurred in the restoration process and are initially recognized against the related assets' book value. The increase to the assets' book value is depreciated during its remaining useful life. The increase in the liability related to adjustments to NPV by the passage of time is charged to the line item "Financial income and other items, net." Adjustments to the liability for changes in estimations are recognized against fixed assets, and depreciation is modified prospectively. These obligations are related mainly to future costs of demolition, cleaning and reforestation, so that quarries, maritime terminals and other production sites are left in acceptable condition at the end of their operation.

Costs related to remediation of the environment (notes 19 and 26)

Provisions associated with environmental damage represent the estimated future cost of remediation, which are recognized at their nominal value when the time schedule for the disbursement is not clear, or when the economic effect for the passage of time is not significant; otherwise, such provisions are recognized at their discounted values. Reimbursements from insurance companies are recognized as assets only when their recovery is practically certain. In that case, such reimbursement assets are not offset against the provision for remediation costs.

Contingencies and commitments (notes 25 and 26)

Obligations or losses related to contingencies are recognized as liabilities in the statement of financial position only when present obligations exist resulting from past events that are probable to result in an outflow of resources and the amount can be measured reliably. Otherwise, a qualitative disclosure is included in the notes to the financial statements. The effects of long-term commitments established with third parties, such as supply contracts with suppliers or customers, are recognized in the financial statements on an incurred or accrued basis, after taking into consideration the substance of the agreements. Relevant commitments are disclosed in the notes to the financial statements. The Company recognizes contingent revenues, income or assets only when their realization is virtually certain.

3.13) PENSIONS AND OTHER POST-EMPLOYMENT BENEFITS (note 20)

Defined contribution pension plans

The costs of defined contribution pension plans are recognized in the operating results as they are incurred. Liabilities arising from such plans are settled through cash transfers to the employees' retirement accounts, without generating future obligations.

Defined benefit pension plans and other post-employment benefits

The costs associated with employees' benefits for defined benefit pension plans and other post-employment benefits, generally comprised of health care benefits, life insurance and seniority premiums, granted by CEMEX and/or pursuant to applicable law, are recognized as services are rendered by the employees based on actuarial estimations of the benefits' present value considering the advice of external actuaries. For certain pension plans, CEMEX has created irrevocable trust funds to cover future benefit payments ("plan assets"). These plan assets are valued at their estimated fair value at the statement of financial position date. The actuarial assumptions and accounting policy consider: a) the use of nominal rates; b) a single rate is used for the determination of the expected return on plan assets and the discount of the benefits obligation to present value; c) a net interest is recognized on the net defined benefit liability (liability minus plan assets); and d) all actuarial gains and losses for the period, related to differences between the projected and real actuarial assumptions at the end of the period, as well as the difference between the expected and real return on plan assets, are recognized as part of "Other items of comprehensive income, net" within stockholders' equity.

The service cost, corresponding to the increase in the obligation for additional benefits earned by employees during the period, is recognized within operating costs and expenses. The net interest cost, resulting from the increase in obligations for changes in NPV and the change during the period in the estimated fair value of plan assets, is recognized within "Financial income and other items, net."

The effects from modifications to the pension plans that affect the cost of past services are recognized within operating costs and expenses over the period in which such modifications become effective to the employees or without delay if changes are effective immediately. Likewise, the effects from curtailments and/or settlements of obligations occurring during the period, associated with events that significantly reduce the cost of future services and/or significantly reduce the population subject to pension benefits, respectively, are recognized within operating costs and expenses.

Termination benefits

Termination benefits, not associated with a restructuring event, which mainly represent severance payments by law, are recognized in the operating results for the period in which they are incurred.

3.14) INCOME TAXES (note 21)

The effects reflected in the income statement for income taxes include the amounts incurred during the period and the amounts of deferred income taxes, determined according to the income tax law applicable to each subsidiary, reflecting uncertainty in income tax treatments, if any. Consolidated deferred income taxes represent the addition of the amounts determined in each subsidiary by applying the enacted statutory income tax rate or substantively enacted by the end of the reporting period to the total temporary differences resulting from comparing the book and taxable values of assets and liabilities, considering tax assets such as loss carryforwards and other recoverable taxes, to the extent that it is probable that future taxable profits will be available against which they can be utilized. The measurement of deferred income taxes at the reporting period reflects the tax consequences that follow the way in which CEMEX expects to recover or settle the carrying amount of its assets and liabilities. Deferred income taxes for the period represent the difference between balances of deferred income taxes at the beginning and the end of the period. Deferred income tax assets and liabilities relating to different tax jurisdictions are not offset. According to IFRS, all items charged or credited directly in stockholders' equity or as part of other comprehensive income or loss for the period are recognized net of their current and deferred income tax effects. The effect of a change in enacted statutory tax rates is recognized in the period in which the change is officially enacted.

Deferred tax assets are reviewed at each reporting date and are reduced when it is not deemed probable that the related tax benefit will be realized, considering the aggregate amount of self-determined tax loss carryforwards that CEMEX believes will not be rejected by the tax authorities based on available evidence and the likelihood of recovering them prior to their expiration through an analysis of estimated future taxable income. If it is probable that the tax authorities would reject a self-determined deferred tax asset, CEMEX would decrease such asset. When it is considered that a deferred tax asset will not be recovered before its expiration, CEMEX would not recognize such deferred tax asset. Both situations would result in additional income tax expense for the period in which such determination is made. To determine whether it is probable that deferred tax assets will ultimately be recovered, CEMEX takes into consideration all available positive and negative evidence, including factors such as market conditions, industry analysis, expansion plans, projected taxable income, carryforward periods, current tax structure, potential changes or adjustments in tax structure, tax planning strategies, future reversals of existing temporary differences. Likewise, CEMEX analyzes its actual results versus the Company's estimates, and adjusts, as necessary, its tax asset valuations. If actual results vary from CEMEX's estimates, the deferred tax asset and/or valuations may be affected, and necessary adjustments will be made based on relevant information in CEMEX's income statement for such period.

The income tax effects from an uncertain tax position are recognized when it is probable that the position will be sustained based on its technical merits and assuming that the tax authorities will examine each position and have full knowledge of all relevant information. For each position is considered individually its probability, regardless of its relation to any other broader tax settlement. The probability threshold represents a positive assertion by management that CEMEX is entitled to the economic benefits of a tax position. If a tax position is considered not probable of being sustained, no benefits of the position are recognized. Interest and penalties related to unrecognized tax benefits are recorded as part of the income tax in the consolidated statements of operations.

(Millions of U.S. dollars)

Income taxes (note 21) – continued

The effective income tax rate is determined dividing the line item "Income tax" by the line item "Earnings before income tax." This effective tax rate is further reconciled to CEMEX's statutory tax rate applicable in Mexico (note 21.3). A significant effect in CEMEX's effective tax rate and consequently in the reconciliation of CEMEX's effective tax rate, relates to the difference between the statutory income tax rate in Mexico of 30% against the applicable income tax rates of each country where CEMEX operates.

For the years ended December 31, 2021, 2020 and 2019, the statutory tax rates in CEMEX's main operations were as follows:

Country	2021	2020	2019
Mexico	30.0%	30.0%	30.0%
United States	21.0%	21.0%	21.0%
United Kingdom	19.0%	19.0%	19.3%
France	28.4%	32.0%	34.4%
Germany	28.2%	28.2%	28.2%
Spain	25.0%	25.0%	25.0%
Philippines	25.0%	30.0%	30.0%
Israel	23.0%	23.0%	23.0%
Colombia	31.0%	32.0%	33.0%
Others	5.5% – 30.0%	9.0% – 30.0%	7.8% – 35.0%

CEMEX's current and deferred income tax amounts included in the income statement for the period are highly variable, and are subject, among other factors, to taxable income determined in each jurisdiction in which CEMEX operates. Such amounts of taxable income depend on factors such as sale volumes and prices, costs and expenses, exchange rate fluctuations and interest on debt, among others, as well as to the estimated tax assets at the end of the period due to the expected future generation of taxable gains in each jurisdiction.

3.15) STOCKHOLDERS' EQUITY

Common stock and additional paid-in capital (note 22.1)

These items represent the value of stockholders' contributions and include the recognition of executive compensation programs in CEMEX, S.A.B. de C.V.'s CPOs as well as decreases associated with the restitution of retained earnings.

Other equity reserves and subordinated notes (note 22.2)

Groups the cumulative effects of items and transactions that are, temporarily or permanently, recognized directly to stockholders' equity, and includes the comprehensive income (loss), which reflects certain changes in stockholders' equity that do not result from investments by owners and distributions to owners.

Beginning in June 2021, this line item includes the balance of subordinated notes with no fixed maturity issued by the Parent Company. Considering that the Parent Company's subordinated notes have no fixed maturity date, there is no contractual obligation for the Parent Company to deliver cash or any other financial assets, the payment of principal and interest may be deferred indefinitely at the sole discretion of CEMEX and specific redemption events, are fully under the Parent Company's control, under applicable IFRS, these subordinated notes issued by the Parent Company qualify as equity instruments and are classified within controlling interest stockholders' equity.

The most significant items within "Other equity reserves" during the reported periods are as follows:

Items of "Other equity reserves and subordinated notes" included within other comprehensive income:

- Currency translation effects from the translation of foreign subsidiaries, net of: a) exchange results from foreign currency debt directly related to the acquisition of foreign subsidiaries; and b) exchange results from foreign currency related parties' balances that are of a non-current investment class (note 3.5);
- The effective portion of the valuation and liquidation effects from derivative financial instruments under cash flow hedging relationships, which are recorded temporarily in stockholders' equity (note 3.7);
- Changes in fair value of other investments in strategic securities (note 3.7); and
- Current and deferred income taxes during the period arising from items whose effects are directly recognized in stockholders' equity.

Items of "Other equity reserves and subordinated notes" not included in comprehensive income:

- Effects related to controlling stockholders' equity for changes or transactions affecting non-controlling interest stockholders in CEMEX's consolidated subsidiaries;

Items of "Other equity reserves and subordinated notes" not included in comprehensive income – continued

- Effects attributable to controlling stockholders' equity for financial instruments issued by consolidated subsidiaries that qualify for accounting purposes as equity instruments, such as the interest expense paid on perpetual debentures;
- The balance of subordinated notes with no fixed maturity and any interest accrued thereof; and
- The cancellation of the Parent Company's shares held by consolidated entities.

Retained earnings (note 22.3)

Retained earnings represent the cumulative net results of prior years, net of: a) dividends declared; b) capitalization of retained earnings; c) restitution of retained earnings when applicable; and d) cumulative effects from adoption of new IFRS.

Non-controlling interest and perpetual debentures (note 22.4)

This caption includes the share of non-controlling stockholders in the results and equity of consolidated subsidiaries. This caption also includes the nominal amounts of financial instruments (perpetual debentures) issued by consolidated entities that qualify as equity instruments considering that there is: a) no contractual obligation to deliver cash or another financial asset; b) no predefined maturity date; and c) a unilateral option to defer interest payments or preferred dividends for indeterminate periods. In June 2021, CEMEX redeemed all its perpetual debentures.

3.16) REVENUE RECOGNITION (note 4)

Revenue is recognized at a point in time or over time in the amount of the price, before tax on sales, expected to be received for goods and services supplied because of ordinary activities, as contractual performance obligations are fulfilled, and control of goods and services passes to the customer. Revenues are decreased by any trade discounts or volume rebates granted to customers. Transactions between related parties are eliminated in consolidation. Variable consideration is recognized when it is highly probable that a significant reversal in the amount of cumulative revenue recognized for the contract will not occur and is measured using the expected value or the most likely amount method, whichever is expected to better predict the amount based on the terms and conditions of the contract.

Revenue and costs from trading activities, in which CEMEX acquires finished goods from a third party and subsequently sells the goods to another third-party, are recognized on a gross basis, considering that CEMEX assumes ownership risks on the goods purchased, not acting as agent or broker.

When revenue is earned over time as contractual performance obligations are satisfied, which is the case of construction contracts, CEMEX applies the stage of completion method to measure revenue, which represents: a) the proportion that contract costs incurred for work performed to date bear to the estimated total contract costs; b) the surveys of work performed; or c) the physical proportion of the contract work completed; whichever better reflects the percentage of completion under the specific circumstances. Revenue related to such construction contracts is recognized in the period in which the work is performed by reference to the contract's stage of completion at the end of the period, considering that the following have been defined: a) each party's enforceable rights regarding the asset under construction; b) the consideration to be exchanged; c) the manner and terms of settlement; d) actual costs incurred and contract costs required to complete the asset are effectively controlled; and e) it is probable that the economic benefits associated with the contract will flow to the entity.

Progress payments and advances received from customers do not reflect the work performed and are recognized as short-term or long-term advanced payments, as appropriate.

3.17) COST OF SALES AND OPERATING EXPENSES (notes 6 and 7)

Cost of sales represents the production cost of inventories at the moment of sale. Such cost of sales includes depreciation, amortization and depletion of assets involved in production, expenses related to storage in production plants and freight expenses of raw material in plants and delivery expenses of CEMEX's ready-mix concrete business.

Administrative expenses represent the expenses associated with personnel, services and equipment, including depreciation and amortization, related to managerial activities and back office for the Company's management.

Sales expenses represent the expenses associated with personnel, services and equipment, including depreciation and amortization, involved specifically in sales activities.

Distribution and logistics expenses refer to expenses of storage at points of sales, including depreciation and amortization, as well as freight expenses of finished products between plants and points of sale and freight expenses between points of sales and the customers' facilities.

3.18) EXECUTIVE SHARE-BASED COMPENSATION (note 23)

Share- based payments to executives are defined as equity instruments when services received from employees are settled by delivering shares of the Parent Company and/or a subsidiary; or as liability instruments when CEMEX commits to make cash payments to the executives on the exercise date of the awards based on changes in the Parent Company and/or subsidiary's own stock (intrinsic value). The cost of equity instruments represents their estimated fair value at the date of grant and is recognized in the income statement during the period in which the exercise rights of the employees become vested. In respect of liability instruments, these instruments are valued at their estimated fair value at each reporting date, recognizing the changes in fair value through the operating results.

(Millions of U.S. dollars)

3.19) ALLOWANCES RELATED TO EMISSIONS OF CO_2

According to the Paris Agreement objectives (note 3.4), in certain countries where CEMEX operates, such as European Union ("EU") countries and the United Kingdom, among others, mechanisms aimed at reducing carbon dioxide emissions have been established, such as the EU's Emissions Trading System ("EU ETS"), by means of which, the relevant environmental authorities grant annually certain number of emission rights ("Allowances") so far free of cost to the different industries releasing CO_2. Entities in turn must submit to such environmental authorities at the end of the compliance period, Allowances for a volume equivalent to the tons of CO_2 released. Companies must buy additional Allowances to meet deficits between actual CO_2 emissions during the compliance period and Allowances received. Entities may also dispose of any surplus of Allowances in the market. In general, failure to meet the emissions caps is subject to significant monetary penalties. The trend is that Allowances received free of cost will be reduced over time so that entities are compelled to act and gradually reduce the aggregate volume of emissions.

As of December 31, 2021, according to management estimates (unaudited), CEMEX held excess Allowances received for no consideration in prior years sufficient to allow the Company offsetting CO_2 costs in the EU and the United Kingdom operations until the end of 2025. Moreover, the increasing use of decarbonated raw materials, although far more expensive than traditional raw materials, among other strategies to reduce CO_2 emissions such as the use of alternative fuels and decarbonated cementitious materials, may allow CEMEX, according to internal estimates, to extend its consolidated surplus of Allowances beyond 2025.

CEMEX accounts for the effects associated with CO_2 emission reduction mechanisms as follows:

- Certificates received through government grants for no consideration paid are recognized at zero cost in the statement of financial position.
- Revenues from the sale of excess Allowances are recognized in the statement of operations in the period in which they occur.
- Allowances acquired to hedge current CO_2 emissions are recognized as intangible assets at cost and are further amortized to cost of sales during the compliance period. In the case of forward purchases, assets are recognized upon physical reception of the certificates.
- CEMEX accrues a provision against cost of sales when the estimated annual emissions of CO_2 are expected to exceed the number of emission rights.
- In addition, in certain countries, the environmental authorities impose levies per ton of CO_2 or other greenhouse gases released. Such expenses are recognized as part of cost of sales as incurred.

3.20) CONCENTRATION OF CREDIT

CEMEX sells its products primarily to distributors in the construction industry, with no specific geographic concentration within the countries in which CEMEX operates. As of and for the years ended December 31, 2021, 2020 and 2019, no single customer individually accounted for a significant amount of the reported amounts of sales or in the balances of trade receivables. In addition, there is no significant concentration of a specific supplier relating to the purchase of raw materials.

3.21) NEWLY ISSUED IFRS NOT YET ADOPTED

There are several amendments or new IFRS issued but not yet effective which are under analysis and the Company's management expects to adopt in their specific effective dates considering preliminarily without any significant effect in the Company's financial position or operating results, and which are summarized as follows:

Standard	Main topic	Effective date
Amendments to IFRS 10, *Consolidated financial statements* and IAS 28	Clarify the recognition of gains or losses in the Parent's financial statements for the sale or contribution of assets between an investor and its associate or joint venture	Has yet to be set
Amendments to IAS 37, *Provisions, Contingent Liabilities and Contingent Assets* – Onerous Contracts—Cost of Fulfilling a Contract	Clarifies that the 'cost of fulfilling' a contract comprises the 'costs that relate directly to the contract'. Costs that relate directly to a contract can either be incremental costs of fulfilling that contract or an allocation of other costs that relate directly to fulfilling contracts.	January 1, 2022
Amendments to IAS 16, *Property, Plant and Equipment* – Proceeds before Intended Use	Clarifies the prohibition of deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management.	January 1, 2022

(Millions of U.S. dollars)

Newly issued IFRS not yet adopted – continued

Standard	Main topic	Effective date
Annual improvements to IFRS (2018-2020 cycle): IFRS 9, *Financial Instruments* – Fees in the ‘10 per cent’ Test for Derecognition of Financial Liabilities	The amendment clarifies which fees an entity includes when it applies the ‘10 per cent’ test in assessing whether to derecognize a financial liability. An entity includes only fees paid or received between the entity (the borrower) and the lender, including fees paid or received by either the entity or the lender on the other’s behalf.	January 1, 2022
Amendments to IAS 1, *Presentation of Financial Statements*– Classification of Liabilities as Current or Non-current	Clarifies the requirements to be applied in classifying liabilities as current and non-current.	January 1, 2023
Amendments to IAS 8 – *Definition of Accounting Estimates*	The amendment makes a distinction between how an entity should present and disclose different types of accounting changes in its financial statements. Changes in accounting policies must be applied retrospectively while changes in accounting estimates are accounted for prospectively.	January 1, 2023
Amendments to IAS 1 and IFRS Practice Statement 2 – *Disclosure of Accounting Policies*	The amendment requires entities to disclose their material accounting policies rather than their significant accounting policies. To support this amendment the Board has also developed guidance and examples to explain and demonstrate the application of the ‘four-step materiality process’ described in IFRS Practice Statement 2 *Making Materiality Judgements to accounting policy disclosures*.	January 1, 2023
Amendments to IAS 12, *Income Taxes* – Deferred Tax related to Assets and Liabilities arising from a Single Transaction	The amendment clarifies that companies should account for deferred tax assets and liabilities on transactions such as leases and decommissioning obligations. CEMEX has always applied these criteria.	January 1, 2023
IFRS 17, *Insurance contracts*	The new Standard establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts and supersedes IFRS 4, *Insurance contracts*. The Standard 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.	January 1, 2023

(Millions of U.S. dollars)

4) REVENUE AND CONSTRUCTION CONTRACTS

CEMEX's revenues are mainly originated from the sale and distribution of cement, ready-mix concrete, aggregates and other construction materials and services, including urbanization solutions. CEMEX grants credit for terms ranging from 15 to 90 days depending on the type and risk of each customer. For the years ended December 31, 2021, 2020 and 2019, revenue is as follows:

	2021	2020	2019
From the sale of goods associated to CEMEX's main activities [1]	$ 14,009	12,344	12,446
From the sale of services [2]	169	145	147
From the sale of other goods and services [3]	370	325	366
	$ 14,548	12,814	12,959

1 Includes in each period revenue generated under construction contracts that are presented in the table below.
2 Refers mainly to revenue generated by Neoris N.V. and its subsidiaries, involved in providing information technology solutions and services.
3 Refers mainly to revenues generated by subsidiaries not individually significant operating in different lines of business.

Information of revenues by reportable segment and line of business for the years 2021, 2020 and 2019 is presented in note 5.3

As of December 31, 2021 and 2020, amounts receivable for progress billings to and advances received from customers of construction contracts were not significant. For 2021, 2020 and 2019, revenues and costs related to construction contracts in progress were as follows:

	Accrued [1]	2021	2020	2019
Revenue from construction contracts included in consolidated revenues [2]	$ 81	77	101	79
Costs incurred in construction contracts included in consolidated cost of sales [3]	(85)	(79)	(101)	(79)
Construction contracts gross operating profit	$ (4)	(2)	—	—

1 Revenues and costs recognized from inception of the contracts until December 31, 2021 in connection with those projects still in progress.
2 Revenues from construction contracts during 2021, 2020 and 2019, were mainly obtained in Mexico and Colombia.
3 Refers to actual costs incurred during the periods.

Certain promotions and/or discounts and rebates offered as part of the sale transaction, result in a portion of the transaction price should be allocated to such commercial incentives as separate performance obligations, recognized as contract liabilities with customers, and deferred to the income statement during the period in which the incentive is exercised by the customer or until it expires. For the years ended December 31, 2021, 2020 and 2019 changes in the balance of contract liabilities with customers are as follows:

	2021	2020	2019
Opening balance of contract liabilities with customers	$ 201	225	234
Increase during the period for new transactions	1,626	1,536	1,931
Decrease during the period for exercise or expiration of incentives	(1,574)	(1,561)	(1,946)
Currency translation effects	4	1	6
Closing balance of contract liabilities with customers	$ 257	201	225

For the years 2021, 2020 and 2019, CEMEX did not identify any significant costs required to be capitalized as contract fulfilment assets and released over the contract life according to IFRS 15, *Revenues from contracts with customers*.

5) BUSINESS COMBINATIONS, DISCONTINUED OPERATIONS, SALE OF OTHER DISPOSAL GROUPS AND SELECTED FINANCIAL INFORMATION BY REPORTABLE SEGMENT AND LINE OF BUSINESS

5.1) BUSINESS COMBINATIONS

In January 2021, a subsidiary of CEMEX in Israel acquired two ready-mix concrete plants from Kinneret and Beton-He'Emek for an amount in shekels equivalent to $6. As of December 31, 2021, based on the preliminary valuation of the fair values of the assets acquired and liabilities assumed, CEMEX determined goodwill of $5.

During the first 6 months of 2020, a subsidiary of CEMEX in Israel acquired a ready-mix concrete products business from Ashtrom Industries for an amount in shekels equivalent to $33. After the conclusion of the purchase price allocation to the fair values of the assets acquired and liabilities assumed of this business, CEMEX determined goodwill of $2.

5.2) DISCONTINUED OPERATIONS

On December 29, 2021, through subsidiaries in Colombia and Spain, CEMEX signed an agreement for the sale on a joint- basis-only of its entire operations in Costa Rica and El Salvador with Cementos Progreso Holdings, S.L., for a total consideration of $335 subject to final adjustments. The assets for divestment consist of one cement plant, one grinding station, seven ready-mix plants, one aggregates quarry, as well as one distribution center in Costa Rica and one distribution center in El Salvador. The transaction is subject to satisfaction of closing conditions in Costa Rica and El Salvador, including approvals by competition authorities, CEMEX currently expects to finalize this transaction during the first half of 2022. As of December 31, 2021 the assets and liabilities associated with the operations in Costa Rica and El Salvador were presented in the Statement of Financial Position within the line items of “Assets and liabilities directly related to assets held for sale”, as correspond. CEMEX’s operations of these operations for the years ended December 31, 2021, 2020 and 2019 are reported in the statements of operations, net of income tax, in the single line item “Discontinued operations.”

On July 9, 2021, CEMEX closed the sale agreed with Çimsa Çimento Sanayi Ve Ticaret A.Ş. on March 29, 2019, of its white cement business, except for Mexico and the U.S., for a total consideration of $ 155, including its Buñol cement plant in Spain and its white cement customer list. As of December 31, 2020 the assets and liabilities associated with the white cement business were presented in the Statement of Financial Position within the line items of “Assets and liabilities directly related to assets held for sale”, as correspond. CEMEX’s operations of these assets in Spain for the period from January 1 to July 9, 2021 and for the years ended December 31, 2020 and 2019 are reported in the statements of operations, net of income tax, in the single line item “Discontinued operations,” including in 2021 a loss on sale of $67 net of the proportional allocation of goodwill of $41.

On March 31, 2021, CEMEX closed the sale of 24 concrete plants and one aggregates quarry in France to LafargeHolcim for $44. These assets are located in the Rhone Alpes region in the Southeast of France, east of CEMEX´s Lyon operations, which the company retained. CEMEX’s operations of these assets in France for the three-month period ended on March 31, 2021 and the years ended December 31, 2020 and 2019 are reported in the statements of operations, net of income tax, in the single line item “Discontinued operations.”

On August 3, 2020, through a subsidiary in the United Kingdom, CEMEX concluded the sale to Breedon Group plc of certain assets for an amount in Pounds equivalent to $230, including $30 of debt. The assets sold consisted of 49 ready-mix plants, 28 aggregate quarries, four depots, one cement terminal, 14 asphalt plants, four concrete products operations, as well as a portion of CEMEX’s paving solutions business in the United Kingdom. CEMEX retained significant operations in the United Kingdom related with the production and sale of cement, ready-mix concrete, aggregates, asphalt and paving solutions, among others. CEMEX’s operations of these assets in the United Kingdom for the period from January 1 to August 3, 2020, including in 2020 a loss on sale of $57 net of the proportional allocation of goodwill of $47, and the year ended December 31, 2019 are reported in the statements of operations, net of tax, in the single line item “Discontinued operations.”

On March 6, 2020, CEMEX concluded the sale to Eagle Materials Inc. of its U.S. subsidiary Kosmos Cement Company (“Kosmos”), a partnership with a subsidiary of Buzzi Unicem S.p.A. in which CEMEX held a 75% interest, for a total consideration of $665, of which the proceeds to CEMEX were $499. The assets sold consisted of Kosmos’ cement plant in Louisville, Kentucky, as well as related assets which include seven distribution terminals and raw material reserves. CEMEX’s operations of these assets in the United States for the period from January 1 to March 6, 2020, including in 2020 a gain on sale of $14 net of the proportional allocation of goodwill of $291, and the year ended December 31, 2019 are reported in the statements of operations, net of income tax, in the single line item “Discontinued operations.”

On June 28, 2019, CEMEX concluded with several counterparties the sale of its ready-mix and aggregates business in the central region of France for an aggregate price in euro equivalent to $36. CEMEX’s operations of these disposed assets in France for the period from January 1 to June 28, 2019 are reported in the statements of operations, net of income tax, in the single line item “Discontinued operations,” including in 2019 a gain on sale of $17 net of a proportional allocation of goodwill related to this reporting segment of $8.

On May 31, 2019, CEMEX concluded the sale of its aggregates and ready-mix assets in the North and North-West regions of Germany to GP Günter Papenburg AG for a price in euro equivalent to $97. The assets divested in Germany consisted of four aggregates quarries and four ready-mix facilities in North Germany, and nine aggregates quarries and 14 ready-mix facilities in North-West Germany. CEMEX’s operations of these assets in Germany for the period from January 1 to May 31, 2019 are reported in the statements of operations, net of income tax, in the single line item “Discontinued operations,” including in 2019 a gain on sale of $59.

On March 29, 2019, CEMEX closed the sale of assets in the Baltics and Nordics to the German building materials group Schwenk Zement KG for a price in euro equivalent to $387. The Baltic assets divested consisted of one cement production plant in Broceni, four aggregates quarries, two cement quarries, six ready-mix plants, one marine terminal and one land distribution terminal in Latvia. The assets divested also included CEMEX’s 37.8% non-controlling interest in Akmenes Cementas AB owner of a cement production plant in Akmene in Lithuania, as well as the exports business to Estonia. The Nordic assets divested consisted of three import terminals in Finland, four import terminals in Norway and four import terminals in Sweden. CEMEX’s operations of these disposed assets for the period from January 1 to March 29, 2019 are reported in the statements of operations, net of income tax, in the single line item “Discontinued operations,” including in 2019 a gain on sale of $66.

(Millions of U.S. dollars)

Discontinued operations – continued

The following table presents condensed combined information of the statement of financial position for the assets held for sale in 2021 related to the operating segments in Costa Rica and El Salvador and in 2020 related to the white cement business in Spain, as mentioned above:

	2021	2020
Current assets	$ 29	4
Non-current assets	48	103
Total assets of the disposal group	77	107
Current liabilities	31	—
Non-current liabilities	8	—
Total liabilities directly related to disposal group	39	—
Total net assets of disposal group	$ 38	107

In addition, the following table presents condensed combined information of the statements of operations of CEMEX's discontinued operations previously mentioned in: a) Costa Rica and El Salvador for the years ended December 31, 2021, 2020 and 2019; b) Spain related to the white cement business for the period from January 1 to July 9, 2021 and for the years ended December 31, 2020 and 2019; c) France related to the Rhone Alpes region for the three-month period ended March 31, 2021 and the years ended December 31, 2020 and 2019; d) the United Kingdom for the period from January 1 to August 3, 2020 and for the year ended December 31, 2019; e) the United States for the period from January 1 to March 6, 2020 and for the year ended December 31, 2019; f) France related to the central region for the period from January 1 to June 28, 2019; g) Germany for the period from January 1 to May 31, 2019; and h) the Baltics and Nordics for the period from January 1 to March 29, 2019.

	2021	2020	2019
Revenues	$ 185	346	744
Cost of sales and operating expenses	(150)	(308)	(673)
Other income (expenses), net	(12)	(18)	(11)
Financial expenses, net and others	11	9	(6)
Earnings before income tax	34	29	54
Income tax	(40)	(83)	(11)
Result of discontinued operations	(6)	(54)	43
Net disposal result	(4)	(45)	55
Net result of discontinued operations	$ (10)	(99)	98

5.3) SELECTED FINANCIAL INFORMATION BY REPORTABLE SEGMENT AND LINE OF BUSINESS

Reportable segments represent the components of CEMEX that engage in business activities from which CEMEX may earn revenues and incur expenses, whose operating results are regularly reviewed by the entity's top management to make decisions about resources to be allocated to the segments and assess their performance, and for which discrete financial information is available. CEMEX operates geographically and by business on a regional basis.

Beginning April 1, 2020 and for subsequent periods, the geographical regions Europe and Asia, Middle East and Africa ("AMEA") were merged and reorganized under a single regional president and was denominated Europe, Middle East, Africa and Asia ("EMEAA"). For the reported periods, the Company's operations were organized in four geographical regions, each under the supervision of a regional president, as follows: 1) Mexico, 2) United States, 3) EMEAA and 4) South, Central America and the Caribbean ("SCA&C"). The accounting policies applied to determine the financial information by reportable segment are consistent with those described in note 3.

Considering similar regional and economic characteristics and/or materiality, certain countries have been aggregated and presented as single line items as follows: a) "Rest of EMEAA" refers mainly to CEMEX's operations and activities in the Czech Republic, Croatia, Egypt and the United Arab Emirates; b) "Rest of SCA&C" refers mainly to CEMEX's operations and activities in Costa Rica, Puerto Rico, Nicaragua, Jamaica, the Caribbean, Guatemala and El Salvador, excluding the operations of Trinidad Cement Limited ("TCL") and TCL's subsidiaries; and c) "Caribbean TCL" refers to TCL's operations mainly in Trinidad and Tobago, Jamaica, Guyana and Barbados. The segment "Others" refers to: 1) cement trade maritime operations, 2) Neoris N.V., CEMEX's subsidiary involved in the business of information technology solutions, 3) the Parent Company, other corporate entities and finance subsidiaries, and 4) other minor subsidiaries with different lines of business. As of December 31, 2021 and 2020 and for the years ended December 31, 2021, 2020 and 2019 and the selected financial information by reportable segment and line of business included in the tables below, CEMEX's reportable segments in Costa Rica and El Salvador, part of the SCA&C region, are presented in the line items of discontinued operations and/or assets held for sale and related liabilities, as correspond, jointly with the other discontinued operations previously described (note 5.2). As of the reporting date, the operating segment in Poland has been separated from the Rest of EMEAA considering its materiality within this region. The tables of financial information by reportable segment and line of business as of December 31, 2020 and for the years 2020 and 2019 were reformulated to consider this new presentation.

(Millions of U.S. dollars)

Selected financial information by reportable segment and line of business – continued

Selected information of the consolidated statements of operations by reportable segment for the years 2021, 2020 and 2019, excluding the share of profits of equity accounted investees by reportable segment that is included in the note 15.1, was as follows:

2021	Revenues (including intragroup transactions)	Less: Intragroup transactions	Revenues	Operating EBITDA	Less: Depreciation and amortization	Operating earnings before other expenses, net	Other expenses, net	Financial expense	Other financing items, net
Mexico	$ 3,466	(142)	3,324	1,164	161	1,003	(43)	(29)	2
United States	4,359	(4)	4,355	778	464	314	(127)	(47)	(19)
EMEAA									
United Kingdom	940	—	940	141	69	72	(3)	(8)	(17)
France	863	—	863	93	50	43	(6)	(11)	—
Germany	472	(43)	429	69	28	41	—	(2)	(2)
Poland	405	(6)	399	73	25	48	(4)	(2)	1
Spain	359	(25)	334	(6)	33	(39)	(331)	(3)	51
Philippines [1]	424	—	424	114	40	74	(1)	17	(2)
Israel	785	—	785	114	45	69	(1)	(4)	2
Rest of EMEAA	618	(5)	613	87	56	31	(110)	(3)	1
SCA&C									
Colombia [2]	437	—	437	87	26	61	(19)	(7)	(12)
Panama [2]	121	(23)	98	31	16	15	(2)	—	—
Caribbean TCL [3]	280	(7)	273	65	19	46	(1)	(6)	(6)
Dominican Republic	299	(8)	291	128	7	121	3	—	(1)
Rest of SCA&C [2]	465	(21)	444	110	13	97	(5)	(2)	(3)
Others	1,790	(1,251)	539	(187)	75	(262)	534	(555)	(73)
Continuing operations	16,083	(1,535)	14,548	2,861	1,127	1,734	(116)	(662)	(78)
Discontinued operations	185	—	185	44	9	35	(12)	—	11
Total	$ 16,268	(1,535)	14,733	2,905	1,136	1,769	(128)	(662)	(67)

2020	Revenues (including intragroup transactions)	Less: Intragroup transactions	Revenues	Operating EBITDA	Less: Depreciation and amortization	Operating earnings before other expenses, net	Other expenses, net	Financial expense	Other financing items, net
Mexico	$ 2,812	(134)	2,678	931	148	783	(46)	(31)	(4)
United States	3,994	(1)	3,993	747	440	307	(1,350)	(53)	(20)
EMEAA									
United Kingdom	739	—	739	88	67	21	(73)	(9)	(77)
France	754	—	754	71	48	23	(1)	(12)	3
Germany	489	(37)	452	67	28	39	(3)	(2)	(3)
Poland	377	(7)	370	74	25	49	(1)	(2)	1
Spain	319	(16)	303	25	39	(14)	(195)	(3)	(9)
Philippines [1]	398	—	398	118	46	72	(1)	2	2
Israel	754	—	754	115	28	87	—	(4)	1
Rest of EMEAA	582	(9)	573	75	56	19	(26)	(3)	(22)
SCA&C									
Colombia [2]	404	—	404	86	25	61	(14)	(5)	(13)
Panama [2]	80	(7)	73	12	16	(4)	(19)	(1)	1
Caribbean TCL [3]	251	(7)	244	65	22	43	(9)	(6)	(8)
Dominican Republic	229	(11)	218	84	8	76	(5)	(1)	4
Rest of SCA&C [2]	393	(3)	390	100	15	85	(38)	(2)	7
Others	941	(470)	471	(237)	99	(336)	14	(645)	19
Continuing operations	13,516	(702)	12,814	2,421	1,110	1,311	(1,767)	(777)	(118)
Discontinued operations	360	(14)	346	53	15	38	(18)	—	9
Total	$ 13,876	(716)	13,160	2,474	1,125	1,349	(1,785)	(777)	(109)

(Millions of U.S. dollars)

Selected information of the statements of operations by reportable segment – continued

2019	Revenues (including intragroup transactions)	Less: Intragroup transactions	**Revenues**	**Operating EBITDA**	Less: Depreciation and amortization	**Operating earnings before other expenses, net**	Other expenses, net	Financial expense	Other financing items, net
Mexico	$ 2,897	(105)	2,792	969	159	810	(48)	(36)	(1)
United States	3,780	—	3,780	629	392	237	(22)	(64)	(13)
EMEAA									
United Kingdom	749	—	749	119	69	50	(2)	(11)	(17)
France	825	—	825	89	48	41	(5)	(11)	1
Germany	439	(25)	414	65	28	37	3	(3)	(4)
Poland	350	(2)	348	56	24	32	—	(2)	—
Spain	319	(25)	294	16	34	(18)	(8)	(2)	2
Philippines [1]	458	—	458	117	38	79	1	6	4
Israel	660	—	660	89	23	66	—	(2)	1
Rest of EMEAA	608	(12)	596	74	46	28	(7)	(5)	26
SCA&C									
Colombia [2]	504	—	504	90	29	61	(21)	(4)	(3)
Panama [2]	181	(2)	179	48	17	31	(9)	(1)	—
Caribbean TCL [3]	248	(8)	240	56	23	33	(2)	(6)	(4)
Dominican Republic	245	(17)	228	84	9	75	(1)	—	—
Rest of SCA&C [2]	383	(3)	380	68	15	53	(57)	(3)	1
Others	1,089	(577)	512	(231)	85	(316)	(156)	(567)	(58)
Continuing operations	13,735	(776)	12,959	2,338	1,039	1,299	(334)	(711)	(65)
Discontinued operations	759	(15)	744	128	57	71	(11)	—	(6)
Total	$ 14,494	(791)	13,703	2,466	1,096	1,370	(345)	(711)	(71)

1 CEMEX's operations in the Philippines are mainly conducted through CEMEX Holdings Philippines, Inc. ("CHP"), a Philippine company whose shares trade on the Philippines Stock Exchange. As of December 31, 2021 and 2020, there is a non-controlling interest in CHP of 22.16% of its ordinary shares (note 22.4).

2 CEMEX Latam Holdings, S.A. ("CLH"), a company incorporated in Spain, trades its ordinary shares on the Colombian Stock Exchange. CLH is the indirect holding company of CEMEX's operations in Colombia, Panama, Costa Rica, Guatemala, Nicaragua and El Salvador. At year end 2021 and 2020, there is a non-controlling interest in CLH of 7.74% and 7.63%, respectively, of its ordinary shares, excluding shares held in CLH's treasury (note 22.4).

3 The shares of TCL trade on the Trinidad and Tobago Stock Exchange. As of December 31, 2021 and 2020, there is a non-controlling interest in TCL of 30.17% of its ordinary shares in both years (note 22.4).

Debt by reportable segment is disclosed in note 18.1. As of December 31, 2021 and 2020, selected statement of financial position information by reportable segment was as follows:

2021	**Equity accounted investees**	**Other segment assets**	**Total assets**	**Total liabilities**	**Net assets by segment**	**Additions to fixed assets 1**
Mexico	$ —	3,785	3,785	1,513	2,272	190
United States	159	12,651	12,810	2,707	10,103	373
EMEAA						
United Kingdom	6	1,585	1,591	1,220	371	94
France	41	952	993	476	517	44
Germany	3	398	401	287	114	29
Poland	1	321	322	126	196	29
Spain	—	704	704	240	464	34
Philippines	—	777	777	153	624	89
Israel	—	776	776	526	250	45
Rest of EMEAA	9	798	807	287	520	66
SCA&C						
Colombia	—	962	962	477	485	27
Panama	—	282	282	88	194	9
Caribbean TCL	—	498	498	219	279	22
Dominican Republic	—	192	192	87	105	15
Rest of SCA&C	—	262	262	173	89	15
Others	316	1,031	1,347	7,761	(6,414)	13
Total	535	25,974	26,509	16,340	10,169	1,094
Assets held for sale and related liabilities (note 14.1)	—	141	141	39	102	5
Total consolidated	$ 535	26,115	26,650	16,379	10,271	1,099

(Millions of U.S. dollars)

Selected information of the statements of financial position by reportable segment – continued

2020	Equity accounted investees	Other segment assets	Total assets	Total liabilities	Net assets by segment	Additions to fixed assets 1
Mexico	$ —	3,837	3,837	1,523	2,314	144
United States	146	12,296	12,442	2,490	9,952	284
EMEAA						
United Kingdom	6	1,507	1,513	1,368	145	55
France	53	999	1,052	585	467	62
Germany	4	412	416	357	59	24
Poland	1	319	320	134	186	19
Spain	—	1,023	1,023	230	793	22
Philippines	—	761	761	158	603	82
Israel	—	769	769	507	262	28
Rest of EMEAA	8	853	861	283	578	32
SCA&C						
Colombia	—	1,105	1,105	514	591	14
Panama	—	295	295	78	217	3
Caribbean TCL	—	493	493	258	235	16
Dominican Republic	—	158	158	66	92	2
Rest of SCA&C	—	333	333	162	171	7
Others	292	1,568	1,860	9,754	(7,894)	1
Total	510	26,728	27,238	18,467	8,771	795
Assets held for sale and related liabilities (note 14.1)	—	187	187	6	181	—
Total consolidated	$ 510	26,915	27,425	18,473	8,952	795

1 In 2021 and 2020, the column "Additions to fixed assets" includes capital expenditures, which comprises acquisitions of property, machinery and equipment as well as additions of assets for the right-of-use, for combined amounts of $1,099 and $795, respectively (note 16).

As of the reporting date, the Urbanization Solutions line of business, comprising complementary solutions to solve urban needs such as admixtures for decoration, building, landscaping and renovation purposes as well as variety of mortars and water-repelling and water-retaining agents and stabilizers, among others, was separated from "Others" considering its materiality for CEMEX's management. The tables of revenues by line of business for the years 2020 and 2019 were reformulated to consider this new presentation.

Revenues by line of business and reportable segment for the years ended December 31, 2021, 2020 and 2019 were as follows:

2021	Cement	Concrete	Aggregates	Urbanization solutions	Others	Eliminations	Revenues
Mexico	$2,412	733	208	810	14	(853)	3,324
United States	1,731	2,479	1,005	558	13	(1,431)	4,355
EMEAA							
United Kingdom	270	311	377	200	53	(271)	940
France	—	682	397	6	—	(222)	863
Germany	210	204	65	30	69	(149)	429
Poland	272	154	38	6	1	(72)	399
Spain	256	93	31	23	—	(69)	334
Philippines	423	—	—	4	1	(4)	424
Israel	—	657	199	89	27	(187)	785
Rest of EMEAA	423	232	47	14	21	(124)	613
SCA&C							
Colombia	309	130	36	58	21	(117)	437
Panama	103	16	5	7	1	(34)	98
Caribbean TCL	271	5	7	4	6	(20)	273
Dominican Republic	240	16	—	44	8	(17)	291
Rest of SCA&C	400	20	6	24	1	(7)	444
Others		—	—	—	1,790	(1,251)	539
Continuing operations	7,320	5,732	2,421	1,877	2,026	(4,828)	14,548
Discontinued operations	156	23	7	3	3	(7)	185
Total	$7,476	5,755	2,428	1,880	2,029	(4,835)	14,733

(Millions of U.S. dollars)

Information related to revenue by line of business and reportable segment – continued

2020	Cement	Concrete	Aggregates	Urbanization solutions	Others	Eliminations	Revenues
Mexico	$2,001	628	172	590	14	(727)	2,678
United States	1,599	2,255	954	468	13	(1,296)	3,993
EMEAA							
United Kingdom	201	274	314	176	53	(279)	739
France	—	647	340	—	—	(233)	754
Germany	210	202	69	31	69	(129)	452
Poland	244	142	39	6	1	(62)	370
Spain	233	83	24	18	—	(55)	303
Philippines	398	—	—	2	1	(3)	398
Israel	—	623	195	81	27	(172)	754
Rest of EMEAA	400	220	42	11	21	(121)	573
SCA&C							
Colombia	294	119	34	44	21	(108)	404
Panama	67	14	4	4	1	(17)	73
Caribbean TCL	245	5	7	2	6	(21)	244
Dominican Republic	185	15	5	31	8	(26)	218
Rest of SCA&C	359	3	6	19	1	2	390
Others	—	—	—	—	947	(476)	471
Continuing operations	6,436	5,230	2,205	1,483	1,183	(3,723)	12,814
Discontinued operations	167	90	77	3	56	(47)	346
Total	$6,603	5,320	2,282	1,486	1,239	(3,770)	13,160

2019	Cement	Concrete	Aggregates	Urbanization solutions	Others	Eliminations	Revenues
Mexico	$2,009	798	196	542	76	(829)	2,792
United States	1,608	2,189	917	437	15	(1,386)	3,780
EMEAA							
United Kingdom	227	310	290	141	126	(345)	749
France	—	720	355	—	20	(270)	825
Germany	192	184	62	29	93	(146)	414
Poland	209	141	43	5	7	(57)	348
Spain	228	86	23	20	4	(67)	294
Philippines	457	—	—	2	1	(2)	458
Israel	—	554	166	59	43	(162)	660
Rest of EMEAA	400	237	47	10	14	(112)	596
SCA&C							
Colombia	363	176	53	43	25	(156)	504
Panama	141	49	15	13	2	(41)	179
Caribbean TCL	241	9	5	—	12	(27)	240
Dominican Republic	194	27	8	24	10	(35)	228
Rest of SCA&C	329	36	8	16	2	(11)	380
Others	—	—	—	(1)	1,091	(578)	512
Continuing operations	6,598	5,516	2,188	1,340	1,541	(4,224)	12,959
Discontinued operations	348	157	174	2	89	(26)	744
Total	$6,946	5,673	2,362	1,342	1,630	(4,250)	13,703

6) COST OF SALES

The detail of consolidated cost of sales by nature for the years 2021, 2020 and 2019 is as follows:

	2021	2020	2019
Raw materials and goods for resale	$4,875	4,108	4,213
Payroll	1,498	1,372	1,413
Electricity, fuels and other services	1,174	1,052	1,180
Depreciation and amortization	936	915	859
Maintenance, repairs and supplies	722	648	738
Transportation costs	573	352	336
Change in inventory	(911)	(712)	(967)
Other production costs	1,008	957	942
	$9,875	8,692	8,714

(Millions of U.S. dollars)

7) OPERATING EXPENSES

Consolidated operating expenses during 2021, 2020 and 2019 by function are as follows:

	2021	2020	2019
Administrative expenses [1, 2]	$ 979	1,069	1,104
Selling expenses [2]	324	330	366
Total administrative and selling expenses	1,303	1,399	1,470
Distribution and logistics expenses	1,636	1,412	1,476
Total operating expenses	$2,939	2,811	2,946

1 All significant R&D activities are executed by several internal areas of CEMEX as part of their daily activities. In 2021, 2020 and 2019, total combined expenses of these departments recognized within administrative expenses were $35, $31 and $38, respectively.

