
**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 March, 2019

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. 2018 integrated report of Cemex, S.A.B. de C.V.'s (NYSE:CMX) ("CEMEX") discussing CEMEX's business, strategic priorities and other relevant topics.

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: March 28, 2019

By: /s/ Rafael Garza Lozano

Name: Rafael Garza Lozano

Title: Chief Comptroller

EXHIBIT INDEX

EXHIBIT
NO.

DESCRIPTION

1. 2018 integrated report of Cemex, S.A.B. de C.V.'s (NYSE:CX) ("CEMEX") discussing CEMEX's business, strategic priorities and other relevant topics.



BUILDING A
STRONGER
CEMEX

2018 INTEGRATED REPORT

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CX
LISTED
NYSE



Company Overview

A **stronger** position to remain global leaders in the building materials industry

OUR MISSION

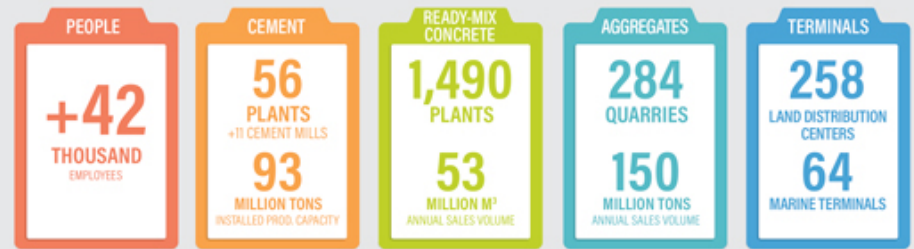
IS TO CREATE SUSTAINABLE VALUE by providing industry-leading products and solutions to satisfy the construction needs of our customers around the world.

CEMEX at a Glance

CEMEX is a global building materials company that provides high-quality products and reliable service to customers and communities in more than 50 countries. CEMEX has a rich history of improving the wellbeing of those it serves through innovative building solutions, efficiency advancements, and efforts to promote a sustainable future.

Founded in Mexico in 1906, CEMEX has grown from a local player to one of the top global companies in the industry. With over 42,000 employees worldwide, CEMEX is strategically positioned in the Americas, Europe, Africa, the Middle East, and Asia.

OUR GLOBAL PRESENCE



	MEXICO	USA	SCA&C	EUROPE	AME&A	OTHER*	TOTAL
EMPLOYEES	9,697	8,617	5,701	10,720	3,047	4,242	42,024
CEMENT PLANTS AND MILLS	15	11	16	21	4	—	67
READY-MIX CONCRETE PLANTS	256	327	107	719	81	—	1,490
AGGREGATES QUARRIES	12	64	22	177	9	—	284

As of December 2018.
*Includes Neoris and employees performing corporate functions in different locations.

OUR PORTFOLIO OFFERING

A customer-centric, vertically integrated building materials company

Our operations network produces, distributes, and markets cement, ready-mix concrete, aggregates, and related building materials, services, and solutions.

We always strive to provide superior building solutions and a superior customer experience in the markets we serve. To this end, we tailor our products and services to suit our customers' specific needs—from home construction, improvement, and renovation to agricultural, industrial, and marine/hydraulic applications.

We are focused on three core businesses within the heavy building materials industry—cement, ready-mix concrete, and aggregates—which have enabled us to develop deep expertise, knowledge, and practices.



Obtained from land-based sources or by dredging marine deposits.

OUR OFFER:

Crushed stone, manufactured sand, gravel, sand, and recycled concrete.

A binding agent, when mixed with aggregates and water, produces either ready-mix concrete or mortar.

OUR OFFER:

High-quality cement such as Gray Ordinary Portland, White Portland, Masonry or Mortar, Oil-well, and Blended Cement in bags or in bulk, as well as clinker.

A combination of cement, aggregates, admixtures, and water.

OUR OFFER:

Architectural and decorative, rapid setting, fiber-reinforced, fluid-fill, roller-compacted, self-consolidating, pervious, and antibacterial ready-mix concrete.

We also participate selectively in complementary businesses that enable us to become closer to our customers, grow our core business, develop a competitive advantage, and improve our performance.

RELATED PRODUCTS

We rely on our close relationships with our customers to offer them complementary products for their construction needs, including asphalt, concrete blocks, roof tiles, admixtures, blast furnace slag, fly ash, architectural products for different building or landscaping projects, pipe, and other pre-cast products.

SOLUTIONS AND SERVICES

Our growing array of solutions enable us to serve our customers better—from our housing, paving, and Green Building consulting services to our Construrama® cement distribution network and our training, financing, and technical support.

DIGITAL SOLUTIONS

Our digital solutions, including CEMEX Go and other digital platforms, place the power to succeed in our customers' hands.

Letter to Stakeholders

DEAR FELLOW STAKEHOLDERS:

We are building a Stronger CEMEX by aiming all of our actions, taken together, to secure our position as a global leader and an even more challenging competitor in the building materials industry.

This year we embarked on our strategic plan to build *A Stronger CEMEX*. This transformational