2 In 2021, 2020 and 2019, administrative expenses include depreciation and amortization of $142, $145 and $132, respectively, and selling expenses include depreciation and amortization of $49 in 2021, $50 in 2020 and $48 in 2019.

Consolidated operating expenses during 2021, 2020 and 2019 by nature are as follows:

	2021	2020	2019
Transportation costs	$1,502	1,313	1,371
Payroll	915	945	961
Depreciation and amortization [1]	191	195	180
Professional legal, accounting and advisory services	145	176	180
Maintenance, repairs and supplies	78	74	78
Other operating expenses	108	108	176
	$2,939	2,811	2,946

8) OTHER EXPENSES, NET

The detail of the line item "Other expenses, net" for the years 2021, 2020 and 2019 is as follows:

	2021	2020	2019
Sale of emission Allowances (note 3.19) [1]	$ 600	—	—
Impairment losses [2]	(536)	(1,520)	(64)
Results from the sale of assets and others [3]	(136)	(115)	(217)
Incremental costs and expenses related to the COVID-19 Pandemic (note 2)	(26)	(48)	—
Restructuring costs [4]	(17)	(81)	(48)
Charitable contributions	(1)	(3)	(5)
	$(116)	(1,767)	(334)

1 During March 2021, considering CEMEX's targets for the reduction of CO_2 emissions (note 3.4), as well as the innovative technologies and considerable capital investments that have to be deployed to achieve such goals, CEMEX sold 12.3 million Allowances in several transactions for $600. The Company had accrued such Allowances as of the end of Phase III under the EU ETS, which finalized on December 31, 2020.

2 In 2021, includes aggregate impairment losses of goodwill of $440 related to the operating segments in Spain, the United Arab Emirates and the Information Technology business (note 17.2), impairment losses of internally developed software capitalized in prior years and other intangible assets of $53 (note 17.1), as well as impairment losses of fixed assets of $43 (note 16.1). In 2020, include impairment losses of goodwill and other intangible assets of $1,020 and $194, respectively, related to CEMEX's assets and its Reporting Segment in the United States (notes 17.1 and 17.2), as well as impairment losses of fixed assets of $306, mainly related to idle assets in the United States, Spain and the United Kingdom (note 16.1). In 2019, includes impairment losses of fixed assets of $64 (note 16.1).

3 In 2021, 2020 and 2019, includes $29, $11 and $55, respectively, in connection with property damages and natural disasters (note 26.1).

4 Restructuring costs mainly refer to severance payments and the definite closing of operating sites.

9) FINANCIAL ITEMS

9.1) FINANCIAL EXPENSE

Consolidated financial expense in 2021, 2020 and 2019 includes $67, $74 and $77 of interest expense from financial obligations related to lease contracts (notes 16.2 and 18.2).

(Millions of U.S. dollars)

9.2) FINANCIAL INCOME AND OTHER ITEMS, NET

The detail of financial income and other items, net in 2021, 2020 and 2019 was as follows:

	2021	2020	2019
Effects of amortized cost on assets and liabilities and others, net [1]	$(28)	(89)	(20)
Net interest cost of pension liabilities (note 20)	(31)	(33)	(39)
Results from financial instruments, net (notes 15.2 and 18.4)	(6)	(17)	(1)
Foreign exchange results	(37)	(3)	(23)
Financial income	22	20	18
Others	2	4	—
	$(78)	(118)	(65)

1 The increase in 2020 is mainly a result of the decrease in the discount rates in the United Kingdom utilized by the Company to determine its environmental remediation liabilities.

10) CASH AND CASH EQUIVALENTS

As of December 31, 2021 and 2020, consolidated cash and cash equivalents consisted of:

	2021	2020
Cash and bank accounts	$367	501
Fixed-income securities and other cash equivalents	246	449
	$613	950

Based on net settlement agreements, the balance of cash and cash equivalents excludes deposits in margin accounts that guarantee several obligations of CEMEX of $15 in 2021 and $32 in 2020, which were offset against the corresponding obligations of CEMEX with the counterparties, considering CEMEX's right, ability and intention to settle the amounts on a net basis.

11) TRADE ACCOUNTS RECEIVABLE

As of December 31, 2021 and 2020, consolidated trade accounts receivable consisted of:

	2021	2020
Trade accounts receivable	$1,622	1,654
Allowances for expected credit losses	(101)	(121)
	$1,521	1,533

As of December 31, 2021 and 2020, trade accounts receivable include receivables of $727 and $677, respectively, sold under outstanding trade receivables securitization programs and/or factoring programs with recourse, established in Mexico, the United States, France and the United Kingdom, in which CEMEX effectively surrenders control associated with the trade accounts receivable sold and there is no guarantee or obligation to reacquire the assets; nonetheless, in such programs, CEMEX retains certain residual interest in the programs and/or maintains continuing involvement with the accounts receivable. Therefore, the trade accounts receivable sold were not removed from the statement of financial position and the funded amounts to CEMEX of $602 in 2021 and $ 586 in 2020, were recognized within the line item of "Other financial obligations." Trade accounts receivable qualifying for sale exclude amounts over certain days past due or concentrations over certain limits to any one customer, according to the terms of the programs. The discount granted to the acquirers of the trade accounts receivable is recorded as financial expense and amounted to $11 in 2021, $ 13 in 2020 and $25 in 2019. CEMEX's securitization programs are usually negotiated for periods of one to two years and are usually renewed at their maturity.

As of December 31, 2021, the balances of trade accounts receivable and the allowance for Expected Credit Losses (“ECL”) were as follows:

	Accounts receivable	ECL allowance	ECL average rate
Mexico	$ 253	31	12.3%
United States	503	6	1.2%
Europe, Middle East, Africa and Asia	742	47	6.3%
South, Central America and the Caribbean	82	13	15.9%
Others	42	4	9.5%
	$ 1,622	101	

(Millions of U.S. dollars)

Trade accounts receivable – continued

Changes in the allowance for expected credit losses in 2021, 2020 and 2019, were as follows:

	2021	2020	2019
Allowances for expected credit losses at beginning of period	$121	116	119
Charged to selling expenses	1	23	12
Deductions	(16)	(19)	(16)
Reclassification to assets held for sale (notes 5.2)	(2)	—	—
Foreign currency translation effects	(3)	1	1
Allowances for expected credit losses at end of period	$101	121	116

As of December 31, 2021, in relation to the COVID-19 Pandemic (note 2) and the potential increase in expected credit losses on trade accounts receivable because of the negative economic effects associated with the COVID-19 Pandemic, CEMEX maintains continuous communication with its customers as part of its collection management, in order to anticipate situations that could represent an extension in the portfolio's recovery period or in some cases the risk of non-recovery. As of this same date, the Company considers that these negative effects do not yet have a significant impact on the estimates of expected credit losses and will continue to monitor the development of relevant events that may eventually have effect because of a deepening or extension of the COVID-19 Pandemic.

12) OTHER ACCOUNTS RECEIVABLE

As of December 31, 2021 and 2020, consolidated other accounts receivable consisted of:

	2021	2020
Advances of income taxes and other refundable taxes	$396	304
Non-trade accounts receivable [1]	84	117
Interest and notes receivable	31	39
Current portion of valuation of derivative financial instruments	36	7
Loans to employees and others	11	10
	$558	477

1 Non-trade accounts receivable are mainly attributable to the sale of assets.

13) INVENTORIES

As of December 31, 2021 and 2020, the consolidated balance of inventories was summarized as follows:

	2021	2020
Finished goods	$ 343	309
Materials and spare parts	372	271
Raw materials	242	192
Work-in-process	225	164
Inventory in transit	79	35
	$ 1,261	971

For the years ended December 31, 2021, 2020 and 2019, CEMEX recognized within "Cost of sales" in the income statement, inventory impairment losses of $4, $9 and $6, respectively.

14) ASSETS HELD FOR SALE AND OTHER CURRENT ASSETS

14.1) ASSETS HELD FOR SALE (note 5.2)

As of December 31, 2021 and 2020, assets held for sale, which are measured at the lower of their estimated realizable value, less costs to sell, and their carrying amounts, as well as liabilities directly related with such assets are detailed as follows:

	2021			2020		
	Assets	Liabilities	Net assets	Assets	Liabilities	Net assets
Costa Rica and El Salvador	$ 77	39	38	$ —	—	—
White cement assets in Spain	—	—	—	107	—	107
Other assets held for sale [1]	64	—	64	80	6	74
	$ 141	39	102	$ 187	6	181

1 In 2020, includes assets and liabilities of $26 and $6, respectively, associated with a committed sale of certain assets in France negotiated in December 2020.

(Millions of U.S. dollars)

Assets held for sale – continued

CEMEX recognized within the line item "Other expenses, net" adjustments in the fair value of its assets held for sale representing losses of $23 in 2020.

14.2) OTHER CURRENT ASSETS

As of December 31, 2021 and 2020, other current assets of $131 and $117, respectively, are mainly comprised of advance payments to vendors.

15) EQUITY ACCOUNTED INVESTEES, OTHER INVESTMENTS AND NON-CURRENT ACCOUNTS RECEIVABLE

15.1) EQUITY ACCOUNTED INVESTEES

As of December 31, 2021 and 2020, the investments in common shares of associates were as follows:

	Activity	Country	%	2021	2020
Camcem, S.A. de C.V.	Cement	Mexico	40.1	$269	244
Concrete Supply Co. LLC	Concrete	United States	40.0	90	81
Lehigh White Cement Company	Cement	United States	36.8	69	62
Société d'Exploitation de Carrières	Aggregates	France	50.0	22	21
Société Méridionale de Carrières	Aggregates	France	33.3	12	14
Other companies	—	—	—	73	88
				$535	510
Out of which:					
Book value at acquisition date				$303	311
Changes in stockholders' equity				$232	199

Combined condensed statement of financial position information of CEMEX's equity accounted investees as of December 31, 2021 and 2020 is set forth below:

	2021	2020
Current assets	$1,424	1,240
Non-current assets	1,718	1,662
Total assets	3,142	2,902
Current liabilities	532	496
Non-current liabilities	737	766
Total liabilities	1,269	1,262
Total net assets	$1,873	1,640

Combined selected information of the statements of operations of CEMEX's equity accounted investees in 2021, 2020 and 2019 is set forth below:

	2021	2020	2019
Sales	$1,801	1,759	1,600
Operating earnings	312	296	237
Income before income tax	219	175	158
Net income	153	128	118

The share of equity accounted investees by reportable segment in the statements of operations for 2021, 2020 and 2019 is detailed as follows:

	2021	2020	2019
Mexico	$ 28	30	23
United States	18	15	18
EMEAA	8	6	10
Corporate and others	—	(2)	(2)
	$ 54	49	49

(Millions of U.S. dollars)

15.2) OTHER INVESTMENTS AND NON-CURRENT ACCOUNTS RECEIVABLE

As of December 31, 2021 and 2020, consolidated other investments and non-current accounts receivable were summarized as follows:

	2021	2020
Non-current accounts receivable [1]	$204	246
Investments in strategic equity securities [2]	14	23
Non-current portion of valuation of derivative financial instruments (note 18.4)	22	3
Investments at fair value through the income statement [3]	3	3
	$243	275

1 Includes, among other items: a) accounts receivable from investees and joint ventures of $21 in 2021 and $36 in 2020, b) advances to suppliers of fixed assets of $35 in 2021 and $47 in 2020, c) employee prepaid compensation of $7 in 2021 and $6 in 2020, and d) warranty deposits of $27 in 2021 and $29 in 2020.

2 These investments are recognized at fair value through other comprehensive income.

3 Refers to investments in private funds. In 2021 and 2020, no contributions were made to such private funds.

16) PROPERTY, MACHINERY AND EQUIPMENT, NET AND ASSETS FOR THE RIGHT-OF-USE, NET

As of December 31, 2021 and 2020, property, machinery and equipment, net and assets for the right-of-use, net were summarized as follows:

	2021	2020
Property, machinery and equipment, net	$ 10,202	10,170
Assets for the right-of-use, net	1,120	1,243
	$ 11,322	11,413

16.1) PROPERTY, MACHINERY AND EQUIPMENT, NET

As of December 31, 2021 and 2020, consolidated property, machinery and equipment, net and the changes in this line item during 2021, 2020 and 2019, were as follows:

	2021				
	Land and mineral reserves	Building	Machinery and equipment	Construction in progress [1]	Total
Cost at beginning of period	$ 4,741	2,438	11,929	1,188	20,296
Accumulated depreciation and depletion	(1,177)	(1,474)	(7,475)	—	(10,126)
Net book value at beginning of period	3,564	964	4,454	1,188	10,170
Capital expenditures	81	159	609	—	849
Stripping costs	18	—	—	—	18
Total capital expenditures	99	159	609	—	867
Disposals [2]	(20)	(6)	(80)	—	(106)
Reclassifications [3]	(4)	(8)	(29)	(3)	(44)
Depreciation and depletion for the period	(108)	(74)	(542)	—	(724)
Impairment losses	(11)	(9)	(15)	(8)	(43)
Foreign currency translation effects	55	12	(70)	85	82
Cost at end of period	4,801	2,532	11,727	1,262	20,322
Accumulated depreciation and depletion	(1,226)	(1,494)	(7,400)	—	(10,120)
Net book value at end of period	$ 3,575	1,038	4,327	1,262	10,202

(Millions of U.S. dollars)

Property, machinery and equipment, net – continued

	2020					
	Land and mineral reserves	Building	Machinery and equipment	Construction in progress [1]	Total	2019 [1, 2]
Cost at beginning of period	$ 4,606	2,374	11,519	1,209	19,708	20,642
Accumulated depreciation and depletion	(968)	(1,326)	(6,849)	—	(9,143)	(9,410)
Net book value at beginning of period	3,638	1,048	4,670	1,209	10,565	11,232
Capital expenditures	47	35	482	—	564	737
Stripping costs	18	—	—	—	18	22
Total capital expenditures	65	35	482	—	582	759
Disposals [2]	(26)	(7)	(30)	—	(63)	(96)
Reclassifications [3]	(10)	(2)	(6)	—	(18)	(402)
Business combinations (note 5.1)	—	—	11	—	11	—
Depreciation and depletion for the period	(134)	(99)	(515)	—	(748)	(633)
Impairment losses	(87)	(54)	(165)	—	(306)	(64)
Foreign currency translation effects	118	43	7	(21)	147	(231)
Cost at end of period	4,741	2,438	11,929	1,188	20,296	19,708
Accumulated depreciation and depletion	(1,177)	(1,474)	(7,475)	—	(10,126)	(9,143)
Net book value at end of period	$ 3,564	964	4,454	1,188	10,170	10,565

1 As of December 31, 2021, the Maceo plant in Colombia, finalized significantly in 2017, with an annual capacity of approximately 1.3 million tons, has not initiated commercial operations. As of the reporting date, the works related to the access road to the plant remain suspended and the beginning of commercial operations is subject to the successful conclusion of several ongoing processes for the proper operation of the assets and other legal proceedings (note 26.3). As of December 31, 2021, the carrying amount of the plant, is for an amount in Colombian pesos equivalent to $240.

2 In 2021 includes sales of non-strategic fixed assets in Spain, the United States and the United Kingdom for $51, $29 and $12, respectively, among others. In 2020, includes sales of non-strategic fixed assets in the United Kingdom and the United States for $28 and $18, respectively, among others. In 2019, includes sales of non-strategic fixed assets in Germany, France and the United Kingdom for $32, $12 and $6, respectively, among others.

3 In 2021, refers to the reclassification to held-for-sale of the assets in Costa Rica and El Salvador for $43 and $ 1, respectively. In 2020, refers to the reclassification of the assets in France, Puerto Rico, Colombia and Dominican Republic for $8, $5, $3 and $2, respectively. In 2019, refers to the reclassification to held-for-sale of the assets in the United States, United Kingdom and Spain for $134, $182 and $86, respectively.

During 2020, considering mainly the negative effects of the COVID-19 Pandemic on certain idle assets that will remain closed for the foreseeable future in relation to the estimated sales volumes and the Company’s ability to supply demand by achieving efficiencies in other operating assets, CEMEX recognized non-cash impairment losses for these assets for an aggregate amount of $306, of which $ 76 relate to assets in the United States mainly the North Brooksville plant, $189 to assets in EMEAA mainly referring to the Lloseta and Gador plants in Spain and the South Ferriby plant in the United Kingdom, and minor adjustments in other countries and $ 39 to assets in SCA&C mainly in connection with land in Puerto Rico and the kiln 1 in Panama. In 2019 due to the continued adverse outlook and the overall uncertain economic conditions in Puerto Rico after hurricane “Maria” in 2017, CEMEX recognized an impairment loss of $52. During 2021, there were no significant impairment losses of fixed assets. Moreover, during 2021 there were no reversal of impairment charges of the COVID-19 Pandemic’ related adjustments of 2020 due to assets being recommissioned.

For the years ended December 31, 2021, 2020 and 2019, CEMEX adjusted the related fixed assets to their estimated value in use in those circumstances in which the assets would continue in operation based on estimated cash flows during the remaining useful life, or to their realizable value, in case of permanent shut down, and recognized impairment losses within the line item of “Other expenses, net” (notes 3.11 and 8).

During the years ended December 31, 2021, 2020 and 2019 impairment losses of fixed assets by country are as follows:

	2021	2020	2019
United States	$ 18	76	6
Colombia	10	2	3
United Kingdom	5	39	—
Czech Republic	5	—	—
Spain	—	135	—
Puerto Rico	—	20	52
Croatia	—	13	—
Panama	—	12	—
Others	5	9	3
	$ 43	306	64

(Millions of U.S. dollars)

16.2) ASSETS FOR THE RIGHT-OF-USE, NET

As of December 31, 2021 and 2020, consolidated assets for the right-of-use, net and the changes in this caption during 2021, 2020 and 2019, were as follows:

	2021				
	Land	Buildings	Machinery and equipment	Others	Total
Assets for the right-of-use at beginning of period	$ 409	457	1,502	21	2,389
Accumulated depreciation	(139)	(253)	(744)	(10)	(1,146)
Net book value at beginning of period	270	204	758	11	1,243
Additions of new leases	59	22	143	3	227
Cancellations and remeasurements	(28)	(19)	(87)	—	(134)
Depreciation	(17)	(37)	(226)	(3)	(283)
Foreign currency translation effects	(36)	26	80	(3)	67
Assets for the right-of-use at end of period	395	401	1,513	21	2,330
Accumulated depreciation	(147)	(205)	(845)	(13)	(1,210)
Net book value at end of period	$ 248	196	668	8	1,120

	2020					
	Land	Buildings	Machinery and equipment	Others	Total	2019
Assets for the right-of-use at beginning of period	$ 366	471	1,417	11	2,265	2,073
Accumulated depreciation	(117)	(233)	(625)	(5)	(980)	(851)
Net book value at beginning of period	249	238	792	6	1,285	1,222
Additions of new leases	42	38	127	6	213	274
Cancellations and remeasurements	(7)	(17)	(51)	(1)	(76)	(52)
Business combinations (note 5.1)	13	—	—	—	13	—
Reclassifications	—	—	—	—	—	35
Depreciation	(28)	(35)	(173)	(3)	(239)	(288)
Foreign currency translation effects	1	(20)	63	3	47	94
Assets for the right-of-use at end of period	409	457	1,502	21	2,389	2,265
Accumulated depreciation	(139)	(253)	(744)	(10)	(1,146)	(980)
Net book value at end of period	$ 270	204	758	11	1,243	1,285

For the years ended December 31, 2021, 2020 and 2019, the combined rental expense related with short-term leases, leases of low-value assets and variable lease payments were $94, $97 and $104, respectively, and were recognized in cost of sales and operating expenses, as correspond. During the reported periods, CEMEX did not have any material revenue from sub-leasing activities. Moreover, during 2021 and 2020, CEMEX did not have significant rent concessions related to the COVID-19 Pandemic (note 2).

17) GOODWILL AND INTANGIBLE ASSETS, NET

17.1) BALANCES AND CHANGES DURING THE PERIOD

As of December 31, 2021 and 2020, consolidated goodwill, intangible assets and deferred charges were summarized as follows:

	2021			2020		
	Cost	Accumulated amortization	Carrying amount	Cost	Accumulated amortization	Carrying amount
Intangible assets of indefinite useful life:						
Goodwill	$ 7,984	—	7,984	$ 8,506	—	8,506
Intangible assets of definite useful life:						
Extraction rights	1,781	(431)	1,350	1,774	(416)	1,358
Industrial property and trademarks	45	(22)	23	44	(20)	24
Customer relationships	196	(196)	—	196	(196)	—
Mining projects	52	(7)	45	49	(6)	43
Internally developed software	689	(461)	228	636	(423)	213
Others intangible assets	351	(218)	133	398	(290)	108
	$11,098	(1,335)	9,763	$11,603	(1,351)	10,252

(Millions of U.S. dollars)

Changes in consolidated goodwill for the years ended December 31, 2021, 2020 and 2019, were as follows:

	2021	2020	2019
Balance at beginning of period	$8,506	9,562	9,912
Impairment losses	(440)	(1,020)	—
Business combinations (note 5.1)	5	2	—
Reclassification to assets held for sale (notes 5.2, 5.3 and 14.1)	(2)	(9)	(371)
Foreign currency translation effects	(85)	(29)	21
Balance at end of period	$7,984	8,506	9,562

Changes in intangible assets of definite life in 2021, 2020 and 2019, were as follows:

	2021					
	Extraction rights	Industrial property and trademarks	Mining projects	Internally developed software [1]	Others	Total
Balance at beginning of period	$ 1,358	24	43	213	108	1,746
Impairment losses (note 2)	—	—	—	(49)	(4)	(53)
Amortization for the period	(24)	(2)	(1)	(71)	(22)	(120)
Additions (disposals), net [1]	27	—	2	132	53	214
Foreign currency translation effects	(11)	1	1	3	(2)	(8)
Balance at the end of period	$ 1,350	23	45	228	133	1,779

	2020						
	Extraction rights	Industrial property and trademarks	Mining projects	Internally developed software [1]	Others	Total	2019
Balance at beginning of period	$ 1,590	24	43	253	118	2,028	2,024
Impairment losses (note 2)	(181)	—	—	—	(13)	(194)	—
Amortization for the period	(21)	(2)	(1)	(79)	(27)	(130)	(124)
Additions (disposals), net [1]	(33)	—	—	40	26	33	81
Business combinations (note 5.1)	—	2	—	—	5	7	—
Reclassifications	—	—	—	—	—	—	(2)
Foreign currency translation effects	3	—	1	(1)	(1)	2	49
Balance at the end of period	$ 1,358	24	43	213	108	1,746	2,028

1 Includes the capitalized direct costs incurred in the development stage of internal-use software, such as professional fees, direct labor and related travel expenses. The capitalized amounts are amortized to the statement of operations over a period ranging from 3 to 5 years.

In 2021, CEMEX recognized impairment losses in connection with its internally developed software of $49 considering certain obsolescence generated by the significant replacement of the applications platform during the period. In 2020, in connection with the idle status of North Brooksville plant in the United States (notes 2 and 16.1), CEMEX also recognized a non-cash impairment charge of $181 associated with the operating permits related to such plant considering that the book value of such permits will not be recovered through normal use before their expiration and $13 of other intangible assets.

17.2) ANALYSIS OF GOODWILL IMPAIRMENT

At least once a year during the last quarter or when impairment indicators exist, CEMEX analyses the possible impairment of goodwill by means of determining the value in use of its Cash Generating Units ("CGUs") to which goodwill balances have been allocated. The value in use is represented by the discounted cash flows projections related to such CGUs using risk adjusted discount rates. In addition to the periodic goodwill impairment tests performed at year end 2020, considering the negative effects on its operating results caused by the COVID-19 Pandemic (note 2), as well as the high uncertainty and lack of visibility in relation to the duration and consequences in the different markets where the Company operates, management considered that impairment indicators occurred during the third quarter of 2021 and 2020 in its operating segments in Spain and the United Arab Emirates ("UAE") in 2021, and in the United States, Spain, Egypt and the United Arab Emirates in 2020, and consequently carried out impairment analyses of goodwill as of September 30, 2021 and 2020 in these operating segments.

As a result of these impairment analyses, in the third quarter of 2021 and 2020, the Company recognized within Other expenses, net (note 8) in the statement of operations, non-cash goodwill impairment losses for aggregate amounts of $440 and $1,020, respectively, related, in 2021, to the operating segments in Spain of $317, UAE of $ 96, representing the entire goodwill allocated to UAE's operating segment, as well as $27 related to CEMEX's Information Technology business due to reorganization, and in 2020, related with its operating segment in the United States. No other impairment test of goodwill as of September 30, 2021 and 2020 resulted in additional goodwill impairment losses.

(Millions of U.S. dollars)

Analysis of goodwill impairment – continued

Furthermore, CEMEX did not determine additional impairment losses in its goodwill impairment test as of December 31, 2021 and 2020 in any of the groups of CGUs to which goodwill balances have been allocated. In 2019, CEMEX did not determine goodwill impairment losses.

In 2021, the impairment losses in Spain and UAE referred, in both cases, in the aftermath of the COVID-19 Pandemic (note 2), to disruptions in the supply chains that have generated increases in the estimated production and transportation costs that are considered will be sustained in the mid-term. These negative effects significantly reduced the value in use of the reporting segments in Spain and UAE as of September 30, 2021 as compared to the valuations determined as of December 31, 2020, entirely generated by reductions in the projected Operating EBITDA as a result of the aforementioned increases in costs, considering that discount rates and long-term growth rates remained unchanged, which were 7.7% and 1.5% in Spain, respectively, as well as 8.3% and 2.6% in UAE, respectively.

In 2020, the impairment loss in the United States resulted from the high volatility, lack of visibility and reduced outlook associated with the effects of the COVID-19 Pandemic which made CEMEX reduce its cash-flows projections in such country from 7 to 5 years as well as reduce its long-term growth rate from 2.5% to 2%. Such changes significantly reduced the value in use as of September 30, 2020, which decreased by 25.7% as compared to December 31, 2019. Of this reduction, 51.5 percentage points ("p.p.") were related to the decrease of two years in the cash flows projections, 27.3 p.p. resulted from the reduction in the long-term growth rate used to determine the terminal value which changed from 2.5% in 2019 to 2.0% as of September 30, 2020, and 28.3 p.p. resulted from the slowdown of sales growth over the projected years, partially compensated by a positive effect of 7.1 p.p. associated with the reduction in the discount rate which decrease from 7.8% in 2019 to 7.7% as of September 30, 2020.

As of December 31, 2021 and 2020, goodwill balances allocated by Operating Segment were as follows:

	2021	2020
Mexico	$ 361	372
United States	6,449	6,449
EMEAA		
United Kingdom	280	292
France	213	229
Spain	158	463
Philippines	89	95
United Arab Emirates	—	96
Rest of EMEAA [1]	48	44
SCA&C		
Colombia	244	283
Caribbean TCL	83	92
Rest of SCA&C [2]	59	64
Others		
Other reporting segments [3]	—	27
	$7,984	8,506

1 This caption refers to the operating segments in Israel, the Czech Republic and Egypt.
2 This caption refers to the operating segments in the Dominican Republic, the Caribbean and Panama.
3 This caption is primarily associated with Neoris N.V., CEMEX's subsidiary involved in the sale of information technology and services.

As of December 31, 2021, 2020 and 2019, CEMEX's pre-tax discount rates and long-term growth rates used to determine the discounted cash flows in the group of CGUs with the main goodwill balances were as follows:

	Discount rates			Long-term growth rates [1]		
Groups of CGUs	**2021**	**2020**	**2019**	**2021**	**2020**	**2019**
United States	7.2%	7.3%	7.8%	2.0%	2.0%	2.5%
Spain	7.6%	7.7%	8.3%	1.5%	1.5%	1.6%
United Kingdom	7.3%	7.4%	8.0%	1.5%	1.6%	1.5%
France	7.3%	7.4%	8.0%	1.4%	1.7%	1.4%
Mexico	8.4%	8.3%	9.0%	1.0%	1.1%	2.4%
Colombia	8.5%	8.4%	8.9%	3.5%	2.5%	3.7%
United Arab Emirates	—	8.3%	8.8%	—	2.6%	2.5%
Egypt	10.7%	10.2%	10.3%	3.0%	5.6%	6.0%
Range of rates in other countries	7.4% – 11.7%	7.2% – 15.5%	8.1% – 11.5%	1.7% – 6.0%	(0.3%) – 6.5%	1.6% – 6.5%

1 The long-term growth rates are generally based on projections issued by the International Monetary Fund ("IMF").

(Millions of U.S. dollars)

Analysis of goodwill impairment – continued

The discount rates used by CEMEX in its cash flows projections to determine the value in use of its operating segments as of December 31, 2021 changed slightly as compared to 2020 in a range of -0.1% up to 0.5%. This was mainly generated for the effect that significantly increases the discount rates of the weighing of debt in the calculation of the discount rates that decreased from 34.6% in 2020 to 26.9% in 2021 as well as the market risk premium which increased from 5.7% in 2020 to 5.8% in 2021. These increasing effects were offset by the decrease in the risk-free rate associated to CEMEX changed from 2.2% in 2020 to 1.8% in 2021, as well as by the reduction in the public comparable companies' stock volatility (beta) that changed from 1.19 in 2020 to 1.12 in 2021. As of December 31, 2021, the funding cost observed in the industry of 4.1% remained unchanged against 2020, while the specific risk rates of each country experienced mixed non-significant changes in 2021 as compared to 2020 in the majority of the countries. In addition, as preventive measures to continue considering the relative prevailing high uncertainty, volatility and reduced visibility in the aftermath of the COVID-19 Pandemic, CEMEX reduced in certain countries its long-term growth rates used in their cash flows projections as of December 31, 2021 as compared to the International Monetary Fund ("IMF") projections such as in Mexico in 1.0% and Egypt in 2.8%. These long-term growth rates will be revised upwards or downwards again in the future as new economic data is available.

The discount rates used by CEMEX in its cash flows projections to determine the value in use of its operating segments as of December 31, 2020 generally decreased as compared to 2019 in a range of 0.1% up to 1.5%, mainly as a result of a decrease in 2020 in the funding cost observed in the industry that changed from 5.4% in 2019 to 4.1% in 2020 as well as the weighing of debt in the calculation of the discount rates that increased from 31.7% in 2019 to 34.6% in 2020. The risk-free rate associated to CEMEX changed from 2.9% in 2019 to 2.2% in 2020, nonetheless, increases in the specific risk rates of each country and in the market risk premium which changed from 5.6% in 2019 to 5.7% in 2020, resulted in that total cost of equity remained significantly flat in 2020 as compared to 2019 in the majority of the countries. These reductions were partially offset by a slight increase in the public comparable companies' stock volatility (beta) that changed from 1.08 in 2019 to 1.19 in 2020. Moreover, in 2020, as preventive measure to consider the then high uncertainty, volatility and reduced visibility related to the negative effects of the COVID-19 Pandemic, CEMEX significantly reduced in certain countries its long-term growth rates used in their cash flows projections as of December 31, 2020 as compared to the IMF projections such as in the United States in 0.5%, Mexico in 1.3% and Colombia in 1.2%.

In addition, the discount rates used by CEMEX in its cash flows projections to determine the value in use of its operating segments as of December 31, 2019 generally decreased as compared to 2018 in a range of 0.6% up to 2.6%, mainly because of a decrease in 2019 in the funding cost observed in the industry that changed from 7.3% in 2018 to 5.4% in 2019. The risk-free rate associated to CEMEX remained significantly flat in the level of 2.9%, while the country risk-specific rates decreased slightly in 2019 in most cases. These reductions were partially offset by a slight increase in the public comparable companies' stock volatility (beta) that changed from 1.06 in 2018 to 1.08 in 2019 and the decrease in the weighing of debt in the calculation of the discount rates that changed from 33.5% in 2018 to 31.7% in 2019.

In connection with the discount rates and long-term growth rates included in the table above, CEMEX verified the reasonableness of its conclusions using sensitivity analyses to changes in assumptions, affecting the value in use of all groups of CGUs with an independent reasonably possible increase of 1% in the pre-tax discount rate, an independent possible decrease of 1% in the long-term growth rate, as well as using multiples of Operating EBITDA, by means of which, CEMEX determined a weighted-average multiple of Operating EBITDA to enterprise value observed in recent mergers and acquisitions in the industry. The average multiple was then applied to a stabilized amount of Operating EBITDA and the result was compared to the corresponding carrying amount for each group of CGUs to which goodwill has been allocated. CEMEX considered an industry average Operating EBITDA multiple of 11.5 times in 2021, 2020 and 2019.

In relation to the economic assumptions used by the Company described above, the additional impairment losses that would have resulted from the sensitivity analyses derived from independent changes in each of the relevant assumptions, as well as the multiples of Operating EBITDA, in those operating segments that presented impairment charges or relative impairment risk during 2021, are as follows:

		Additional effects of the sensitivity analyses to the charges recognized from the changes in assumptions as of December 31, 2021		
Operating segment	**Impairment losses recognized**	Discount rate **+1%**	Long-term growth rate **–1%**	Multiples Operating EBITDA **11.5x**
Spain	$ 317	57	42	—
United States	—	238	—	—

The factors considered by the Company's management that could cause the hypothetical scenarios of the previous sensitivity analysis in Spain and the United States are, in relation to the discount rate, an independent increase of 300 bps in the industry funding cost observed as of December 31, 2021 of 4.1% or, an independent increase in the risk-free rate of 190bps over the rates of 2.4% in Spain and 1.8% in the United States. Nonetheless, such assumptions did not seem reasonable as of December 31, 2021.

As of December 31, 2021, except for the operating segments in Spain and the United States presented in the table above, none of the other sensitivity analyses indicated a potential impairment risk in CEMEX's operating segments. CEMEX continually monitors the evolution of the group of CGUs to which goodwill has been allocated that have presented relative goodwill impairment risk in any of the reported periods and, if the relevant economic variables and the related value in use would be negatively affected, it may result in a goodwill impairment loss in the future.

(Millions of U.S. dollars)

Analysis of goodwill impairment – continued

As of December 31, 2021 and 2020, goodwill allocated to its operating segment in the United States accounted for 81% and 76%, respectively, of CEMEX's total amount of consolidated goodwill. In connection with CEMEX's determination of value in use relative to its groups of CGUs in the United States in the reported periods, CEMEX has considered several factors, such as the historical performance of such operating segment, including the operating results in recent years, the long-term nature of CEMEX's investment, the signs of recovery in the construction industry over the last years, the significant economic barriers for new potential competitors considering the high investment required, and the lack of susceptibility of the industry to technology improvements or alternate construction products, among other factors. To improve its assurance, as mentioned above, CEMEX verified its conclusions using sensitivity analyses over Operating EBITDA multiples of recent sale transaction within the industry occurred in such country, as well as macroeconomic information regarding gross domestic product and cement consumption over the projected periods issued by the International Monetary Fund and the U.S. Portland Cement Association, respectively.

18) FINANCIAL INSTRUMENTS

18.1) CURRENT AND NON-CURRENT DEBT

As of December 31, 2021 and 2020, CEMEX´s consolidated debt summarized by interest rates and currencies, was as follows:

	2021			2020		
	Current	Non-current	Total [1, 2]	Current	Non-current	Total [1, 2]
Floating rate debt	$ 27	896	923	$ 172	2,538	2,710
Fixed rate debt	46	6,410	6,456	7	6,622	6,629
	$ 73	7,306	7,379	$ 179	9,160	9,339
Effective rate [3]						
Floating rate	2.7%	2.6%		3.1%	4.0%	
Fixed rate	5.2%	4.8%		4.7%	5.6%	

	2021				2020			
Currency	Current	Non-current	Total	Effective rate [3]	Current	Non-current	Total	Effective rate [3]
Dollars	$ 6	6,375	6,381	4.4%	$ 6	6,089	6,095	5.8%
Euros	1	453	454	3.1%	73	2,078	2,151	2.7%
Pounds	—	—	—	—	55	329	384	2.5%
Philippine pesos	66	109	175	4.4%	3	220	223	4.1%
Mexican pesos	—	254	254	7.2%	—	334	334	6.8%
Other currencies	—	115	115	4.1%	42	110	152	4.9%
	$ 73	7,306	7,379		$ 179	9,160	9,339	

1 As of December 31, 2021 and 2020, from total debt of $7,379 and $9,339, respectively, 94% in 2021 and 93% in 2020 was held in the Parent Company and 6% in 2021 and 7% in 2020 was in subsidiaries of the Parent Company.

2 As of December 31, 2021 and 2020, cumulative discounts, fees and other direct costs incurred in CEMEX's outstanding debt borrowings and the issuance of notes payable (jointly "Issuance Costs") for $53 and $66, respectively, are presented reducing debt balances and are amortized to financial expense over the maturity of the related debt instruments under the amortized cost method.

3 In 2021 and 2020, represents the weighted-average nominal interest rate of the related debt agreements determined at the end of each period.

As of December 31, 2021 and 2020, CEMEX´s consolidated debt summarized by type of instrument, was as follows:

2021	Current	Non-current
Bank loans		
Loans in foreign countries, 2023 to 2024	$ —	289
Syndicated loans, 2023 to 2026	—	1,728
	—	2,017
Notes payable		
Medium-term notes, 2024 to 2031	—	5,179
Other notes payable, 2022 to 2027	5	178
	5	5,357
Total bank loans and notes payable	5	7,374
Current maturities	68	(68)
	$ 73	7,306

2020	Current	Non-current
Bank loans		
Loans in foreign countries, 2021 to 2024	$ 67	371
Syndicated loans, 2021 to 2025	—	2,383
	67	2,754
Notes payable		
Medium-term notes, 2024 to 2030	—	6,327
Other notes payable, 2021 to 2027	7	184
	7	6,511
Total bank loans and notes payable	74	9,265
Current maturities	105	(105)
	$ 179	9,160

(Millions of U.S. dollars)

Consolidated debt – continued

As of December 31, 2021, bank loans included a balance of $1,500 outstanding under CEMEX's 2021 Credit Agreement signed on October 29, 2021 and a balance of $255 outstanding under the 2021 Pesos Credit Agreement. In addition, as of December 31, 2020, CEMEX's bank loans included $2,420 of balance outstanding under the previous CEMEX's facilities agreement entered on July 19, 2017, as amended and restated several times as described below (the "2017 Facilities Agreement").

Changes in consolidated debt for the years ended December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Debt at beginning of year	$ 9,339	9,365	9,311
Proceeds from new debt instruments	3,960	4,210	3,331
Debt repayments	(5,897)	(4,572)	(3,284)
Foreign currency translation and accretion effects	(23)	336	7
Debt at end of year	$ 7,379	9,339	9,365

As a result of debt issuances, exchange offers and tender offers incurred to refinance, replace and/or repurchase existing debt instruments, as applicable, CEMEX paid Issuance Costs as well as premiums and/or redemption costs for a total of $142 in 2021, $98 in 2020 and $63 in 2019. Of these incurred Issuance Costs, $37 in 2021, $38 in 2020 and $24 in 2019, corresponding to new debt instruments or the refinancing of old debt, adjusted the carrying amount of the related debt instruments and are amortized over the remaining term of each instrument, while $99 in 2021, $60 in 2020 and $39 in 2019 of such Issuance Costs, associated with the extinguished portion of the related debt, were recognized in the statement of operations in each year within "Financial expense". In addition, Issuance Costs pending for amortization related to extinguished debt instruments for $27 in 2021, $19 in 2020 and $1 in 2019 were also recognized in the statement of operations of each year within "Financial expense."

As of December 31, 2021 and 2020, non-current notes payable for $5,357 and $6,511, respectively, were detailed as follows:

Description	Date of issuance	Issuer [1]	Currency	Principal amount	Rate	Maturity date	Redeemed amount [2] $	Outstanding amount [2] $	2021	2020
July 2031 Notes [3]	12/Jan/21	CEMEX, S.A.B. de C.V.	Dollar	1,750	3.875%	11/Jul/31	—	1,750	$1,741	—
September 2030 Notes	17/Sep/20	CEMEX, S.A.B. de C.V.	Dollar	1,000	5.2%	17/Sep/30	—	1,000	995	995
November 2029 Notes	19/Nov/19	CEMEX, S.A.B. de C.V.	Dollar	1,000	5.45%	19/Nov/29	—	1,000	994	993
June 2027 Notes	05/Jun/20	CEMEX, S.A.B. de C.V.	Dollar	1,000	7.375%	05/Jun/27	—	1,000	995	994
April 2026 Notes [3]	16/Mar/16	CEMEX, S.A.B. de C.V.	Dollar	1,000	7.75%	16/Apr/26	(1,000)	—	—	997
March 2026 Notes	19/Mar/19	CEMEX, S.A.B. de C.V.	Euro	400	3.125%	19/Mar/26	—	455	454	487
July 2025 Notes	01/Apr/03	CEMEX Materials LLC	Dollar	150	7.70%	21/Jul/25	—	150	152	153
January 2025 Notes	11/Sep/14	CEMEX, S.A.B. de C.V.	Dollar	1,100	5.70%	11/Jan/25	(1,100)	—	—	1,069
December 2024 Notes	05/Dec/17	CEMEX, S.A.B. de C.V.	Euro	650	2.75%	05/Dec/24	(650)	—	—	792
Other notes payable									26	31
									$5,357	6,511

1 As of December 31, 2021, after closing the 2021 Credit Agreement, all notes issued are fully and unconditionally guaranteed by CEMEX Concretos, S.A. de C.V., CEMEX Operaciones México, S.A. de C.V., Cemex Innovation Holding Ltd. and CEMEX Corp.
2 Presented net of all outstanding notes repurchased and held by CEMEX. As of December 31, 2021 there are no repurchased notes outstanding.
3 CEMEX used the proceeds from the July 2031 Notes to redeem in full the April 2026 Notes and partially the January 2025 Notes.

The maturities of consolidated long-term debt as of December 31, 2021, were as follows:

	Bank loans	Notes payable	Total
2023	$ 199	6	205
2024	368	5	373
2025	691	157	848
2026	691	460	1,151
2027 and thereafter	—	4,729	4,729
	$ 1,949	5,357	7,306

As of December 31, 2021, CEMEX had the following lines of credit, of which, the only committed portion refers to the revolving credit facility under the 2021 Credit Agreement, at annual interest rates ranging between 1.65% and 3.94%, depending on the negotiated currency:

	Lines of credit	Available
Other lines of credit in foreign subsidiaries [1]	$ 199	87
Other lines of credit from banks [1]	540	339
Revolving credit facility 2021 Credit Agreement	1,750	1,750
	$ 2,489	2,176

1 Uncommitted amounts subject to the banks' availability.

2021 Credit Agreement

On October 29, 2021, CEMEX, S.A.B. de C.V. closed a new $3,250 syndicated sustainability-linked credit agreement, which proceeds were mainly used to fully repay its previous 2017 Facilities Agreement. The 2021 Credit Agreement consists of a $1,500 five-year amortizing term loan and a $1,750 five-year committed Revolving Credit Facility. The committed Revolving Credit Facility under CEMEX's new 2021 Credit Agreement is $600 million larger than the one under the previous 2017 Facilities Agreement, resulting in a stronger liquidity position which is favorable for CEMEX from a risk and credit rating perspective.

The 2021 Credit Agreement is exclusively Dollar denominated and includes an interest rate margin grid over LIBOR that is about 25 basis points lower on average than that of the 2017 Facilities Agreement. All tranches under the 2021 Credit Agreement include a margin over LIBOR from 100 bps to 175 bps, depending on the ratio of debt to Operating EBITDA ("Consolidated Leverage Ratio") ranging from less than 2.25 times in the lower end to greater than 3.25 times in the higher end. The 2021 Credit Agreement includes the Loan Market Association replacement screen rate provisions in anticipation of the discontinuation of LIBOR rates.

Moreover, on December 23, 2021, CEMEX closed the 2021 Pesos Credit Agreement, under terms substantially similar to those of the 2021 Credit Agreement. The 2021 Pesos Credit Agreement has the same guarantor structure as the 2021 Credit Agreement.

The London Inter-Bank Offered Rate ("LIBOR") and the Euro Inter-Bank Offered Rate ("EURIBOR") represent variable rates used in international markets for debt denominated in U.S. dollars and Euros, respectively. The *Tasa de Interés Interbancaria de Equilibrio* ("TIIE") is the variable rate used for debt denominated in Mexican Pesos. As of December 31, 2021 and 2020, 3-Month LIBOR rate was 0.21% and 0.24%, respectively, meanwhile 3-Month EURIBOR rate was -0.57% and -0.545%, respectively. As of December 31, 2021, 28-day TIIE rate was 5.72%. The contraction "bps" means basis points. One hundred basis points equal 1%. See note 18.5 for developments on the undergoing interest rate benchmark reform.

Furthermore, the 2021 Credit Agreement is the first debt instrument issued by CEMEX under the Sustainability-linked Financing Framework (the "Framework"), which is aligned to CEMEX's strategy of CO2 emissions reduction and its ultimate vision of a carbon-neutral economy (note 3.4). The annual performance in respect to the three metrics referenced in the Framework may result in a total adjustment of the interest rate margin of plus or minus 5 basis points, in line with other sustainability-linked loans from investment grade rated borrowers.

Additionally, the 2021 Credit Agreement has a simpler guarantor structure, replicated in all senior notes of the Parent Company, than that of the previous 2017 Facilities Agreement. The balance of debt under the 2021 Credit Agreement, which debtor is CEMEX, S.A.B. de C.V., is guaranteed by CEMEX Concretos, S.A. de C.V., CEMEX Operaciones México, S.A. de C.V., Cemex Innovation Holding Ltd. and CEMEX Corp.

Under the 2021 Credit Agreement, as compared to the 2017 Facilities Agreement, CEMEX has no limits or permitted baskets to incur capital expenditures, acquisitions, dividends, share buybacks and sale of assets, among others, as long as certain limited circumstances, such as non-compliance with financial covenants or specific fundamental changes, would not arise therefrom.

As of December 31, 2021 and 2020, CEMEX was in compliance with the limitations, restrictions and financial covenants contained in the 2021 Credit Agreement, in the 2021 Pesos Credit Agreement and in the 2017 Facilities Agreement, as applicable. CEMEX cannot assure that in the future it will be able to comply with such restrictive covenants and limitations. CEMEX's failure to comply with such covenants and limitations could result in an event of default, which could materially and adversely affect CEMEX's business and financial condition.

2017 Facilities Agreement

On July 19, 2017, the Parent Company and certain subsidiaries entered into the 2017 Facilities Agreement for an amount in different currencies equivalent to $4,050 at the origination date. The proceeds were used to repay the $3,680 then outstanding under the former facilities agreements and other debt repayments. After the amendments to the 2017 Facilities Agreement that became effective on October 13, 2020, debt outstanding would amortize between July 2021 and July 2025, except for the commitments under the revolving credit which would mature in July 2023. All tranches under the 2017 Facilities Agreement included a margin of LIBOR or EURIBOR from 125 bps to 475 bps, and TIIE from 100 bps to 425 bps, depending on the Consolidated Leverage Ratio ranging from less than 2.50 times in the lower end to greater than 6.00 times in the higher end.

In the amendment process to the 2017 Facilities Agreement that became effective on October 13, 2020, among other aspects, CEMEX negotiated new modifications to the financial covenants and the inclusion of sustainability-linked metrics, as well as the Loan Market Association replacement screen rate provisions in anticipation of the discontinuation of LIBOR and potentially EURIBOR. Moreover, as part of amendment process to the 2017 Facilities Agreement that became effective on May 22, 2020, among other aspects, CEMEX negotiated modifications to the financial covenants considering the adverse effects arising during the COVID-19 Pandemic (note 2) in exchange of a one-time fee of $14 (35 bps), and agreed to certain temporary restrictions with respect to permitted capital expenditures, the extension of loans to third parties, acquisitions and/or the use of proceeds from asset sales and fundraising activities, as well as the suspension of share repurchases whenever and for as long as the Company failed to report a consolidated leverage ratio of 4.50 times or less.

Until October 29, 2021, debt under the 2017 Facilities Agreement was guaranteed by CEMEX Concretos, S.A. de C.V., CEMEX España, S.A. ("CEMEX España"), CEMEX Asia B.V., CEMEX Corp., CEMEX Africa & Middle East Investments B.V., CEMEX Finance LLC, CEMEX France Gestion (S.A.S.), CEMEX Research Group AG and CEMEX UK. In addition, debt under this agreement (together with all other senior debt) was also secured by a first-priority security interest in: (a) substantially all the shares of CEMEX Operaciones México, S.A. de C.V, CEMEX Innovation Holding Ltd. and CEMEX España (the "Collateral"); and (b) all proceeds of such Collateral. At this respect, on October 6, 2021, after compliance with all relevant conditions of the 2017 Facilities Agreement and the then-in effect intercreditor agreement governing the rights of certain of CEMEX's creditors, the liens on the Collateral were released.

(Millions of U.S. dollars)

2017 Facilities Agreement – continued

During 2021 until October 29 and the years 2020 and 2019, under the 2017 Facilities Agreement, CEMEX was required to: a) not exceed an aggregate amount for capital expenditures of $1,500 per year, excluding certain capital expenditures, joint venture investments and acquisitions by CHP and its subsidiaries and CLH and its subsidiaries, which had a separate limit of $500 (or its equivalent) each; and b) not exceed the amount for permitted acquisitions and investments in joint ventures of $400 per year. Nonetheless, such limitations did not apply if capital expenditures or acquisitions did not exceed free cash flow generation or were funded with proceeds from equity issuances or asset disposals.

Financial Covenants

Under the 2021 Credit Agreement, at the end of each quarter for each period of four consecutive quarters, CEMEX must comply with a maximum Consolidated Leverage Ratio of 3.75 times throughout the life of the Credit Agreement, and a minimum ratio of Operating EBITDA to interest expense ("Consolidated Coverage Ratio") of 2.75 times. These financial ratios are calculated using the consolidated amounts under IFRS.

Under the 2017 Facilities Agreement, CEMEX had to comply with a Consolidated Coverage Ratio equal or greater than 1.75 times as of December 31, 2020 and March 31, 2021; and equal or greater than 2.25 times as of June 30, 2021 and September 30, 2021.

Moreover, under the 2017 Facilities Agreement and until its expiration, CEMEX had to comply with a Consolidated Leverage Ratio as follows:

Period	Leverage Ratio
For the period ending on December 31, 2020 up to and including the period ending on March 31, 2021	< = 6.25
For the period ending on June 30, 2021	< = 6.00
For the period ending on September 30, 2021	< = 5.75

Consolidated Leverage Ratio

- Under the 2021 Credit Agreement, the ratio is calculated dividing "Consolidated Net Debt" by "Consolidated EBITDA" for the last twelve months as of the calculation date. Consolidated Net Debt equals debt, as reported in the statement of financial position, net of cash and cash equivalents, excluding any existing or future obligations under any securitization program, and any subordinated debt of CEMEX, adjusted for net mark-to-market of all derivative instruments, as applicable, among other adjustments including in relation for business acquisitions or disposals.
- Under the 2017 Facilities Agreement, the ratio was calculated dividing "Funded Debt" by pro forma Operating EBITDA for the last twelve months as of the calculation date including a permanent fixed adjustment from the adoption of IFRS 16. Funded Debt equals debt, as reported in the statement of financial position, net of cash and cash equivalents, excluding components of liability of convertible subordinated notes, plus lease liabilities, perpetual debentures and guarantees, plus or minus the fair value of derivative financial instruments, as applicable, among other adjustments for business acquisitions or disposals.

Consolidated EBITDA: Under the 2021 Credit Agreement, represents Operating EBITDA for the last twelve months as of the calculation date, as adjusted for any discontinued EBITDA, and solely for the purpose of calculating the Consolidated Leverage Ratio on a pro forma basis for any material disposition and/or material acquisition.

Pro forma Operating EBITDA: Under the 2017 Facilities Agreement, represented Operating EBITDA for the last twelve months as of the calculation date, after IFRS 16 effects, plus the portion of Operating EBITDA referring to such twelve-month period of any significant acquisition made in the period before its consolidation in CEMEX, minus Operating EBITDA referring to such twelve-month period of any significant disposal that had already been liquidated.

Consolidated Coverage Ratio

- Under the 2021 Credit Agreement, the ratio is calculated by dividing Consolidated EBITDA by the financial expense for the last twelve months as of the calculation date.
- Under the 2017 Facilities Agreement, the ratio was calculated by dividing pro forma Operating EBITDA by the financial expense for the last twelve months as of the calculation date, both including IFRS 16 effects. Financial expense included coupons accrued on the perpetual debentures.

As of December 31, 2021, 2020 and 2019, under the 2021 Credit Agreement and the 2017 Facilities Agreement, as applicable, the main consolidated financial ratios were as follows:

Consolidated financial ratios		Refers to the compliance limits and calculations that were effective on each date		
		2021	2020	2019
Leverage ratio	**Limit**	<=3.75	<=6.25	<=5.25
	Calculation	2.73	4.07	4.17
Coverage ratio	**Limit**	>=2.75	>=1.75	>=2.50
	Calculation	5.99	3.82	3.86

(Millions of U.S. dollars)

Financial covenants – continued

CEMEX's ability to comply with these ratios may be affected by economic conditions and volatility in foreign exchange rates, as well as by overall conditions in the financial and capital markets.

CEMEX will classify all of its non-current debt as current debt if: 1) as of any measurement date CEMEX fails to comply with the aforementioned financial ratios; or 2) the cross default clause that is part of the 2021 Credit Agreement is triggered by the provisions contained therein; 3) as of any date prior to a subsequent measurement date CEMEX expects not to be in compliance with such financial ratios in the absence of: a) amendments and/or waivers covering the next succeeding 12 months; b) high probability that the violation will be cured during any agreed upon remediation period and be sustained for the next succeeding 12 months; and/or c) an agreement to refinance the relevant debt on a long- term basis. As a result of such classification of debt as current for noncompliance with the agreed upon financial ratios or, in such event, the absence of a waiver of compliance or a negotiation thereof, after certain procedures upon CEMEX's lenders' request, they would call for the acceleration of payments due under the 2021 Credit Agreement. That scenario would have a material adverse effect on CEMEX's operating results, liquidity or financial position.

18.2) OTHER FINANCIAL OBLIGATIONS

As of December 31, 2021 and 2020, other financial obligations in the consolidated statement of financial position were detailed as follows:

	2021			2020		
	Current	Non-current	Total	Current	Non-current	Total
I. Leases	$ 265	911	1,176	$ 293	967	1,260
II. Liabilities secured with accounts receivable	602	—	602	586	—	586
	$ 867	911	1,778	$ 879	967	1,846

I. Leases (notes 3.6, 9.1, 16.2 and 25.1)

CEMEX has several operating and administrative assets under lease contracts (note 16.2). As mentioned in note 3.6, CEMEX applies the recognition exemption for short-term leases and leases of low-value assets. Changes in the balance of lease financial liabilities during 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Lease financial liability at beginning of year	$1,260	1,306	1,315
Additions from new leases	227	213	274
Reductions from payments	(313)	(276)	(239)
Cancellations and liability remeasurements	27	(9)	(54)
Foreign currency translation and accretion effects	(25)	26	10
Lease financial liability at end of year	$1,176	1,260	1,306

As of December 31, 2021, the maturities of non-current lease financial liabilities are as follows:

	Total
2023	$ 233
2024	137
2025	104
2026	70
2027 and thereafter	367
	$ 911

Total cash outflows for leases in 2021, 2020 and 2019, including the interest expense portion as disclosed at note 9.1, were $381, $350 and $316, respectively. Future payments associated with these contracts are presented in note 25.1.

II. Liabilities secured with accounts receivable

As mentioned in note 11, as of December 31, 2021 and 2020, the funded amounts of sale of trade accounts receivable under securitization programs and/or factoring programs with recourse of $602 and $586, respectively, were recognized in "Other financial obligations" in the statement of financial position.

(Millions of U.S. dollars)

18.3) FAIR VALUE OF FINANCIAL INSTRUMENTS

Financial assets and liabilities

The book values of cash, trade receivables, other accounts receivable, trade payables, other accounts payable and accrued expenses, as well as short-term debt, approximate their corresponding estimated fair values due to the revolving nature of these financial assets and liabilities in the short-term.

The estimated fair value of CEMEX´s non-current debt is level 1 and level 2 and is either based on estimated market prices for such or similar instruments, considering interest rates currently available for CEMEX to negotiate debt with the same maturities, or determined by discounting future cash flows using market-based interest rates currently available to CEMEX.

The fair values determined by CEMEX for its derivative financial instruments are level 2. There is no direct measure for the risk of CEMEX or its counterparties in connection with such instruments. Therefore, the risk factors applied for CEMEX's assets and liabilities originated by the valuation of such derivatives were extrapolated from publicly available risk discounts for other public debt instruments of CEMEX or of its counterparties.

The estimated fair value of derivative instruments fluctuates over time and is determined by measuring the effect of future relevant economic variables according to the yield curves shown in the market as of the reporting date. These values should be analyzed in relation to the fair values of the underlying transactions and as part of CEMEX's overall exposure to fluctuations in interest rates and foreign exchange rates. The notional amounts of derivative instruments do not represent amounts of cash exchanged by the parties, and consequently, there is no direct measure of CEMEX's exposure to the use of these derivatives. The amounts exchanged are determined based on the notional amounts and other terms included in the derivative instruments.

As of December 31, 2021 and 2020, the carrying amounts of financial assets and liabilities and their respective fair values were as follows:

	2021		2020	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Derivative financial instruments (notes 15.2 and 18.4)	$ 22	22	$ 3	3
Other investments and non-current accounts receivable (note 15.2)	221	221	272	272
	$ 243	243	$ 275	275
Financial liabilities				
Long-term debt (note 18.1)	$ 7,306	7,629	$ 9,160	9,687
Other financial obligations (note 18.2)	911	919	967	1,012
Derivative financial instruments (notes 18.4 and 19.2)	30	30	53	53
	$ 8,247	8,578	$ 10,180	10,752

As of December 31, 2021 and 2020, assets and liabilities carried at fair value in the consolidated statements of financial position are included in the following fair value hierarchy categories (note 3.6):

2021	Level 1	Level 2	Level 3	Total
Assets measured at fair value				
Derivative financial instruments (notes 15.2 and 18.4)	$ —	22	—	22
Investments in strategic equity securities (note 15.2)	14	—	—	14
Other investments at fair value through earnings (note 15.2)	—	3	—	3
	$ 14	25	—	39
Liabilities measured at fair value				
Derivative financial instruments (notes 18.4 and 19.2)	$ —	30	—	30

2020	Level 1	Level 2	Level 3	Total
Assets measured at fair value				
Derivative financial instruments (notes 15.2 and 18.4)	$ —	3	—	3
Investments in strategic equity securities (note 15.2)	23	—	—	23
Other investments at fair value through earnings (note 15.2)	—	3	—	3
	$ 23	6	—	29
Liabilities measured at fair value				
Derivative financial instruments (notes 18.4 and 19.2)	$ —	53	—	53

(Millions of U.S. dollars)

18.4) DERIVATIVE FINANCIAL INSTRUMENTS

During the reported periods, in compliance with the guidelines established by its Risk Management Committee, the restrictions set forth by its debt agreements and its hedging strategy (note 18.5), CEMEX held derivative instruments with the objectives explained in the following paragraphs.

As of December 31, 2021 and 2020, the notional amounts and fair values of CEMEX's derivative instruments were as follows:

	2021		2020	
	Notional amount	Fair value	Notional amount	Fair value
I. Net investment hedge	$ 1,511	3	741	(42)
II. Interest rate swaps	1,005	(18)	1,334	(47)
III. Equity forwards on third party shares	—	—	27	3
IV. Fuel price hedging	145	30	128	5
IV. Options	250	6	—	—
	$ 2,911	21	2,230	(81)

The caption "Financial income and other items, net" in the income statement includes certain gains and losses related to the recognition of changes in fair values of the derivative financial instruments during the applicable period, which represented net losses of $6 in 2021, of $17 in 2020 and of $1 in 2019.

I. Net investment hedge

As of December 31, 2021 and 2020, there are Dollar/Mexican peso foreign exchange forward contracts for a notional amount of $761 and $741, respectively, under a program that started in 2017 with a notional of up to $1,250, which can be adjusted in relation to hedged risks, with forward contracts with tenors from 1 to 18 months. CEMEX has designated this program as a hedge of CEMEX's net investment in Mexican pesos, pursuant to which changes in fair market value of these instruments are recognized as part of other comprehensive income in equity. For the years 2021, 2020 and 2019, these contracts generated losses of $4, gains of $53 and losses of $126, respectively, which partially offset currency translation results in each year recognized in equity generated from CEMEX's net assets denominated in Mexican pesos due to the depreciation of the peso in 2021 and 2020 and the appreciation of the peso in 2019.

Moreover, as of December 31, 2021, there are Dollar/Euro cross currency swap contracts for a notional amount of $750, which were entered into in November 2021, with maturity in November 2026. CEMEX has designated the foreign exchange forward component of this program as a hedge of CEMEX's net investment in Euros, pursuant to which changes in fair market of such forward contracts are recognized as part of other comprehensive income in equity, while changes in fair value of the interest rate swap component are recognized within financial income and other items. For the year 2021, these contracts generated gains of $10, which partially offset currency translation results recognized in equity generated from CEMEX's net assets denominated in Euros due to the depreciation of the Euro in 2021 against the dollar, as well as losses in 2021 of $1 related to the exchange of interest rates in the statement of operations.

II. Interest rate swap contracts

As of December 31, 2021 and 2020, CEMEX held interest rate swaps for a notional amount of $750 and $1,000, respectively, with a fair value representing liabilities of $30 in 2021 and $44 in 2020, negotiated in June 2018 to fix interest payments of existing bank loans bearing Dollar floating rates. During September 2020, CEMEX amended one of the interest rate swap contracts to reduce the weighted strike from 3.05% to 2.56% paying $14 and, in November 2021, CEMEX partially unwound its interest rate swap paying $5, recognized within "Financial income and other items, net" in the statement of operations. In November 2021, these contracts were extended, and they will mature in November 2026. For accounting purposes under IFRS, CEMEX designated these contracts as cash flow hedges, pursuant to which, changes in fair value are initially recognized as part of other comprehensive income in equity and are subsequently allocated through financial expense as interest expense on the related bank loans is accrued. For the years ended in 2021 and 2020, changes in fair value of these contracts generated gains of $23 and losses of $9, respectively, recognized in other comprehensive income.

In addition, as of December 31, 2021 and 2020, CEMEX held interest rate swaps for a notional of $255 and $334, respectively, negotiated to fix interest payments of existing bank loans referenced to Mexican Peso floating rates and that will mature in November 2023, which fair value represented an asset of $12 in 2021 and a liability of $3 in 2020. During December 2021, CEMEX partially unwound its interest rate swap receiving $3 recognized within "Financial income and other items, net" in the statement of operations. CEMEX designated these contracts as cash flow hedges, pursuant to which, changes in fair value are initially recognized as part of other comprehensive income in equity and are subsequently allocated through financial expense as interest expense on the related bank loans is accrued. For the years ended December 31, 2021 and 2020 changes in fair value of these contracts generated gains of $15 and losses of $3, respectively, recognized in other comprehensive income.

Derivative financial instruments – continued

III. Equity forwards on third party shares

As of December 31, 2020, CEMEX maintained equity forward contracts with cash settlement in March 2022, over the price of 4.7 million shares of Grupo Cementos de Chihuahua, S.A.B. de C.V. ("GCC"). During 2020 and 2019, CEMEX early settled portions of these contracts for 9.2 and 6.9 million shares, respectively. During 2021 CEMEX settled contracts for the remainder 4.7 million shares of GCC. Changes in the fair value of these instruments and early settlement effects generated gains of $2 in 2021, of $1 in 2020 and of $2 in 2019 recognized within "Financial income and other items, net" in the income statement.

IV. Fuel price hedging

As of December 31, 2021 and 2020, CEMEX maintained swap and option contracts negotiated to hedge the price of certain fuels, primarily diesel and gas, in several operations for aggregate notional amounts of $145 and $ 128, respectively, with an estimated aggregate fair value representing assets of $30 in 2021 and of $5 in 2020. By means of these contracts, for its own consumption only, CEMEX either fixed the price of these fuels, or entered into option contracts to limit the prices to be paid for these fuels, over certain volumes representing a portion of the estimated consumption of such fuels in several operations. These contracts have been designated as cash flow hedges of diesel or gas consumption, and as such, changes in fair value are recognized temporarily through other comprehensive income and are recycled to operating expenses as the related fuel volumes are consumed. For the years 2021, 2020 and 2019, changes in fair value of these contracts recognized in other comprehensive income represented gains of $22, $7 and $15, respectively.

V. Foreign Exchange Options

As of December 31, 2021, CEMEX held Dollar/Mexican peso call spread option contracts for a notional amount of $250, maturing in September 2022, negotiated to maintain the value in dollars over such notional amount over revenues generated in pesos. Changes in the fair value of these instruments, generated losses of $5, recognized within "Financial income and other items, net" in the statement of operations.

Other derivative financial instruments negotiated during the periods

During 2020, CEMEX negotiated Dollar/Peso, Dollar/Euro and Dollar/British Pound foreign exchange forward contracts to sell Dollars and Pesos and buy Euro and British Pounds, negotiated in connection with the voluntary prepayment and currency exchanges under the 2017 Facilities Agreement, for a combined notional amount of $397. For the year 2020, the aggregate results from positions entered and settled, generated losses of $15 recognized within "Financial income and other items, net" in the statements of operation. Additionally, during 2020, CEMEX negotiated Dollar/Euro foreign exchange forward contracts to sell Dollars and buy Euro, negotiated in connection with the redemption of the 4.625% April 2024 Notes. For the year 2020, the aggregate results of these instruments from positions entered and settled, generated gains of $3, recognized within "Financial income and other items, net" in the statement of operations.

Moreover, in connection with the proceeds from the sale of certain assets in the United Kingdom (note 5.2), the Company negotiated British Pound/Euro foreign exchange forward contracts to sell British Pounds and buy Euro for a notional amount of $186. CEMEX settled such derivatives on August 5, 2020. During the year 2020, changes in the fair value of these instruments and their settlement generated gains of $9 recognized within "Financial income and other items, net" in the statement of operations.

18.5) RISK MANAGEMENT

Enterprise risks may arise from any of the following situations: i) the potential change in the value of assets owned or reasonably anticipated to be owned, ii) the potential change in value of liabilities incurred or reasonably anticipated to be incurred, iii) the potential change in value of services provided, purchase or reasonably anticipated to be provided or purchased in the ordinary course of business, iv) the potential change in the value of assets, services, inputs, products or commodities owned, produced, manufactured, processed, merchandised, leased or sell or reasonably anticipated to be owned, produced, manufactured, processed, merchandised, leased or sold in the ordinary course of business, or v) any potential change in the value arising from interest rate or foreign exchange rate exposures arising from current or anticipated assets or liabilities.

In the ordinary course of business, CEMEX is exposed to commodities risk, including the exposure from inputs such as fuel, coal, petcoke, fly-ash, gypsum and other industrial materials which are commonly used by CEMEX in the production process, and expose CEMEX to variations in prices of the underlying commodities. To manage this and other risks, such as credit risk, interest rate risk, foreign exchange risk, equity risk and liquidity risk, considering the guidelines set forth by the Parent Company's Board of Directors, which represent CEMEX's risk management framework and that are supervised by several Committees, CEMEX's management establishes specific policies that determine strategies oriented to obtain natural hedges to the extent possible, such as avoiding customer concentration on a determined market or aligning the currencies portfolio in which CEMEX incurred its debt, with those in which CEMEX generates its cash flows.

As of December 31, 2021 and 2020, these strategies are sometimes complemented with the use of derivative financial instruments as mentioned in note 18.4, such as the commodity forward contracts on fuels negotiated to fix the price of these underlying commodities.

Risk management – continued

The main risk categories are mentioned below:

Credit risk

Credit risk is the risk of financial loss faced by CEMEX if a customer or counterparty to a financial instrument does not meet its contractual obligations and originates mainly from trade accounts receivable. As of December 31, 2021 and 2020, the maximum exposure to credit risk is represented by the balance of financial assets. Management has developed policies for the authorization of credit to customers. Exposure to credit risk is monitored constantly according to the payment behavior of debtors. Credit is assigned on a customer-by-customer basis and is subject to assessments which consider the customers' payment capacity, as well as past behavior regarding due dates, balances past due and delinquent accounts. In cases deemed necessary, CEMEX's management requires guarantees from its customers and financial counterparties regarding financial assets.

The Company's management has established a policy of low risk tolerance which analyzes the creditworthiness of each new client individually before offering the general conditions of payment terms and delivery. The review includes external ratings, when references are available, and in some cases bank references. Thresholds of purchase limits are established for each client, which represent the maximum purchase amounts that require different levels of approval. Customers that do not meet the levels of solvency requirements imposed by CEMEX can only carry out transactions by paying cash in advance. As of December 31, 2021, considering CEMEX's best estimate of potential expected losses based on the ECL model developed by CEMEX (note 11), the allowance for expected credit losses was $101.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates, which only affects CEMEX's results if the fixed-rate long-term debt is measured at fair value. All of CEMEX's fixed-rate long-term debt is carried at amortized cost and therefore is not subject to interest rate risk. CEMEX's accounting exposure to the risk of changes in market interest rates relates primarily to its long-term debt obligations with floating interest rates, which, if such rates were to increase, may adversely affect its financing cost and the results for the period.

Nonetheless, it is not economically efficient to concentrate on fixed rates at a high point when the interest rates market expects a downward trend. That is, there is an opportunity cost for continuing to pay a determined fixed interest rate when the market rates have decreased, and the entity may obtain improved interest rate conditions in a new loan or debt issuance. CEMEX manages its interest rate risk by balancing its exposure to fixed and variable rates while attempting to reduce its interest costs. CEMEX could renegotiate the conditions or repurchase the debt, particularly when the net present value of the estimated future benefits from the interest rate reduction are expected to exceed the cost and commissions that would have to be paid in such renegotiation or repurchase of debt.

As of December 31, 2021 and 2020, 10% and 17%, respectively, of CEMEX's long-term debt was denominated in floating rates at a weighted-average interest rate of LIBOR plus 150 basis points in 2021 and 294 basis points in 2020. These figures reflect the effect of interest rate swaps held by CEMEX during 2021 and 2020. As of December 31, 2021 and 2020, if interest rates at that date had been 0.5% higher, with all other variables held constant, CEMEX's net income for 2021 and 2020 would have reduced by $7 and $17, respectively, because of higher interest expense on variable rate denominated debt. This analysis does not include the effect of interest rate swaps held by CEMEX during 2021 and 2020.

Managing interest rate benchmark reform

A fundamental reform of major interest rate benchmarks is being undertaken globally, including the replacement of some interbank offered rates (IBORs) with alternative nearly risk-free rates (referred to as the "IBOR reform"). CEMEX has exposures to IBORs on its financial instruments that will be replaced or reformed as part of these market-wide initiatives. There is uncertainty over the timing and the methods of transition in some jurisdictions in which CEMEX operates. The Company anticipates that the IBOR reform will imply adjustments to its risk management and hedge accounting practices. Nonetheless, in anticipation of this transition, the 2021 Credit Agreement already incorporates a benchmark rate replacement mechanism. Moreover, CEMEX's derivative instrument contracts contain standard definitions to incorporate robust fallbacks for instruments linked to certain IBORs, with the changes coming into effect from January, 2021. From that date, all new cleared and non-cleared derivatives that reference the definitions include the fallbacks. As of December 31, 2021, with the exemption of certain instrument that have migrated automatically to the alternate risk- free rates under the fallback protocol, CEMEX still has the majority of its debt and derivatives instruments, when applicable, linked to the LIBOR rate. There is no definite date to migrate to the alternate risk-free rates, although CEMEX considers to gradually migrate its financial instruments with no effect in the financial statements.

CEMEX's respective risk management committee monitors and manages the Company's transition to alternative rates. The committee evaluates the extent to which contracts reference IBOR cash flows, whether such contracts will need to be amended as a result of IBOR reform and how to manage communication about IBOR reform with counterparties. The committee reports to the Parent Company's Board of Directors quarterly and collaborates with other business functions as needed. It provides periodic reports to management of interest rate risk and risks arising from IBOR reform.

(Millions of U.S. dollars)

Risk management – continued

Foreign currency risk

Foreign currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. CEMEX's exposure to the risk of changes in foreign exchange rates relates primarily to its operating activities. Due to its geographic diversification, CEMEX's revenues and costs are generated and settled in various countries and in different currencies. For the year ended December 31, 2021, 22% of CEMEX's revenues, before eliminations resulting from consolidation, were generated in Mexico, 27% in the United States, 6% in the United Kingdom, 5% in France, 3% in Germany, 3% in Poland, 2% in Spain, 2% in the Philippines, 5% in Israel and 3% in the Rest of EMEAA region, 3% in Colombia, 1% in Panama, 2% in Dominican Republic, 2% in Caribbean TCL, 3% in the Rest of SCA&C, and 11% in CEMEX's other operations.

Foreign exchange results incurred through monetary assets or liabilities in a currency different from its functional currency are recorded in the consolidated statements of operations. Exchange fluctuations associated with foreign currency indebtedness directly related to the acquisition of foreign entities and exchange fluctuations in related parties' long-term balances denominated in foreign currency that are not expected to be settled in the foreseeable future, are recognized in the statement of other comprehensive income. As of December 31, 2021, excluding from the sensitivity analysis the impact of translating the net assets denominated in currencies different from CEMEX's presentation currency, considering a hypothetic 10% strengthening of the dollar against the Mexican peso, with all other variables held constant, CEMEX's net income for 2021 would have decreased by $9, as a result of higher foreign exchange losses on CEMEX's dollar-denominated net monetary liabilities held in consolidated entities with other functional currencies. Conversely, a hypothetic 10% weakening of the U.S. dollar against the Mexican peso would have the opposite effect.

As of December 31, 2021, 86% of CEMEX's financial debt was Dollar-denominated, 6% was Euro-denominated, 3% was Mexican peso-denominated, 2% was Philippine peso-denominated and 3% was in other currencies. Therefore, CEMEX had a foreign currency exposure arising mainly from the Dollar-denominated versus the several currencies in which CEMEX's revenues are settled in most countries in which it operates. CEMEX cannot guarantee that it will generate sufficient revenues in dollars from its operations to service these obligations. As of December 31, 2021, CEMEX had implemented a derivative financing hedging strategy using foreign exchange options for a notional amount of $250 to hedge the value in dollar terms of revenues generated in pesos to partially address this foreign currency risk (note 18.4). Complementarily, CEMEX may negotiate other derivative financing hedging strategies in the future if either of its debt portfolio currency mix, interest rate mix, market conditions and/or expectations changes.

As of December 31, 2021 and 2020, CEMEX's consolidated net monetary assets (liabilities) by currency are as follows:

	2021					
	Mexico	United States	EMEAA	SCA&C	Others [1]	Total
Monetary assets	$ 873	605	1,255	262	193	3,188
Monetary liabilities	1,644	2,701	3,279	659	7,544	15,827
Net monetary assets (liabilities)	$ (771)	(2,096)	(2,024)	(397)	(7,351)	(12,639)
Out of which:						
Dollars	$ (166)	(2,096)	23	(87)	(6,254)	(8,580)
Pesos	(601)	—	—	—	(17)	(618)
Euros	—	—	(762)	1	(384)	(1,145)
Pounds	—	—	(1,191)	—	28	(1,163)
Other currencies	(4)	—	(94)	(311)	(724)	(1,133)
	$ (771)	(2,096)	(2,024)	(397)	(7,351)	(12,639)

	2020					
	Mexico	United States	EMEAA	SCA&C	Others [1]	Total
Monetary assets	$ 856	550	1,452	240	419	3,517
Monetary liabilities	1,420	2,480	3,534	680	9,625	17,739
Net monetary assets (liabilities)	$ (564)	(1,930)	(2,082)	(440)	(9,206)	(14,222)
Out of which:						
Dollars	$ (161)	(1,930)	17	(37)	(6,065)	(8,176)
Pesos	(403)	—	—	—	(87)	(490)
Euros	—	—	(743)	—	(2,451)	(3,194)
Pounds	—	—	(1,174)	—	26	(1,148)
Other currencies	—	—	(182)	(403)	(629)	(1,214)
	$ (564)	(1,930)	(2,082)	(440)	(9,206)	(14,222)

1 Includes the Parent Company, CEMEX's financing subsidiaries, as well as Neoris N.V., among other entities.

Risk management – Foreign currency risk – continued

Considering that the Parent Company's functional currency for all assets, liabilities and transactions associated with its financial and holding company activities is the dollar (note 3.4), there is foreign currency risk associated with the translation into dollars of subsidiaries' net assets denominated in different currencies. When the dollar appreciates, the value of these net assets denominated in other currencies decreases in terms of Dollars, generating negative foreign currency translation and reducing stockholders' equity. Conversely, when the dollar depreciates, the value of such net assets denominated in other currencies would increase in terms of dollars generating the opposite effect. CEMEX has implemented a Dollar/Mexican peso foreign exchange forward contracts program to hedge foreign currency translation in connection with its net assets denominated in pesos (note 18.4).

Equity risk

Equity risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in the market price of CEMEX, S.A.B. de C.V.'s and/or third party's shares. As described in note 18.4, considering specific objectives, CEMEX has negotiated equity forward contracts on third-party shares. Under these equity derivative instruments, there is a direct relationship from the change in the fair value of the derivative with the change in price of the underlying share. All changes in fair value of such derivative instruments are recognized in the income statement as part of "Financial income and other items, net." During the reported periods effects were not significant. As of December 31, 2021, CEMEX does not have derivative financial instruments based on the price of the Parent Company's shares or any third-party's shares.

Liquidity risk

Liquidity risk is the risk that CEMEX will not have sufficient funds available to meet its obligations. In addition to cash flows provided by its operating activities, to meet CEMEX's overall liquidity needs for operations, servicing debt and funding capital expenditures and acquisitions, CEMEX relies on cost-cutting and operating improvements to optimize capacity utilization and maximize profitability, as well as borrowing under credit facilities, proceeds of debt and equity offerings, and proceeds from asset sales. CEMEX is exposed to risks from changes in foreign currency exchange rates, prices and currency controls, interest rates, inflation, governmental spending, social instability and other political, economic and/or social developments in the countries in which it operates, any one of which may materially affect CEMEX's results and reduce cash from operations. The maturities of CEMEX's contractual obligations are included in note 25.1.

As of December 31, 2021, current liabilities, which included $940 of current debt and other financial obligations, exceed current assets by $1,155. It is noted that as part of its operating strategy implemented by management, the Company operates with a negative working capital balance. For the year ended December 31, 2021, CEMEX generated net cash flows provided by operating activities of $1,855. The Company's management considers that CEMEX will generate sufficient cash flows from operations in the following twelve months to meet its current obligations and trusts in its proven capacity to continually refinance and replace its current obligations, which will enable CEMEX to meet any liquidity risk in the short- term. In addition, as of December 31, 2021, CEMEX has committed lines of credit under the revolving credit facility in its 2021 Credit Agreement for a total amount of $1,750.

(Millions of U.S. dollars)

19) OTHER CURRENT AND NON-CURRENT LIABILITIES

19.1) OTHER CURRENT LIABILITIES

As of December 31, 2021 and 2020, consolidated other current liabilities were as follows:

	2021	2020
Provisions [1]	$ 620	718
Interest payable	92	86
Other accounts payable and accrued expenses [2]	233	267
Contract liabilities with customers (note 4) [3]	257	201
	$1,202	1,272

1 Current provisions primarily consist of accrued employee benefits, insurance payments, accruals for legal assessments and others. These amounts are revolving in nature and are expected to be settled and replaced by similar amounts within the next 12 months.
2 As of December 31, 2021 and 2020, includes $7 and $19, respectively, of the current portion of other taxes payable in Mexico.
3 As of December 31, 2021 and 2020, contract liabilities with customers included $219 and $161, respectively, of advances received from customers, as well as in 2021 and 2020 the current portion of deferred revenues in connection with advances under long-term clinker supply agreements of $4 and $4, respectively.

19.2) OTHER NON-CURRENT LIABILITIES

As of December 31, 2021 and 2020, consolidated other non-current liabilities were as follows:

	2021	2020
Asset retirement obligations[1]	$ 553	369
Accruals for legal assessments and other responsibilities [2]	48	27
Non-current liabilities for valuation of derivative instruments	30	53
Environmental liabilities [3]	276	275
Other non-current liabilities and provisions [4,5]	391	273
	$ 1,298	997

1 Provisions for asset retirement include future estimated costs for demolition, cleaning and reforestation of production sites at the end of their operation, which are initially recognized against the related assets and are depreciated over their estimated useful life. The increase in 2021 mainly refers to the decrease in the discount rate as well as update in estimates in CEMEX's operations in the United States.
2 Provisions for legal claims and other responsibilities include items related to tax contingencies.
3 Environmental liabilities include future estimated costs arising from legal or constructive obligations, related to cleaning, reforestation and other remedial actions to remediate damage caused to the environment. The expected average period to settle these obligations is greater than 15 years.
4 As of December 31, 2021 and 2020, includes $6 and $12, respectively, of the non-current portion of taxes payable in Mexico.
5 As of December 31, 2021 and 2020, the balance includes deferred revenues of $32 and $42, respectively, that are amortized to the income statement as deliverables are fulfilled over the maturity of long-term clinker supply agreements.

Changes in consolidated other current and non-current liabilities for the years ended December 31, 2021 and 2020, were as follows:

	2021						
	Asset retirement obligations	Environmental liabilities	Accruals for legal proceedings	Valuation of derivative instruments	Other liabilities and provisions	Total	2020
Balance at beginning of period	$ 369	275	27	91	994	1,756	1,524
Additions or increase in estimates	267	1	31	—	2,474	2,773	2,397
Releases or decrease in estimates	(62)	(2)	(9)	(23)	(2,442)	(2,538)	(2,168)
Reclassifications	(19)	—	17	—	6	4	113
Accretion expense	(1)	—	(1)	—	(26)	(28)	(122)
Foreign currency translation	(1)	2	(17)	(31)	37	(10)	12
Balance at end of period	$ 553	276	48	37	1,043	1,957	1,756
Out of which:							
Current provisions	$ —	—	—	7	652	659	759

(Millions of U.S. dollars)

20) PENSIONS AND POST-EMPLOYMENT BENEFITS

Defined contribution pension plans

The consolidated costs of defined contribution plans for the years ended December 31, 2021, 2020 and 2019 were $47, $48 and $50, respectively. CEMEX contributes periodically the amounts offered by the pension plan to the employee's individual accounts, not retaining any remaining liability as of the financial statements' date.

Defined benefit pension plans

Most of CEMEX's defined benefit plans have been closed to new participants for several years. Actuarial results related to pension and other post-employment benefits are recognized in earnings and/or in "Other comprehensive income" for the period in which they are generated, as appropriate. For the years ended December 31, 2021, 2020 and 2019, the effects of pension plans and other post-employment benefits are summarized as follows:

	Pensions			Other benefits			Total		
Net period cost (income):	**2021**	**2020**	**2019**	**2021**	**2020**	**2019**	**2021**	**2020**	**2019**
Recorded in operating costs and expenses									
Service cost	$ 9	10	10	3	2	2	12	12	12
Past service cost	—	(2)	1	—	1	—	—	(1)	1
Settlements and curtailments	(1)	—	(3)	(1)	(1)	—	(2)	(1)	(3)
	8	8	8	2	2	2	10	10	10
Recorded in other financial expenses									
Net interest cost	26	28	34	5	5	5	31	33	39
Recorded in other comprehensive income									
Actuarial (gains) losses for the period	(257)	181	203	(6)	18	7	(263)	199	210
	$(223)	217	245	1	25	14	(222)	242	259

As of December 31, 2021 and 2020, the reconciliation of the actuarial benefits' obligations and pension plan assets, are presented as follows:

	Pensions		Other benefits		Total	
	2021	**2020**	**2021**	**2020**	**2021**	**2020**
Change in benefits obligation:						
Projected benefit obligation at beginning of the period	$2,928	2,651	105	87	3,033	2,738
Service cost	9	10	3	2	12	12
Interest cost	62	70	5	5	67	75
Actuarial (gains) losses	(134)	258	(6)	18	(140)	276
Additions through business combinations	—	1	—	—	—	1
Settlements and curtailments	(1)	—	(1)	(1)	(2)	(1)
Plan amendments	—	(2)	—	1	—	(1)
Benefits paid	(132)	(140)	(7)	(6)	(139)	(146)
Foreign currency translation	(47)	80	(1)	(1)	(48)	79
Projected benefit obligation at end of the period	2,685	2,928	98	105	2,783	3,033
Change in plan assets:						
Fair value of plan assets at beginning of the period	1,693	1,599	1	1	1,694	1,600
Return on plan assets	36	42	—	—	36	42
Actuarial gains	123	77	—	—	123	77
Employer contributions	78	75	7	6	85	81
Benefits paid	(132)	(140)	(7)	(6)	(139)	(146)
Foreign currency translation	(15)	40	—	—	(15)	40
Fair value of plan assets at end of the period	1,783	1,693	1	1	1,784	1,694
Net projected liability in the statement of financial position	$ 902	1,235	97	104	999	1,339

For the years 2021, 2020 and 2019, actuarial (gains) losses for the period were generated by the following main factors as follows:

	2021	2020	2019
Actuarial (gains) losses due to experience	$ (87)	1	5
Actuarial (gains) losses due to demographic assumptions	20	18	(11)
Actuarial (gains) losses due financial assumptions	(196)	180	216
	$(263)	199	210

(Millions of U.S. dollars)

Pensions and post-employment benefits – continued

In 2021, net actuarial gains due to financial assumptions were mainly driven by moderate increases in the discount rates applicable to the calculation of the benefits' obligations in the United Kingdom, the United States, Germany and Mexico, as market interest rates increased in 2021 as compared to 2020. In addition, there were significant reduction effects in the net projected liability related to adjustments due to experience in the United Kingdom, the United States and Germany for a combined amount of $81. Moreover, the net projected liability significantly decreased by actual returns in plan assets higher than estimated returns for a total of $122, of which $86 refers to the United Kingdom, $13 to the United States and $23 to other countries, partially offset by actuarial losses due to demographic assumption of $20, of which $12 refers to the United Kingdom.

In 2020, net actuarial losses due to financial assumptions were mainly driven by a general decrease in the discount rates applicable to the calculation of the benefits' obligations mainly in the United Kingdom, the United States, and Mexico, as market interest rates decrease globally in 2020 as compared to 2019, partially offset by actual returns in plan assets higher than estimated in the United Kingdom and the United States. In addition, the United Kingdom Government confirmed on November 25, 2020, with effect from February 2030 onwards, Retail Prices Index ("RPI") will be aligned with Consumer Prices Index ("CPI"). The RPI is used to set pension increase assumptions for the United Kingdom pension plans. As a result of this change, in 2020, CEMEX had an increase in its United Kingdom pension liabilities of $54. In 2019, such net actuarial losses were also mainly driven by a general decrease in the discount rates applicable to the calculation of the benefits' obligations mainly in the United Kingdom, the United States, Germany and Mexico, as market interest rates decrease globally in 2019 as compared to 2018, partially offset by actual returns in plan assets higher than estimated in the United Kingdom and the United States.

As of December 31, 2021 and 2020, based on the hierarchy of fair values, plan assets are detailed as follows:

	2021				2020			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash	$ 33	—	—	33	$ 44	—	—	44
Investments in corporate bonds	1	432	—	433	1	474	—	475
Investments in government bonds	85	393	—	478	86	371	—	457
Total fixed-income securities	119	825	—	944	131	845	—	976
Investment in marketable securities	380	109	—	489	341	89	—	430
Other investments and private funds	163	88	100	351	146	55	87	288
Total variable-income securities	543	197	100	840	487	144	87	718
Total plan assets	$ 662	1,022	100	1,784	$ 618	989	87	1,694

The most significant assumptions used in the determination of the benefit obligation were as follows:

	2021				2020			
	Mexico	United States	United Kingdom	Range of rates in other countries	Mexico	United States	United Kingdom	Rates ranges in other countries
Discount rates	9.25%	2.90%	1.90%	0.4%–9.3%	7.80%	2.60%	1.50%	0.2% – 9.0%
Rate of return on plan assets	9.25%	2.90%	1.90%	0.4%–9.3%	7.80%	2.60%	1.50%	0.2% – 9.0%
Rate of salary increases	4.50%	—	3.35%	2.3%–7.3%	4.50%	—	3.00%	2.3% – 6.8%

As of December 31, 2021, estimated payments for pensions and other post-employment benefits over the next 10 years were as follows:

	Estimated payments
2022	$ 155
2023	139
2024	140
2025	142
2026 – 2031	850

As of December 31, 2021 and 2020, the aggregate projected benefit obligation ("PBO") for pension plans and other post-employment benefits and the plan assets by country were as follows:

	2021			2020		
	PBO	Assets	Deficit	PBO	Assets	Deficit
Mexico	$ 200	38	162	$ 216	29	187
United States	270	226	44	305	222	83
United Kingdom [1]	1,794	1,273	521	1,925	1,214	711
Germany	180	7	173	219	8	211
Other countries	339	240	99	368	221	147
	$2,783	1,784	999	$3,033	1,694	1,339

(Millions of U.S. dollars)

Pensions and post-employment benefits – continued

1 Applicable regulation in the United Kingdom requires to maintain plan assets at a level similar to that of the obligations. Beginning in 2012, the pension fund started to receive annual dividends from a limited partnership (the "Partnership"), whose assets, transferred by CEMEX UK of an approximate value of $553, are leased back to CEMEX UK. The Partnership is owned, controlled and consolidated by CEMEX UK. The annual dividends received by the pension funds in 2021, 2020 and 2019, which increase at a 5% rate per year, were £22.3 ($30), £21.3 ($29) and £20.3 ($27), respectively. In 2037, on expiry of the arrangement, the Partnership will be terminated and under the terms of the agreement, the remaining assets will be distributed to CEMEX UK. Distributions from the Partnership to the pension fund are considered as employer contributions to plan assets in the period in which they occur.

In some countries, CEMEX has established health care benefits for retired personnel limited to a certain number of years after retirement. As of December 31, 2021 and 2020, the projected benefits obligation related to these benefits was $69 and $78, respectively, included within other benefits liability. The medical inflation rates used to determine the projected benefits obligation of these benefits in 2021 and 2020 for Mexico were 7% and 8% respectively, for Puerto Rico 3.8% and 6.4%, respectively, for the United Kingdom were 6.9% in both years and for TCL was a rate range between 5.0% and 10.5%, for both years.

Significant events of settlements or curtailments related to employees' pension benefits and other post-employment benefits during the reported periods

In 2021, as an effect of a sale of assets in France (note 5.2), there was a curtailment gain of $1 in its pension plan recognized in the statement of operations for the period. In addition, one of the participating companies in other postretirement benefits of TCL ceased operations in February 2021, resulting in a curtailment gain in other postretirement benefits of $1 reflected in the statement of operations for the period.

During 2020, in connection with the divestiture of Kosmos' assets in the United States (note 5.1), CEMEX recognized a curtailment gain of $1 related to its medical plan. Moreover, in France, CEMEX changed certain formulas of the pension benefits resulting in a past service gain of $2. In addition, in Mexico, CEMEX changed some postretirement benefits resulting in an expense for past services of $1 in 2020. These effects were recognized in the income statement for the year.

During 2019, CEMEX in France closed two legal entities resulting in a curtailment gain of $3, which was recognized in the income statement for the period.

Sensitivity analysis of pension and other post-employment benefits

For the year ended December 31, 2021, CEMEX performed sensitivity analyses on the most significant assumptions that affect the PBO, considering reasonable independent changes of plus or minus 50 basis points in each of these assumptions. The increase (decrease) that would have resulted in the PBO of pensions and other post-employment benefits as of December 31, 2021 are shown below:

	Pensions		Other benefits		Total	
Assumptions:	**+50 bps**	**-50 bps**	**+50 bps**	**-50 bps**	**+50 bps**	**-50 bps**
Discount Rate Sensitivity	$ (178)	200	(5)	5	(183)	205
Salary Increase Rate Sensitivity	6	(5)	1	(1)	7	(6)
Pension Increase Rate Sensitivity	124	(121)	—	—	124	(121)

Multiemployer defined benefit pension plans

In addition to the Company's sponsored plans, certain union employees in the United States and the United Kingdom are covered under multiemployer defined benefit plans administered by their unions. The Company's funding arrangements, rate of contributions and funding requirements were made in accordance with the contractual multiemployer agreements. The combined amounts contributed to the multiemployer plans were $58 in 2021, $56 in 2020 and $64 in 2019. The Company expects to contribute $59 to the multiemployer plans in 2022.

In addition to the funding described in the preceding paragraph, CEMEX negotiated with a union managing a multiemployer plan in the United States the change of the plan from defined benefit to defined contribution beginning on September 29, 2019. This change generated a one- time settlement obligation of $24 recognized in the income statement in 2019 as part of "Other expenses, net," against an accrued liability. Payments are expected to be made over the next 20 years though lump sum payment is allowable.

(Millions of U.S. dollars)

21) INCOME TAXES

21.1) INCOME TAXES FOR THE PERIOD

The amounts of income tax expense in the statements of operations for 2021, 2020 and 2019 are summarized as follows:

	2021	2020	2019
Current income tax expense	$179	167	138
Deferred income tax expense (income)	(35)	(122)	19
	$144	45	157

21.2) DEFERRED INCOME TAXES

As of December 31, 2021 and 2020, the main temporary differences that generated the consolidated deferred income tax assets and liabilities are presented below:

	2021	2020
Deferred tax assets:		
Tax loss carryforwards and other tax credits	$ 662	777
Accounts payable and accrued expenses	808	558
Intangible assets, net	138	49
Total deferred tax assets, gross	1,608	1,384
Presentation offset regarding same legal entity	(1,046)	(644)
	562	740
Deferred tax liabilities:		
Property, machinery and equipment and right-of-use asset, net	(1,502)	(1,273)
Investments and other assets	(29)	(29)
Total deferred tax liabilities, gross	(1,531)	(1,302)
Presentation offset regarding same legal entity	1,046	644
Total deferred tax liabilities, net in the statement of financial position	(485)	(658)
Net deferred tax assets (liabilities)	$ 77	82
Out of which:		
Net deferred tax liabilities in Mexican entities [1]	$ (81)	(77)
Net deferred tax assets in foreign entities [2]	158	159
Net deferred tax assets	$ 77	82

1 Net deferred tax liabilities in Mexico at the reporting date mainly refer to a temporary difference resulting when comparing the carrying amount of property, machinery and equipment, against their corresponding tax values (remaining tax-deductible amount), partially offset by certain deferred tax assets from tax loss carryforwards that are expected to be recovered in the future against taxable income. When the book value is greater than the related tax value results in a deferred tax liability. In 2011, upon transition to IFRS, CEMEX elected to measure its fixed assets at fair value, which resulted in a significant increase in book value, mainly associated with the revaluation of mineral reserves. Such restated amounts are depleted to the income statement in a period close to 35 years, generating accounting expense that is not tax-deductible; hence the temporary difference will gradually reverse over time but does not represent a payment obligation to the tax authority at the reporting date.

2 Net deferred tax assets in foreign entities in 2021 and 2020 are mainly related to tax loss carryforwards recognized in prior years, mainly in the United States, that are expected to be recovered in the future against taxable income.

As of December 31, 2021 and 2020, balances of the deferred tax assets and liabilities included in the statement of financial position are located in the following entities:

	2021			2020		
	Assets	Liabilities	Net	Assets	Liabilities	Net
Mexican entities	$ 191	(272)	(81)	$ 152	(229)	(77)
Foreign entities	371	(213)	158	588	(429)	159
	$ 562	(485)	77	$ 740	(658)	82

(Millions of U.S. dollars)

Deferred income taxes – continued

The breakdown of changes in consolidated deferred income taxes during 2021, 2020 and 2019 was as follows:

	2021	2020	2019
Deferred income tax expense (income) in the income statement	$(35)	(122)	19
Deferred income tax revenue in stockholders' equity	(38)	(41)	(59)
Reclassifications [1]	78	(12)	3
Change in deferred income tax during the period	$ 5	(175)	(37)

1 In 2021, 2020 and 2019, refers to the effects of the reclassification of balances to assets held for sale and related liabilities (note 5.2).

Current and/or deferred income tax relative to items of other comprehensive income during 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Revenue related to foreign exchange fluctuations from intercompany balances (note 22.2)	$ (6)	(19)	(19)
Expense (revenue) associated to actuarial results (note 22.2)	26	(41)	(29)
Revenue related to derivative financial instruments (note 18.4)	(1)	14	(34)
Expense (revenue) from foreign currency translation and other effects	(63)	(14)	4
	$(44)	**(60)**	**(78)**

As of December 31, 2021, consolidated tax loss and tax credits carryforwards expire as follows:

	Amount of carryforwards	Amount of unrecognized carryforwards	Amount of recognized carryforwards
2022	$ 4,341	4,340	1
2023	274	258	16
2024	426	195	231
2025	185	148	37
2026 and thereafter	9,569	7,221	2,348
	$ 14,795	12,162	2,633

As of December 31, 2021, in connection with CEMEX's deferred tax loss carryforwards presented in the table above, to realize the benefits associated with such deferred tax assets that have been recognized, before their expiration, CEMEX would need to generate $2,633 in consolidated pre-tax income in future periods. Based on the same forecasts of future cash flows and operating results used by CEMEX's management to allocate resources and evaluate performance in the countries in which CEMEX operates, along with the implementation of feasible tax strategies, CEMEX believes that it will recover the balance of its tax loss carryforwards that have been recognized before their expiration. In addition, CEMEX concluded that, the deferred tax liabilities that were considered in the analysis of recoverability of its deferred tax assets will reverse in the same period and tax jurisdiction of the related recognized deferred tax assets. Moreover, a certain amount of CEMEX's deferred tax assets refers to operating segments and tax jurisdictions in which CEMEX is currently generating taxable income or in which, according to CEMEX's management cash flow projections, will generate taxable income in the relevant periods before the expiration of the deferred tax assets.

The Parent Company does not recognize a deferred income tax liability related to its investments in subsidiaries considering that CEMEX controls the reversal of the temporary differences arising from these investments and management is satisfied that such temporary differences will not reverse in the foreseeable future.

21.3) RECONCILIATION OF EFFECTIVE INCOME TAX RATE

For the years ended December 31, 2021, 2020 and 2019, the effective consolidated income tax rates were as follows:

	2021	2020	2019
Earnings before income tax	$ 932	(1,302)	238
Income tax expense	(144)	(45)	(157)
Effective consolidated income tax expense rate [1]	15.5%	(3.5)%	66.0%

1 The average effective tax rate equals the net amount of income tax revenue or expense divided by income or loss before income taxes, as these line items are reported in the income statement.

(Millions of U.S. dollars)

Effective tax rate – continued

Differences between the financial reporting and the corresponding tax basis of assets and liabilities and the different income tax rates and laws applicable to CEMEX, among other factors, give rise to permanent differences between the statutory tax rate applicable in Mexico, and the effective tax rate presented in the consolidated statements of operations, which in 2021, 2020 and 2019 were as follows:

	2021		2020		2019	
	%	$	%	$	%	$
Mexican statutory tax rate	30.0	280	30.0	(391)	30.0	71
Difference between accounting and tax expenses, net [1]	4.8	45	(18.4)	240	111.2	265
Non-taxable sale of equity securities and fixed assets	(3.8)	(35)	1.3	(17)	(13.4)	(32)
Difference between book and tax inflation	23.9	223	(7.1)	92	38.1	91
Differences in the income tax rates in the countries where CEMEX operates [2]	4.7	44	(0.9)	12	(31.9)	(76)
Changes in deferred tax assets [3]	(48.7)	(454)	(9.6)	125	(59.8)	(142)
Changes in provisions for uncertain tax positions	2.6	24	0.2	(3)	(5.2)	(12)
Others	2.0	17	1.0	(13)	(3.0)	(8)
Effective consolidated income tax expense rate	15.5	144	(3.5)	45	66.0	157

1 In 2020 includes $312, related to the effects of the impairment charges which are basically non-deductible (note 8). In 2019, includes $117 of difference between book and tax foreign exchange fluctuations of the Parent Company.

2 Refers mainly to the effects of the differences between the statutory income tax rate in Mexico of 30% against the applicable income tax rates of each country where CEMEX operates and includes the effect related to the change in statutory tax rate in Colombia from 30% to 35%.

3 Refers to the effects in the effective income tax rate associated with changes during the period in the amount of deferred income tax assets related to CEMEX's tax loss carryforwards.

The following table compares variations between the line item "Changes in deferred tax assets" as presented in the table above against the changes in deferred tax assets in the statement of financial position for the years ended December 31, 2021 and 2020:

	2021		2020	
	Changes in the statement of financial position	Amounts in reconciliation	Changes in the statement of financial position	Amounts in reconciliation
Tax loss carryforwards generated and not recognized during the year	$ —	9	—	178
Derecognition related to tax loss carryforwards recognized in prior years	(145)	—	(70)	12
Recognition related to unrecognized tax loss carryforwards	19	(460)	82	(84)
Foreign currency translation and other effects	11	(3)	8	19
Changes in deferred tax assets	$ (115)	(454)	20	125

21.4) UNCERTAIN TAX POSITIONS AND SIGNIFICANT TAX PROCEEDINGS

Uncertain tax positions

As of December 31, 2021 and 2020, as part of current provisions and non-current other liabilities (note 19), CEMEX has recognized provisions related to unrecognized tax benefits in connection with uncertain tax positions taken, in which it is deemed probable that the tax authority would differ from the position adopted by CEMEX. As of December 31, 2021, the tax returns submitted by some subsidiaries of CEMEX located in several countries are under review by the respective tax authorities in the ordinary course of business. CEMEX cannot anticipate if such reviews will result in new tax assessments, which would, should any arise, be appropriately disclosed and/or recognized in the financial statements. A summary of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2021, 2020 and 2019, excluding interest and penalties, is as follows:

	2021	2020	2019
Balance of tax positions at beginning of the period	$ 27	28	44
Adoption effects of IFRIC 23 credited to retained earnings (note 3.1)	—	—	(6)
Additions for tax positions of prior periods	4	—	—
Additions for tax positions of current period	27	3	4
Reductions for tax positions related to prior periods and other items	(2)	(1)	(13)
Settlements and reclassifications	(5)	(3)	—
Expiration of the statute of limitations	(2)	(2)	(2)
Foreign currency translation effects	(1)	2	1
Balance of tax positions at end of the period	$ 48	27	28

Uncertain tax positions – continued

Tax examinations can involve complex issues, and the resolution of issues may span multiple years, particularly if subject to negotiation or litigation. Although CEMEX believes its estimates of the total unrecognized tax benefits are reasonable, uncertainties regarding the final determination of income tax audit settlements and any related litigation could affect the amount of total unrecognized tax benefits in future periods. It is difficult to estimate the timing and range of possible changes related to uncertain tax positions, as finalizing audits with the income tax authorities may involve formal administrative and legal proceedings. Accordingly, it is not possible to reasonably estimate the expected changes to the total unrecognized tax benefits over the next 12 months, although any settlements or statute of limitations expirations may result in a significant increase or decrease in the total unrecognized tax benefits, including those positions related to tax examinations being currently conducted.

Significant tax proceedings

As of December 31, 2021, the Company's most significant tax proceedings are as follows:

- The tax authorities in Spain ("the Spanish Tax Authorities") challenged part of the tax loss carryforwards reported by CEMEX España covering the tax years from and including 2006 to 2009. During 2013, the Spanish Tax Authorities notified CEMEX España of fines in the aggregate amount of $518. In April 2014, CEMEX España filed appeals against such resolution before the *Tribunal Económico Administrativo Central* ("TEAC") of the Spanish Tax Authorities. On September 20, 2017, CEMEX España was notified by the TEAC about an adverse resolution to such appeals. CEMEX España filed a recourse against such resolution in November 2017 before the National Court (*Audiencia Nacional*) and applied for the suspension of the payment before the National Court until the case is finally resolved. On January 31, 2018, the National Court notified CEMEX España of the granting of the suspension of the payment, subject to the provision of guarantees on or before April 2, 2018. In this regard, CEMEX España provided the respective guarantees in the form of a combination of a liability insurance policy and a mortgage of several assets in Spain. In November 2018, the National Court confirmed the acceptance of the guarantees by the Spanish Tax Authorities, which ensures the suspension of the payment until the recourses are definitively resolved. On November 30, 2021, the National Court issued a judgment rejecting the appeal filed by CEMEX España against the resolution of the TEAC, confirming the imposed fines. CEMEX España will request the Spanish Supreme Court to admit a cassation appeal against this judgement issued by the National Court. As of December 31, 2021, CEMEX believes an adverse resolution in these proceedings is not probable and no accruals have been created in connection with these proceedings. Nonetheless, it is difficult to assess with certainty the likelihood of an adverse result, and the appeals that CEMEX España has filed could take an extended amount of time to be resolved, but if adversely resolved, these proceedings could have a material adverse impact on CEMEX's results of operations, liquidity or financial position.
- On March 26, 2021, the Spanish Tax Authorities notified CEMEX España of an assessment for Income Taxes in an amount in euros equivalent to $55 as of December 31, 2021, plus late interest, derived from a tax audit process covering the tax years 2010 to 2014. This assessment has been appealed before the TEAC. In order for the suspension of the payment of the tax assessment to be granted, CEMEX España provided a payment guarantee which was approved by such tax authorities. Moreover, on December 3, 2021, the Spanish Tax Authorities notified CEMEX España of a penalty for an amount in euros equivalent to $78, derived from the tax audit process covering the same period from 2010 to 2014. This assessment is expected to be appealed before the TEAC. Until this appeal is resolved, no payment will be made and the company is not required to furnish a guarantee for the filing of the appeal. As of December 31, 2021, CEMEX believes an adverse resolution in these proceedings are not probable and no accruals have been created in connection with these proceedings. Nonetheless, it is difficult to assess with certainty the likelihood of an adverse result, and the appeals that CEMEX España has filed could take an extended amount of time to be resolved, but if adversely resolved, these proceedings could have a material adverse impact on CEMEX's results of operations, liquidity or financial position.
- On April 6, 2018, CEMEX Colombia received a special proceeding from the Colombian Tax Authority (the "Tax Authority"), where certain deductions included in the 2012 income tax return were rejected. The Tax Authority assessed an increase in the income tax payable by CEMEX Colombia and imposed an inaccuracy penalty for amounts in Colombian pesos equivalent to $31 of income tax and $31 of penalty. On June 22, 2018, CEMEX Colombia filed a response to the special proceeding within the legal term. On December 28, 2018, CEMEX Colombia received an official review settlement ratifying the rejected deductible items and amounts. CEMEX Colombia filed a reconsideration request on February 21, 2019. On January 8, 2020, CEMEX Colombia was notified that, in response to the appeal filed by it, the Tax Authority had confirmed its assessment that CEMEX Colombia is required to pay increased taxes and corresponding penalties, as previously notified on April 6, 2018. On July 1, 2020, CEMEX Colombia filed an appeal against the aforementioned resolution in the Administrative Court of Cundinamarca. In addition, on March 10, 2020, the Tax Authority issued a complementary administrative act, in which the authority claims the payment of the credit balance that was originated in the 2012 tax declaration and that was offset with taxes from subsequent years. CEMEX Colombia filed its response on June 2, 2020. On October 25, 2021, the Tax Authority issued a resolution confirming the imposed penalty due to inadmissible compensation. The penalty is an amount in Colombian pesos equivalent to $14 as of December 31, 2021. CEMEX Colombia filed an appeal before the Administrative Court of Cundinamarca on December 16, 2021. The Administrative Court of Cundinamarca has not responded to the filed appeal, and it is estimated that the procedure will last at least 2 years If the proceeding is adversely resolved in the final stage, CEMEX Colombia must pay the amounts determined in the official settlement plus interest accrued on the amount of the income tax adjustment until the payment date. As of December 31, 2021, at this stage of the proceeding, CEMEX considers that an adverse resolution in this proceeding after conclusion of all available defense procedures is not probable, however, it is difficult to assess with certainty the likelihood of an adverse result in the proceeding; if adversely resolved, CEMEX believes this proceeding could have a material adverse impact on the operating results, liquidity or financial position of CEMEX.

(Millions of U.S. dollars)

Significant tax proceedings – continued

- In September 2012, the Tax Authority requested CEMEX Colombia to amend its income tax return for the year 2011 in connection with several deductible expenses including the amortization of goodwill. CEMEX Colombia rejected the arguments of the ordinary request and filed a motion requesting the case to be closed. The 2011 income tax return was under audit of the Tax Authority from August 2013 until September 5, 2018, when CEMEX Colombia was notified of a special proceeding in which the Tax Authority rejected certain deductions included in such income tax return of the year 2011 and determined an increase in the income tax payable and imposed a penalty for amounts in Colombian pesos equivalent to $21 of income tax and $21 of penalty. CEMEX Colombia filed a response to the special proceeding on November 30, 2018 and the Tax Authority notified the official review liquidation on May 15, 2019, maintaining the claims of the special proceeding; therefore, CEMEX Colombia filed an appeal within the legal term on July 11, 2019. On July 6, 2020, CEMEX Colombia was notified about a resolution confirming the official liquidation. On October 22, 2020, CEMEX Colombia filed an appeal against such resolution in the Administrative Court of Cundinamarca and on September 13, 2021 the appeal was admitted. If the proceeding is adversely resolved in its final stage, CEMEX Colombia would have to pay the amounts determined in the official settlement plus interest accrued on the amount of the income tax adjustment until the date of payment. As of December 31, 2021, at this stage of the proceeding, CEMEX considers that an adverse resolution in this proceeding after conclusion of all available defense procedures is not probable, however, it is difficult to assess with certainty the likelihood of an adverse result in the proceeding; if adversely resolved, CEMEX believes this proceeding could have a material adverse impact on the operating results, liquidity or financial position of CEMEX.

22) STOCKHOLDERS' EQUITY

The consolidated financial statements are presented in dollars based on IAS 21, *The Effects of Changes in Foreign Exchange Rates* ("IAS 21"), while the reporting currency of the Parent Company is the Mexican Peso. As a result, for the consolidated entity, transactions of common stock, additional paid-in capital and retained earnings are translated and accrued using historical exchange rates of the dates in which the transactions occurred. As a result, although the amounts of total non-controlling interest in the consolidated financial statements and total stockholders' equity of the Parent Company are the same, IAS 21 methodology results in differences between line-by-line items within CEMEX's controlling interest and the Parent Company's stockholders' equity. The official stockholders' equity for statutory purposes is that of the Parent Company as expressed in Mexican pesos. As of December 31, 2021, the line-by-line reconciliation between CEMEX's controlling interest, as reported using the dollar as presentation currency, and the Parent Company's stockholders' equity, using a convenience translation of the balances in pesos translated using the exchange rate of 20.50 pesos per dollar as of December 31, 2021, is as follows:

	As of December 31, 2021	
	Consolidated	Parent Company
Common stock and additional paid-in capital [1]	$ 7,810	5,150
Other equity reserves [1, 2]	(1,371)	2,289
Retained earnings [2]	3,388	2,388
Total controlling interest	$ 9,827	9,827

[1] The difference relates to the method of accruing dollars using the historical exchange rates to translate each common stock and additional paid-in capital transaction denominated in Mexican pesos to dollars. The cumulative effect from these changes in exchange rates is recognized against other equity reserves.

[2] The difference relates with the method of accruing dollars using the exchange rates of each month during the period for income statement purposes. The cumulative effect from these changes in exchange rates is recognized against other equity reserves.

As of December 31, 2021 and 2020, stockholders' equity excludes investments in CPOs of the Parent Company held by subsidiaries of $14 (20,541,277 CPOs) and $11 (20,541,277 CPOs), respectively, which were eliminated within "Other equity reserves."

22.1) COMMON STOCK AND ADDITIONAL PAID-IN CAPITAL

As of December 31, 2021 and 2020, the breakdown of consolidated common stock and additional paid-in capital was as follows:

	2021	2020
Common stock	$ 318	318
Additional paid-in capital	7,492	7,575
	$7,810	7,893

Effective as of December 31, 2020, the Company's management approved a restitution to the consolidated line item of "Retained earnings" for $2,481, by means of transfer with charge to the line item of "Additional paid-in capital." This transfer represents a reclassification between line items within CEMEX's consolidated stockholders' equity that does not affect its consolidated amount.

(Millions of U.S. dollars)

Common stock and additional paid-in capital – continued

As of December 31, 2021 and 2020 the common stock of CEMEX, S.A.B. de C.V. was presented as follows:

	2021		2020	
Shares [1]	**Series A** [2]	**Series B** [2]	**Series A** [2]	**Series B** [2]
Subscribed and paid shares	29,457,941,452	14,728,970,726	29,457,941,452	14,728,970,726
Unissued shares authorized for executives' stock compensation programs	881,442,830	440,721,415	881,442,830	440,721,415
Repurchased shares [3]	—	—	756,323,120	378,161,560
Shares that guarantee/guaranteed the issuance of convertible securities [4]	—	—	1,970,862,596	985,431,298
Shares authorized for the issuance of stock or convertible securities [5]	—	—	302,144,720	151,072,360
	30,339,384,282	15,169,692,141	33,368,714,718	16,684,357,359

1 As of December 31, 2021 and 2020, 13,068,000,000 shares correspond to the fixed portion, and 32,441,076,423 shares as of December 31, 2021 and 36,985,072,077 shares as of December 31, 2020, correspond to the variable portion.
2 Series "A" or Mexican shares must represent at least 64% of CEMEX's capital stock; Series "B" or free subscription shares must represent at most 36% of CEMEX's capital stock.
3 Shares repurchased under the share repurchase program authorized by the Company's shareholders (note 22.2).
4 Refers to those shares that guaranteed the conversion of a series of then outstanding convertible securities (note 18.2).
5 Shares that were authorized for issuance in a public offering or private placement and/or by issuance of new convertible securities.

On March 25, 2021, stockholders at the annual ordinary shareholders' meeting (the "Shareholders' Meeting") of CEMEX, S.A.B. de C.V. approved: (i) setting the amount of $500 or its equivalent in Mexican Pesos as the maximum amount of resources through year 2021 and until the next ordinary general shareholders' meeting of the Parent Company is held for the acquisition of its own shares or securities that represent such shares; (ii) the decrease of the variable part of the Parent Company's share capital through the cancellation of (a) 1,134 million shares repurchased during the 2020 fiscal year, under the share repurchase program and (b) and aggregate of 3,409.5 million shares that were authorized to guarantee the conversion of then existing convertible securities, as well as for any new issuance of convertible securities and/or to be subscribed and paid for in a public offering or private subscription; and (iii) the appointment of the members of the Board of Directors, the Audit Committee, the Corporate Practices and Finance Committee (which reduced its members from four to three) and the Sustainability Committee of the Parent Company.

On March 26, 2020, the Shareholders' Meeting of CEMEX, S.A.B. de C.V. approved: (i) setting the amount of $500 or its equivalent in Mexican Pesos as the maximum amount of resources through year 2020 and until the next ordinary Shareholders' Meeting is held for the acquisition of its own shares or securities that represent such shares; and (ii) the cancellation of shares of repurchased during the 2019 fiscal year and the remained in the Parent Company's treasury after the maturities of the November 2019 Mandatory Convertible Notes and the 3.72% Convertible Notes, except for the minimal conversion. Under the 2020 share repurchase program, the Parent Company repurchased 378.2 million CEMEX CPOs, at a weighted-average price in pesos equivalent to 0.22 dollars per CPO. The total amount of these CPO repurchases, excluding value-added tax, was $83. On April 8, 2020, the Parent Company announced that, to enhance its liquidity, it suspended the share repurchase program for the remainder of 2020 (note 2).

On March 28, 2019, the Shareholders' Meeting of CEMEX, S.A.B. de C.V. approved: (i) a cash dividend of $150 paid in two installments, the first installment, for half of the dividend was paid on June 17, 2019 and the second installment for the remainder of the dividend was paid on December 17, 2019; (ii) the acquisition of own shares of up to $500 or its equivalent in Mexican pesos, as the maximum amount of resources that through fiscal year 2019, and until the next ordinary annual shareholder's meeting is held, the Parent Company may be used for the acquisition of its own shares or securities that represent such shares; (iii) a decrease of the Parent Company's share capital, in its variable part for the amount in pesos equivalent to $0.2826, through the cancellation of 2 billion ordinary, registered and without par-value, treasury shares; (iv) a decrease of the Parent Company's share capital, in its variable part for the amount in pesos equivalent to $0.0670 by the cancellation of 461 million ordinary, registered and without par -value, treasury shares; (v) the increase of the Parent Company's share capital in its variable part for the amount $22 thousands, through the issuance of 150 million ordinary shares. The subscription of shares representing the capital increase was made at a theoretical value of $0.000143 dollars per share. Until December 31, 2019, under the 2019 repurchase program, the Parent Company repurchased 157.7 million CEMEX CPOs, at a weighted-average price in pesos equivalent to 0.3164 dollars per CPO. The total amount of these CPO repurchases, excluding value-added tax, was $50.

In connection with the long-term executive share- based compensation programs (note 23), in 2021 and 2020 CEMEX did not issue shares, in 2019, CEMEX issued 27.4 million CPOs generating an additional paid-in capital of $17 associated with the fair value of the compensation received by executives.

22.2) OTHER EQUITY RESERVES AND SUBORDINATED NOTES

As of December 31, 2021 and 2020, the caption of other equity reserves and subordinated notes was integrated as follows:

	2021	2020
Other equity reserves	$ (2,365)	(2,453)
Subordinated notes	994	—
	$ (1,371)	(2,453)

(Millions of U.S. dollars)

Other equity reserves

As of December 31, 2021 and 2020, other equity reserves are detailed as follows:

	2021	2020
Cumulative translation effect, net of effects from deferred income taxes recognized directly in equity (note 21.2) and derivative financial instruments designated as cash flow hedges	$ (722)	(508)
Cumulative actuarial losses	(529)	(792)
Cumulative coupon payments under perpetual debentures (note 22.4)	(1,070)	(1,059)
Treasury shares repurchased under share repurchase program (note 22.1)	—	(83)
Cumulative coupon payments under subordinated notes [1]	(30)	—
Treasury shares held by subsidiaries	(14)	(11)
	$ (2,365)	(2,453)

1 Interest accrued under the Parent Company's subordinated notes described below are recognized as part of other equity reserves.

For the years ended December 31, 2021, 2020 and 2019, the translation effects of foreign subsidiaries included in the statements of comprehensive income were as follows:

	2021	2020	2019
Foreign currency translation result[1]	$(476)	352	88
Foreign exchange fluctuations from debt [2]	89	(126)	19
Foreign exchange fluctuations from intercompany balances [3]	(13)	(419)	(47)
	$(400)	(193)	60

1 These effects refer to the result from the translation of the financial statements of foreign subsidiaries and include the changes in fair value of foreign exchange forward contracts designated as hedge of a net investment (note 18.4).

2 Generated by foreign exchange fluctuations over a notional amount of debt in CEMEX, S.A.B. de C.V., associated with the acquisition of foreign subsidiaries and designated as a hedge of the net investment in foreign subsidiaries (note 3.4).

3 Refers to foreign exchange fluctuations arising from balances with related parties in foreign currencies that are of a long-term investment nature considering that their liquidation is not anticipated in the foreseeable future and foreign exchange fluctuations over a notional amount of debt of a subsidiary of CEMEX España identified and designated as a hedge of the net investment in foreign subsidiaries.

Subordinated notes

On June 8, 2021, the Parent Company issued one series of $1,000 million 5.125% subordinated notes with no fixed maturity. After issuance costs, the Parent Company received $994. Considering that the Parent Company's subordinated notes have no fixed maturity date, there is no contractual obligation for the Parent Company to deliver cash or any other financial assets, the payment of principal and interest may be deferred indefinitely at the sole discretion of CEMEX and specific redemption events, are fully under the Parent Company's control, under applicable IFRS, these subordinated notes issued by the Parent Company qualify as equity instruments and are classified within controlling interest stockholders' equity. The Parent Company has a repurchase option on the fifth anniversary of the subordinated notes. In the event of liquidation of the Parent Company's due to commercial bankruptcy, the subordinated notes would come to the liquidation process according to its subordination after all liabilities.

Coupon payments on the subordinated notes were included within "Other equity reserves" and amounted to $30 in 2021.

22.3) RETAINED EARNINGS

The Parent Company's net income for the year is subject to a 5% allocation toward a legal reserve until such reserve equals one fifth of the common stock. As of December 31, 2021, the legal reserve amounted to $95. As mentioned in note 22.1, effective as of December 31, 2020, CEMEX incurred a restitution of retained earnings from additional paid-in capital for $2,481.

22.4) NON-CONTROLLING INTEREST AND PERPETUAL DEBENTURES

Non-controlling interest

Non- controlling interest represents the share of non -controlling stockholders in the equity and results of consolidated subsidiaries. As of December 31, 2021 and 2020, non-controlling interest in equity amounted to $444 and $428, respectively. In 2021, 2020 and 2019, non-controlling interests in consolidated net income were $25, $21 and $36, respectively. These non-controlling interests arise mainly from the following CEMEX's subsidiaries:

- In February 2017, CEMEX acquired a controlling interest in TCL, whose shares trade in the Trinidad and Tobago Stock Exchange. As of December 31, 2021 and 2020, there is a non-controlling interest in TCL of 30.17% of its common shares (see note 5.3 for certain relevant condensed financial information).

Non-controlling interest – continued

- In July 2016, CHP closed its initial offering of 45% of its common shares. Pursuant to the repurchase of CHP's shares in the market and a public stock right offering. CEMEX's reduced the non-controlling interest in CHP from 45% in 2018 to 33.22% in 2019 and to 22.16% in 2020 considering the results of a public stock rights offering. CHP's assets consist primarily of CEMEX's cement manufacturing assets in the Philippines.
- In November 2012, CLH, a direct subsidiary of CEMEX España, concluded its initial offering of common shares. CLH's assets include substantially all of CEMEX's assets in Colombia, Panama, Costa Rica, Guatemala and El Salvador. In December 2020, by means of a public share tender offer, CEMEX España increased its ownership in CLH by acquiring 108,337,613 shares of CLH in exchange of $103. As of December 31, 2021 and 2020, there is a non-controlling interest in CLH of 7.74% and 7.63%, respectively, of CLH's outstanding common shares, excluding shares held in treasury

Perpetual debentures

As of December 31, 2020, the line item "Non-controlling interest and perpetual debentures" included $449, representing the notional amount of perpetual debentures, which exclude any perpetual debentures held by subsidiaries. In June 2021, considering the issuance of the subordinated notes described above, CEMEX repurchased all series of its outstanding perpetual notes.

Until its repurchase, coupon payments on the perpetual debentures were included within "Other equity reserves" and amounted to $11 in 2021, $24 in 2020 and $29 in 2019, excluding in all the periods the coupons accrued by perpetual debentures held by subsidiaries.

CEMEX's perpetual debentures had no fixed maturity date and there were no contractual obligations for CEMEX to exchange any series of its outstanding perpetual debentures for financial assets or financial liabilities. As a result, these debentures, issued by Special Purpose Vehicles ("SPVs"), qualified as equity instruments under applicable IFRS and were classified within non-controlling interest as they were issued by consolidated entities. Subject to certain conditions, CEMEX had the unilateral right to defer indefinitely the payment of interest due on the debentures. The different SPVs were established solely for purposes of issuing the perpetual debentures and were included in CEMEX's consolidated financial statements.

23) EXECUTIVE SHARE-BASED COMPENSATION

CEMEX has long-term restricted share-based compensation programs providing for the grant of the CEMEX's CPOs to a group of eligible executives, pursuant to which, according to CEMEX's election, either new CPOs are issued, or CEMEX provides funds to the administration trust owned by the executives for the purchase of a portion or all of the required CPOs in the market for delivery to such executives under each annual program over a service period of four years (the "Ordinary Program"). The Parent Company's CPOs of the annual grant (25% of each annual Ordinary Program) are placed at the beginning of the service period in the executives' accounts to comply with a one-year restriction on sale. Moreover, beginning in 2017, for a group of key executives the conditions of the program were modified for new awards by reducing the service period from four to three years and implementing tri-annual internal and external performance metrics, which depending on their weighted achievement, may result in a final payment of the Parent Company's CPOs at the end of the third year between 0% and 200% of the target for each annual program (the "Key Executives Program").

Under the Ordinary Program and the Key Executives Program (jointly the "Compensation Programs"), the Parent Company provided funds to a broker for the purchase of 93.4 million CPOs in 2021 and 83.8 million CPOs in 2020 and 21.2 million CPOs in 2019 on behalf and for delivery to the eligible executives and issued new shares for 27.4 million CPOs in 2019, that were subscribed and pending for payment in the Parent Company's treasury. As of December 31, 2021, there are 243.0 million CPOs associated with these annual programs that are required to be delivered in the following years as the executives render services.

Beginning January 1, 2013, most of those eligible executives belonging to the operations of CLH and subsidiaries ceased to receive Parent Company's CPOs and instead started receiving shares of CLH, significantly sharing the same conditions of CEMEX's plan also over a service period of four years. During 2021, 2020 and 2019, CLH physically delivered 713,927 shares, 1,383,518 shares and 393,855 shares, respectively, corresponding to the vested portion of prior years' grants, which were subscribed and held in CLH's treasury. As of December 31, 2021, there are 3,476,865 shares of CLH associated with these annual programs that are expected to be delivered in the following years as the executives render services.

Beginning in 2018, those eligible executives belonging to the operations of CHP and subsidiaries ceased to receive Parent Company's CPOs and instead started receiving shares of CHP, significantly sharing the same conditions of CEMEX's plan. During 2021 and 2020, CHP provided funds to a broker for the purchase of 16,511,882 and 11,546,350 CHP's shares in the market, respectively, on behalf and for delivery to the eligible executives.

The combined compensation expense related to the programs described above as determined considering the fair value of the awards at the date of grant in 2021, 2020 and 2019, was recognized in the operating results against other equity reserves or a cash outflow, as applicable, and amounted to $77, $29 and $32, respectively, including the cost of CEMEX's CPOs and the CHP's shares, as correspond, acquired in the market on behalf of the executives. The weighted-average price per CEMEX CPO granted during the period was determined in pesos and was equivalent to $0.8117 dollars in 2021, $0.3379 dollars in 2020 and $0.6263 dollars in 2019. Moreover, the weighted-average price per CLH share granted during the period as determined in Colombian pesos was equivalent to $0.25 dollars in 2021, $0.72 dollars in 2020 and $1.31 dollars in 2019. As of December 31, 2021 and 2020, there were no options or commitments to make payments in cash to the executives based on changes in the market price of the Parent Company's CPO, CLH's shares and/or CHP's shares.

24) EARNINGS (LOSS) PER SHARE

Basic earnings (loss) per share is calculated by dividing net income attributable to ordinary equity holders of the Parent Company (the numerator) by the weighted-average number of shares outstanding (the denominator) during the period. Shares that would be issued depending only on the passage of time should be included in the determination of the basic weighted-average number of shares outstanding. Diluted earnings (loss) per share should reflect in both the numerator and denominator the assumption that convertible instruments are converted, that options or warrants are exercised, or that ordinary shares are issued upon the satisfaction of specified conditions, to the extent that such assumption would lead to a reduction in basic earnings per share or an increase in basic loss per share. Otherwise, the effects of potential shares are not considered because they generate antidilution.

The amounts considered for calculations of earnings (loss) per share in 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Denominator (thousands of shares)			
Weighted-average number of shares outstanding [1]	44,123,654	44,125,288	45,393,602
Capitalization of retained earnings [1]	—	—	—
Effect of dilutive instruments – mandatorily convertible securities (note 18.2) [2]	—	—	—
Weighted-average number of shares – basic	44,123,654	44,125,288	45,393,602
Effect of dilutive instruments – share-based compensation (note 23) [2]	729,292	745,163	470,985
Effect of potentially dilutive instruments – optionally convertible securities (note 18.2) [2]	—	—	1,457,554
Weighted-average number of shares – diluted	44,852,946	44,870,451	47,322,141

	2021	2020	2019
Numerator			
Net income (loss) from continuing operations	$ 788	(1,347)	81
Less: non-controlling interest net income (loss)	25	21	36
Controlling interest net income (loss) from continuing operations	763	(1,368)	45
Plus: after tax interest expense on mandatorily convertible securities	—	—	1
Controlling interest net income (loss) from continuing operations – for basic earnings per share calculations	763	(1,368)	46
Plus: after tax interest expense on optionally convertible securities	—	4	18
Controlling interest net income (loss) from continuing operations – for diluted earnings per share calculations	$ 763	(1,364)	64
Net income (loss) from discontinued operations	$ (10)	(99)	98
Basic earnings per share			
Controlling interest basic earnings (loss) per share	$ 0.0171	(0.0332)	0.0031
Controlling interest basic earnings (loss) per share from continuing operations	0.0173	(0.0310)	0.0010
Controlling interest basic earnings (loss) per share from discontinued operations	(0.0002)	(0.0022)	0.0021
Controlling interest diluted earnings per share [3]			
Controlling interest diluted earnings (loss) per share	$ 0.0168	(0.0332)	0.0031
Controlling interest diluted earnings (loss) per share from continuing operations	0.0170	(0.0310)	0.0010
Controlling interest diluted earnings (loss) per share from discontinued operations	(0.0002)	(0.0022)	0.0021

1 In 2019, shareholders approved the delivery of a cash dividend (note 22.1).

2 The number of Parent Company CPOs to be issued under the executive share-based compensation programs, as well as the total amount of Parent Company CPOs committed for issuance in the future under the mandatorily and optionally convertible securities, are computed from the beginning of the reporting period. The number of shares resulting from the executives' stock-based compensation programs is determined under the inverse treasury method.

3 For 2020 and 2019, the effects on the denominator and numerator of potential dilutive shares generate antidilution; therefore, there is no change between the reported basic earnings per share and diluted earnings per share.

(Millions of U.S. dollars)

25) COMMITMENTS

25.1) CONTRACTUAL OBLIGATIONS

As of December 31, 2021, CEMEX had the following contractual obligations:

	2021				
Obligations	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
Long-term debt	$ 68	583	2,023	4,753	7,427
Leases [1]	303	424	238	557	1,522
Total debt and other financial obligations [2]	371	1,007	2,261	5,310	8,949
Interest payments on debt [3]	283	709	639	1,014	2,645
Pension plans and other benefits [4]	155	139	140	992	1,426
Acquisition of property, plant and equipment [5]	126	70	—	—	196
Purchases of raw materials, fuel and energy [6]	503	526	366	954	2,349
Total contractual obligations	$ 1,438	2,451	3,406	8,270	15,565

1 Represent nominal cash flows. As of December 31, 2021, the NPV of future payments under such leases was $1,222, of which, $531 refers to payments from 1 to 3 years and $293 refers to payments from 3 to 5 years.

2 The schedule of debt payments, which includes current maturities, does not consider the effect of any refinancing of debt that may occur during the following years. In the past, CEMEX has replaced its long-term obligations for others of a similar nature.

3 Estimated cash flows on floating rate denominated debt were determined using the floating interest rates in effect as of December 31, 2021.

4 Represents estimated annual payments under these benefits for the next 10 years (note 20), including the estimate of new retirees during such future years.

5 Refers mainly to the expansion of a cement-production line in the Philippines.

6 Future payments for the purchase of raw materials are presented based on contractual nominal cash flows. Future nominal payments for energy were estimated for all contractual commitments based on an aggregate average expected consumption per year using the future prices of energy established in the contracts for each period. Future payments also include CEMEX's commitments for the purchase of fuel.

25.2) OTHER COMMITMENTS

As of December 31, 2021 and 2020, CEMEX was party to other commitments for several purposes, including the purchase of fuel and energy, the estimated future cash flows over maturity of which are presented in note 25.1. A description of the most significant contracts is as follows:

- Beginning in April 2016, in connection with the Ventika S.A.P.I. de C.V. and the Ventika II S.A.P.I. de C.V. wind farms (jointly "Ventikas") located in the Mexican state of Nuevo Leon with a combined generation capacity of 252 Megawatts ("MW"), CEMEX agreed to acquire a portion of the energy generated by Ventikas for its overall electricity needs in Mexico for a period of 20 years. The estimated annual cost of this agreement is $21 (unaudited) if CEMEX receives all its energy allocation. Nonetheless, energy supply from wind is variable in nature and final amounts are determined considering the final MW per hour ("MWh") effectively received at the agreed prices per unit.

- On July 27, 2012, CEMEX signed a 10-year strategic agreement with International Business Machines Corporation ("IBM") pursuant to which IBM provides, among others, data processing services (back office) in finance, accounting and human resources; as well as Information Technology ("IT") infrastructure services, support and maintenance of IT applications in the countries in which CEMEX operates.

- Beginning in February 2010, for its overall electricity needs in Mexico CEMEX agreed with EURUS the purchase a portion of the electric energy generated for a period of no less than 20 years. EURUS is a wind farm with an installed capacity of 250 MW operated by ACCIONA in the Mexican state of Oaxaca. The estimated annual cost of this agreement is $70 (unaudited) if CEMEX receives all its energy allocation. Nonetheless, energy supply from wind source is variable in nature and final amounts will be determined considering the final MWh effectively received at the agreed prices per unit.

- CEMEX maintains a commitment initiated in April 2004 to purchase the energy generated by Termoeléctrica del Golfo ("TEG") until 2027 for its overall electricity needs in Mexico. The estimated annual cost of this agreement is $171 (unaudited) if CEMEX receives all its energy allocation. Nonetheless, final amounts will be determined considering the final MWh effectively received at the agreed prices per unit.

- In regards with the above, CEMEX also committed to supply TEG and another third-party electrical energy generating plant adjacent to TEG all fuel necessary for their operations until the year 2027, equivalent to approximately 1.2 million tons of petroleum coke per year. CEMEX covers its commitments under this agreement acquiring the volume of fuel from sources in the international markets and Mexico.

Other commitments – continued

- CEMEX Zement GmbH ("CZ"), CEMEX's subsidiary in Germany, held a long-term energy supply contract until 2022 with STEAG - Industriekraftwerk Rüdersdorf GmbH ("SIKW") in connection with the overall electricity needs of CEMEX's Rüdersdorf plant. Based on the contract, each year CZ has the option to fix in advance the volume of energy in terms of MW that it will acquire from SIKW, with the option to adjust the purchase amount one time on a monthly and quarterly basis. The estimated annual cost of this agreement is $18 (unaudited) if CEMEX receives all its energy allocation.
- On October 24, 2018, CEMEX, S.A.B. de C.V. entered into an energy financial hedge agreement in Mexico, commencing October 1, 2019 and for a period of 20 years. Through the contract, the Company fixed the megawatt hour cost over an electric energy volume of 400 thousand megawatts hour per year, through the payment of 25.375 dollars per megawatt hour of electric power in exchange for a market price. The committed price to pay will increase 1.5% annually. The differential between the agreed price and the market price is settled monthly. CEMEX considers this agreement as a hedge for a portion of its aggregate consumption of electric energy in Mexico and recognizes the result of the exchange of price differentials described previously in the Income Statement as a part of the costs of energy. During 2021, the Company received $2.5. CEMEX, S.A.B. de C.V. does not record this agreement at fair value since there is not a deep market for electric power in Mexico that would effectively allow for its valuation.

25.3) COMMITMENTS FROM EMPLOYEE BENEFITS

In some countries, CEMEX has self-insured health care benefits plans for its active employees, which are managed on cost plus fee arrangements with major insurance companies or provided through health maintenance organizations. As of December 31, 2021, in certain plans, CEMEX has established stop-loss limits for continued medical assistance derived from a specific cause (e.g., an automobile accident, illness, etc.) ranging from 23 thousand dollars to 550 thousand dollars. In other plans, CEMEX has established stop-loss limits per employee regardless of the number of events ranging from 100 thousand dollars to 2.5 million dollars. The contingency for CEMEX if all employees qualifying for health care benefits required medical services simultaneously is significantly. However, CEMEX believes this scenario is remote. The amount expensed through self-insured health care benefits was $59 in 2021, $61 in 2020 and $62 in 2019.

26) LEGAL PROCEEDINGS

26.1) PROVISIONS RESULTING FROM LEGAL PROCEEDINGS

CEMEX is involved in various significant legal proceedings, the adverse resolutions of which are deemed probable and imply the incurrence of losses and/or cash outflows or the delivery of other resources owned by CEMEX. As a result, certain provisions and/or losses have been recognized in the financial statements, representing the best estimate of cash outflows. CEMEX believes that it will not make significant expenditure in excess of the amounts recorded. As of December 31, 2021, the details of the most significant events giving effect to provisions or losses are as follows:

- As of December 31, 2021, CEMEX had accrued environmental remediation liabilities through its subsidiaries in the United Kingdom pertaining to closed and current landfill sites for the confinement of waste, representing the NPV of such obligations for an amount in pounds sterling equivalent to $241. Expenditure was assessed and quantified over the period in which the sites have the potential to cause environmental harm, which is generally consistent with the views taken by the regulator as being up to 60 years from the date of closure. The assessed expenditure included the costs of monitoring the sites and the installation, repair and renewal of environmental infrastructure.
- As of December 31, 2021, CEMEX had accrued environmental remediation liabilities through its subsidiaries in the United States for $70, related to: a) the disposal of various materials in accordance with past industry practice, which might currently be categorized as hazardous substances or wastes; and b) the cleanup of sites used or operated by CEMEX, including discontinued operations, regarding the disposal of hazardous substances or waste, either individually or jointly with other parties. Most of the proceedings are in the preliminary stages and a final resolution might take several years. CEMEX does not believe that it will be required to spend significant sums on these matters in excess of the amounts previously recorded. The ultimate cost that may be incurred to resolve these environmental issues cannot be assured until all environmental studies, investigations, remediation work and negotiations with, or litigation against, potential sources of recovery have been completed.
- In 2012, in connection with a contract entered into in 1990 (the "Quarry Contract") by CEMEX Granulats Rhône Méditerranée ("CEMEX GRM"), one of CEMEX's subsidiaries in France, with SCI La Quinoniere ("SCI") pursuant to which CEMEX GRM had drilling rights to extract reserves and do quarry remediation at a quarry in the Rhône region of France, SCI filed a claim against CEMEX GRM for breach of the Quarry Contract, requesting the rescission of such contract and damages plus interest for a revised amount in euros equivalent to $76, arguing that CEMEX GRM partially filled the quarry allegedly in breach of the terms of the Quarry Contract. After many hearings, resolutions and appeals over the years, on November 25, 2020, the expert appointed by the court of appeals determined an amount of loss of profits of $0.73 and a cost of backfilling the quarry in $14. In 2020, CEMEX had accrued a provision through its subsidiaries in France for $8 in connection with the best estimate of the remediation costs resulting from this claim. As of December 31, 2021, CEMEX is waiting for the next hearing and final judgement of the Court of Appeal scheduled in June 2022, the provision remains unchanged. Although the final amount may differ, CEMEX considers that any such amount should not have a material adverse impact on CEMEX's results of operations, liquidity and financial condition.

26.2) CONTINGENCIES FROM LEGAL PROCEEDINGS

CEMEX is involved in various legal proceedings, which have not required the recognition of accruals, considering that the probability of loss is less than probable. Nonetheless, until all stages in the procedures are exhausted in each proceeding, CEMEX cannot assure the achievement of a final favorable resolution.

Contingencies from legal proceedings – continued

As of December 31, 2021, the most significant contingencies with a quantification of the potential loss, when it is determinable and would not impair the outcome of the relevant proceeding, were as follows:

- In July 2020, an individual filed a class action lawsuit (*Acción de Grupo*) with a Circuit Civil Court in Colombia against CEMEX Colombia and other two gray Portland cement market participants (the "Colombian Class Action Defendants"). The lawsuit seeks compensation for damages arising from alleged cartel actions for which the Colombian Class Action Defendants were fined in December 2017. The complaint claims that the Colombian Class Action Defendants caused damages to all consumers of gray Portland cement in Colombia during the period of 2010 to 2012. According to the plaintiff's claims, the Colombian Class Action Defendants should be ordered to pay damages due to the higher price set on gray Portland cement in an amount in Colombian pesos equivalent to $328 determined considering the sales of the three market participants in such period. The Colombian Class Action was initially dismissed, but the plaintiff filed an appeal and, in May 2021, the Circuit Civil Court admitted the claim. Moreover, CEMEX Colombia filed an appeal against the admission of the claim which is pending for resolution. As of December 31, 2021, CEMEX believes that a final adverse resolution in this matter, which could take from five to seven years, is not probable, but if such matter is resolved adversely to CEMEX, such adverse resolution should not have a material adverse impact on CEMEX's results of operations, liquidity and financial condition.

- On September 20, 2018, triggered by heavy rainfall, a landslide causing damages and fatalities (the "Landslide") occurred in a site located within an area covered by mining rights of APO Land & Quarry Corporation ("ALQC") in Naga City, Cebu, Philippines. ALQC is a principal raw material supplier of APO Cement Corporation ("APO"), a wholly owned subsidiary of CHP. CEMEX indirectly owns a minority 40% stake in ALQC. On November 19, 2018, 40 individuals and one legal entity (on behalf of 8,000 individuals allegedly affected by the Landslide) filed an environmental class action lawsuit at the Regional Trial Court (the "Court") of Talisay, Cebu, against CHP, ALQC, APO, the Mines and Geosciences Bureau of the Department of Environment and Natural Resources, the City Government of Naga, and the Province of Cebu. Plaintiffs claim that the Landslide occurred because of the defendants' gross negligence and seek, among other relief, (a) damages for an amount in Philippine Pesos equivalent to $84, (b) a rehabilitation fund for an amount in Philippine Pesos equivalent to $10, and (c) the issuance of a Temporary Environment Protection Order against ALQC aiming to prevent ALQC from performing further quarrying activities while the case is still pending. This last request was rejected by the Court on August 16, 2019 and after reconsideration, the resolution became final on December 5, 2020. Moreover, on September 30, 2019 the Court dismissed the case against CHP and APO, order that is not yet final and that was appealed by the plaintiffs on November 26, 2019 and that was denied entirely in an order dated November 17, 2021. In such order, the Court dismissed the case against the other parties. As of December 31, 2021, only ALQC remains as a party-defendant in the case. This Court order can still be appealed by the Plaintiffs before the Court of Appeals. As of December 31, 2021, in this stage of the lawsuit, CEMEX is not able to assess with certainty the likelihood of an adverse result in this lawsuit; and CEMEX is neither able to assess if a final adverse result in this lawsuit would have a material adverse impact on its results of operations, liquidity and financial position.

- Certain of CEMEX's subsidiaries in the United States were notified of a grand jury subpoena dated March 29, 2018 issued by the United States Department of Justice ("DOJ") related to an investigation of possible antitrust law violations in connection with CEMEX's sales (and related sales practices) of gray Portland cement and slag in the United States and its territories. The objective of this subpoena is to gather facts necessary to make an informed decision about whether violations of U.S. law have occurred. CEMEX cooperated with the DOJ and complied with the subpoena. On December 10, 2021, the DOJ notified CEMEX that it has closed its investigation and the matter is now closed.

- In December 2016, the Parent Company received subpoenas from the SEC seeking information to determine whether there have been any violations of the U.S. Foreign Corrupt Practices Act stemming from the Maceo Project. These subpoenas do not mean that the SEC has concluded that the Parent Company or any of its affiliates violated the law. The Parent Company has been cooperating with the SEC and intends to continue cooperating fully with the SEC. The DOJ also opened an investigation into this matter. In this regard, on March 12, 2018, the DOJ issued a grand jury subpoena to the Parent Company relating to its operations in Colombia and other jurisdictions. The Parent Company intends to cooperate fully with the SEC, the DOJ and any other investigatory entity. As of December 31, 2021, the Parent Company is unable to predict the duration, scope, or outcome of either the SEC investigation or the DOJ investigation, or any other investigation that may arise, or, because of the current status of the SEC investigation and the preliminary nature of the DOJ investigation, the potential sanctions which could be borne by the Parent Company, or if such sanctions, if any, would have a material adverse impact on CEMEX results of operations, liquidity or financial position.

- In February 2014, the Egyptian Tax Authority requested Assiut Cement Company ("ACC"), a subsidiary of CEMEX in Egypt, the payment of a development levy on clay used in the Egyptian cement industry for an amount equivalent as of December 31, 2021 to $21 for the period from May 5, 2008 to November 30, 2011. In March 2014, ACC appealed the levy and on September 2014 it was notified that it obtained a favorable resolution from the Ministerial Committee for Resolution of Investment Disputes, which instructed the Egyptian Tax Authority to cease claiming from ACC the payment of the levy on clay. It was further decided that the levy on clay should not be imposed on imported clinker. Nonetheless, in May 2016, the Egyptian Tax Authority challenged ACC´s right to cancel the levy on clay before the North Cairo Court, which referred the cases to Cairo's Administrative Judiciary Court. These cases have been adjourned by the Commissioners of the Cairo Administrative Judiciary Court, which on November 2, 2020 referred the cases to the Court and established a first hearing session for February 15, 2021 and was adjourned to the May 31, 2021 session. During the session held on May 31, 2021, the Court that is hearing the case decided to refer the case to another Chamber within the same Court considering the nature of the subject. On October 28, 2021 ACC held the first hearing session before the new Chamber. On this session, the court postponed the hearing to the session of January 20, 2022 for ACC lawyers to submit a power of attorney allowing the withdrawal of the court case. CEMEX does not expect that such referral will prejudice ACC's favorable legal position in this dispute. As of December 31, 2021, CEMEX does not expect a material adverse impact due to this matter in its results of operations, liquidity or financial position.

Contingencies from legal proceedings – continued

- In September 2012, in connection with a lawsuit submitted to a first instance court in Assiut, Egypt in 2011, the first instance court of Assiut issued a resolution to nullify the Share Purchase Agreement (the "SPA") pursuant to which CEMEX acquired in 1999 a controlling interest in Assiut Cement Company. In addition, during 2011 and 2012, lawsuits seeking, among other things, the annulment of the SPA were filed by different plaintiffs, including 25 former employees of ACC, before Cairo's State Council. After several appeals, hearings and resolutions over the years, the cases are held in Cairo's 7th Circuit State Council Administrative Judiciary Court awaiting the High Constitutional Court to pronounce regarding the challenges against the constitutionality of Law 32/2014 filed by the plaintiffs, which protects CEMEX's investments in Egypt. These matters are complex and take several years to be resolved. As of December 31, 2021, CEMEX is not able to assess the likelihood of an adverse resolution regarding these lawsuits nor is able to assess if the Constitutional Court will dismiss Law 32/2014, but, regarding the lawsuits, if adversely resolved, CEMEX does not believe the resolutions in the first instance would have an immediate material adverse impact on CEMEX's operations, liquidity and financial condition. However, if CEMEX exhausts all legal recourses available, a final adverse resolution of these lawsuits, or if the Constitutional Court dismisses Law 32/2014, this could adversely impact the ongoing matters regarding the SPA, which could have a material adverse impact on CEMEX's operations, liquidity and financial condition.

In addition to the legal proceedings described above in notes 26.1 and 26.2, as of December 31, 2021, CEMEX is involved in various legal proceedings of minor impact that have arisen in the ordinary course of business. These proceedings involve: 1) product warranty claims; 2) claims for environmental damages; 3) indemnification claims relating to acquisitions or divestitures; 4) claims to revoke permits and/or concessions; and 5) other diverse civil, administrative, commercial and lawless actions. CEMEX considers that in those instances in which obligations have been incurred, CEMEX has accrued adequate provisions to cover the related risks. CEMEX believes these matters will be resolved without any significant effect on its business, financial position or results of operations. In addition, in relation to certain ongoing legal proceedings, CEMEX is sometimes able to make and disclose reasonable estimates of the expected loss or range of possible loss, as well as disclose any provision accrued for such loss, but for a limited number of ongoing legal proceedings, CEMEX may not be able to make a reasonable estimate of the expected loss or range of possible loss or may be able to do so but believes that disclosure of such information on a case-by-case basis would seriously prejudice CEMEX's position in the ongoing legal proceedings or in any related settlement discussions. Accordingly, in these cases, CEMEX has disclosed qualitative information with respect to the nature and characteristics of the contingency but has not disclosed the estimate of the range of potential loss.

26.3) OTHER SIGNIFICANT PROCESSES

In connection with the cement plant located in the municipality of Maceo in Colombia (the "Maceo Plant"), as described in note 16.1, as of December 31, 2021, the plant has not initiated commercial operations considering several significant processes for the profitability of the investment. The evolution and status of the main issues related to such plant are described as follows:

Maceo Plant – Memorandums of understanding

- In August 2012, CEMEX Colombia signed a memorandum of understanding (the "MOU") with the representative of CI Calizas y Minerales S.A. ("CI Calizas"), for the acquisition and transfer of assets mainly comprising land, the mining concession and the shares of Zona Franca Especial Cementera del Magdalena Medio S.A.S. ("Zomam") (holder of the free trade zone concession). In addition, in December 2013, CEMEX Colombia engaged the same representative of CI Calizas to also represent in the name and on behalf of CEMEX Colombia in the acquisition of certain land plots adjacent to the plant, signing a new memorandum of understanding (the "Land MOU"). Under the MOU and the Land MOU, CEMEX Colombia made cash advances to this representative for amounts in Colombian Pesos equivalent to $13.4 of a total of $22.5, and paid interest accrued over the unpaid committed amount for $1.2, considering the exchange rate as of December 31, 2016 of 3,000.75 Colombian Pesos per Dollar. In September 2016, after confirming irregularities in the acquisition processes by means of investigations and internal audits initiated in response to complaints received, which were reported to Colombia's Attorney General (the "Attorney General"), providing the findings obtained, and considering that such payments were made in breach of the Parent Company's and CLH's policies, the Company decided to terminate the employment relationship with then those responsible for the Planning and Legal areas and accepted the resignation of the then Chief Executive Officer. In December 2016, CEMEX Colombia write off such advances from its investments in progress and cancelled the remaining advance payable.

Maceo Plant – Expiration of property process and other related matters

- After the signing of the MOU, in December 2012, a former shareholder of CI Calizas, who presumptively transferred its shares of CI Calizas two years before the signing of the MOU, was linked to a process of expiration of property initiated by the Attorney General. Amongst other measures, the Attorney General suspended the sale and ordered the seizure of the assets subject to the MOU, including the shares of Zomam acquired by CEMEX Colombia before the beginning of such process. As a third party acting in good faith and free of guilt, CEMEX Colombia joined the expiration of property process cooperating with the Attorney General. As of December 31, 2021, a final resolution in the expiration of property process, currently under the evidentiary phase, may take between 10 and 15 years from its beginning. As of December 31, 2021, pursuant to the expiration of property process of the assets subject to the MOU and the failures to formalize the purchases under the Land MOU, CEMEX Colombia does not have the legal representation of Zomam, is not the rightful owner of the land and is not the assigned entity of the mining concession.
- In addition, there is an ongoing criminal investigation that resulted in a legal resolution by means of which an indictment was issued to two of the Company's former officers and to CI Calizas' representative. CEMEX is not able to anticipate the actions that criminal judges may impose against these people. Moreover, CEMEX Colombia filed a legal recourse for accountability (Rendición de Cuentas) against the representative, in connection with the responsibilities agreed under the Land MOU for the acquisition of certain land plots adjacent to the plant. This legal recourse finalized in 2021 with a definitive resolution favorable to CEMEX Colombia in which it was ordered the transfer to CEMEX Colombia of those land plots acquired by the representative, as well as the return of unused cash advances, equivalent to $1. As of the reporting date, CEMEX Colombia has initiated the corresponding actions to materialize the effects of the aforementioned resolution.

Maceo Plant – Lease contract, mandate agreement and operation contract

- In July 2013, CEMEX Colombia signed with the provisional depository designated by the former Drugs National Department (then depository of the assets subject to the expiration of property process), which functions after its liquidation were assumed by the Administrator of Special Assets (*Sociedad de Activos Especiales S.A.S.* or the "SAE"), a lease contract for a period of five years by means of which CEMEX Colombia was duly authorized to build and operate the plant (the "Lease Contract"). Moreover, in 2014, the provisional depository granted a mandate (the "Mandate") to CEMEX Colombia for an indefinite period for the same purpose of continuing the construction and operation of the plant. On July 15, 2018, the Lease Contract expired.
- On April 12, 2019, CEMEX Colombia, CCL and another of its subsidiaries reached a conciliatory agreement with the SAE and CI Calizas before the Attorney General's Office and signed a contract of Mining Operation, Manufacturing and Delivery Services and Leasing of Properties for Cement Production (the "Operation Contract"), which will allow CEMEX Colombia to continue using the assets subject to the aforementioned expiration of property process for an initial term of 21 years that can be renewed for 10 additional years, provided that the extension of the mining concession is obtained. The Operation Contract was signed by CI Calizas and Zomam with the authorization of the SAE as delegate of these last two companies. In addition to certain one-time initial payments in Colombian pesos equivalent to $1.5 settled in 2019 and 2020 and an annual payment equivalent to 15 thousand dollars to CI Calizas for the use of land adjusted annually for inflation, the Operation Contract includes the following payments:
  - Once the Maceo Plant begins commercial operations, CEMEX Colombia and/or a subsidiary will pay on a quarterly basis: a) 0.9% of the net sales resulting from the cement produced in the plant as compensation to CI Calizas for the right of CEMEX Colombia to extract and use the mineral reserves; and b) 0.8% of the net sales resulting from the cement produced in the plant as payment to Zomam for cement manufacturing and delivery services, as long as Zomam maintains the Free Zone benefit, or, 0.3% of the aforementioned net sales exclusively for the use of equipment, in case that Zomam losses the benefits as Free Trade Zone.
  - The Operation Contract will continue in force regardless of the result in the expiration of property process, except that the applicable criminal judge would recognize ownership rights of the assets under expiration of property to CEMEX Colombia and its subsidiary, in which case the Operation Contract would no longer be needed and would be early terminated.
- Under the presumption that CEMEX Colombia conducted itself in good faith, CEMEX considers that it will be able to keep ownership of the plant, and that the rest of its investments are protected by Colombian law, under which, if a person builds on the property of a third party, with full knowledge of such third party, this third party may: a) take ownership of the plant, provided a corresponding indemnity to CEMEX Colombia, or otherwise, b) oblige CEMEX Colombia to purchase the land. Nonetheless, had this not be the case, CEMEX Colombia would take all necessary actions to safeguard its rights. If the expiration of property over the assets subject to the MOU is ordered in favor of the State, if the assets were adjudicated to a third party in a public tender offer, considering the signing of the Operation Contract, such third party would have to subrogate to the Operation Contract. As of December 31, 2021, CEMEX is not able to estimate whether the expiration of property over the assets subject to the MOU will be ordered in favor of the State, or, if applicable, if the assets would be adjudicated to a third party in a public tender offer.

Maceo Plant – Resource against the capitalization of Zomam

- On December 7, 2020, the Parent Company, acting as shareholder of CEMEX Colombia, filed a lawsuit before the Business Superintendency of Colombia (*Superintendencia de Sociedades de Colombia* or the "Business Superintendency"), requesting a declaration of inefficiency and subsequent declaration of invalidity and inexistence of the equity contribution in-kind carried out by CEMEX Colombia to Zomam on December 11, 2015. In the event of a favorable resolution, all the effects of the equity contribution would roll back. As a consequence, the assets contributed to Zomam, which had a value of $43, would revert to CEMEX Colombia in exchange for the shares in Zomam it received as a result of the capitalization. As a result of the current consolidation of Zomam, such favorable resolution would not have any effect in CEMEX's consolidated financial statements. As of December 31, 2021, the legal claim has not yet been admitted by the Business Superintendency.

Maceo Plant – Status in connection with the commissioning of the plant

- On September 3, 2019, CEMEX Colombia was notified of the resolution issued by Corantioquia's Directive Council, the regional environmental authority ("Corantioquia"), regarding the approval for the subtraction of a portion of the plant from the Integrated Management District of the Canyon of the Alicante River ("IMD"). on February 16, 2021, Corantioquia notified CI Calizas of the modification of the environmental license by means of the Company may extract up to 990 thousand tons of minerals (clay and limestone) and may produce up to 1,500 thousand metric tons of cement per year, requiring in addition, the modification of the Program of Works and Projects (PWP) of the mining title that is currently in progress in the Secretary of Mines of the Antioquia's s Government, condition that was timely resolved in a favorable manner for the company through authorization issued by that entity on April 8, 2021. On October 22, 2021, a request for amendment of the Environmental License of Maceo Plant was filed, by means of which CEMEX Colombia request to increase the scope of the production of exploding annually up to 1,300 thousand tons of clay and limestone, among other requests. As of December 31, 2021, the Company works with the authorities to expand the mineral extraction license mentioned above so the approved 1,500,000 tons can be produced from Maceo's own quarry without the need to bring minerals from other locations. Regarding the permits to conclude the construction of several sections of the access road, on November 10, 2020, Maceo's municipality issued the approval of the Road Infrastructure Intervention project and, on December 11, 2020, issued a decree establishing the public utility of the access road, required authorizations for both, building the road and acquire the required land. In respect to the modification of the permitted land use where the project is located, CEMEX Colombia received favorable criteria from Corantioquia regarding the change of land use because of the approval for the subtraction from the IMD, which was endorsed by the municipality of Maceo on August 29, 2020, which allows for an industrial and mining use compatible with the project. As of December 31, 2021, CEMEX continues working to resolve these matters as soon as possible and limits its activities to those for which it has the relevant authorizations.

27) RELATED PARTIES

All significant balances and transactions between the entities that constitute the CEMEX group have been eliminated in the preparation of the consolidated financial statements. These balances with related parties resulted primarily from: (i) the sale and purchase of goods between group entities; (ii) the sale and/or acquisition of subsidiaries' shares within the CEMEX group; (iii) the invoicing of administrative services, rentals, trademarks and commercial name rights, royalties and other services rendered between group entities; and (iv) loans between related parties. Transactions between group entities are conducted on arm's length terms based on market prices and conditions. When market prices and/or market conditions are not readily available, CEMEX conducts transfer pricing studies in the countries in which it operates to assure compliance with regulations applicable to transactions between related parties.

The definition of related parties includes entities or individuals outside the CEMEX group, which, due to their relationship with CEMEX, may take advantage of being in a privileged situation. Likewise, this applies to cases in which CEMEX may take advantage of such relationships and obtain benefits in its financial position or operating results. CEMEX's transactions with related parties are executed under market conditions.

For the years ended December 31, 2021, 2020 and 2019, in ordinary course of business, CEMEX has entered into transactions with related parties for the sale and/or purchase of products, sale and/or purchase of services or the lease of assets, all of which are not significant for CEMEX and to the best of CEMEX's knowledge are not significant to the related party, are incurred for non-significant amounts for CEMEX and are executed under market terms and conditions following the same commercial principles and authorizations applied to other third parties. These identified transactions, as applicable, are approved or ratified at least annually by the Parent Company's Board of Directors. For CEMEX, none of these transactions are material to be disclosed separately.

In addition, for the years ended December 31, 2021, 2020 and 2019, the aggregate amount of compensation of CEMEX, S.A.B. de C.V. Board of Directors, including alternate directors, and CEMEX's top management executives was $50, $35 and $40, respectively. Of these amounts, $26 in 2021, $29 in 2020, $34 in 2019, were paid as base compensation plus performance bonuses, including pension and post-employment benefits. In addition, $24 in 2021, $6 in 2020 and $6 in 2019 of the aggregate amounts in each year, corresponded to allocations of Parent Company CPOs under CEMEX's executive share-based compensation programs.

28) SUBSEQUENT EVENTS

On January 4 and 18, 2022, in connection with the committed revolving facility under the 2021 Credit Agreement described in note 18.1, CEMEX drew down $180 and $90, respectively, as part of normal operations for the financing of working capital needs.

In January 2022, the Company entered into several multi-year strategic service agreements for an aggregate amount of $500 with six providers over a period of 7 years beginning in January, 2022 for back-office services in the fields of finance, accounting, information technology and human resources services, among others, in the countries in which CEMEX operates. The services to be provided pursuant to these agreements are expected to replace and go beyond those provided pursuant to the strategic agreement signed with IBM in 2012 (note 25.2).

(Millions of U.S. dollars)

29) MAIN SUBSIDIARIES

As mentioned in notes 5.3 and 22.4, as of December 31, 2021 and 2020, there are non-controlling interests on certain consolidated entities that are in turn holding companies of relevant operations. The main subsidiaries as of December 31, 2021 and 2020, which ownership interest is presented according to the interest maintained by CEMEX, were as follows:

Subsidiary	Country	% Interest 2021	2020
CEMEX España, S.A. [1]	Spain	99.9	99.9
CEMEX, Inc.	United States of America	100.0	100.0
CEMEX Latam Holdings, S.A. [2]	Spain	92.3	92.4
CEMEX (Costa Rica), S.A. [3]	Costa Rica	99.4	99.2
CEMEX Nicaragua, S.A. [4]	Nicaragua	100.0	100.0
Assiut Cement Company	Egypt	95.8	95.8
CEMEX Colombia, S.A. [5]	Colombia	99.7	99.7
Cemento Bayano, S.A. [6]	Panama	99.5	99.5
CEMEX Dominicana, S.A.	Dominican Republic	100.0	100.0
Trinidad Cement Limited	Trinidad and Tobago	69.8	69.8
Caribbean Cement Company Limited [7]	Jamaica	79.0	79.0
CEMEX de Puerto Rico Inc.	Puerto Rico	100.0	100.0
CEMEX France Gestion (S.A.S.)	France	100.0	100.0
CEMEX Holdings Philippines, Inc. [8]	Philippines	77.8	77.8
Solid Cement Corporation [9]	Philippines	100.0	100.0
APO Cement Corporation [9]	Philippines	100.0	100.0
CEMEX U.K.	United Kingdom	100.0	100.0
CEMEX Deutschland, AG.	Germany	100.0	100.0
CEMEX Czech Republic, s.r.o.	Czech Republic	100.0	100.0
CEMEX Polska sp. Z.o.o.	Poland	100.0	100.0
CEMEX Holdings (Israel) Ltd.	Israel	100.0	100.0
CEMEX Topmix LLC, CEMEX Supermix LLC and CEMEX Falcon LLC [10]	United Arab Emirates	100.0	100.0
Neoris N.V. [11]	The Netherlands	99.8	99.8
CEMEX International Trading LLC [12]	United States of America	100.0	100.0
Sunbulk Shipping Limited [13]	Bahamas	100.0	100.0

1 CEMEX España is the direct or indirect holding company of most of CEMEX's international operations.
2 The interest reported excludes own shares held in CLH's treasury. CLH, incorporated in Spain, trades its ordinary shares in the Colombian Stock Exchange under the symbol CLH, and is the indirect holding company of CEMEX's operations in Colombia, Panama, Costa Rica, Guatemala, Nicaragua and El Salvador (note 22.4).
3 An agreement for the sale of the interest in CEMEX (Costa Rica), S.A. was executed, and closing may take place during the first half of 2022.
4 Represents CEMEX Colombia, S.A.'s 99% interest and CLH´s 1% interest held indirectly through another subsidiary of CLH.
5 Represents CLH's direct and indirect interest in ordinary and preferred shares, including own shares held in CEMEX Colombia, S.A.'s treasury.
6 Represents CLH's 99.483%indirect interest in ordinary shares, which excludes a 0.516% interest held in Cemento Bayano, S.A.'s treasury.
7 Represents the aggregate ownership interest of CEMEX in this entity of 79.04%, which includes TCL's 74.08% direct and indirect interest and CEMEX's 4.96% indirect interest held through other subsidiaries.
8 CEMEX's operations in the Philippines are conducted through CHP, a subsidiary incorporated in the Philippines which since July 2016 trades its ordinary shares on the Philippines Stock Exchange under the symbol CHP (note 22.4)
9 Represents CHP´s direct and indirect interest.
10 CEMEX España indirectly owns a 49% equity interest in each of these entities and indirectly holds the remaining 51% of the economic benefits, through agreements with other shareholders.
11 Neoris N.V. is the holding company of the entities involved in the sale of information technology solutions and services.
12 CEMEX International Trading LLC is involved in the international trading of CEMEX's products.
13 Sunbulk Shipping Limited is involved mainly in maritime and land transportation and/or shipping of goods worldwide and the handling, administration, hiring of shipments and cargo at ports, terminals and other loading and unloading destinations worldwide, as well as the offering and contracting of services in relation thereto for CEMEX's trading entities and operations.

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Independent auditors' report

To the Board of Directors and Stockholders

CEMEX, S.A.B. de C.V.

Millions of U.S. Dollars

Opinion

We have audited the consolidated financial statements of CEMEX, S.A.B. de C.V. and subsidiaries ("the Group"), which comprise the consolidated statements of financial position as at December 31, 2021 and 2020, the consolidated statements of operations, comprehensive income (loss), changes in stockholders' equity and cash flows for the years ended December 31, 2021, 2020 and 2019, and notes comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2021 and 2020, and its consolidated financial performance and its consolidated cash flows for the years ended December 31, 2021, 2020 and 2019 in accordance with International Financial Reporting Standards (IFRS).

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Mexico, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

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

Aguascalientes, Ags.
Cancún, Q. Roo.
Ciudad de México.
Ciudad Juárez, Chih.
Culiacán, Sin.
Chihuahua, Chih.
Guadalajara, Jal.
Hermosillo, Son.
León, Gto.
Mexicali, B.C.
Monterrey, N.L.
Puebla, Pue.
Querétaro, Qro.
Reynosa, Tamps.
Saltillo, Coah.
San Luis Potosí, S.L.P.
Tijuana, B.C.

Evaluation of the goodwill impairment analysis for certain groups of cash-generating units

The key audit matter	How the matter was addressed in our audit
As discussed in notes 3.11 and 17.2 to the consolidated financial statements, the goodwill balance as of December 31, 2021 was $7,984 million, of which $6,449 million relate to the groups of Cash- Generating Units (CGUs) in the United States of America (USA), and $158 million to the groups of CGUs in Spain. The goodwill balance represents 30% of the Group’s total consolidated assets as of December 31, 2021. During 2021, management of the Group recognized impairment of goodwill for $440 million, of which $317 million related to the groups of CGUs in Spain. Goodwill is tested for impairment when required upon the occurrence of internal or external indicators of impairment or at least once a year, during the last quarter of such year. We have identified the evaluation of the goodwill impairment analysis for these two groups of CGUs as a key audit matter because the estimated value in use involved a high degree of subjectivity. Specifically, the discount rate and the long-term growth rate used to calculate the value in use of the two groups of CGUs were challenging and changes to these assumptions had a significant impact on the value in use.	Our audit procedures in this area included, among others, the following: We performed sensitivity analyses over the discount rate and the long-term growth rate assumptions to assess their impact on the determination of the value in use of the two groups of CGUs. We evaluated the Group’s forecasted long-term growth rates for these two groups of CGUs by comparing the growth assumptions to publicly available data. We compared the Group’s historical cash flow forecasts to actual results to assess the Group’s ability to accurately forecast. In addition, we involved our valuation specialists, who assisted in: • Evaluating the discount rates for these two groups of CGUs, by comparing them with a discount rate range that was independently developed using publicly available data for comparable entities; and • Developing an estimate of the value in use of the groups of CGUs using the Group’s cash flow forecasts and determining an independently developed discount rate and comparing the results of our estimates to the Group’s estimates of value in use.

Evaluation of a tax proceeding in Spain

The key audit matter	How the matter was addressed in our audit
As discussed in notes 3.14 and 21.4 to the consolidated financial statements, the Group is involved in a significant tax proceeding in Spain related to uncertain tax treatments. The Group recognizes the effect of an uncertain tax treatment when it is probable that it would be accepted by the tax authorities. If an uncertain tax treatment is considered not probable of being accepted, the Group recognizes the effect of such uncertainties in its tax liabilities. We have identified the evaluation of a tax proceeding in Spain and the related disclosures made as a key audit matter because it requires significant challenging auditor judgment and audit effort, due to the nature of the estimates and assumptions, including judgments about the likelihood of loss and the amounts that would be paid in the event of loss.	Our audit procedures in this area included, among others, the following: We evaluated the competence and capabilities of the in-house and external tax advisers of the Group that assessed the likelihood of loss and the estimate of the outflow of resources. In addition, together with our tax specialists, we assessed the amounts disclosed by: • Inspecting letters received directly from the Group's in-house and external tax advisers that assessed the likelihood of loss and the amounts that would be paid in the event of loss to the tax proceeding, comparing these assessments and estimates to those made by the Group; and • Inspecting the latest correspondence between the Group, in-house and external tax advisers of the Group and the various tax authorities, as applicable. We assessed that the disclosures reflect the underlying facts and circumstances of the tax proceeding.

Evaluation of certain legal proceedings

The key audit matter	How the matter was addressed in our audit
As discussed in notes 3.12 and 26 to the consolidated financial statements, the Group is involved in legal proceedings in Mexico (Corporate) and Colombia. The Group records provisions for legal proceedings when it is probable that an outflow of resource will be required to settle a present obligation and when the outflow can be reliably estimated. The Group discloses a contingency for legal proceedings whenever the likelihood of loss from the proceedings is considered possible or when it is considered probable, but it is not possible to reliably estimate the amount of the outflow of resources. We have identified the evaluation of certain of these legal proceedings in Mexico (Corporate) and Colombia and the related disclosures made as a key audit matter because it requires significant challenging auditor judgment and audit effort, due to the nature of the estimates and assumptions, including judgments about the likelihood of loss and the amounts that would be paid in the event of loss.	Our audit procedures in this area included, among others, the following: We evaluated the competence and capabilities of the in-house and external lawyers of the Group that assessed the likelihood of loss and the estimate of the outflow of resources. In addition, together with our legal specialists, we assessed the amounts disclosed by: • Inspecting letters received directly from the Group's external and in-house lawyers that assessed the likelihood of loss and the amounts that would be paid in the event of loss to these legal proceedings and comparing these assessments and estimates to those made by the Group; and • Inspecting the latest correspondence between the Group, in-house and external lawyers of the Group and the various authorities or plaintiffs, as applicable. We assessed that the disclosures reflect the underlying facts and circumstances of each legal proceeding.

Other Information

Management is responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended December 31, 2021, to be filed with the National Banking and Securities Commission (Mexico) (Comisión Nacional Bancaria y de Valores) and the Mexican Stock Exchange (Bolsa Mexicana de Valores) ("the Annual Report") but does not include the consolidated financial statements and our auditors' report thereon. The Annual Report is expected to be made available to us after the date of this auditors' report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

When we read the Annual Report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

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

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

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

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

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

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- 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 Group'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 Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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 of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

C.P.C. Joaquín Alejandro Aguilera Dávila

KPMG Cárdenas Dosal, S.C.
Monterrey, N.L.
February 3, 2022

Exhibit 2

CEMEX, S.A.B. DE C.V.

Separate Financial Statements

December 31, 2021, 2020 and 2019

(With Independent Auditor's Report Thereon)

<u>**INDEX TO THE PARENT COMPANY-ONLY FINANCIAL STATEMENTS**</u>

CEMEX, S.A.B. de C.V. (Parent Company-Only):

CEMEX, S.A.B. de C.V. (PARENT COMPANY-ONLY)
Statements of Operations
(Millions of Mexican pesos)

	Notes	Years ended December 31, 2021	2020	2019
Revenues	**3.13, 4**	$ 79,989	59,610	56,087
Cost of sales	**3.14, 5**	(51,880)	(28,101)	(26,054)
Gross profit		**28,109**	**31,509**	**30,033**
Operating expenses	**3.14, 6**	(13,857)	(19,024)	(20,360)
Operating earnings before other income (expenses), net		**14,252**	**12,485**	**9,673**
Other income (expenses), net	**7**	4,287	(714)	(953)
Operating earnings		**18,539**	**11,771**	**8,720**
Financial expense	**18**	(13,180)	(14,230)	(12,859)
Financial income and other items, net	**8.2**	5,084	3,766	3,171
Foreign exchange results		2,441	(3,904)	605
Share of profit of equity accounted investees	**14**	2,028	(29,748)	3,846
Net income (loss) before income tax		**14,912**	**(32,345)**	**3,483**
Income tax	**20**	272	(217)	(571)
NET INCOME (LOSS)		**$ 15,184**	**(32,562)**	**2,912**

The accompanying notes are part of these Parent Company-only financial statements.

CEMEX, S.A.B. de C.V. (PARENT COMPANY-ONLY)
Statements of Comprehensive Income (Loss)
(Millions of Mexican pesos)

	Notes	Years ended December 31, 2021	2020	2019
NET INCOME (LOSS)		**$15,184**	**(32,562)**	**2,912**
Items that will be reclassified subsequently to the statement of operations				
Derivative financial instruments designated as cash flow hedges	**18.4**	776	(259)	(503)
Items that will not be reclassified subsequently to the statement of operations				
Currency translation effects and results on equity of subsidiaries	**3.3**	3,989	17,537	(6,748)
Derivative financial instruments designated as net investment hedge	**18.4**	123	1,144	(2,438)
Income tax recognized directly in other comprehensive income	**20.2**	48	(261)	703
Total items of other comprehensive income for the period		4,936	18,161	(8,986)
TOTAL COMPREHENSIVE INCOME (LOSS)		**$20,120**	**(14,401)**	**(6,074)**

The accompanying notes are part of these Parent Company-only financial statements.

CEMEX, S.A.B. de C.V. (PARENT COMPANY-ONLY)
Statements of Financial Position
(Millions of Mexican pesos)

	Notes	December 31, 2021	December 31, 2020
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	**9**	$ 4,556	5,809
Trade accounts receivable, net	**10**	3,672	4,189
Other accounts receivable	**11**	1,460	1,147
Inventories	**12**	767	3,774
Accounts receivable from related parties	**19.1**	1,688	950
Other current assets	**13**	430	376
Total current assets		12,573	16,245
NON-CURRENT ASSETS			
Equity accounted investees	**14.2**	362,425	350,498
Other investments and non-current accounts receivable	**15**	1,390	2,355
Accounts receivable from related-parties long term	**19.1**	1,046	23
Property, machinery and equipment, net and assets for the right-of-use, net	**16**	49,664	50,131
Total non-current assets		414,525	403,007
TOTAL ASSETS		**$427,098**	**419,252**
LIABILITIES AND STOCKHOLDERS' EQUITY			
CURRENT LIABILITIES			
Current debt	**18.1**	$ —	1,196
Other financial obligations	**18.2**	2,542	2,830
Trade payables		7,162	10,810
Current accounts payable to related parties	**19.1**	59,590	56,768
Other current liabilities	**17**	7,354	6,378
Total current liabilities		76,648	77,982
NON-CURRENT LIABILITIES			
Non-current debt	**18.1**	141,592	172,037
Other financial obligations	**18.2**	1,705	2,273
Non-current accounts payable to related parties	**19.1**	72	44
Tax payable and other non-current liabilities	**20.1**	5,622	6,312
Total non-current liabilities		148,991	180,666
TOTAL LIABILITIES		**225,639**	**258,648**
STOCKHOLDERS' EQUITY			
Common stock and additional paid-in capital	**21.1**	105,572	107,467
Other equity reserves and subordinated notes	**3.12**	46,921	19,355
Retained earnings	**21.2**	48,966	33,782
TOTAL STOCKHOLDERS' EQUITY		**201,459**	**160,604**
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		**$427,098**	**419,252**

The accompanying notes are part of these Parent Company-only financial statements.

CEMEX, S.A.B. de C.V. (PARENT COMPANY-ONLY)
Statements of Cash Flows
(Millions of Mexican pesos)

	Notes	Years ended December 31, 2021	2020	2019
OPERATING ACTIVITIES				
Net (loss) income		$ **15,184**	**(32,562)**	**2,912**
Adjustments for:				
Depreciation of property, machinery and equipment	**5,6,16**	282	2,397	4,086
Share of profit of equity accounted investees	**14**	(2,028)	29,748	(3,846)
Financial items, net		5,655	14,368	9,083
Income taxes	**20.1**	(272)	217	571
Results from the sale of assets	**7**	(50)	6	(100)
Result from sale of emission allowances	**7**	(4,210)	—	—
Changes in working capital, excluding income taxes		10,297	(14,188)	7,198
Cash flow provided (used in) by operating activities		**24,858**	**(14)**	**19,904**
Financial expense paid		(8,255)	(12,219)	(11,713)
Income taxes paid	**20.1**	(470)	(435)	(595)
Net cash flows provided by (used in) operating activities		**16,133**	**(12,668)**	**7,596**
INVESTING ACTIVITIES				
Equity accounted investees	**14**	(262)	9,172	(4,612)
Sale of emission allowances	**7**	12,508	—	—
Purchase of emission allowances	**7**	(8,298)	—	—
Purchase of property, machinery and equipment	**16**	(2,529)	(2,045)	(410)
Net cash flows (used in) provided by investing activities		**1,419**	**7,127**	**(5,022)**
FINANCING ACTIVITIES				
Issuances of subordinated notes	**21.3**	19,786	—	—
Dividends paid and coupons paid on subordinated notes	**21.1**	(268)	—	(2,864)
Non-current related parties, net	**19.1**	(995)	(35)	(2,165)
Derivative financial instruments	**18.4**	(841)	270	(1,084)
Proceeds from new debt instruments	**18.1**	84,333	138,921	61,649
Debt repayments	**18.1**	(119,222)	(119,600)	(52,061)
Other financial obligations, net	**18.2**	(1,318)	(10,718)	(789)
Shares repurchase program	**21.1**	—	(1,894)	(989)
Other financial expenses paid in cash	**18.1**	(280)	(274)	(261)
Net cash flows (used in) provided by financing activities		**(18,805)**	**6,670**	**1,436**
Increase (decrease) in cash and cash equivalents		(1,253)	1,129	4,010
Cash and cash equivalents at beginning of period		5,809	4,680	670
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**9**	$ **4,556**	**5,809**	**4,680**
Changes in working capital, excluding income taxes:				
Trade accounts receivable, net	**10**	$ 517	(323)	115
Other accounts receivable	**11**	(313)	(54)	(18)
Inventories	**12**	3,007	(303)	712
Current related parties, net	**19.1**	9,758	(15,481)	5,232
Trade payables		(3,648)	1,774	388
Other current liabilities	**17**	976	199	769
Changes in working capital, excluding income taxes		$ **10.297**	**(14,188)**	**7,198**

The accompanying notes are part of these Parent Company-only financial statements.

CEMEX, S.A.B. de C.V. (PARENT COMPANY-ONLY)
Statements of Changes in Stockholders' Equity
(Millions of Mexican pesos)

	Notes	Common stock	Additional paid-in capital	Other equity Reserves and subordinated notes	Retained earnings	Total stockholders' equity
Balance as of December 31, 2018		**$ 4,171**	**141,151**	**12,284**	**28,704**	**186,310**
Comprehensive income (loss), net		—	—	(8,986)	2,912	(6,074)
Dividends	**21.1**	—	—	—	(2,911)	(2,911)
Effects of early conversion of convertible subordinated notes		2	1,969	(1,971)	—	—
Share–based compensation	**21.1**	—	324	(324)	—	—
Own shares purchased under share repurchase program	**21.1**	(1)	(1,519)	531	—	(989)
Balance as of December 31, 2019		**$ 4,172**	**141,925**	**1,534**	**28,705**	**176,336**
Comprehensive income (loss), net		—	—	18,161	(32,562)	(14,401)
Restitution of retained earnings	**21.1**	—	(37,639)	—	37,639	—
Share–based compensation	**21.1**	—	—	563	—	563
Own shares purchased under share repurchase program	**21.1**	(5)	(986)	(903)	—	(1,894)
Balance as of December 31, 2020		**$ 4,167**	**103,300**	**19,355**	**33,782**	**160,604**
Comprehensive income (loss), net		—	—	4,936	15,184	20,120
Issuance of subordinated notes	**21.3**	—	—	19,786	—	19,786
Coupons paid on subordinated notes	**21.3**	—	—	(604)	—	(604)
Share–based compensation	**21.1**	—	—	1,553	—	1,553
Own shares purchased under share repurchase program	**21.1**	(3)	(1,892)	1,895	—	—
Balance as of December 31, 2021		**$ 4,164**	**101,408**	**46,921**	**48,966**	**201,459**

The accompanying notes are part of these Parent Company-only financial statements.

1) DESCRIPTION OF BUSINESS

CEMEX, S.A.B. de C.V., entity that started doing business in 1906, is a publicly traded variable stock corporation *(sociedad anónima bursátil de capital variable)* organized under the laws of the United Mexican States, or Mexico, and is a holding company (parent) of entities whose main activities are oriented to the construction industry, through the production, marketing, sale and distribution of cement, ready-mix concrete, aggregates and other construction materials and services, including urbanization solutions. In addition, CEMEX, S.A.B. de C.V. performs significant business and operational activities in Mexico.

The shares of CEMEX, S.A.B. de C.V. are listed on the Mexican Stock Exchange ("MSE") as Ordinary Participation Certificates ("CPOs") (*Certificados de Participación Ordinaria*) under the symbol "CEMEXCPO". Each CPO represents two series "A" shares and one series "B" share of common stock of CEMEX, S.A.B. de C.V. In addition, CEMEX, S.A.B. de C.V.'s shares are listed on the New York Stock Exchange ("NYSE") as *American Depositary Shares* ("ADSs") under the symbol "CX." Each ADS represents ten CPOs.

The terms "CEMEX, S.A.B. de C.V." and/or the "Parent Company" used in these accompanying notes to the financial statements refer to CEMEX, S.A.B. de C.V. without its consolidated subsidiaries. The terms the "Company" or "CEMEX" refer to CEMEX, S.A.B. de C.V. together with its consolidated subsidiaries.

The issuance of these financial statements was authorized by CEMEX, S.A.B. de C.V.´s management on February 8, 2022. These financial statements will be submitted for approval to the Annual General Ordinary Shareholders' Meeting of CEMEX, S.A.B. de C.V. on March 24, 2022.

2) RELEVANT EVENT DURING THE PERIOD AND AS OF THE ISSUANCE DATE OF THE FINANCIAL STATEMENTS

COVID-19 Pandemic

As of December 31, 2021, the outbreak of the Coronavirus SARS-CoV-2 and its strains that causes the disease known as COVID-19, declared as a pandemic by the World Health Organization on March 11, 2020 (the "COVID-19 Pandemic"), continued to affect CEMEX, S.A.B. de C.V.'s subsidiaries' operations in various aspects. During the year ended December 31, 2021, in general, the restrictive and confinement measures to contain the spread of the pandemic that affected the construction industry in the countries where CEMEX, S.A.B. de C.V.'s subsidiaries operate were not so significant. Conversely, in 2020, mainly during the second quarter, the impact caused by the pandemic on CEMEX, S.A.B. de C.V.'s results was very significant, primarily attributable to the restrictive and confinement measures in effect from the middle of March 2020, much of the second quarter of 2020, and in some cases also during the third quarter of 2020. The recovery of the economic activity in general, and of the construction sector in particular, in most of the countries where CEMEX, S.A.B. de C.V.' subsidiaries operate was very significant during the first half of 2021, however the recovery started to slow down during the third and fourth quarters of 2021. As of December 31, 2021, to a lesser degree than in 2020, CEMEX, S.A.B. de C.V. continues to be affected by the COVID-19 Pandemic, mainly by the closing of several corporate offices and certain production slowdowns or stoppages and disruptions in the delivery systems, as well as disruptions or delays in the supply chains.

From the beginning of the COVID-19 Pandemic and abiding by official dispositions in the countries in which CEMEX, S.A.B. de C.V. and its subsidiaries have implemented strict hygiene, sanitary and security measures guidelines in all its operations and modified its manufacturing, selling and distributions processes to implement physical distancing, aiming to protect the health and safety of its employees and their families, customers and communities. In this respect, for the years 2021 and 2020, since the start of the COVID-19 Pandemic, CEMEX, S.A.B. de C.V. has identified certain incremental costs and expenses associated with implementing and maintaining these measures of $78 and $602, respectively (note 7).

In Mexico, where CEMEX, S.A.B. de C.V. carries out substantially all businesses and operational activities, the lockdown measures took place from the third week of March until May 13, 2020, except for certain sectors and construction activities of public works designated as essential by the government during the COVID-19 Pandemic, significantly impacted the economic activity in general and CEMEX, S.A.B. de C.V.'s results. Beginning on May 14, 2020 the reopening of social, educational and economic activities was allowed. Therefore, companies dedicated to construction and mining industry activities were able to resume full operations as long they complied with the applicable health and safety protocols and guidelines established by the government. As of December 31, 2021, no additional official decrees were issued requiring the construction industry in Mexico to halt all or part of its operations. During the year ended December 31, 2021, CEMEX, S.A.B. de C.V. revenues increased 34% compared to the previous year. This increase in revenues was generated considering certain general economic recovery during 2021.

The degree to which the COVID-19 Pandemic would affect again CEMEX, S.A.B. de C.V.'s liquidity, financial situation and results of operations will depend on the evolution of future developments that are highly uncertain, including among these, the duration and spread of the pandemic, its severity, the spread of even more infectious strains of the virus, the actions, in particular measures ordered by governments, to contain the virus or treat its impact and how fast and to which extent the economic and operational conditions can return, within a new normality with limited activities, until more effective vaccination initiatives are put in place in more countries around the world and how willing of the world's population to receive the vaccines. In the countries where the Company's subsidiaries operate, vaccination against COVID-19 generally maintained a positive rhythm in 2021 due to the availability of vaccines, which has helped to contain the level of outbreaks and severity of infections. CEMEX, S.A.B. de C.V.'s management carries out proactive efforts with the authorities to facilitate to the extent possible the vaccination of its employees and their families to mitigate the potential risk in the operation that could be affected by future waves of contagion.

COVID-19 Pandemic - Continued

During 2020, CEMEX, S.A.B. de C.V. dealt with liquidity risks during the deepest phase of suspension of activities within the COVID-19 Pandemic, maintaining sufficient cash, to the extent possible, through obtaining financing in the bonds market and with commercial banks. From March through September 2020, CEMEX, S.A.B. de C.V. issued notes, negotiated new loans and borrowed from its committed lines of credit a total of US$3,478, of which, as of December 31, 2020 an aggregate of US$2,785 had been repaid. In addition, CEMEX, S.A.B. de C.V. suspended its share repurchase program and did not pay dividends during 2021 and 2020. During 2021, CEMEX, S.A.B. de C.V. significantly continued to improve its capital structure seeking to reach an investment grade from rating agencies using cash flows provided by operations and the sale of assets to pay down debt and through the issuance on June 8, 2021 of US$1,000 of its subordinated notes with no fixed maturity (note 21.3), proceeds that were applied fully to the repayment of debt. Furthermore, on October 29, 2021, CEMEX, S.A.B. de C.V. closed a new US$3,250 syndicated sustainability-linked credit agreement (the "2021 Credit Agreement"), under terms consistent with an investment grade capital structure, and used a portion of the proceeds to fully repay its previous 2017 Facilities Agreement, as amended several times (note 18.1). In addition, on December 23, 2021, CEMEX, S.A.B. de C.V. closed a new credit agreement for the Mexican peso equivalent of US$250 (the "2021 Pesos Credit Agreement"), under terms substantially similar to those of the 2021 Credit Agreement. CEMEX, S.A.B. de C.V. projects it will continue to generate sufficient cash flows from operations, which would enable CEMEX, S.A.B. de C.V. to meet its current obligations. Moreover, as of December 31, 2021, CEMEX, S.A.B. de C.V. had US$1,750 available on its committed revolving line of credit under the 2021 Credit Agreement (note 18.1).

Other measures that contributed to easing liquidity risks that were applied beginning on April 8, 2020 and that were maintained in 2021 are as follows: a) all non-critical capital expenditures or not associated with the management of the COVID-19 Pandemic were streamlined; b) operating expenses were also streamlined strictly according to CEMEX, S.A.B. de C.V. and its subsidiaries markets evolution and demand; c) CEMEX, S.A.B. de C.V. and its subsidiaries production was adjusted, to the extent permitted by quarantine measures, only to supply the volume of products required by the markets; and, d) all activities not related to managing basic operations were suspended.

Corporate reorganization

On August 1, 2021, CEMEX, S.A.B. de C.V., formalized a corporate reorganization of some operational activities in Mexico ("corporate reorganization") pursuant to which CEMEX, S.A.B. de C.V. transferred certain activities related to the production of cement, ready-mix concrete, and aggregates to its subsidiaries CEMEX Operaciones México, S.A. de C.V. and CEMEX Concretos, S.A. de C.V. CEMEX, S.A.B. de C.V. in conjunction with its subsidiaries CEMEX Concretos, S.A. de C.V. and Proveedora Mexicana de Materiales, S.A. de C.V., continues to carry out activities related to the commercialization, promotion, and sale of cement and ready-mix concrete products to customers. In addition, on August 1, 2021, CEMEX Operaciones México, S.A. de C.V., entered into an agreement contract to supply CEMEX, S.A.B. de C.V. of the products, which it will commercialize following the corporate restructuring. CEMEX, S.A.B. de C.V., recognized assets and liabilities transfer at their book value as it is a transaction between common control entities. CEMEX, S.A.B. de C.V. accounted for any difference between the price and the book value in stockholders' equity (note 14.1).

3) SIGNIFICANT ACCOUNTING POLICIES

3.1) BASIS OF PRESENTATION AND DISCLOSURE

CEMEX, S.A.B. de C.V.'s financial statements as of December 31, 2021 and 2020 and for the years ended December 31, 2021, 2020 and 2019, were prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Separate financial statements

The parent company-only financial statements of CEMEX, S.A.B. de C.V. presented herein constitute the separate financial statements of a parent company as defined by International Accounting Standard 27 - *Separate Financial Statements* ("IAS 27"). Separate Financial Statements reflect the Parent Company's unconsolidated financial position, financial performance and cash flows as of December 31, 2021 and 2020 and for the years ended December 31, 2021, 2020 and 2019.

Presentation currency and definition of terms

During the reported periods, the presentation currency of the financial statements was the Mexican peso. When reference is made to pesos or "$" it means Mexican pesos, except when specific reference is made to a different currency. The amounts in the financial statements and the accompanying notes are stated in millions, except when references are made to earnings per share and/or prices per share. When reference is made to "US$" or "dollars", it means dollars of the United States of America ("United States"). When reference is made to "€" or "euros," it means the currency in circulation in a significant number of European Union ("EU") countries. When reference is made to "£" or "pounds", it means British pounds sterling. When it is deemed relevant, certain amounts in foreign currency presented in the notes to the financial statements include between parentheses a convenience translation into dollars and/or into pesos, as applicable. Previously reported convenience translations of prior years are not restated unless the transaction is still outstanding, in which case those are restated using the closing exchange rates as of the reporting date. These translations should not be construed as representations that the amounts in pesos or dollars, as applicable, represent those peso or dollar amounts or could be converted into pesos or dollars at the rate indicated. As of December 31, 2021 and 2020, translations of pesos into dollars and dollars into pesos, were determined for statement of financial position amounts using the closing exchange rate of $20.50 and $19.89, respectively, and for statements of operations amounts, using the average exchange rates of $20.43, $21.58 and $19.35 pesos per dollar for 2021, 2020 and 2019, respectively. When the amounts between parentheses are the peso and the dollar, the amounts were determined by translating the euro amount into dollars using the closing exchange rates at year-end and then translating the dollars into pesos as previously described.

(Millions of Mexican pesos)

Statements of operations

CEMEX, S.A.B. de C.V. includes the line item titled "Operating earnings before other expenses, net" considering that it is a relevant operating measure for CEMEX, S.A.B. de C.V.'s management. The line item "Other expenses, net" consists primarily of revenues and expenses not directly related to CEMEX, S.A.B. de C.V.'s main activities or which are of a non-recurring nature, including impairment losses of long-lived assets, non-recurring sales of emission allowances, results on disposal of assets and restructuring costs, among others (note 7). Under IFRS, the inclusion of certain subtotals such as "Operating earnings before other expenses, net" and the display of the statement of operations vary significantly by industry and company according to specific needs.

Considering that it is an indicator of CEMEX, S.A.B. de C.V.'s ability to internally fund capital expenditures and to measure its ability to service or incur debt under financing agreements, for purposes of note 18, CEMEX, S.A.B. de C.V. presents "Operating EBITDA" (operating earnings before other expenses, net, plus depreciation and amortization). This is not an indicator of CEMEX, S.A.B. de C.V.'s financial performance, an alternative to cash flows, a measure of liquidity or comparable to other similarly titled measures of other companies. In addition, this indicator is used by CEMEX, S.A.B. de C.V.'s management for decision-making purposes.

Statements of cash flows

During 2021, except for the cash and cash equivalents received and disclosed in the statements of cash flows, the effects of the corporate reorganization as described in note 14.1, did not represent sources or uses of cash in the operating, investing or financing activities. In addition, the statements of cash flows exclude the following transactions that did not represent sources or uses of cash:

Financing activities:

- In 2021, 2020 and 2019, the increases in other financing obligations in connection with lease contracts negotiated during those years for $438, $515 and $576, respectively (note 18.2); and
- In connection with the CPOs issued as part of the executive share-based compensation programs, the increases in equity of $324 in 2019 (note 21.1).

Investing activities:

- In 2021, 2020 and 2019, in connection with the leases negotiated during the year, the increases in assets for the right-of-use related to lease contracts for $438 (US$21), $723 (US$36) and $1,879 (US$99), respectively (note 16.2).

Newly issued IFRS adopted in the reported periods

Beginning January 1, 2021, CEMEX, S.A.B. de C.V. adopted prospectively standard amendments that did not result in any material impact on its results or financial position, and which are explained as follows:

Standard	Main topic
Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16, phases 1 and 2 - *The Reform of the Reference Interest Rates*	Beginning January 1, 2021, the amendments refer to the replacement of the Interbank Reference Rates (IBOR) and provide temporary relief in several aspects, such as hedge accounting, when an IBOR rate is replacement by an alternative nearly risk-free rate (PFR) (note 18.5).

3.2) USE OF ESTIMATES AND CRITICAL ASSUMPTIONS

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenues and expenses during the period. These assumptions are reviewed on an ongoing basis using available information. Actual results could differ from these estimates. The items subject to significant estimates and assumptions by management include impairment tests of long-lived assets, recognition of deferred income tax assets and uncertain tax positions, the measurement of financial instruments at fair value, the assets and liabilities related to employee benefits, legal proceedings and provisions regarding assets retirements obligations and environmental liabilities. Significant judgment is required by management to appropriately assess the amounts of these concepts.

3.3) FOREIGN CURRENCY TRANSACTIONS

Transactions denominated in foreign currencies are recorded in the functional currency at the exchange rates prevailing on the dates of their execution. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the statement of financial position date, and the resulting foreign exchange fluctuations are recognized in earnings, except for exchange fluctuations arising from: 1) foreign currency indebtedness associated with the acquisition of foreign entities; and 2) fluctuations associated with related parties' balances denominated in foreign currency, whose settlement is neither planned nor likely to occur in the foreseeable future and as a result, such balances are of a permanent investment nature. These fluctuations are recorded against "Other equity reserves", as part of the foreign currency translation adjustment (note 3.12) until the disposal of the foreign net investment, at which time, the accumulated amount is recognized through the statement of operations as part of the gain or loss on disposal.

The financial statements of foreign subsidiaries, as determined using their respective functional currency, are translated to U.S. dollars and then to pesos at the closing exchange rate for statement of financial position accounts and at the closing exchange rates of each month within the period for statement of operations accounts. The functional currency is that in which each consolidated entity primarily generates and expends cash. The corresponding translation effect is included within "Other equity reserves" and is presented in the statement of other comprehensive income for the period as part of the foreign currency translation adjustment (note 3.12) until the disposal of the net investment in the foreign subsidiary.

(Millions of Mexican pesos)

Foreign currency transactions - Continued

Considering its integrated activities, for purposes of functional currency, CEMEX, S.A.B. de C.V. is considered to have two divisions, one related with its financial and holding company activities, in which the functional currency is the dollar for all assets, liabilities and transactions associated with these activities, and another division related with the CEMEX, S.A.B. de C.V.'s operating activities in Mexico, in which the functional currency is the peso for all assets, liabilities and transactions associated with these activities.

The most significant closing exchange rates for statement of financial position accounts and the approximate average exchange rates (as determined using the closing exchange rates of each month within the period) for statement of operations accounts for the primary functional currencies to the Mexican peso as of December 31, 2021, 2020 and 2019, were as follows:

	2021		2020		2019	
Currency	**Closing**	**Average**	**Closing**	**Average**	**Closing**	**Average**
Dollar	20.50	20.43	19.89	21.58	18.92	19.35
Euros	0.8789	0.8467	24.3065	24.6985	21.2179	21.6417
British Pound Sterling	0.7395	0.7262	27.1981	27.8121	25.0596	24.7084

3.4) CASH AND CASH EQUIVALENTS (note 9)

The balance in this caption is comprised of available amounts of cash and cash equivalents, mainly represented by highly liquid short-term investments, which are readily convertible into known amounts of cash, and which are not subject to significant risks of changes in their values, including overnight investments, which yield fixed returns and have maturities of less than three months from the investment date. These fixed-income investments are recorded at cost plus accrued interest. Accrued interest is included in the statement of operations as part of "Financial income and other items, net."

To the extent that any restriction will be lifted in less than three months from the statement of financial position reporting date, the amount of cash and cash equivalents in the statement of financial position includes restricted cash and investments, when applicable, comprised of deposits in margin accounts that guarantee certain of CEMEX, S.A.B. de C.V.'s obligations, except when contracts contain provisions for net settlement, in which case, these restricted amounts of cash and cash equivalents are offset against the liabilities that CEMEX, S.A.B. de C.V. has with its counterparties. When the restriction period is greater than three months, any restricted balance of cash and investments is not considered cash equivalents and is included within short-term or long-term "Other accounts receivable," as appropriate.

3.5) FINANCIAL INSTRUMENTS

Classification and measurement of financial instruments

The financial assets that meet both of the following conditions and are not designated as at fair value through profit or loss: a) are held within a business model whose objective is to hold assets to collect contractual cash flows, and b) its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, are classified as "Held to collect" and measured at amortized cost. Amortized cost represents the net present value ("NPV") of the consideration receivable or payable as of the transaction date. This classification of financial assets comprises the following captions:

- Cash and cash equivalents (notes 3.4 and 9).
- Trade receivables, other current accounts receivable and other current assets (notes 10, 11 and 13). Due to their short-term nature, CEMEX, S.A.B. de C.V. initially recognizes these assets at the original invoiced or transaction amount less expected credit losses, as explained below.
- Trade receivables sold under securitization programs, in which certain residual interest and continued involvement in the trade receivables sold is maintained in the case of failure to collect, do not qualify for derecognition and are maintained in the statement of financial position (notes 10 and 18.2).
- Investments and non-current accounts receivable (note 15). Subsequent changes in effects from amortized cost are recognized in statement of operations as part of "Financial income and other items, net".

Certain strategic investments are measured at fair value through other comprehensive income within "Other equity reserves" (notes 3.12 and 15). CEMEX, S.A.B. de C.V. does not maintain financial assets "Held to collect and sell" whose business model has the objective of collecting contractual cash flows and then selling those financial assets.

The financial assets that are not classified as "Held to collect" or that do not have strategic characteristics fall into the residual category of held at fair value through the statement of operations as part of "Financial income and other items, net," (notes 7.2 and 15).

Debt instruments and other financial obligations are classified as "Loans" and measured at amortized cost (notes 18.1 and 18.2). Interest accrued on financial instruments is recognized within "Other current liabilities" against financial expense. During the reported periods, CEMEX, S.A.B. de C.V. did not have financial liabilities voluntarily recognized at fair value or associated with fair value hedge strategies with derivative financial instruments.

Classification and measurement of financial instruments - Continued

Derivative financial instruments are recognized as assets or liabilities in the statement of financial position at their estimated fair values, and the changes in such fair values are recognized in the statement of operations within “Financial income and other items, net” for the period in which they occur, except in the case of hedging instruments as described below (notes 8.2 and 18.4).

Impairment of financial assets

Impairment losses of financial assets, including trade accounts receivable, are recognized using the Expected Credit Loss model (“ECL”) for the entire lifetime of such financial assets on initial recognition, and at each subsequent reporting period, even in the absence of a credit event or if a loss has not yet been incurred, considering for their measurement past events and current conditions, as well as reasonable and supportable forecasts affecting collectability. For purposes of the ECL model of trade accounts receivable, CEMEX, S.A.B. de C.V. segments its accounts receivable in a matrix by country, type of client or homogeneous credit risk and days past due and determines for each segment an average rate of ECL, considering actual credit loss experience over the last 24 months and analyses of future delinquency, that is applied to the balance of the accounts receivable. The average ECL rate increases in each segment of days past due until the rate is 100% for the segment of 365 days or more past due.

Costs incurred in the issuance of debt or borrowings

Direct costs incurred in debt issuances or borrowings, as well as debt refinancing or non-substantial modifications to debt agreements that did not represent an extinguishment of debt by considering that the holders and the relevant economic terms of the new instrument are not substantially different to the replaced instrument, adjust the carrying amount of the related debt and are amortized as interest expense as part of the effective interest rate of each instrument over its maturity. These costs include commissions and professional fees. Costs incurred in the extinguishment of debt, as well as debt refinancing or modifications to debt agreements, when the new instrument is substantially different from the old instrument according to a qualitative and quantitative analysis, are recognized in the statement of operations as incurred.

Leases (notes 3.8, 16 and 18.2)

At the inception of a contract, CEMEX, S.A.B. de C.V. assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period in exchange for consideration. CEMEX, S.A.B. de C.V. uses the definition of a lease in IFRS 16 to assess whether a contract conveys the right to control the use of an identified asset.

Based on IFRS 16, leases are recognized as financial liabilities against assets for the right-of-use, measured at their commencement date as the net present value (“NPV”) of the future contractual fixed payments, using the interest rate implicit in the lease or, if that rate cannot be readily determined, CEMEX, S.A.B. de C.V.’s incremental borrowing rate. CEMEX, S.A.B. de C.V. determines its incremental borrowing rate by obtaining interest rates from its external financing sources and makes certain adjustments to reflect the term of the lease, the type of the asset leased and the economic environment in which the asset is leased.

CEMEX, S.A.B. de C.V. does not separate the non-lease component from the lease component included in the same contract. Lease payments included in the measurement of the lease liability comprise contractual rental fixed payments, less incentives, fixed payments of non-lease components and the value of a purchase option, to the extent that option is highly probable to be exercised or is considered a bargain purchase option. Interest incurred under the financial obligations related to lease contracts is recognized as part of the “Financial expense” line item in the statement of operations.

At commencement date or upon modification of a contract that contains a lease component, CEMEX, S.A.B. de C.V. allocates the consideration in the contract to each lease component based on their relative stand-alone prices. CEMEX, S.A.B. de C.V. applies the recognition exception for lease terms of 12 months or less and contracts of low-value assets and recognizes the lease payment of these leases as rental expense in the statement of operations over the lease term. CEMEX, S.A.B. de C.V. defined the lease contracts related to office and computer equipment as low-value assets.

The lease liability is measured at amortized cost using the effective interest method as payments are incurred and is remeasured when: a) there is a change in future lease payments arising from a change in an index or rate, b) if there is a change in the amount expected to be payable under a residual guarantee, c) if the Parent Company changes its assessment of whether it will exercise a purchase, extension or termination option, or d) if there is a revised in-substance fixed lease payment. When the lease liability is remeasured, an adjustment is made to the carrying amount of the asset for the right-of-use or is recognized within “Financial income and other items, net” if such asset has been reduced to zero.

Financial instruments with components of both liabilities and equity (note 18.2)

Financial instruments that contain components of both liability and equity, such as notes convertible into a fixed number of the issuer’s shares and denominated its same functional currency, are accounted for by each component being recognized separately in the statement of financial position according to the specific characteristics of each transaction. In the case of instruments mandatorily convertible into shares of the issuer, the liability component represents the NPV of interest payments on the principal amount using a market interest rate, without assuming early conversion, and is recognized within “Other financial obligations,” whereas the equity component represents the difference between the principal amount and the liability component, and is recognized within “Other equity reserves”, net of commissions. In the case of instruments that are optionally convertible into a fixed number of shares, the equity component represents the difference between the total proceeds received for issuing the financial instruments and the fair value of the financial liability component (note 18.2). When the transaction is denominated in a currency other than the functional currency of the issuer, the conversion option is accounted for as a derivative financial instrument at fair value through the statement of operations.

Hedging instruments (note 18.4)

A hedging relationship is established to the extent the entity considers, based on the analysis of the overall characteristics of the hedging and hedged items, that the hedge will be highly effective in the future and the hedge relationship at inception is aligned with the entity's reported risk management strategy (note 18.4). The accounting categories of hedging instruments are: a) cash flow hedge, b) fair value hedge of an asset or forecasted transaction, and c) hedge of a net investment in a subsidiary.

In cash flow hedges, the effective portion of changes in fair value of derivative instruments are recognized in stockholders' equity within other equity reserves and are reclassified to earnings as the interest expense of the related debt is accrued, in the case of interest rate swaps, or when the underlying products are consumed in the case of contracts on the price of raw materials and commodities. In hedges of the net investment in foreign subsidiaries, changes in fair value are recognized in stockholders' equity as part of the foreign currency translation gains and losses within other equity reserves (note 3.5), whose reversal to earnings would take place upon disposal of the foreign investment. During the reported periods, CEMEX, S.A.B. de C.V. did not have derivatives designated as fair value hedges. Derivative instruments are negotiated with institutions with significant financial capacity; therefore, CEMEX, S.A.B. de C.V. believes the risk of non-performance of the obligations agreed to by such counterparties to be minimal.

Embedded derivative financial instruments

CEMEX, S.A.B. de C.V. reviews its contracts to identify the existence of embedded derivatives. Identified embedded derivatives are analyzed to determine if they need to be separated from the host contract and recognized in the statement of financial position as assets or liabilities, applying the same valuation rules used for other derivative instruments.

Put options granted for the purchase of non-controlling interests

Under IFRS 9, represent agreements by means of which a non-controlling interest has the right to sell, at a future date using a predefined price formula or at fair market value, its shares in a consolidated subsidiary. When the obligation should be settled in cash or through the delivery of another financial asset, an entity should recognize a liability for the NPV of the redemption amount as of the reporting date against the controlling interest within stockholders' equity. A liability is not recognized under these agreements when the redemption amount is determined at fair market value at the exercise date and the entity has the election to settle using its own shares. As of December 31, 2021 and 2020, CEMEX, S.A.B. de C.V. did not have written put options.

Fair value measurements (note 18.3)

Under IFRS, fair value represents an "Exit Value" which is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, considering the counterparty's credit risk in the valuation. The concept of Exit Value is premised on the existence of a market and market participants for the specific asset or liability. When there are no market and/or market participants willing to make a market, IFRS establishes a fair value hierarchy that gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to measurements involving significant unobservable inputs (Level 3 measurements).

The three levels of the fair value hierarchy are as follows:

- Level 1.- represent quoted prices (unadjusted) in active markets for identical assets or liabilities that CEMEX, S.A.B. de C.V. can access at the measurement date. A quote price in an active market provides the most reliable evidence of fair value and is used without adjustment to measure fair value whenever available.
- Level 2.- are inputs other than quoted prices in active markets that are observable for the asset or liability, either directly or indirectly, and are used mainly to determine the fair value of securities, investments or loans that are not actively traded. Level 2 inputs included equity prices, certain interest rates and yield curves, implied volatility and credit spreads, among others, as well as inputs extrapolated from other observable inputs. In the absence of Level 1 inputs, CEMEX, S.A.B. de C.V. determined fair values by iteration of the applicable Level 2 inputs, the number of securities and/or the other relevant terms of the contract, as applicable.
- Level 3.- inputs are unobservable inputs for the asset or liability. CEMEX, S.A.B. de C.V. used unobservable inputs to determine fair values, to the extent there are no Level 1 or Level 2 inputs, in valuation models such as Black-Scholes, binomial, discounted cash flows or multiples of Operating EBITDA, including risk assumptions consistent with what market participants would use to arrive at fair value.

3.6) INVENTORIES (note 12)

Inventories are valued using the lower of cost or net realizable value. The cost of inventories is based on weighted average cost formula and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. CEMEX, S.A.B. de C.V. analyzes its inventory balances to determine if, because of internal events, such as physical damage, or external events, such as technological changes or market conditions, certain portions of such balances have become obsolete or impaired. When an impairment situation arises, the inventory balance is adjusted to its net realizable value. In such cases, these adjustments are recognized against the results of the period. Advances to suppliers of inventory are presented as part of other current assets.

In connection with the corporate reorganization (notes 2 and 14.1), commencing August 2021, CEMEX, S.A.B. de C.V., purchases its merchandise in a form of ready for sale. In connection with purchasing merchandise ready to be sold, CEMEX, S.A.B. de C.V., acquires such merchandise mainly with related parties (note 19). CEMEX, S.A.B. de C.V. reports its inventories at the acquisition cost.

(Millions of Mexican pesos)

3.7) EQUITY ACCOUNTED INVESTEES (note 14.2)

Investments in controlled entities and in entities over which CEMEX, S.A.B. de C.V. exercises significant influence, which are not classified as available for sale, are measured using the equity method.

3.8) PROPERTY, MACHINERY AND EQUIPMENT AND RIGHT OF USE (note 16)

Property, machinery and equipment are recognized at their acquisition or construction cost, as applicable, less accumulated depreciation and accumulated impairment losses. Depreciation of property, machinery and equipment is recognized as part of cost and operating expenses (notes 5 and 6) and is calculated using the straight-line method over the estimated useful lives of the assets, except for mineral reserves, which are depleted using the units-of-production method. As of December 31, 2021, the average useful lives by category of property, machinery and equipment, which are reviewed at each reporting date and adjusted if appropriate, were as follows:

	Years
Administrative and industrial buildings	68
Machinery and equipment in plant	25
Ready-mix trucks and motor vehicles	10
Office equipment and other assets	5

Assets for the right-of-use related to leases are initially measured at cost, which comprises the initial amount of the lease liability adjusted by any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle, remove or restore the underlaying asset, less any lease incentives received. The asset for the right-of-use is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlaying asset to CEMEX, S.A.B. de C.V. by the end of the lease term or if the cost of the asset for the right-of-use reflects that CEMEX, S.A.B. de C.V. will exercise a purchase option. In that case the asset for the right-of-use would be depreciated over the useful life of the underlying asset, on the same basis as those of property, machinery and equipment. In addition, assets for the right-of-use may be reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

CEMEX, S.A.B. de C.V. capitalizes, as part of the related cost of property, machinery and equipment, interest expense from existing debt during the construction or installation period of significant property, machinery and equipment, considering CEMEX, S.A.B. de C.V.'s corporate average interest rate and the average balance of investments in process for the period.

All waste removal costs or stripping costs incurred in the operative phase of a surface mine to access the mineral reserves are recognized as part of the carrying amount of the related quarries. The capitalized amounts are further amortized over the expected useful life of exposed ore body based on the units of production method.

Costs incurred in respect of operating fixed assets that result in future economic benefits, such as an extension in their useful lives, an increase in their production capacity or in safety, as well as those costs incurred to mitigate or prevent environmental damage, are capitalized as part of the carrying amount of the related assets. The capitalized costs are depreciated over the remaining useful lives of such fixed assets. Periodic maintenance of fixed assets is expensed as incurred. Advances to suppliers of fixed assets are presented as part of other non-current accounts receivable.

3.9) IMPAIRMENT OF LONG-LIVED ASSETS (notes 15 and 16)

Property, machinery and equipment, assets for the right-of-use and other investments

These assets are tested for impairment upon the occurrence of internal or external indicators of impairment, such as changes in CEMEX, S.A.B. de C.V.'s operating business model or in technology that affect the asset, or expectations of lower operating results, to determine whether their carrying amounts may not be recovered. An impairment loss is recorded in the statement of operations for the period within "Other income (expenses), net" for the excess of the asset's carrying amount over its recoverable amount, corresponding to the higher of the fair value less costs to sell the asset, as generally determined by an external appraiser, and the asset's value in use, the latter represented by the NPV of estimated cash flows related to the use and eventual disposal of the asset. The main assumptions utilized to develop estimates of NPV are a discount rate that reflects the risk of the cash flows associated with the assets and the estimations of generation of future income. Those assumptions are evaluated for reasonableness by comparing such discount rates to available market information and by comparing to third-party expectations of industry growth, such as governmental agencies or industry chambers.

When impairment indicators exist, for each intangible asset, CEMEX, S.A.B. de C.V. determines its projected revenue streams over the estimated useful life of the asset. To obtain discounted cash flows attributable to each intangible asset, such revenue is adjusted for operating expenses, changes in working capital and other expenditures, as applicable, and discounted to NPV using the risk adjusted discount rate of return. The most significant economic assumptions are: a) the useful life of the asset; b) the risk adjusted discount rate of return; c) royalty rates; and d) growth rates. Assumptions used for these cash flows are consistent with internal forecasts and industry practices. The fair values of these assets are significantly sensitive to changes in such relevant assumptions. Certain key assumptions are more subjective than others. In respect of trademarks, CEMEX, S.A.B. de C.V. considers that the most subjective key assumption is the royalty rate. In respect of extraction rights and customer relationships, the most subjective assumptions are revenue growth rates and estimated useful lives. CEMEX, S.A.B. de C.V. validates its assumptions through benchmarking with industry practices and the corroboration of third-party valuation advisors. Significant judgment by management is required to appropriately assess the fair values and values in use of the related assets, as well as to determine the appropriate valuation method and select the significant economic assumptions.

Equity accounted investees

Equity accounted investees are tested for impairment when required due to significant adverse changes, by determining the recoverable amount of such investment, which consists of the higher of the investment in subsidiaries and associates' fair value, less cost to sell and value in use, represented by the discounted amount of estimated future cash flows to be generated to which those net assets relate. CEMEX, S.A.B. de C.V. initially determines its discounted cash flows over periods of 5 to 10 years, depending on the economic cycle. If the value in use of the equity accounted investees is lower than its corresponding carrying amount, the Parent Company determines the fair value of its investment using methodologies generally accepted in the market to determine the value of entities, such as multiples of Operating EBITDA and by reference to other market transactions. An impairment loss is recognized within "Other income (expenses), net", if the recoverable amount is lower than the net book value of the investment.

3.10) PROVISIONS (note 17)

CEMEX, S.A.B. de C.V. recognizes provisions when it has a legal or constructive obligation resulting from past events, whose resolution would require cash outflows, or the delivery of other resources owned by the Parent Company. As of December 31, 2021 and 2020, some significant proceedings that gave rise to a portion of the carrying amount of CEMEX, S.A.B. de C.V.'s other current and non-current liabilities and provisions are detailed in note 23.

Considering guidance under IFRS, CEMEX, S.A.B. de C.V. recognizes provisions for levies imposed by governments when the obligating event or the activity that triggers the payment of the levy has occurred, as defined in the legislation.

Contingencies and commitments (notes 22 and 23)

Obligations or losses related to contingencies are recognized as liabilities in the statement of financial position only when present obligations exist resulting from past events that are probable to result in an outflow of resources and the amount can be measured reliably. Otherwise, a qualitative disclosure is included in the notes to the financial statements. The effects of long-term commitments established with third parties, such as supply contracts with suppliers or customers, are recognized in the financial statements on an incurred or accrued basis, after taking into consideration the substance of the agreements. Relevant commitments are disclosed in the notes to the financial statements. CEMEX, S.A.B. de C.V. recognizes contingent revenues, income or assets only when their realization is virtually certain.

3.11) INCOME TAXES (note 20)

The effects reflected in the statement of operations for income taxes include the amounts incurred during the period and the amounts of deferred income taxes, determined according to the income tax law applicable, reflecting uncertainty in income tax treatments, if any. Deferred income taxes represent the addition of the amounts determined by applying the enacted statutory income tax rate to the total temporary differences resulting from comparing the book and taxable values of assets and liabilities, considering tax assets such as loss carryforwards and other recoverable taxes, to the extent that it is probable that future taxable profits will be available against which they can be utilized. The measurement of deferred income taxes at the reporting period reflects the tax consequences that follow the way in which CEMEX, S.A.B. de C.V. expects to recover or settle the carrying amount of its assets and liabilities. Deferred income taxes for the period represent the difference between balances of deferred income taxes at the beginning and the end of the period. According to IFRS, all items charged or credited directly in stockholders' equity or as part of other comprehensive income or loss for the period are recognized net of their current and deferred income tax effects. The effect of a change in enacted statutory tax rates is recognized in the period in which the change is officially enacted.

Deferred tax assets are reviewed at each reporting date and are reduced when it is not deemed probable that the related tax benefit will be realized, considering the aggregate amount of self-determined tax loss carryforwards that CEMEX, S.A.B. de C.V. believes will not be rejected by the tax authorities based on available evidence and the likelihood of recovering them prior to their expiration through an analysis of estimated future taxable income. If it is probable that the tax authorities would reject a self-determined deferred tax asset, CEMEX, S.A.B. de C.V. would decrease such asset. When it is considered that a deferred tax asset will not be recovered before its expiration, CEMEX, S.A.B. de C.V. would not recognize such deferred tax asset. Both situations would result in additional income tax expense for the period in which such determination is made. To determine whether it is probable that deferred tax assets will ultimately be recovered, CEMEX, S.A.B. de C.V. takes into consideration all available positive and negative evidence, including factors such as market conditions, industry analysis, expansion plans, projected taxable income, carryforward periods, current tax structure, potential changes or adjustments in tax structure, tax planning strategies, future reversals of existing temporary differences. Likewise, CEMEX, S.A.B. de C.V. analyzes its actual results versus the Parent Company's estimates, and adjusts, as necessary, its tax asset valuations. If actual results vary from CEMEX, S.A.B. de C.V.'s estimates, the deferred tax asset and/or valuations may be affected, and necessary adjustments will be made based on relevant information in CEMEX, S.A.B. de C.V.'s statement of operations for such period.

Based on IFRIC 23, *Uncertainty over income tax treatments* ("IFRIC 23"), the income tax effects from an uncertain tax position are recognized when it is probable that the position will be sustained based on its technical merits and assuming that the tax authorities will examine each position and have full knowledge of all relevant information. For each position probability is considered individually, regardless of its relationship to any other broader tax settlement. The probability threshold represents a positive assertion by management that CEMEX, S.A.B. de C.V. is entitled to the economic benefits of a tax position. If a tax position is considered not probable of being sustained, no benefits of the position are recognized. Interest and penalties related to unrecognized tax benefits are recorded as part of the income tax in the statements of operations.

The effective income tax rate is determined dividing the line item "Income tax" by the line item "Net income before income tax." This effective tax rate is further reconciled to CEMEX, S.A.B. de C.V.'s statutory tax rate applicable in Mexico (note 20).

3.12) STOCKHOLDERS’ EQUITY

Common stock and additional paid-in capital (note 21.1)

These items represent the value of stockholders’ contributions, and include increases related to the capitalization of retained earnings and the recognition of executive compensation programs in CEMEX, S.A.B. de C.V.’s CPOs as well as decreases associated with the restitution of retained earnings.

Other equity reserves and subordinated notes (note 21.3)

Groups the cumulative effects of items and transactions that are, temporarily or permanently, recognized directly to stockholders’ equity, and includes the comprehensive income, which reflects certain changes in stockholders’ equity that do not result from investments by owners and distributions to owners.

Beginning in June 2021, this line item includes the balance of subordinated notes with no fixed maturity issued by CEMEX, S.A.B. de C.V. Considering that CEMEX, S.A.B. de C.V.’s subordinated notes have no fixed maturity date, there is no contractual obligation for CEMEX, S.A.B. de C.V. to deliver cash or any other financial assets, the payment of principal and interest may be deferred indefinitely at the sole discretion of CEMEX, S.A.B. de C.V. and specific redemption events are fully under CEMEX, S.A.B. de C.V.’s control, under applicable IFRS, these subordinated notes issued by CEMEX, S.A.B. de C.V. qualify as equity instruments and are classified within controlling interest stockholders’ equity.

The most significant items within “Other equity reserves” during the reported periods are as follows:

Items of “Other equity reserves” included within other comprehensive income:

- The effective portion of the valuation and liquidation effects from derivative instruments under cash flow hedging relationships, which are recorded temporarily in stockholders’ equity (note 3.5);
- Changes in fair value of other investments in strategic securities (note 3.5); and
- Current and deferred income taxes during the period arising from items whose effects are directly recognized in stockholders’ equity.

Items of “Other equity reserves” not included in comprehensive income:

- Effects attributable to controlling stockholders’ equity for financial instruments issued by consolidated subsidiaries that qualify for accounting purposes as equity instruments, such as the interest expense paid on perpetual debentures;
- The balance of subordinated notes with no fixed maturity and any interest accrued thereof; and
- The cancellation of CEMEX, S.A.B. de C.V.’s shares held by consolidated entities.

Retained earnings (note 21.2)

Retained earnings represent the cumulative net results of prior years, net of: a) dividends declared; b) capitalization of retained earnings; c) restitution of retained earnings when applicable; and d) cumulative effects from adoption of new IFRS.

3.13) REVENUE RECOGNITION (note 4)

Revenue is recognized at a point in time or over time in the amount of the price, before tax on sales, expected to be received for goods and services supplied because of ordinary activities, as contractual performance obligations are fulfilled, and control of goods and services passes to the customer. Revenues are decreased by any trade discounts or volume rebates granted to customers. Variable consideration is recognized when it is highly probable that a significant reversal in the amount of cumulative revenue recognized for the contract will not occur and is measured using the expected value or the most likely amount method, whichever is expected to better predict the amount based on the terms and conditions of the contract.

Revenue and costs from trading activities, in which CEMEX, S.A.B. de C.V. acquires finished goods and subsequently sells the goods to another third-party, are recognized on a gross basis, considering that CEMEX, S.A.B. de C.V. assumes ownership risks on the goods purchased, not acting as agent or broker.

When revenue is earned over time as contractual performance obligations are satisfied, which is the case of construction contracts, CEMEX, S.A.B. de C.V. applies the stage of completion method to measure revenue, which represents: a) the proportion that contract costs incurred for work performed to date bear to the estimated total contract costs; b) the surveys of work performed; or c) the physical proportion of the contract work completed; whichever better reflects the percentage of completion under the specific circumstances. Revenue related to such construction contracts is recognized in the period in which the work is performed by reference to the contract’s stage of completion at the end of the period, considering that the following have been defined: a) each party’s enforceable rights regarding the asset under construction; b) the consideration to be exchanged; c) the manner and terms of settlement; d) actual costs incurred and contract costs required to complete the asset are effectively controlled; and e) it is probable that the economic benefits associated with the contract will flow to the entity.

Progress payments and advances received from customers do not reflect the work performed and are recognized as short-term or long-term advanced payments, as appropriate.

(Millions of Mexican pesos)

3.14) COST OF SALES AND OPERATING EXPENSES (notes 5 and 6)

Cost of sales represents the production cost of inventories at the moment of sale. Such cost of sales includes depreciation, amortization and depletion of assets involved in production, expenses related to storage in production plants and freight expenses of raw material in plants and delivery expenses of CEMEX, S.A.B. de C.V.'s ready-mix concrete business. Commencing August 2021, in connection with the corporate reorganization (notes 2 and 14.1), CEMEX, S.A.B. de C.V.' cost of sales represents the acquisition cost of the products of the merchandising for CEMEX, S.A.B. de C.V. during the period.

Administrative expenses represent the expenses associated with personnel, services and equipment, including depreciation and amortization, related to managerial activities and back office for the Parent Company's management. Sales expenses represent the expenses associated with personnel, services and equipment, including depreciation and amortization, involved specifically in sales activities. Distribution and logistics expenses refer to expenses of storage at points of sales, including depreciation and amortization, as well as freight expenses of finished products between plants and points of sale and freight expenses between points of sales and the customers' facilities.

3.15) CONCENTRATION OF BUSINESS AND CREDIT

CEMEX, S.A.B. de C.V. sells its products primarily to distributors in the construction industry, with no specific geographic concentration within the countries in which CEMEX, S.A.B. de C.V. operates. As of and for the years ended December 31, 2021, 2020 and 2019, no single customer individually accounted for a significant portion of the reported amounts of sales or in the balances of trade receivables. In addition, there is no significant concentration of a specific supplier relating to the purchase of raw materials.

3.16) NEWLY ISSUED IFRS NOT YET ADOPTED

There are several amendments or new IFRS issued but not yet effective which are under analysis by the Parent Company's management and expected to be adopted on their specific effective dates. The Parent Company's management has preliminarily determined that these amendments and new IFRS, summarized as follows, will have no significant effect on the Parent Company's financial position or operating results:

Standard	Main topic	Effective date
Amendments to IFRS 10, *Consolidated financial statements* and IAS 28	Clarify the recognition of gains or losses in the Parent's financial statements for the sale or contribution of assets between an investor and its associate or joint venture	Has yet to be set
Amendments to IAS 37, *Provisions, Contingent Liabilities and Contingent Assets* – Onerous Contracts—Cost of Fulfilling a Contract	Clarifies that the 'cost of fulfilling' a contract comprises the 'costs that relate directly to the contract'. Costs that relate directly to a contract can either be incremental costs of fulfilling that contract or an allocation of other costs that relate directly to fulfilling contracts.	January 1, 2022
Amendments to IAS 16, *Property, Plant and Equipment* – Proceeds before Intended Use	Clarifies the prohibition of deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management.	January 1, 2022
Annual improvements to IFRS (2018-2020 cycle): IFRS 9, *Financial Instruments* – Fees in the '10 per cent' Test for Derecognition of Financial Liabilities	The amendment clarifies which fees an entity includes when it applies the '10 per cent' test in assessing whether to derecognize a financial liability. An entity includes only fees paid or received between the entity (the borrower) and the lender, including fees paid or received by either the entity or the lender on the other's behalf.	January 1, 2022
Amendments to IAS 1, *Presentation of Financial Statements*– Classification of Liabilities as Current or Non-current	Clarifies the requirements to be applied in classifying liabilities as current and non-current.	January 1, 2023
Amendments to IAS 8 – *Definition of Accounting Estimates*	The amendment makes a distinction between how an entity should present and disclose different types of accounting changes in its financial statements. Changes in accounting policies must be applied retrospectively while changes in accounting estimates are accounted for prospectively.	January 1, 2023
Amendments to IAS 1 and IFRS Practice Statement 2 – *Disclosure of Accounting Policies*	The amendment requires entities to disclose their material accounting policies rather than their significant accounting policies. To support this amendment the Board has also developed guidance and examples to explain and demonstrate the application of the 'four-step materiality process' described in IFRS Practice Statement 2 *Making Materiality Judgements to accounting policy disclosures*.	January 1, 2023
Amendments to IAS 12, *Income Taxes* – Deferred Tax related to Assets and Liabilities arising from a Single Transaction	The amendment clarifies that companies should account for deferred tax assets and liabilities on transactions such as leases and decommissioning obligations. CEMEX has always applied these criteria.	January 1, 2023

IFRS 17, *Insurance contracts*	The new Standard establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts and supersedes IFRS 4, *Insurance contracts*. The Standard 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.	January 1, 2023

(Millions of Mexican pesos)

4) REVENUES

CEMEX, S.A.B. de C.V.'s revenues are mainly originated from the sale and distribution of cement, ready-mix concrete, aggregates and other construction materials and services, including urbanization solutions. CEMEX, S.A.B. de C.V. grants credit for terms ranging from 15 to 90 days depending on the type and risk profile of each customer. For the years ended December 31, 2021, 2020 and 2019, revenues are as follows:

	2021	2020	2019
From the sale of goods related to principal activities	$ 71,341	58,572	54,498
From the sale of other goods and services (notes 2 and 14.1)	6,385	266	758
	$ 77,726	58,838	55,256

In addition to revenues from sales, distribution and services related to the construction, the revenues from CEMEX, S.A.B. de C.V. activities as of December 31, 2021, 2020 and 2019, consisted of the following:

	2021	2020	2019
Rental income [1]	$1,429	61	103
License fees and administrative services	834	711	728
	$2,263	772	831

1 For the year ended December 31, 2021, includes $1,118 in relation to operating leases related to the corporate reorganization (notes 2, 14.1 and 16.2).

Under IFRS 15, certain promotions and/or discounts and rebates offered as part of the sale transaction, result in a portion of the transaction price being allocated to such commercial incentives as separate performance obligations, recognized as contract liabilities with customers, and deferred to the statement of operations during the period in which the incentive is exercised by the customer or until it expires.

For the years ended December 31, 2021, 2020 and 2019 changes in the balance of contract liabilities with customers are as follows:

	2021	2020	2019
Opening balance of contract liabilities with customers	$ 359	292	266
Increase during the period for new transactions	1,121	918	459
Decrease during the period for exercise or expiration of incentives	(1,116)	(851)	(433)
Closing balance of contract liabilities with customers	$ 364	359	292

For the years 2021, 2020 and 2019, CEMEX, S.A.B. de C.V. did not identify any costs required to be capitalized as contract fulfilment assets and released over the contract life according to IFRS 15, *Revenues from contracts with customers*.

5) COST OF SALES

The detail of CEMEX, S.A.B. de C.V.'s cost of sales by nature for the years 2021, 2020 and 2019 is as follows:

	2021	2020	2019
Raw materials and goods for sale (notes 2 and 14.1)	$46,876	20,595	19,652
Payroll	2,252	2,311	2,169
Electricity, fuels and other services (notes 2 and 14.1)	2,821	5,224	5,029
Maintenance, repairs and supplies (notes 2 and 14.1)	1,609	2,293	2,270
Transportation costs	830	919	1,009
Depreciation and amortization	206	2,065	3,273
Changes in inventory	(6,944)	(10,446)	(11,234)
Other production costs	4,230	5,140	3,886
	$51,880	28,101	26,054

CEMEX, S.A.B. de C.V., commencing August 1, 2021, is dedicated to marketing, selling, and distributing cement and ready-mix concrete. The cost of sales recognized until that date before the reorganization was $19,552 (notes 2 and 14.1).

6) OPERATING EXPENSES

CEMEX, S.A.B. de C.V.'s operating expenses during 2021, 2020 and 2019 by function were as follows:

	2021	2020	2019
Administrative expenses (notes 2 and 14.1)	$ 3,134	8,397	10,277
Selling expenses	1,726	1,747	1,896
Total administrative and selling expenses	4,860	10,144	12,173
Distribution and logistics expenses	8,997	8,880	8,187
Total operating expenses	$ 13,857	19,024	20,360

The decrease in operating expenses in 2021 compared to 2020, is mainly due to the corporate reorganization mentioned in notes 2 and 14.1.

(Millions of Mexican pesos)

Operating expenses – Continued

CEMEX, S.A.B. de C.V.'s operating expenses during 2021, 2020 and 2019 by nature are as follows:

	2021	2020	2019
Transportation costs	$ 3,747	9,449	9,062
Payroll	2,785	1,983	1,967
Depreciation and amortization	76	332	813
Maintenance, repairs and supplies	318	140	82
Professional legal, accounting and miscellaneous consulting services	5,677	5,351	4,915
Public services and office supplies	114	114	102
Insurances and sureties	88	79	389
Expected credit losses on trade accounts receivable	3	143	20
Rental expenses	730	184	1,241
Other operating expenses	319	1,249	1,769
	$ 13,857	19,024	20,360

7) OTHER INCOME (EXPENSES), NET

The detail of the line item "Other income (expenses), net" in 2021, 2020 and 2019 was as follows:

	2021	2020	2019
Results from the sale of emission allowances	$4,210	—	—
Results from the sale of assets	50	(6)	100
Incremental costs and expenses related to the COVID-19 Pandemic (note 2)	(78)	(602)	—
Miscellaneous fees and others	105	(106)	(1,053)
	$4,287	(714)	(953)

During the year ended December 31, 2021, CEMEX, S.A.B. de C.V. received a revenue of $12,508, from the sale of emission rights, resulting in an income recognized in other income (expense), net, of $4,210. These rights represent certificates issued by the member states of the European Union, which grant the holder a right to emit a controlled amount of carbon dioxide during a specific period. CEMEX, S.A.B. de C.V. recognizes these certificates at their acquisition cost. For the year ended as of December 31, 2021, CEMEX, S.A.B. de C.V., purchased emissions allowances to its related parties in Europe, mainly from its subsidiary CEMEX Spain.

8) FINANCIAL ITEMS

8.1) FINANCIAL EXPENSE

Financial expense in 2021, 2020 and 2019 includes $1,484, $1,123 and $980 of interest expense from financial obligations related to lease contracts (notes 16.2 and 18.2).

8.2) FINANCIAL INCOME AND OTHER ITEMS, NET

For the years ended December 31, 2021, 2020 and 2019, the detail of "Financial income and other items, net" was as follows:

	2021	2020	2019
Financial income	$5,188	4,121	2,946
Results from financial instruments, net (notes 15 and 18.4)	(104)	(355)	225
	$5,084	3,766	3,171

9) CASH AND CASH EQUIVALENTS

As of December 31, 2021 and 2020, cash and cash equivalents include cash and bank accounts of $4,556 and $5,809, respectively.

10) TRADE ACCOUNTS RECEIVABLE, NET

As of December 31, 2021 and 2020, trade accounts receivable, net consisted of:

	2021	2020
Trade accounts receivable	$3,927	4,621
Allowances for expected credit losses	(255)	(432)
	$3,672	4,189

(Millions of Mexican pesos)

Trade accounts receivable – Continued

As of December 31, 2021 and 2020, trade accounts receivable include receivables of $2,023 (US$99) and $2,216 (US$111), respectively, sold under outstanding trade receivables securitization programs and/or factoring programs with recourse, established in Mexico, in which CEMEX, S.A.B. de C.V., effectively surrenders control associated with the trade accounts receivable sold and there is no guarantee or obligation to reacquire the assets; nonetheless, in such programs, CEMEX, S.A.B. de C.V., retains certain residual interest in the programs and/or maintains continuing involvement with the accounts receivable. Therefore, the trade accounts receivable sold were not removed from the statement of financial position and the amounts funded to CEMEX, S.A.B. de C.V., of $1,782 in 2021 and 2020, were recognized within the line item "Other financial obligations". Trade accounts receivable qualifying for sale exclude amounts over certain days past due or concentrations over certain limits to any one customer, according to the terms of the programs. The discount granted to the acquirers of the trade accounts receivable is recorded as financial expense and amounted to $123 (US$6) in 2021, $133 (US$7) in 2020 and $181 (US$10) in 2019. CEMEX, S.A.B. de C.V.'s securitization programs are usually negotiated for periods of one to two years and are usually renewed at their maturity.

Allowances for doubtful are determined and recognized upon origination of the trade accounts receivable based on an expected credit loss ("ECL"). For the years ended as of December 31, 2021, 2020 and 2019, the expense related to the allowances on accounts receivable was $3, $143 and $20, respectively, which was recognized as part of operating expense.

Under this ECL model, CEMEX, S.A.B. de C.V. segments its accounts receivable in a matrix by type of client or homogeneous credit risk and days past due and determines for each segment an average rate of ECL, considering actual credit loss experience over the last 24 months and analyses of future delinquency, that is applied to the balance of the accounts receivable.

Changes for the expected credit losses in 2021, 2020 and 2019, were as follows:

	2021	2020	2019
Allowances for expected credit losses at beginning of period	$ 432	319	334
Charged to selling expenses	3	143	20
Deductions	(180)	(30)	(35)
Allowances for expected credit losses at end of period	$ 255	432	319

As of December 31, 2021 and 2020, in relation to the COVID-19 Pandemic (note 2) and the potential increase in expected credit losses on trade accounts receivable because of the negative economic effects associated with the COVID-19 Pandemic, CEMEX, S.A.B. de C.V. maintains continuous communication with its customers as part of its collection management, in order to anticipate situations that could represent an extension in the portfolio's recovery period or in some cases the risk of non-recovery. As of this same date, CEMEX, S.A.B. de C.V. considers that these negative effects do not yet have a significant impact on the estimates of expected credit losses and will continue to monitor the development of relevant events that may eventually have effect because of a deepening or extension of the COVID-19 Pandemic.

11) OTHER ACCOUNTS RECEIVABLE

As of December 31, 2021 and 2020, the caption other accounts receivable, included the following:

	2021	2020
Other refundable taxes	$ 114	526
Derivative financial instruments (note 18.4)	775	137
Non-trade accounts receivable [1]	571	484
	$1,460	1,147

[1] Non-trade accounts receivable are mainly attributable to the sale of assets.

12) INVENTORIES

As of December 31, 2021 and 2020, the balances of inventories was summarized as follows:

	2021	2020
Finished goods	$563	851
Materials and spare parts	62	1,274
Raw materials	—	568
Work-in-process	—	667
Inventory in transit	142	414
	$767	3,774

For the years ended December 31, 2021 and 2020, CEMEX, S.A.B. de C.V., recognized in the statement of operations, inventory obsolescence of $9 and $37, respectively. In addition, the decrease in inventories for the year ended December 31, 2021, is mainly due to the corporate reorganization (notes 2 and 14.1).

13) OTHER CURRENT ASSETS

As of December 31, 2021 and 2020, other current assets consisted of:

	2021	2020
Advance payments	$226	199

Investment available for sale	204	177
	$430	376

(Millions of Mexican pesos)

14) CORPORATE REORGANIZATION AND EQUITY ACCOUNTED INVESTEES

14.1) CORPORATE REORGANIZATION

As mentioned in note 2, as of August 1, 2021, CEMEX, S.A.B. de C.V., transferred certain activities related to the production of cement, ready-mix concrete, and aggregates to its subsidiaries CEMEX Operaciones México, S.A. de C.V. and CEMEX Concretos, S.A. de C.V. In addition, during 2021, CEMEX, S.A.B. de C.V. entered into various transactions with CEMEX Operaciones México, S.A. de C.V. and CEMEX Concretos, S.A. de C.V. consisting in the sale of inventories, fixed assets, leases, and subleases.

As mentioned in note 2, CEMEX, S.A.B. de C.V., recognized assets and liabilities transfers at their book value. CEMEX, S.A.B. de C.V. accounted for any of such differences in stockholders' equity. The most significant effects in the financial statements of CEMEX, S.A.B. de C.V. for the year ended December 31, 2021, are as follows:

	2021
Sale of inventories (note 12)	$ 3,521
Sale of property, machinery and equipment, net (note 16)	59
Leasing account receivables (note 19)	1,743
Other liabilities and employee benefits transferred (note 17)	273

14.2) EQUITY ACCOUNTED INVESTEES

As of December 31, 2021 and 2020 equity accounted investees, considering prospectively effects from the corporate reorganization described in note 14.1, include the following:

	Activity	Country	%	2021	2020
CEMEX Trademarks Holding Ltd.	Holding	Switzerland	99.6	$ 83,220	97,171
CEMEX Operaciones México, S.A. de C.V.	Administrative services	Mexico	99.9	253,256	229,556
CAMCEM, S.A. de C.V.	Cement	Mexico	40.1	5,342	4,859
Other companies	—	—	—	20,607	18,912
				$ 362,425	350,498
Out of which:					
Book value				$ 468,051	467,789
Changes in stockholders' equity				$(105,626)	(117,291)

On December 17, 2021, CEMEX, S.A.B. de C.V. acquired through its subsidiary Transenergy, Inc. 20% of its investment in Terminales Portuarias del Pacífico S.A.P.I. de C.V. for an amount of $168 (US$8). In addition, on December 10, 2021, CEMEX, S.A.B. de C.V. acquired 99.99% of the capital stock of Broquers Ambiental, S.A. de C.V. for $195 ($9).

On January 13, 2020, CEMEX Internacional, S.A. de C.V., one of CEMEX, S.A.B. de C.V.'s subsidiaries, decreed to grant dividends to its shareholders for an amount of $2,670 to be distributed among the 187.25 million shares, corresponding to a dividend of $14.25901 pesos per share. CEMEX, S.A.B. de C.V. owns 99.99% of the shares of CEMEX Internacional, S.A. de C.V. In addition, CEMEX, S.A.B. de C.V. received on December 21, 2020, a dividend of $6,494 from its subsidiary CEMEX Operaciones México, S.A. de C.V.

The combined condensed financial information presented below, refers only to CAMCEM and other minor equity accounted investees in which CEMEX, S.A.B. de C.V., possess significant influence.

Combined condensed statement of financial position information of CEMEX, S.A.B. de C.V.'s equity accounted investees as of December 31, 2021 and 2020 is set forth below:

	2021	2020
Current assets	$ 21,603	16,743
Non-current assets	28,246	26,108
Total assets	49,849	42,851
Current liabilities	7,829	5,936
Non-current liabilities	13,440	13,349
Total liabilities	21,269	19,285
Total net assets	$ 28,580	23,566

Combined selected information of the statement of operations of CEMEX, S.A.B. de C.V.'s equity accounted investees in 2021, 2020 and 2019 is set forth below:

	2021	2020	2019
Sales	$ 19,972	20,297	16,900
Operating earnings	4,591	4,537	3,091
Income before income tax	2,548	2,077	1,488
Net income	1,448	1,401	1,004

(Millions of Mexican pesos)

15) OTHER INVESTMENTS AND NON-CURRENT ACCOUNTS RECEIVABLE

As of December 31, 2021 and 2020, other investments and non-current accounts receivable included the following:

	2021	2020
Investments at fair value with changes recognized through the statement of operations	$ 132	43
Non-current portion of valuation of derivative financial instruments (note 18.4)	495	65
Investments in strategic equity securities	230	371
Extraction rights	109	109
Other non-current investments [1]	424	1,767
	$ 1,390	2,355

1 For the year 2020, this line item refers primarily to investments in Emission Allowances ("EUAs"). This investment was recognized at acquisition cost. CEMEX, S.A.B. de C.V. as of December 31, 2021 has sold such investment in EUAs (note 7).

16) PROPERTY, MACHINERY AND EQUIPMENT, NET AND ASSETS FOR THE RIGHT-OF-USE, NET

As of December 31, 2021 and 2020, property, machinery and equipment, net and assets for the right-of-use, net were summarized as follows:

	2021	2020
Property, machinery and equipment, net	$ 48,644	46,271
Assets for the right-of-use, net	1,020	3,860
	$ 49,664	50,131

16.1) PROPERTY, MACHINERY AND EQUIPMENT, NET

As of December 31, 2021 and 2020, the property, machinery and equipment, net balances and changes for the period for such caption, are as following:

	2021				
	Land and quarries	Building	Machinery and equipment	Investments in progress	Total
Cost at beginning of period	$ 14,785	8,070	34,261	9,537	66,653
Accumulated depreciation	(1,050)	(2,756)	(16,576)	—	(20,382)
Net book value at beginning of period	13,735	5,314	17,685	9,537	46,271
Capital expenditures	39	160	1,574	3,031	4,804
Disposals [1]	(200)	(6)	(307)	(1,762)	(2,275)
Depreciation and depletion for the period	(143)	(324)	(1,554)	—	(2,021)
Foreign currency translation effects	1,492	373	—	—	1,865
Cost at end of period	16,116	8,597	35,528	10,806	71,047
Accumulated depreciation	(1,193)	(3,080)	(18,130)	—	(22,403)
Net book value at end of period	$ 14,923	5,517	17,398	10,806	48,644

1 In connection with the disposals, during 2021, CEMEX, S.A.B. de C.V. sold some assets to related parties for an amount of $59 related to the corporate reorganization (notes 2 and 14.1).

	2020				
	Land and quarries	Building	Machinery and equipment	Investments in progress	Total
Cost at beginning of period	$ 14,808	7,995	33,898	8,011	64,712
Accumulated depreciation	(920)	(2,443)	(15,028)	—	(18,391)
Net book value at beginning of period	13,888	5,552	18,870	8,011	46,321
Capital expenditures	60	97	1,087	2,444	3,688
Disposals	—	(1)	(724)	(918)	(1,643)
Depreciation and depletion for the period	(130)	(313)	(1,548)	—	(1,991)
Foreign currency translation effects	(83)	(21)	—	—	(104)
Cost at end of period	14,785	8,070	34,261	9,537	66,653
Accumulated depreciation	(1,050)	(2,756)	(16,576)	—	(20,382)
Net book value at end of period	$ 13,735	5,314	17,685	9,537	46,271

In connection with the corporate reorganization described in notes 2 and 14.1, CEMEX, S.A.B. de C.V. leased some of its property, machinery, and equipment to CEMEX Operaciones México, S.A. de C.V., and CEMEX Concretos, S.A. de C.V. to achieve the transfer of the production processes. According to IFRS 16, these leases qualify as an operating lease from the lessor's accounting. CEMEX, S.A.B. de C.V., remains its assets on the balance sheet as an owned asset and recognizes depreciation expense over the asset's useful life. From August 1, 2021, to December 31, 2021, CEMEX, S.A.B. de C.V., recognized revenues for these leases for $1,118.

(Millions of Mexican pesos)

16.2) ASSETS FOR THE RIGHT-OF-USE, NET

As of December 31, 2021 and 2020, consolidated assets for the right-of-use, net and the changes in this caption, were as follows:

	2021				
	Land and quarries	Buildings	Machinery and equipment	Others	Total
Assets for the right-of-use at beginning of period	$ 623	1,734	4,868	63	7,288
Accumulated depreciation and depletion	(31)	(870)	(2,514)	(13)	(3,428)
Net book value at beginning of period	592	864	2,354	50	3,860
Additions	67	18	285	68	438
Cancellations and remeasurements	(566)	(1,471)	(134)	—	(2,171)
Cancellations due to corporate reorganization (notes 2 and 14.1)	—	—	(2,846)	—	(2,846)
Depreciation and depletion for the period	16	728	1,054	(59)	1,739
Assets for the right-of-use at end of period	124	281	2,173	131	2,709
Accumulated depreciation and depletion	(15)	(142)	(1,460)	(72)	(1,689)
Net book value at end of period	$ 109	139	713	59	1,020

	2020				
	Land and quarries	Buildings	Machinery and equipment	Others	Total
Assets for the right-of-use at beginning of period	$ 617	1,682	4,765	—	7,064
Accumulated depreciation and depletion	(27)	(766)	(2,229)	—	(3,022)
Net book value at beginning of period	590	916	2,536	—	4,042
Additions	12	92	556	63	723
Cancellations and remeasurements	(6)	(40)	(453)	—	(499)
Depreciation and depletion for the period	(4)	(104)	(285)	(13)	(406)
Assets for the right-of-use at end of period	623	1,734	4,868	63	7,288
Accumulated depreciation and depletion	(31)	(870)	(2,514)	(13)	(3,428)
Net book value at end of period	$ 592	864	2,354	50	3,860

For the year ended December 31, 2021 and 2020, the combined rental expense related with short-term leases, low-value leases and variable lease payments were $32 and $26, respectively, and were recognized in cost of sales and operating expenses, as correspond.

Continuing with the corporate reorganization in 2021, CEMEX, S.A.B. de C.V., subleased some of the right-of-use contracts to CEMEX Operaciones México, S.A. de C.V., and CEMEX Concretos, S.A. de C.V. On August 1, CEMEX, S.A.B. de C.V. transferred the risk and rewards associated with the right-of-use contract to its mentioned subsidiaries for the entire term of the original lease contract. CEMEX, S.A.B. de C.V. derecognized $2,846 of right-of-use and recognized an account receivable for an amount of $1,578 with related parties (note 19.2).

17) OTHER CURRENT LIABILITIES

As of December 31, 2021 and 2020, other current liabilities are shown below:

	2021	2020
Interest payable	$1,719	1,569
Advances from customers	2,256	1,687
Taxes payable	1,055	592
Provisions [1]	1,627	1,297
Accounts payable and accrued expenses	332	874
Contract liabilities with customers (note 4)	365	359
	$7,354	6,378

[1] The caption refers primarily to insurance and fees.

(Millions of Mexican pesos)

18) FINANCIAL INSTRUMENTS

18.1) CURRENT AND NON-CURRENT DEBT

CEMEX, S.A.B. de C.V.'s debt summarized as of December 31, 2021 and 2020, by interest rates and currencies were as follows:

	2021			2020		
	Current	Non-current	Total [1]	Current	Non-current	Total [1]
Floating rate debt	$ —	15,117	15,117	1,196	46,199	47,395
Fixed rate debt	—	126,475	126,475	—	125,838	125,838
	$ —	141,592	141,592	1,196	172,037	173,233
Effective rate 2						
Floating rate	—	2.3%		2.5%	4.1%	
Fixed rate	—	4.8%		—	5.6%	

Current and non-current debt - Continued

	2021				2020			
Currency	Current	Non-current	Total	Effective rate 2	Current	Non-current	Total	Effective rate 2
Dollars	$ —	127,097	127,097	4.4%	—	117,514	117,514	5.8%
Euros	—	9,298	9,298	3.1%	105	41,339	41,444	2.7%
Pounds	—	—	—	—	1,091	6,538	7,629	2.5%
Mexican peso	—	5,197	5,197	7.2%	—	6,646	6,646	6.8%
	$ —	141,592	141,592		1,196	172,037	173,233	

1 As of December 31, 2021 and 2020, cumulative discounts, fees and other direct costs incurred in CEMEX, S.A.B. de C.V.'s outstanding debt borrowings and the issuance of notes payable (jointly "Issuance Costs") for US$53 ($1,094) and US$65 ($1,286), respectively, are presented reducing debt balances and are amortized to financial expense over the maturity of the related debt instruments under the amortized cost method.

2 In 2021and 2020, represents the weighted-average nominal interest rate of the related debt agreements determined at the end of each period.

2021	Current	Non-current	2020	Current	Non-current
Bank loans			**Bank loans**		
Syndicated loans, 2023 to 2026	$ —	35,431	Syndicated loans, 2021 to 2025	$ —	47,395
	—	35,431		—	47,395
Notes payable			**Notes payable**		
Medium-term notes, 2023 to 2031	—	106,161	Medium-term notes, 2024 to 2030	—	125,838
	—	106,161		—	125,838
Total bank loans and notes payable	—	141,592	Total bank loans and notes payable	—	173,233
Current maturities	—	—	Current maturities	1,196	(1,196)
	$ —	141,592		$ 1,196	172,037

As of December 31, 2021, bank loans included a balance of US$1,500 outstanding under CEMEX, S.A.B. de C.V.'s 2021 Credit Agreement signed on October 29, 2021 and a balance of US$255 outstanding under the 2021 Pesos Credit Agreement. In addition, as of December 31, 2020, CEMEX, S.A.B. de C.V.'s bank loans included US$2,420 of balance outstanding under the previous CEMEX's facilities agreement entered on July 19, 2017, as amended and restated several times as described below (the "2017 Facilities Agreement").

Changes in debt for the years ended December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Debt at beginning of year	$ 173,233	148,384	145,220
Proceeds from new debt instruments	84,333	138,921	61,649
Debt repayments	(119,222)	(119,600)	(52,061)
Foreign currency translation effects	3,248	5,528	(6,424)
Debt at end of year	$ 141,592	173,233	148,384

Current and non-current debt - Continued

As of December 31, 2021 and 2020, non-current notes payable for $106,161 and $125,838, respectively, are detailed as follows:

Description[1, 2]	Date of issuance	Currency	Principal amount	Rate	Maturity date	Redeemed amount 2 US$	Outstanding amount 2 US$	Balances as of December 31, 2021	2020
July 2031 Notes [3]	12/Jan/31	Dollar	1,750	3.88%	11/Jul/31	—	1,750	$ 35,688	—
September 2030 Notes	17/Sep/20	Dollar	1,000	5.20%	17/Sep/30	—	1,000	20,396	19,783
November 2029 Notes	19/Nov/19	Dollar	1,000	5.45%	19/Nov/29	—	1,000	20,379	19,756
June 2027 Notes	05/Jun/20	Dollar	1,000	7.375%	05/Jun/27	—	1,000	20,400	19,768
April 2026 Notes [3]	16/Mar/16	Dollar	1,000	7.75%	16/Apr/26	(1,000)	—	—	19,832
March 2026 Notes	19/Mar/19	Euro	400	3.125%	19/Mar/26	—	455	9,298	9,683
January 2025 Notes [3]	11/Sep/14	Dollar	1,100	5.70%	11/Jan/25	(1,100)	—	—	21,261
December 2024 Notes	05/Dec/17	Euro	650	2.75%	05/Dec/24	(650)	—	—	15,755
								$ 106,161	125,838

1 As of December 31, 2021, after closing the 2021 Credit Agreement, all notes issued are fully and unconditionally guaranteed by CEMEX Concretos, S.A. de C.V., CEMEX Operaciones México, S.A. de C.V., Cemex Innovation Holding Ltd. and CEMEX Corp.
2 Presented net of all outstanding notes repurchased and held by CEMEX, S.A.B. de C.V.'s subsidiaries. As of December 31, 2021 there are not repurchased notes held by subsidiaries outstanding.
3 CEMEX, S.A.B. de C.V. used the proceeds from the July 2031 Notes to redeem in full the April 2026 Notes and partially the January 2025 Notes.

Non-current debt maturities as of December 31, 2021, were as follows:

	2021
2024	$ 7,086
2025	14,172
2026	23,471
2027 and thereafter	96,863
	$ 141,592

As of December 31, 2021, CEMEX, S.A.B. de C.V. had the following lines of credit, of which, the only committed portion refers to the revolving credit facility under the 2021 Credit Agreement, at annual interest rates ranging between 1.65% and 3.94%, depending on the negotiated currency:

Millions of U.S. dollars	Lines of credit	Available
Other lines of credit from banks [1]	US$ 540	339
Revolving credit facility 2021 Facilities Agreement	1,750	1,750
	US$ 2,290	2,089

1 Uncommitted amounts subject to the banks' availability.

During 2021, 2020 and 2019, as a result of the debt transactions incurred, including exchange offers and tender offers to replace and/or repurchase existing debt instruments, CEMEX, S.A.B. de C.V. paid issuance costs as well as premiums and/or redemption costs for US$138 ($2,829), US$72 ($1,439) and US$60 ($1,135), respectively, of which US$37 ($759) in 2021, US$38 ($759) in 2020 and US$24 ($464) in 2019, are associated with the extinguished portion of the exchanged or repurchased debt and were recognized in the statement of operations in each year within "Financial expense". In addition, US$27 ($544) in 2020, US$1 ($29) in 2020 and US$1 ($19) in 2019, were pending for amortization and were recognized in the statement of operations of each year as part of "Financial expense".

2021 Credit Agreement

On October 29, 2021, CEMEX, S.A.B. de C.V. closed a new US$3,250 syndicated sustainability-linked credit agreement, which proceeds were mainly used to fully repay its previous 2017 Facilities Agreement. The 2021 Credit Agreement consists of a US$1,500 five-year amortizing term loan and a US$1,750 five-year committed Revolving Credit Facility. The committed Revolving Credit Facility under CEMEX, S.A.B. de C.V.'s new 2021 Credit Agreement is US$600 million larger than the one under the previous 2017 Facilities Agreement, resulting in a stronger liquidity position which is favorable for CEMEX, S.A.B. de C.V. from a risk and credit rating perspective.

Moreover, on December 23, 2021, CEMEX closed the 2021 Pesos Credit Agreement, under terms substantially similar to those of the 2021 Credit Agreement. The 2021 Pesos Credit Agreement has the same guarantor structure as the 2021 Credit Agreement.

The 2021 Credit Agreement is exclusively Dollar denominated and includes an interest rate margin grid over LIBOR that is about 25 basis points lower on average than that of the 2017 Facilities Agreement. All tranches under the 2021 Credit Agreement include a margin over LIBOR from 100 bps to 175 bps, depending on the ratio of debt to Operating EBITDA ("Consolidated Leverage Ratio") ranging from less than 2.25 times in the lower end to greater than 3.25 times in the higher end. The 2021 Credit Agreement includes the Loan Market Association replacement screen rate provisions in anticipation of the discontinuation of LIBOR rates.

2021 Credit Agreement - Continued

The London Inter-Bank Offered Rate ("LIBOR") and the Euro Inter-Bank Offered Rate ("EURIBOR") represent variable rates used in international markets for debt denominated in U.S. dollars and Euros, respectively. The *Tasa de Interés Interbancaria de Equilibrio* ("TIIE") is the variable rate used for debt denominated in Mexican Pesos. As of December 31, 2021 and 2020, 3-Month LIBOR rate was 0.21% and 0.24%, respectively, meanwhile 3-Month EURIBOR rate was -0.57% and -0.545%, respectively. As of December 31, 2021, 28-day TIIE rate was 5.72%. The contraction "bps" means basis points. One hundred basis points equal 1%. See note 18.5 for developments on the undergoing interest rate benchmark reform.

Furthermore, the 2021 Credit Agreement is the first debt instrument issued by CEMEX, S.A.B. de C.V. under the Sustainability-linked Financing Framework (the "Framework"), which is aligned to CEMEX, S.A.B. de C.V.'s strategy of CO2 emissions reduction and its ultimate vision of a carbon-neutral economy (note 3.4). The annual performance in respect to the three metrics referenced in the Framework may result in a total adjustment of the interest rate margin of plus or minus 5 basis points, in line with other sustainability-linked loans from investment grade rated borrowers.

Additionally, the 2021 Credit Agreement has a simpler guarantor structure, replicated in all senior notes of CEMEX, S.A.B. de C.V., than that of the previous 2017 Facilities Agreement. The balance of debt under the 2021 Credit Agreement, which debtor is CEMEX, S.A.B. de C.V., is guaranteed by CEMEX Concretos, S.A. de C.V., CEMEX Operaciones México, S.A. de C.V., Cemex Innovation Holding Ltd. and CEMEX Corp.

Under the 2021 Credit Agreement, as compared to the 2017 Facilities Agreement, CEMEX, S.A.B. de C.V. has no limits or permitted baskets to incur capital expenditures, acquisitions, dividends, share buybacks and sale of assets, among others, as long as certain limited circumstances, such as non-compliance with financial covenants or specific fundamental changes, would not arise therefrom.

As of December 31, 2021 and 2020, CEMEX, S.A.B. de C.V. was in compliance with the limitations, restrictions and financial covenants contained in the 2021 Credit Agreement, in the 2021 Pesos Credit Agreement and in the 2017 Facilities Agreement, as applicable. CEMEX, S.A.B. de C.V. cannot assure that in the future it will be able to comply with such restrictive covenants and limitations. CEMEX, S.A.B. de C.V.'s failure to comply with such covenants and limitations could result in an event of default, which could materially and adversely affect CEMEX, S.A.B. de C.V.'s business and financial condition.

2017 Facilities Agreement

On July 19, 2017, CEMEX, S.A.B. de C.V. and certain subsidiaries entered into the 2017 Facilities Agreement for an amount in different currencies equivalent to US$4,050 at the origination date. The proceeds were used to repay the US$3,680 then outstanding under the former facilities agreements and other debt repayments. After the amendments to the 2017 Facilities Agreement that became effective on October 13, 2020, debt outstanding would amortize between July 2021 and July 2025, except for the commitments under the revolving credit which would mature in July 2023. All tranches under the 2017 Facilities Agreement included a margin of LIBOR or EURIBOR from 125 bps to 475 bps, and TIIE from 100 bps to 425 bps, depending on the Consolidated Leverage Ratio ranging from less than 2.50 times in the lower end to greater than 6.00 times in the higher end.

In the amendment process to the 2017 Facilities Agreement that became effective on October 13, 2020, among other aspects, CEMEX, S.A.B. de C.V. negotiated new modifications to the financial covenants and the inclusion of sustainability-linked metrics, as well as the Loan Market Association replacement screen rate provisions in anticipation of the discontinuation of LIBOR and potentially EURIBOR. Moreover, as part of amendment process to the 2017 Facilities Agreement that became effective on May 22, 2020, among other aspects, CEMEX, S.A.B. de C.V. negotiated modifications to the financial covenants considering the adverse effects arising during the COVID-19 Pandemic (note 2) in exchange of a one-time fee of US$14 (35 bps), and agreed to certain temporary restrictions with respect to permitted capital expenditures, the extension of loans to third parties, acquisitions and/or the use of proceeds from asset sales and fundraising activities, as well as the suspension of share repurchases whenever and for as long as CEMEX, S.A.B. de C.V. failed to report a consolidated leverage ratio of 4.50 times or less.

Until October 29, 2021, debt under the 2017 Facilities Agreement was guaranteed by CEMEX Concretos, S.A. de C.V., CEMEX España, S.A. ("CEMEX España"), CEMEX Asia B.V., CEMEX Corp., CEMEX Africa & Middle East Investments B.V., CEMEX Finance LLC, CEMEX France Gestion (S.A.S.), CEMEX Research Group AG and CEMEX UK. In addition, debt under this agreement (together with all other senior debt) was also secured by a first-priority security interest in: (a) substantially all the shares of CEMEX Operaciones México, S.A. de C.V, CEMEX Innovation Holding Ltd. and CEMEX España (the "Collateral"); and (b) all proceeds of such Collateral. At this respect, on October 6, 2021, after compliance with all relevant conditions of the 2017 Facilities Agreement and the then-in effect intercreditor agreement governing the rights of certain of CEMEX, S.A.B. de C.V.'s creditors, the liens on the Collateral were released.

During 2021 until October 29 and the years 2020 and 2019, under the 2017 Facilities Agreement, CEMEX, S.A.B. de C.V. was required to: a) not exceed an aggregate amount for capital expenditures of US$1,500 per year, excluding certain capital expenditures, joint venture investments and acquisitions by CHP and its subsidiaries and CLH and its subsidiaries, which had a separate limit of US$500 (or its equivalent) each; and b) not exceed the amount for permitted acquisitions and investments in joint ventures of US$400 per year. Nonetheless, such limitations did not apply if capital expenditures or acquisitions did not exceed free cash flow generation or were funded with proceeds from equity issuances or asset disposals.

Financial Covenants

Under the 2021 Credit Agreement, at the end of each quarter for each period of four consecutive quarters, CEMEX, S.A.B. de C.V. must comply with a maximum Consolidated Leverage Ratio of 3.75 times throughout the life of the Credit Agreement, and a minimum ratio of Operating EBITDA to interest expense ("Consolidated Coverage Ratio") of 2.75 times. These financial ratios are calculated using the consolidated amounts under IFRS.

Under the 2017 Facilities Agreement, CEMEX, S.A.B. de C.V. had to comply with a Consolidated Coverage Ratio equal or greater than 1.75 times as of December 31, 2020 and March 31, 2021; and equal or greater than 2.25 times as of June 30, 2021 and September 30, 2021.

(Millions of Mexican pesos)

Financial Covenants - Continued

Moreover, under the 2017 Facilities Agreement and until its expiration, CEMEX, S.A.B. de C.V. had to comply with a Consolidated Leverage Ratio as follows:

Period	Leverage Ratio
For the period ending on December 31, 2020 up to and including the period ending on March 31, 2021	< = 6.25
For the period ending on June 30, 2021	< = 6.00
For the period ending on September 30, 2021	< = 5.75

Consolidated Leverage Ratio

- Under the 2021 Credit Agreement, the ratio is calculated dividing "Consolidated Net Debt" by "Consolidated EBITDA" for the last twelve months as of the calculation date. Consolidated Net Debt equals debt, as reported in the statement of financial position, net of cash and cash equivalents, excluding any existing or future obligations under any securitization program, and any subordinated debt of CEMEX, S.A.B. de C.V., adjusted for net mark-to-market of all derivative instruments, as applicable, among other adjustments including in relation for business acquisitions or disposals.
- Under the 2017 Facilities Agreement, the ratio was calculated dividing "Funded Debt" by pro forma Operating EBITDA for the last twelve months as of the calculation date including a permanent fixed adjustment from the adoption of IFRS 16. Funded Debt equals debt, as reported in the statement of financial position, net of cash and cash equivalents, excluding components of liability of convertible subordinated notes, plus lease liabilities, perpetual debentures and guarantees, plus or minus the fair value of derivative financial instruments, as applicable, among other adjustments for business acquisitions or disposals.

Consolidated EBITDA: Under the 2021 Credit Agreement, represents Operating EBITDA for the last twelve months as of the calculation date, as adjusted for any discontinued EBITDA, and solely for the purpose of calculating the Consolidated Leverage Ratio on a pro forma basis for any material disposition and/or material acquisition.

Pro forma Operating EBITDA: Under the 2017 Facilities Agreement, represented Operating EBITDA for the last twelve months as of the calculation date, after IFRS 16 effects, plus the portion of Operating EBITDA referring to such twelve-month period of any significant acquisition made in the period before its consolidation in CEMEX, S.A.B. de C.V., minus Operating EBITDA referring to such twelve-month period of any significant disposal that had already been liquidated.

Consolidated Coverage Ratio

- Under the 2021 Credit Agreement, the ratio is calculated by dividing Consolidated EBITDA by the financial expense for the last twelve months as of the calculation date.
- Under the 2017 Facilities Agreement, the ratio was calculated by dividing pro forma Operating EBITDA by the financial expense for the last twelve months as of the calculation date, both including IFRS 16 effects. Financial expense included coupons accrued on the perpetual debentures.

As of December 31, 2021, 2020 and 2019, under the 2021 Credit Agreement and the 2017 Facilities Agreement, as applicable, the main consolidated financial ratios were as follows:

Consolidated financial ratios		Refers to the compliance limits and calculations that were effective on each date		
		2021	2020	2019
Leverage ratio	**Limit**	<=3.75	<=6.25	<=5.25
	Calculation	2.73	4.07	4.17
Coverage ratio	**Limit**	>=2.75	>=1.75	>=2.50
	Calculation	5.99	3.82	3.86

CEMEX, S.A.B. de C.V.'s ability to comply with these ratios may be affected by economic conditions and volatility in foreign exchange rates, as well as by overall conditions in the financial and capital markets.

CEMEX, S.A.B. de C.V. will classify all of its non-current debt as current debt if: 1) as of any measurement date CEMEX, S.A.B. de C.V. fails to comply with the aforementioned financial ratios; or 2) the cross default clause that is part of the 2021 Credit Agreement is triggered by the provisions contained therein; 3) as of any date prior to a subsequent measurement date CEMEX, S.A.B. de C.V. expects not to be in compliance with such financial ratios in the absence of: a) amendments and/or waivers covering the next succeeding 12 months; b) high probability that the violation will be cured during any agreed upon remediation period and be sustained for the next succeeding 12 months; and/or c) an agreement to refinance the relevant debt on a long-term basis. As a result of such classification of debt as current for noncompliance with the agreed upon financial ratios or, in such event, the absence of a waiver of compliance or a negotiation thereof, after certain procedures upon CEMEX, S.A.B. de C.V.'s lenders' request, they would call for the acceleration of payments due under the 2021 Credit Agreement. That scenario would have a material adverse effect on CEMEX, S.A.B. de C.V.'s operating results, liquidity or financial position.

(Millions of Mexican pesos)

18.2) OTHER FINANCIAL OBLIGATIONS

Other financial obligations in the statement of financial position of CEMEX, S.A.B. de C.V. as of December 31, 2021 and 2020, are as follows:

	2021			2020		
	Current	Non-Current	Total	Current	Non-Current	Total
I. Leases	$ 760	1,705	2,465	$1,048	2,273	3,321
II. Liabilities secured with accounts receivable	1,782	—	1,782	1,782	—	1,782
	$2,542	1,705	4,247	$2,830	2,273	5,103

I. Leases (notes 3.1, 3.5, 3.8 and 16.2)

CEMEX, S.A.B. de C.V. has several operating and administrative assets under lease contracts (note 16.2). As mentioned in note 3.8, from January 1, 2019, CEMEX. S.A.B. de C.V. applied IFRS 16 modifying previous years. CEMEX, S.A.B. de C.V. applies the recognition exemption for short-term leases and leases of low-value assets. Changes in the balance of lease financial liabilities during 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Lease financial liability at beginning of year	$ 3,321	3,490	1,335
Additions from new leases	438	723	1,879
Reductions from payments	(1,318)	(904)	(527)
Effects from remeasurements of the liability and corporate reorganization (note 14.1)	86	(48)	795
Foreign currency translation and accretion effects	(62)	60	8
Lease financial liability at end of year	$ 2,465	3,321	3,490

In 2021, the increase for reduction form payments caption, includes purchasing corporate buildings used by CEMEX, S.A.B. de C.V. The Company before 2021 leased such buildings and then were acquired permanently for an amount of $484.

As of December 31, 2021 the non-current lease financial liabilities are as follows:

	Total
2023	$ 519
2024	436
2025	333
2026	205
2027 and thereafter	212
	$ 1,705

Total cash outflows for leases in 2021, 2020 and 2019, including the interest expense portion as disclosed at note 8.1, were $1,484, $1,123 and $980, respectively. Future payments associated with these contracts are presented in notes 19.2 and 22.4.

II. Liabilities secured with accounts receivable

As mentioned in note 10, as of December 31, 2021 and 2020, the funded amounts of sale of trade accounts receivable under securitization programs and/or factoring programs with recourse of $1,782, for both years, were recognized in “Other financial obligations” in the statement of financial position.

18.3) FAIR VALUE OF FINANCIAL INSTRUMENTS

Financial assets and liabilities

The book values of cash, trade receivables, other accounts receivable, trade payables, other accounts payable and accrued expenses, as well as current debt, approximate their corresponding estimated fair values due to the revolving nature of these financial assets and liabilities in the short-term.

The estimated fair value of CEMEX, S.A.B. de C.V.´s non-current debt is level 1 and level 2 and is either based on estimated market prices for such or similar instruments, considering interest rates currently available for CEMEX, S.A.B. de C.V. to negotiate debt with the same maturities, or determined by discounting future cash flows using market-based interest rates currently available.

The fair values determined by CEMEX, S.A.B. de C.V. for its derivative financial instruments are level 2. There is no direct measure for the risk of CEMEX, S.A.B. de C.V. or its counterparties in connection with such instruments. Therefore, the risk factors applied for CEMEX, S.A.B. de C.V.’s assets and liabilities originated by the valuation of such derivatives were extrapolated from publicly available risk discounts for other public debt instruments of CEMEX, S.A.B. de C.V. or of its counterparties.

The estimated fair value of derivative instruments fluctuates over time and is determined by measuring the effect of future relevant economic variables according to the yield curves shown in the market as of the reporting date. These values should be analyzed in relation to the fair values of the underlying transactions and as part of CEMEX, S.A.B. de C.V.’s overall exposure to fluctuations in interest rates and foreign exchange rates. The notional amounts of derivative instruments do not represent amounts of cash exchanged by the parties, and consequently, there is no direct measure of CEMEX, S.A.B. de C.V.’s exposure to the use of these derivatives. The amounts exchanged are determined based on the notional amounts and other terms included in the derivative instruments.

(Millions of Mexican pesos)

Financial assets and liabilities - Continued

As of December 31, 2021 and 2020, the carrying amounts of non-current financial assets and liabilities and their respective fair values were as follows:

	2021		2020	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Investments available-for-sale (note 13)	$ 204	204	$ 177	177
Derivative financial instruments (note 18.4)	495	495	65	65
	$ 699	699	$ 242	242
Financial liabilities				
Non-current debt (note 18.1)	$141,592	147,865	$172,037	182,192
Other financial obligations (note 18.2)	1,705	1,462	2,273	2,906
Derivative financial instruments (note 18.4)	620	620	1,057	1,057
Non-current accounts payable with related parties (note 19.1)	72	72	44	44
	$143,989	150,019	$175,411	186,199

18.4) DERIVATIVE FINANCIAL INSTRUMENTS

During the reported periods, in compliance with the guidelines established by its Risk Management Committee, the restrictions set forth by its debt agreements and its hedging strategy (note 18.5), CEMEX, S.A.B. de C.V. held derivative instruments, with the objectives, as the case may be: a) changing the risk profile or securing the price of fuels; b) foreign exchange hedging; c) hedging forecasted transactions; and d) other corporate purposes. As of December 31, 2021 and 2020, the notional amounts and fair values of CEMEX, S.A.B. de C.V.'s derivative instruments were as follows:

	2021		2020	
	Notional amount	Fair value	Notional amount	Fair value
I. Net investment hedge	US$ 1,511	3	741	(42)
II. Interest rate swaps	1,005	(18)	1,334	(47)
III. Equity forwards on third party shares	—	—	27	3
IV. Fuel price hedging	145	30	128	5
V. Foreign exchange options	250	6	—	—
	US$ 2,911	21	2,230	(81)

The caption "Financial income and other items, net" in the statement of operations includes gains and losses related to the recognition of changes in fair values of the derivative financial instruments during the applicable period, which represented net losses of US$6 ($123) in 2021, of US$17 ($367) in 2020 and of US$1 ($19) in 2019.

I. Net investment hedge

As of December 31, 2021 and 2020, there are Dollar/Mexican peso foreign exchange forward contracts for a notional amount of US$761 and US$741, respectively, under a program that started in 2017 with a notional of up to US$1,250, which can be adjusted in relation to hedged risks, with forward contracts with tenors from 1 to 18 months. CEMEX, S.A.B. de C.V. has designated this program as a hedge of CEMEX, S.A.B. de C.V.'s net investment in Mexican pesos, pursuant to which changes in fair market value of these instruments are recognized as part of other comprehensive income in equity. For the years 2021, 2020 and 2019, these contracts generated losses of US$4 ($81), gains of US$53 ($1,144) and losses of US$126 ($2,438), respectively, which partially offset currency translation results in each year recognized in equity generated from CEMEX, S.A.B. de C.V.'s net assets denominated in Mexican pesos due to the depreciation of the peso in 2021 and 2020 and the appreciation of the peso in 2019.

Moreover, as of December 31, 2021, there are Dollar/Euro cross currency swap contracts for a notional amount of US$750, which were entered into in November 2021, with maturity in November 2026. CEMEX, S.A.B. de C.V. has designated the foreign exchange forward component of this program as a hedge of CEMEX, S.A.B. de C.V.'s net investment in Euros, pursuant to which changes in fair market of such forward contracts are recognized as part of other comprehensive income in equity, while changes in fair value of the interest rate swap component are recognized within financial income and other items. For the year 2021, these contracts generated gains of US$10 ($204), which partially offset currency translation results recognized in equity generated from CEMEX, S.A.B. de C.V.'s net assets denominated in Euros due to the depreciation of the Euro in 2021 against the dollar, as well as losses in 2021 of US$1 ($20) related to the exchange of interest rates in the statement of operations.

II. Interest rate swap contracts

As of December 31, 2021 and 2020, CEMEX, S.A.B. de C.V. held interest rate swaps for a notional amount of US$750 and US$1,000, respectively, with a fair value representing liabilities of US$30 ($615) in 2021 and US$44 ($875) in 2020, negotiated in June 2018 to fix interest payments of existing bank loans bearing Dollar floating rates. During September 2020, CEMEX, S.A.B. de C.V. amended one of the interest rate swap contracts to reduce the weighted strike from 3.05% to 2.56% paying US$14 ($287), and in November 2021, CEMEX, S.A.B. de C.V. partially unwound its interest rate swap paying US$5 ($102), recognized within "Financial income and other items, net" in the statement of operations.

Interest rate swap contracts - Continued

In November 2021, these contracts were extended, and they will mature in November 2026. CEMEX, S.A.B. de C.V. designated these contracts as cash flow hedges, pursuant to which, changes in fair value are initially recognized as part of other comprehensive income in equity and are subsequently allocated through financial expense as interest expense on the related bank loans is accrued. For the years ended in 2021 and 2020, changes in fair value of these contracts generated gains of US$23 ($470) and losses of US$9 ($194), respectively, recognized in other comprehensive income.

In addition, as of December 31, 2021 and 2020, CEMEX, S.A.B. de C.V. held interest rate swaps for a notional of US$255 and US$334, respectively, negotiated to fix interest payments of existing bank loans referenced to Mexican Peso floating rates and that will mature in November 2023, which fair value represented an asset of US$12 ($246) in 2021 and a liability of US$3 in 2020. During December 2021, CEMEX, S.A.B. de C.V. partially unwound its interest rate swap receiving US$3 ($61) recognized within "Financial income and other items, net" in the statement of operations. CEMEX, S.A.B. de C.V. designated these contracts as cash flow hedges, pursuant to which, changes in fair value are initially recognized as part of other comprehensive income in equity and are subsequently allocated through financial expense as interest expense on the related bank loans is accrued. For the years ended December 31, 2021 and 2020 changes in fair value of these contracts generated gains of US$15 ($306) and losses of US$3 ($65), respectively, recognized in other comprehensive income.

III. Equity forwards on third party shares

As of December 31, 2020, CEMEX, S.A.B. de C.V. maintained equity forward contracts with cash settlement in March 2022, over the price of 4.7 million shares of Grupo Cementos de Chihuahua, S.A.B. de C.V. ("GCC"). During 2020 and 2019, CEMEX, S.A.B. de C.V. early settled portions of these contracts for 9.2 and 6.9 million shares, respectively. During 2021 CEMEX settled contracts for the remainder 4.7 million shares of GCC. Changes in the fair value of these instruments and early settlement effects generated gains of US$2 ($41) in 2021, of US$1 ($22) in 2020 and of US$2 ($39) in 2019 recognized within "Financial income and other items, net" in the income statement.

IV. Fuel price hedging

As of December 31, 2021 and 2020, CEMEX, S.A.B. de C.V. maintained swap and option contracts negotiated to hedge the price of certain fuels, primarily diesel and gas, in several operations for aggregate notional amounts of US$145 ($2,973) and US$128 ($2,546), respectively, with an estimated aggregate fair value representing assets of US$30 ($615) in 2021 and of US$5 ($99) in 2020. By means of these contracts, for its own consumption only, CEMEX, S.A.B. de C.V. either fixed the price of these fuels, or entered into option contracts to limit the prices to be paid for these fuels, over certain volumes representing a portion of the estimated consumption of such fuels in several operations. These contracts have been designated as cash flow hedges of diesel or gas consumption, and as such, changes in fair value are recognized temporarily through other comprehensive income and are recycled to operating expenses as the related fuel volumes are consumed. For the years 2021, 2020 and 2019, changes in fair value of these contracts recognized in other comprehensive income represented gains of US$22 ($449), US$7 ($151) and US$15 ($290), respectively. For these derivative financial instruments CEMEX, S.A.B. de C.V. only acts as a financial intermediary for its subsidiaries, for such reason the accounting effects for CEMEX, S.A.B. de C.V. in other comprehensive income are nullified.

V. Foreign Exchange Options

As of December 31, 2021, CEMEX, S.A.B. de C.V. held Dollar/Mexican peso call spread option contracts for a notional amount of US$250, maturing in September 2022, negotiated to maintain the value in dollars over such notional amount over revenues generated in pesos. Changes in the fair value of these instruments, generated losses of US$5 ($102), recognized within "Financial income and other items, net" in the statement of operations.

Other derivative financial instruments negotiated during the periods

During 2020, CEMEX, S.A.B. de C.V. negotiated Dollar/Peso, Dollar/Euro and Dollar/British Pound foreign exchange forward contracts to sell Dollars and Pesos and buy Euro and British Pounds, negotiated in connection with the voluntary prepayment and currency exchanges under the 2017 Facilities Agreement, for a combined notional amount of US$397. For the year 2020, the aggregate results from positions entered and settled, generated losses of US$15 recognized within "Financial income and other items, net" in the statements of operation. Additionally, during 2020, CEMEX, S.A.B. de C.V. negotiated Dollar/Euro foreign exchange forward contracts to sell Dollars and buy Euro, negotiated in connection with the redemption of the 4.625% April 2024 Notes. For the year 2020, the aggregate results of these instruments from positions entered and settled, generated gains of US$3 ($65), recognized within "Financial income and other items, net" in the statement of operations.

Moreover, in connection with the proceeds from the sale of certain assets in the United Kingdom, CEMEX, S.A.B. de C.V. negotiated British Pound/Euro foreign exchange forward contracts to sell British Pounds and buy Euro for a notional amount of US$186 ($3,700). CEMEX, S.A.B. de C.V. settled such derivatives on August 5, 2020. During the year 2020, changes in the fair value of these instruments and their settlement generated gains of US$9 ($194) recognized within "Financial income and other items, net" in the statement of operations.

18.5) RISK MANAGEMENT

Enterprise risks may arise from any of the following situations: i) the potential change in the value of assets owned or reasonably anticipated to be owned, ii) the potential change in value of liabilities incurred or reasonably anticipated to be incurred, iii) the potential change in value of services provided, purchase or reasonably anticipated to be provided or purchased in the ordinary course of business, iv) the potential change in the value of assets, services, inputs, products or commodities owned, produced, manufactured, processed, merchandised, leased or sell or reasonably anticipated to be owned, produced, manufactured, processed, merchandised, leased or sold in the ordinary course of business, or v) any potential change in the value arising from interest rate or foreign exchange rate exposures arising from current or anticipated assets or liabilities.

Risk management - Continued

In the ordinary course of business, CEMEX, S.A.B. de C.V. is exposed to commodities risk, including the exposure from inputs such as fuel, coal, petcoke, fly-ash, gypsum and other industrial materials which are commonly used by CEMEX, S.A.B. de C.V. in the production process, and expose CEMEX, S.A.B. de C.V. to variations in prices of the underlying commodities. To manage this and other risks, such as credit risk, interest rate risk, foreign exchange risk, equity risk and liquidity risk, considering the guidelines set forth by the Board of Directors, which represent CEMEX, S.A.B. de C.V.'s risk management framework and that are supervised by several Committees, CEMEX, S.A.B. de C.V.'s management establishes specific policies that determine strategies oriented to obtain natural hedges to the extent possible, such as avoiding customer concentration in a determined market or aligning the currencies portfolio in which CEMEX, S.A.B. de C.V. incurred its debt with those in which CEMEX, S.A.B. de C.V. generates its cash flows.

As of December 31, 2021 and 2020, these strategies are sometimes complemented with the use of derivative financial instruments as mentioned in note 18.4, such as the commodity forward contracts on fuels negotiated to fix the price of these underlying commodities. The primary risk categories are mentioned as follows.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates which only affect CEMEX, S.A.B. de C.V.'s results if the fixed rate non-current debt is measured at fair value. All of our fixed-rate non-current debt is carried at amortized cost and therefore is not subject to interest rate risk. CEMEX, S.A.B. de C.V.'s accounting exposure to the risk of changes in market interest rates relates primarily to its non-current debt obligations with floating interest rates which, if such rates were to increase, may adversely affect its financing cost and the results for the period.

Nonetheless, it is not economically efficient to concentrate on fixed rates at a high point when the interest rates market expects a downward trend. That is, there is an opportunity cost for continuing to pay a determined fixed interest rate when the market rates have decreased and the entity may obtain improved interest rate conditions in a new loan or debt issuance. CEMEX, S.A.B. de C.V. manages its interest rate risk by balancing its exposure to fixed and variable rates while attempting to reduce its interest costs. CEMEX, S.A.B. de C.V. could renegotiate the conditions or repurchase the debt, particularly when the net present value of the estimated future benefits from the interest rate reduction are expected to exceed the cost and commissions that would have to be paid in such renegotiation or repurchase of debt.

As of December 31, 2021 and 2020, 11% and 14% of the non-current debt of CEMEX, S.A.B. de C.V. bears floating rates at a weighted average interest rate of LIBOR plus 150 basis points and 253 basis points, respectively. These figures reflect the effect of interest rate swaps held by CEMEX during 2021 and 2020. As of December 31, 2021 and 2020, if interest rates at that date had been 0.5% higher, with all other variables held constant, the net income of CEMEX, S.A.B. de C.V. for 2021 and for 2020 would have decreased by US$5 ($104) and US$15 ($291), because of higher interest expense on variable rate denominated debt. This analysis does not include the interest rate swaps held in 2021 and 2020.

Managing interest rate benchmark reform

A fundamental reform of major interest rate benchmarks is being undertaken globally, including the replacement of some interbank offered rates (IBORs) with alternative nearly risk-free rates (referred to as the "IBOR reform"). CEMEX, S.A.B. de C.V. has exposures to IBORs on its financial instruments that will be replaced or reformed as part of these market-wide initiatives. There is uncertainty over the timing and the methods of transition in some jurisdictions in which CEMEX, S.A.B. de C.V. operates. The Company anticipates that the IBOR reform will imply adjustments to its risk management and hedge accounting practices. Nonetheless, in anticipation of this transition, the 2021 Credit Agreement already incorporates a benchmark rate replacement mechanism. Moreover, CEMEX, S.A.B. de C.V.'s derivative instrument contracts contain standard definitions to incorporate robust fallbacks for instruments linked to certain IBORs, with the changes coming into effect from January, 2021. From that date, all new cleared and non-cleared derivatives that reference the definitions include the fallbacks. As of December 31, 2021, with the exemption of certain instrument that have migrated automatically to the alternate risk-free rates under the fallback protocol, CEMEX, S.A.B. de C.V. still has the majority of its debt and derivatives instruments, when applicable, linked to the LIBOR rate. There is no definite date to migrate to the alternate risk-free rates, although CEMEX, S.A.B. de C.V. considers to gradually migrate its financial instruments with no effect in the financial statements.

CEMEX, S.A.B. de C.V.'s respective risk management committee monitors and manages the Company's transition to alternative rates. The committee evaluates the extent to which contracts reference IBOR cash flows, whether such contracts will need to be amended as a result of IBOR reform and how to manage communication about IBOR reform with counterparties. The committee reports to the Parent Company's Board of Directors quarterly and collaborates with other business functions as needed. It provides periodic reports to management of interest rate risk and risks arising from IBOR reform.

Foreign currency risk

Foreign currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. CEMEX, S.A.B. de C.V.'s exposure to the risk of changes in foreign exchange rates relates primarily to its financing activities. As of December 31, 2021, 90% of the financial debt was Dollar-denominated, 7% was Euro-denominated, and 3% was Mexican Pesos-denominated; therefore, CEMEX, S.A.B. de C.V. had a foreign currency exposure arising from the Dollar-denominated financial debt, the Euro-denominated financial debt and the Pound-denominated financial debt, versus the currency in which CEMEX, S.A.B. de C.V.'s revenues are settled. CEMEX, S.A.B. de C.V. cannot guarantee that it will generate sufficient revenues in Dollars, Euro and Pounds from its operations to service these obligations. As of December 31, 2021, CEMEX, S.A.B. de C.V. had implemented a derivative financing hedging strategy using foreign exchange options for a notional amount of US$250 to hedge the value in dollar terms of revenues generated in pesos to partially address this foreign currency risk (note 18.4). Complementarily, CEMEX, S.A.B. de C.V. may negotiate other derivative financing hedging strategies in the future if either of its debt portfolio currency mix, interest rate mix, market conditions and/or expectations changes.

(Millions of Mexican pesos)

Monetary position by currency

As of December 31, 2021 and 2020, the net monetary assets (liabilities) by currency are as follows:

	2021	2020
Current:		
Monetary assets	$ 11,806	12,471
Monetary liabilities	(76,648)	(78,410)
Net monetary liabilities	$ (64,842)	(65,939)
Non-current:		
Monetary assets	$ 2,436	2,378
Monetary liabilities	(148,991)	(180,666)
Net monetary liabilities	$ (146,555)	(178,288)
Out of which:		
Dollars	(165,768)	(152,716)
Pesos	(36,266)	(42,162)
Euros	(9,363)	(41,716)
Pounds	—	(7,633)
	$ (211,397)	(244,227)

Considering that CEMEX, S.A.B. de C.V.'s functional currency for all assets, liabilities and transactions associated with its financial and holding company activities is the dollar (note 3.3), there is foreign currency risk associated with the translation into dollars of subsidiaries' net assets denominated in different currencies. When the dollar appreciates, the value of these net assets denominated in other currencies decreases in terms of Dollars, generating negative foreign currency translation and reducing stockholders' equity. Conversely, when the dollar depreciates, the value of such net assets denominated in other currencies would increase in terms of dollars generating the opposite effect. CEMEX, S.A.B. de C.V. has implemented a Dollar/Mexican peso foreign exchange forward contracts program to hedge foreign currency translation in connection with its net assets denominated in pesos (note 18.4).

Credit risk

Credit risk is the risk of financial loss faced by CEMEX, S.A.B. de C.V. if a customer or counterpart of a financial instrument does not meet its contractual obligations and originates mainly from trade accounts receivable. As of December 31, 2021 and 2020, the maximum exposure to credit risk is represented by the balance of financial assets. Management has developed policies for the authorization of credit to customers. The accounting exposure to credit risk is monitored constantly according to the payment behavior of the debtors. Credit is assigned on a customer-by-customer basis and is subject to assessments which consider the customers' payment capacity, as well as past behavior regarding due dates, balances past due and delinquent accounts. In cases deemed necessary, CEMEX, S.A.B. de C.V.'s management requires guarantees from its customers and financial counterparties regarding financial assets.

The Company's management has established a policy of low risk tolerance which analyzes the creditworthiness of each new client individually before offering the general conditions of payment terms and delivery. The review includes external ratings, when references are available, and in some cases bank references. Thresholds of purchase limits are established for each client, which represent the maximum purchase amounts that require different levels of approval. Customers that do not meet the levels of solvency requirements imposed by CEMEX, S.A.B. de C.V. can only carry out transactions by paying cash in advance. As of December 31, 2021, considering CEMEX, S.A.B. de C.V.'s best estimate of potential expected losses based on the ECL model developed by CEMEX, S.A.B. de C.V. (note 10), the allowance for expected credit losses was $255.

The aging of trade accounts receivable as of December 31, 2021 is as follows:

	2021
Neither past due, nor impaired portfolio	$ 3,533
Past due less than 90 days portfolio	107
Past due more than 90 days portfolio	287
	$ 3,927

Liquidity risk

Liquidity risk is the risk that CEMEX, S.A.B. de C.V. will not have sufficient funds available to meet its obligations. In addition to cash flows provided by its operating activities, to meet CEMEX, S.A.B. de C.V.'s overall liquidity needs for operations, servicing debt and funding capital expenditures and acquisitions, CEMEX, S.A.B. de C.V. relies on cost-cutting and operating improvements to optimize capacity utilization and maximize profitability, as well as borrowing under credit facilities, proceeds of debt and equity offerings, and proceeds from asset sales. CEMEX, S.A.B. de C.V. is exposed to risks from changes in foreign currency exchange rates, prices and currency controls, interest rates, inflation, governmental spending, social instability and other political, economic and/or social developments, any one of which may materially affect CEMEX, S.A.B. de C.V.'s results and reduce cash from operations. The maturities of CEMEX, S.A.B. de C.V.'s contractual obligations are included in note 22.4.

As of December 31, 2021, current liabilities, which included $2,542 of other financial obligations, exceed current assets by $64,075. It is noted that as part of its operating strategy implemented by management, the Company operates with a negative working capital balance. For the year ended December 31, 2021, CEMEX, S.A.B. de C.V. generated cash flows provided by operating activities of $16,133. CEMEX, S.A.B. de C.V.'s management considers that CEMEX, S.A.B. de C.V. will generate sufficient cash flows from operations in the following twelve months to meet its current obligations and trusts in its proven capacity to continually refinance and replace its current obligations, which will enable CEMEX, S.A.B. de C.V. to meet any liquidity risk in the short-term. In addition, as of December 31, 2021, CEMEX, S.A.B. de C.V. has committed lines of credit under the revolving credit facility in its 2021 Credit Agreement for a total amount of US$1,750.

(Millions of Mexican pesos)

Liquidity risk - Continued

As of December 31, 2021 and 2020, the potential requirement for additional margin calls under our different commitments is not significant.

As of December 31, 2021, in connection with the current liabilities with related parties, of $59,590, refer primarily to CEMEX Innovation Holding Ltd, CEMEX Operaciones Mexico, S.A. de C.V., CEMEX Transporte, S.A. de C.V. and CEMEX Concretos, S.A. de C.V. (note 19.1), CEMEX, S.A.B. de C.V. has proven successful in refinancing such liabilities.

Equity risk

Equity risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in the market price of CEMEX, S.A.B. de C.V.'s and/or third party's shares. As described in note 18.4, considering specific objectives, CEMEX, S.A.B. de C.V. has negotiated equity forward contracts on third-party shares. Under these equity derivative instruments, there is a direct relationship from the change in the fair value of the derivative with the change in price of the underlying share. All changes in fair value of such derivative instruments are recognized in the income statement as part of "Financial income and other items, net." During the reported periods effects were not significant. As of December 31, 2021, CEMEX, S.A.B. de C. V. does not have derivative financial instruments based on the price of the Parent Company's shares or any third-party's shares.

19) BALANCES AND TRANSACTIONS WITH RELATED PARTIES

19.1) ACCOUNTS RECEIVABLE AND PAYABLE WITH RELATED PARTIES

Balances and transactions between CEMEX, S.A.B. de C.V. and its subsidiaries and equity accounted investees result primarily from: (i) businesses and operational activities in Mexico; (ii) the acquisition or sale of shares of subsidiaries within the group; (iii) products purchase and sale, billing of administrative services, rents, rights to use brands and commercial names, royalties and other services rendered between affiliated companies; and (iv) loans with subsidiaries and equity accounted investees. Transactions with subsidiaries and equity accounted investees are conducted at arm's length. When market prices and/or market conditions are not readily available, CEMEX, S.A.B. de C.V. conducts transfer pricing studies to assure compliance with regulations applicable to transactions between related parties.

In relation to the transactions mentioned above, as of December 31, 2021 and 2020, the primary accounts receivable and payable with related parties, are the following:

	Assets		Liabilities	
2021	**Current**	**Non-current**	**Current**	**Non-current**
CEMEX Innovation Holding Ltd.	$ —	—	35,831	—
CEMEX Operaciones México, S.A. de C.V.	—	214	7,394	—
Sinergia Deportiva, S.A. de C.V.	588	—	—	—
Especialistas en Corredores Viales, S.A. de C.V.	507	—	—	—
Reservas Ecológicas Sustentables de la Laguna, S.A. de C.V.	180	—	—	—
CEMEX Internacional, S.A. de C.V.	—	—	—	41
CEMEX Transporte, S.A. de C.V.	—	—	1,956	—
CEMEX Concretos, S.A. de C.V.	—	832	9,538	—
Others	413	—	4,871	31
	$1,688	1,046	59,590	72

	Assets		Liabilities	
2020	**Current**	**Non-current**	**Current**	**Non-current**
Lomez International B.V.	$ —	—	30,259	—
CEMEX Operaciones México, S.A. de C.V.	—	—	10,110	—
Especialistas en Corredores Viales, S.A. de C.V.	473	—	—	—
Reservas Ecológicas Sustentables de la Laguna, S.A. de C.V.	172	—	—	—
CEMEX Vivienda, S.A. de C.V.	120	—	—	—
CEMEX Internacional, S.A. de C.V.	—	—	—	39
CEMEX Transporte, S.A. de C.V.	—	—	1,368	—
CEMEX Concretos, S.A. de C.V.	—	—	9,860	—
Others	185	23	5,171	5
	$ 950	23	56,768	44

19.2) PRINCIPAL OPERATIONS WITH RELATED PARTIES

The principal operations of CEMEX, S.A.B. de C.V. with related parties for the years ended December 31, 2021, 2020 and 2019, were as follows:

	2021	2020	2019
Revenues:			
Net sales (note 2)	$ 19,810	5,985	5,703
Rental income (notes 2, 4 and 16.2)	1,429	61	103
License fees (note 4)	834	711	728
Cost of sales and operating expenses:			
Raw material, finished goods and other production cost (note 2)	25,202	2,935	2,433
Management service expenses	524	6,098	7,371
Lease expense (note 16.2)	592	178	3,361
Financing cost (income):			
Financial expenses	1,809	1,937	3,695
Financial income and other items, net	4,903	4,416	2,902

As of December 31, 2021 and 2020, CEMEX, S.A.B. de C.V. had capital leases to be paid with related parties for US$3 ($62) and US$2 ($39), respectively.

As of December 31, 2021, in connection with the operating lease agreements that CEMEX, S.A.B. de C.V. holds with related parties (note 16.2), the cash flows to be received in the following years are detailed as follows:

(Millions of U.S. dollars)	2021				
Obligations	**Less than 1 year**	**1-3 Years**	**3-5 Years**	**More than 5 Years**	**Total**
Operating leases to be received with related parties **1**	US$ 130	389	389	335	1,242
	$ 2,672	7,968	7,968	6,861	25,469

[1] The amounts represent nominal cash flows.

As of December 31, 2021, in relation to the rights of use that CEMEX, S.A.B. de C.V. sublease to related parties described in note 16.2, below are the nominal flows to be received in the following years.

(Millions of U.S. dollars)	**2022**	**2023**	**2024**	**2025 -2030**	**Total**
CEMEX Operaciones México, S.A, de C.V.	US$ 12	10	7	9	38
CEMEX Concretos, S.A, de C.V.	17	15	13	28	73
	US$ 29	25	20	37	111
	$ 595	513	410	759	2,277

20) INCOME TAXES

20.1) INCOME TAXES FOR THE PERIOD

The amounts of income tax (expense) benefit in the statements of operations for 2021, 2020 and 2019 are summarized as follows:

	2021	2020	2019
Current income tax (expense) benefit	$(240)	(135)	(63)
Deferred income tax (expense) benefit	512	(82)	(508)
	$ 272	(217)	(571)

As of December 31, 2021, tax loss and tax credit carryforwards expire as follows:

	Amount of carryforwards	**Amount of unrecognized carryforwards**
2025 and thereafter	$ 30,075	30,075

In December 2013, the Mexican Congress approved amendments to the income tax law effective January 1, 2014, which eliminated the tax consolidation regime. A period of up to 10 years was established for the settlement of any liability for income taxes related to the tax consolidation regime accrued until December 31, 2013, amount which considering the rules issued for the elimination of the tax consolidation regime amounted to $24,804. As of December 31, 2021 and 2020, considering payments made during these years net of inflation adjustments, CEMEX, S.A.B. de C.V. reduced the balance payable to $248 and $610, respectively.

(Millions of Mexican pesos)

20.2) DEFERRED INCOME TAXES

The effect of deferred income taxes for the period represents the difference between the income tax balances at the beginning and end of the period. As of December 31, 2021 and 2020 the temporary differences that generated the deferred income tax assets and liabilities of CEMEX, S.A.B. de C.V. are presented below:

	2021	2020
Deferred tax assets:		
Allowances for expected credit losses	$ 76	130
Provisions	706	579
Advances from customers	972	687
Accounts payable to related parties	—	44
Right-of-use (note 16.2)	729	832
Derivative financial instruments	804	757
Others deferred tax assets	59	—
Total deferred tax assets	3,346	3,029
Deferred tax liabilities:		
Land and buildings	(6,159)	(6,075)
Assets for the right-of-use (note 16.2)	(306)	(1,158)
Accounts receivable to related parties	(382)	—
Advance payments	(54)	(25)
Total deferred tax liabilities	(6,901)	(7,258)
Net deferred tax liabilities	$ (3,555)	(4,229)

CEMEX, S.A.B. de C.V. does not recognize a deferred tax liability for the undistributed earnings generated by its subsidiaries, considering that such undistributed earnings are expected to be reinvested and not generate taxable income in the near future. In addition, for the year ended December 31, 2021 and 2020, CEMEX, S.A.B. de C.V. recognized an income tax gain within other comprehensive income of $48 and an income tax loss of $261, respectively related to the net investment hedge (note 18.4).

20.3) RECONCILIATION OF EFFECTIVE INCOME TAX RATE

For the years ended December 31, 2021, 2020 and 2019, the effective income tax rates were as follows:

	2021	2020	2019
Net income before income tax	$14,912	(32,345)	3,483
Income tax	272	(217)	(571)
Effective income tax rate [1]	1.8%	0.7%	(16.4%)

1 The average effective tax rate equals the net amount of income tax benefit or expense divided by net income before income taxes, as these line items are reported in the statement of operations.

The effects of inflation are recognized differently for tax purposes and for book purposes. This situation, which creates differences between book and tax bases, gives rise to permanent differences between the enacted tax rate and the effective rate shown in the statement of operations of CEMEX, S.A.B. de C.V.

As of December 31, 2021, 2020 and 2019, these differences were as follows:

	2021		2020		2019	
	%	$	%	$	%	$
Enacted income tax rate	(30.0)	(4,474)	(30.0)	9,704	(30.0)	(1,045)
Inflation adjustments	(33.4)	(4,980)	7.5	(2,413)	(57.9)	(2,015)
Non-deductible and other items	65.2	9,726	23.2	(7,508)	71.5	2,489
Effective tax rate and tax (expense) benefit	1.8	272	0.7	(217)	(16.4)	(571)

Income tax (expense) benefit for the year, includes changes during the period related to deferred tax assets originated by tax loss carryforwards.

21) STOCKHOLDERS' EQUITY

As of December 31, 2021 and 2020, stockholders' equity excludes investments in CPOs of CEMEX, S.A.B. de C.V. held by subsidiaries of $287 (US$14) (20,541,277 CPOs) and $219 (US$11) (20,541,277 CPOs), respectively, which were eliminated within "Other equity reserves."

(Millions of Mexican pesos)

21.1) COMMON STOCK AND ADDITIONAL PAID-IN CAPITAL

As of December 31, 2021 and 2020, common stock and additional paid-in capital was as follows:

	2021	2020
Common stock	$ 4,164	4,167
Additional paid-in capital	101,408	103,300
	$ 105,572	107,467

Effective as of December 31, 2020, the Company's management approved restitution to the line item of "Retained earnings" for $37,639, by means of transfer with charge to the line item of "Additional paid-in capital." This transfer represents a reclassification between line items within CEMEX, S.A.B. de C.V.'s stockholders' equity that does not affect its amount.

As of December 31, 2021 and 2020, the common stock of CEMEX, S.A.B. de C.V. was represented as follows:

	2021		2020	
Shares [1]	Series A [2]	Series B [2]	Series A [2]	Series B [2]
Subscribed and paid shares	29,457,941,452	14,728,970,726	29,457,941,452	14,728,970,726
Unissued shares authorized for executives' stock compensation programs	881,442,830	440,721,415	881,442,830	440,721,415
Repurchased shares [3]	—	—	756,323,120	378,161,560
Shares that guarantee/guaranteed the issuance of convertible securities [4]	—	—	1,970,862,596	985,431,298
Shares authorized for the issuance of stock or convertible securities [5]	—	—	302,144,720	151,072,360
	30,339,384,282	15,169,692,141	33,368,714,718	16,684,357,359

1 As of December 31, 2021 and 2020, 13,068,000,000 shares correspond to the fixed portion, and 32,441,076,423 shares as of December 31, 2021 and 36,985,072,077 shares as of December 31, 2020, correspond to the variable portion.

2 Series "A" or Mexican shares must represent at least 64% of CEMEX, S.A.B. de C.V.'s capital stock; Series "B" or free subscription shares must represent at most 36% of CEMEX, S.A.B. de C.V.'s common stock.

3 Shares repurchased under the share repurchase program authorized by the Company's shareholders.

4 Refers to those shares that guarantee the conversion of outstanding convertible securities and new securities issues (note 18.2).

5 Shares authorized for issuance in a public offering or private placement and/or by issuance of new convertible securities.

On March 25, 2021, stockholders at the annual ordinary shareholders' meeting (the "Shareholders' Meeting") of CEMEX, S.A.B. de C.V. approved: (i) setting the amount of US$500 or its equivalent in Mexican Pesos as the maximum amount of resources through year 2021 and until the next ordinary general shareholders' meeting of CEMEX, S.A.B. de C.V. is held for the acquisition of its own shares or securities that represent such shares; (ii) the decrease of the variable part of CEMEX, S.A.B. de C.V.'s share capital through the cancellation of (a) 1,134 million shares repurchased during the 2020 fiscal year, under the share repurchase program and (b) and aggregate of 3,409.5 million shares that were authorized to guarantee the conversion of then existing convertible securities, as well as for any new issuance of convertible securities and/or to be subscribed and paid for in a public offering or private subscription; and (iii) the appointment of the members of the Board of Directors, the Audit Committee, the Corporate Practices and Finance Committee (which reduced its members from four to three) and the Sustainability Committee of CEMEX, S.A.B. de C.V.

On March 26, 2020, the Shareholders' Meeting of CEMEX, S.A.B. de C.V. approved: (i) setting the amount of US$500 or its equivalent in Mexican Pesos as the maximum amount of resources through year 2020 and until the next ordinary Shareholders' Meeting is held for the acquisition of its own shares or securities that represent such shares; and (ii) the cancellation of shares of repurchased during the 2019 fiscal year and the remained in CEMEX, S.A.B. de C.V.'s treasury after the maturities of the November 2019 Mandatory Convertible Notes and the 3.72% Convertible Notes, except for the minimal conversion. Under the 2020 share repurchase program, CEMEX, S.A.B. de C.V. repurchased 378.2 million CEMEX, S.A.B. de C.V. CPOs, at a weighted-average price in pesos equivalent to 0.22 dollars per CPO. The total amount of these CPO repurchases, excluding value-added tax, was US$83. On April 8, 2020, CEMEX, S.A.B. de C.V. announced that, to enhance its liquidity, it suspended the share repurchase program for the remainder of 2020 (note 2).

On March 28, 2019, the Shareholders' Meeting of CEMEX, S.A.B. de C.V. approved: (i) a cash dividend of US$150 paid in two installments, the first installment, for half of the dividend was paid on June 17, 2019 and the second installment for the remainder of the dividend was paid on December 17, 2019; (ii) the acquisition of own shares of up to US$500 or its equivalent in Mexican pesos, as the maximum amount of resources that through fiscal year 2019, and until the next ordinary annual shareholder's meeting is held, CEMEX, S.A.B. de C.V. may be used for the acquisition of its own shares or securities that represent such shares; (iii) a decrease of CEMEX, S.A.B. de C.V.'s share capital, in its variable part for the amount in pesos equivalent to US$0.2826, through the cancellation of 2 billion ordinary, registered and without par-value, treasury shares; (iv) a decrease of CEMEX, S.A.B. de C.V.'s share capital, in its variable part for the amount in pesos equivalent to US$0.0670 by the cancellation of 461 million ordinary, registered and without par-value, treasury shares; (v) the increase of CEMEX, S.A.B. de C.V.'s share capital in its variable part for the amount US$22 thousands, through the issuance of 150 million ordinary shares. The subscription of shares representing the capital increase was made at a theoretical value of US$0.000143 dollars per share. Until December 31, 2019, under the 2019 repurchase program, CEMEX, S.A.B. de C.V. repurchased 157.7 million CEMEX, S.A.B. de C.V. CPOs, at a weighted-average price in pesos equivalent to 0.3164 dollars per CPO. The total amount of these CPO repurchases, excluding value-added tax, was US$50.

(Millions of Mexican pesos)

Common stock and additional paid-in capital - Continued

In connection with the long-term executive share-based compensation programs, in 2019, CEMEX, S.A.B. de C.V. issued 27.4 million CPOs generating an additional paid-in capital of US$17 associated with the fair value of the compensation received by executives. During 2021 and 2020, CEMEX, S.A.B. de C.V., did not issue any shares concerning these compensation programs.

21.2) RETAINED EARNINGS

CEMEX, S.A.B. de C.V.'s net income for the year is subject to a 5% allocation toward a legal reserve until such reserve equals one fifth of the equity represented by the common stock. As of December 31, 2021, 2020 and 2019, the legal reserve amounted to $1,804. As mentioned in note 21.1, effective as of December 31, 2020, CEMEX, S.A.B. de C.V. incurred a restitution of retained earnings from additional paid-in capital for $37,639.

21.3) OTHER EQUITY RESERVES AND SUBORDINATED NOTES

As of December 31, 2021 and 2020, the caption of other equity reserves and subordinated notes was integrated as follows:

	2021	2020
Other equity reserves	$ 27,135	19,335
Subordinated notes	19,786	—
	$ 46,921	19,335

Subordinated notes

On June 8, 2021, CEMEX, S.A.B. de C.V. issued one series of US$1,000 million 5.125% subordinated notes with no fixed maturity. After issuance costs, CEMEX, S.A.B. de C.V. received US$994. Considering that CEMEX, S.A.B. de C.V.'s subordinated notes have no fixed maturity date, there is no contractual obligation for CEMEX, S.A.B. de C.V. to deliver cash or any other financial assets, the payment of principal and interest may be deferred indefinitely at the sole discretion of CEMEX, S.A.B. de C.V. and specific redemption events, are fully under CEMEX, S.A.B. de C.V.'s control, under applicable IFRS, these subordinated notes issued by CEMEX, S.A.B. de C.V. qualify as equity instruments and are classified within controlling interest stockholders' equity. CEMEX, S.A.B. de C.V. has a repurchase option on the fifth anniversary of the subordinated notes. In the event of liquidation of CEMEX, S.A.B. de C.V.'s due to commercial bankruptcy, the subordinated notes would come to the liquidation process according to its subordination after all liabilities.

Coupon payments on the subordinated notes were included within "Other equity reserves" and amounted to $604 in 2021.

22) COMMITMENTS

22.1) GUARANTEES

As of December 31, 2021 and 2020, CEMEX, S.A.B. de C.V., had guaranteed loans of certain subsidiaries for US$40 ($814) and US$62 ($1,233), respectively.

22.2) PLEDGED ASSET

CEMEX, S.A.B. de C.V.'s shares in some of its main subsidiaries, namely, CEMEX Operaciones México, S.A. de C.V., CEMEX Innovation Holding Ltd. and CEMEX España, S.A., have been transferred to security trusts or similar arrangements in order to secure payment obligations under the 2017 Facilities Agreement (formerly under the 2014 Facilities Agreement and the Facilities Agreement) and other debt instruments entered into prior to and after the date of these agreements (note 18.1).

As of December 31, 2021 and 2020, there are no liabilities secured by property, machinery and equipment.

22.3) OTHER COMMITMENTS

On October 24, 2018, CEMEX, S.A.B. de C.V. entered into an energy financial hedge agreement in Mexico, commencing October 1, 2019 and for a period of 20 years. Trough the aforementioned contract, the Company fixed the megawatt hour cost over an electric energy volume of 400 thousand megawatts hour per year, through the payment of US$25.375 price per megawatt hour of electric power in exchange for a market price. The committed price to pay will increase 1.5% annually. The differential between the agreed price and the market price is settled monthly. CEMEX, S.A.B. de C.V. considers this agreement as a hedge for a portion of its aggregate consumption of electric energy in Mexico and recognizes the result of the exchange of price differentials described previously in the statement of operations as a part of the costs of energy. During 2021 and 2021, CEMEX, S.A.B. de C.V. received US$3 and US$1, respectively. CEMEX, S.A.B. de C.V. does not record this agreement at fair value due to the fact that there is not a deep market for electric power in Mexico that would effectively allow for its valuation.

On April 28, 2017, CEMEX, S.A.B. de C.V. concluded the sale of its assets and activities related to the ready-mix concrete pumping business in Mexico to Cementos Españoles de Bombeo, S. de R.L., subsidiary in Mexico of Pumping Team S.L.L. ("Pumping Team"), specialist in the supply of ready-mix concrete pumping services based in Spain, for an aggregate price of $1,649, which included the sale of fixed assets for $309, plus administrative and client and market development services, as well as the lease of facilities in Mexico that CEMEX, S.A.B. de C.V. will supply to Pumping Team over a period of ten years with the possibility to extend for three additional years, for an aggregate initial amount of $1,340, which are recognized each period as services are rendered. There is the possibility of a contingent revenue or expense subject to results for up to $557 linked to annual metrics beginning in the first year. For the contingent revenue agreement, the contingent revenue is calculated for a twelve-month period commencing May of each year until the period 2020. CEMEX, S.A.B. de C.V. recognized an expense of $135 for the period 2019-2020 and an income of $12 for the period 2018-2019.

22.4) CONTRACTUAL OBLIGATIONS

As of December 31, 2021, CEMEX, S.A.B. de C.V. had the following contractual obligations are as follows:

(Millions of U.S. dollars)	2021				
Obligations	Less than 1 year	1-3 Years	3-5 Years	More than 5 Years	Total
Non-current debt **1**	US$ —	351	1,859	4,750	6,960
Leases **2**	303	424	238	557	1,522
Total debt and other financial obligations	303	775	2,097	5,307	8,482
Short-term and low-value assets rentals **3**	2	—	—	—	2
Interest payments on debt **4**	283	709	639	1,014	2,645
Total contractual obligations	US$ 588	1,484	2,736	6,321	11,129
	$ 12,054	30,422	56,088	129,581	228,145

1 The schedule of debt payments, which includes current maturities, does not consider the effect of any refinancing of debt that may occur during the following years. In the past, CEMEX, S.A.B. de C.V. has replaced its long-term obligations for others of a similar nature.

2 Represent nominal cash flows. As of December 31, 2021, the NPV of future payments under such leases was US$108, of which, US$44 refers to payments from 1 to 3 years and US$23 refer to payments from 3 to 5 years.

3 The amounts represent nominal cash flows. Refers to the estimated rental payments under short-term lease contracts and assets of low value. These contracts are not recognized as assets for the right-of-use and other financial obligations considering the exemption adopted by CEMEX, S.A.B. de C.V.

4 Estimated cash flows on floating rate denominated debt were determined using the floating interest rates in effect as of December 31, 2021.

23) CONTINGENCIES

CEMEX, S.A.B. de C.V. is involved in various legal proceedings, which have not required the recognition of accruals, considering that the probability of loss is less than probable or remote. In certain cases, a negative resolution may represent a decrease in future revenues, an increase in operating costs or a loss. Nonetheless, until all stages in the procedures are exhausted in each proceeding, CEMEX, S.A.B. de C.V. cannot assure the achievement of a final favorable resolution.

As of December 31, 2021, the most significant events with a determinable potential loss, the disclosure of which would not impair the outcome of the relevant proceeding, were as follows:

- In December 2016, CEMEX, S.A.B. de C.V. received subpoenas from the SEC seeking information to determine whether there have been any violations of the U.S. Foreign Corrupt Practices Act stemming from the Maceo Project. These subpoenas do not mean that the SEC has concluded that CEMEX, S.A.B. de C.V. or any of its affiliates violated the law. CEMEX, S.A.B. de C.V. has been cooperating with the SEC and intends to continue cooperating fully with the SEC. The DOJ also opened an investigation into this matter. In this regard, on March 12, 2018, the DOJ issued a grand jury subpoena to CEMEX, S.A.B. de C.V. relating to its operations in Colombia and other jurisdictions. CEMEX, S.A.B. de C.V. intends to cooperate fully with the SEC, the DOJ and any other investigatory entity. As of December 31, 2021, CEMEX, S.A.B. de C.V. is unable to predict the duration, scope, or outcome of either the SEC investigation or the DOJ investigation, or any other investigation that may arise, or, because of the current status of the SEC investigation and the preliminary nature of the DOJ investigation, the potential sanctions which could be borne by the Parent Company, or if such sanctions, if any, would have a material adverse impact on CEMEX results of operations, liquidity or financial position.

In addition, as of December 31, 2021, CEMEX, S.A.B. de C.V. is involved in various legal proceedings of minor impact that have arisen in the ordinary course of business. These proceedings involve: 1) product warranty claims; 2) claims for environmental damages; 3) indemnification claims relating to acquisitions or divestitures; 4) claims to revoke permits and/or concessions; and 5) other diverse civil, administrative, commercial and lawless actions. CEMEX, S.A.B. de C.V. considers that in those instances in which obligations have been incurred, CEMEX, S.A.B. de C.V. has accrued adequate provisions to cover the related risks. CEMEX, S.A.B. de C.V. believes these matters will be resolved without any significant effect on its business, financial position or results of operations. In addition, in relation to certain ongoing legal proceedings, CEMEX, S.A.B. de C.V. is sometimes able to make and disclose reasonable estimates of the expected loss or range of possible loss, as well as disclose any provision accrued for such loss, but for a limited number of ongoing legal proceedings, CEMEX, S.A.B. de C.V. may not be able to make a reasonable estimate of the expected loss or range of possible loss or may be able to do so but believes that disclosure of such information on a case-by-case basis would seriously prejudice CEMEX, S.A.B. de C.V.'s position in the ongoing legal proceedings or in any related settlement discussions. Accordingly, in these cases, CEMEX, S.A.B. de C.V. has disclosed qualitative information with respect to the nature and characteristics of the contingency but has not disclosed the estimate of the range of potential loss.

24) SUBSEQUENT EVENTS

On January 1, 2022, a group of employees of CEMEX Operaciones Mexico, S.A. de C.V., a subsidiary of CEMEX, S.A.B. de C.V., was transferred to the Company. Concerning such transfer, CEMEX, S.A.B. de C.V. acquired the rights and obligations related to the employees; additionally, CEMEX, S.A.B. de C.V. will acquire certain assets necessary for the functions of such employees.

(Millions of Mexican pesos)

Subsequent events – Continued

The most critical accounting effects in CEMEX, S.A.B. de C.V.'s financial statements, concerning the transfer of employees and the acquisition of assets are as follows:

	2022
Other current assets	$ 43
Property, machinery and equipment, net	116
Other current liabilities	166
Employee benefits	102

On January 4 and 18, 2022, in connection with the committed revolving facility under the 2021 Credit Agreement described in note 18.1, CEMEX, S.A.B. de C.V. drew down $180 and $90, respectively, as part of normal operations for the financing of working capital needs.

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Independent auditors' report

To the Board of Directors and Stockholders

CEMEX, S.A.B. de C.V.

Millions of Mexican pesos

Opinion

We have audited the separate financial statements of CEMEX, S.A.B. de C.V. ("the Company"), which comprise the separate statements of financial position as at December 31, 2021 and 2020, the separate statements of income, comprehensive income (loss), changes in stockholders' equity and cash flows for the years ended December 31, 2021, 2020 and 2019, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying separate financial statements present fairly, in all material respects, the unconsolidated financial position of the Company as at December 31, 2021 and 2020, and its unconsolidated financial performance and its unconsolidated cash flows for the years ended December 31, 2021, 2020 and 2019 in accordance with International Financial Reporting Standards (IFRS).

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditors' Responsibilities for the Audit of the Separate Financial Statements* section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in Mexico, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

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

Aguascalientes, Ags.
Cancún, Q. Roo.
Ciudad de México.
Ciudad Juárez, Chih.
Culiacán, Sin.
Chihuahua, Chih.
Guadalajara, Jal.
Hermosillo, Son.
León, Gto.
Mexicali, B.C.
Monterrey, N.L.
Puebla, Pue.
Querétaro, Qro.
Reynosa, Tamps.
Saltillo, Coah.
San Luis Potosí, S.L.P.
Tijuana, B.C.

Valuation of the carrying amount of equity accounted investees

The key audit matter	How the matter was addressed in our audit
As discussed in note 13 to the separate financial statements, the balance of equity accounted investees as of December 31, 2021 is $362 which represented 85% of the total assets of the Company at such date. We identified the valuation of the carrying amount of equity accounted investees as a key audit matter due to the judgment involved in the determination of impairment.	Our audit procedures in this area included, among others: We have audited the consolidated financial statements of the Company and issued our audit opinion thereon on February 3rd, 2022. When performing the audit of the consolidated statements we evaluated the analysis of goodwill impairment of the subsidiaries of the Company where we identified a higher risk. We used such analysis to assess if there are triggering events that could be indicative of impairment in the equity accounted investees from a separate financial statement perspective, and if the conclusions of the Company in this regard are appropriate.

Emphasis of Matter

As described in note 3, the accompanying separate financial statements have been prepared to be used by the Management of CEMEX, S.A.B. de C.V. as well as to comply with certain legal and tax requirements. The financial information therein does not include the consolidation of the financial statements of its subsidiaries, which have been accounted for under the equity method. In assessing the financial situation and results of the economic entity, we must refer to the consolidated financial statements of CEMEX, S.A.B. de C. V. and subsidiaries as of December 31, 2021 and 2020 and for the years ended December 31, 2021, 2020 and 2019, which were issued under separate cover and on February 3rd, 2022. Our opinion is not modified in respect of this matter.

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

Management is responsible for the preparation and fair presentation of the separate financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of separate financial statements that are free from material misstatement, whether due to fraud or error.

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

Those charged with governance are responsible for overseeing the Company´s financial reporting process.

Auditors' Responsibilities for the Audit of the Separate Financial Statements

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

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- 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 Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the separate financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the separate financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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

C.P.C. Joaquín Alejandro Aguilera Dávila

KPMG Cárdenas Dosal, S.C.
Monterrey, N.L.
February 8, 2022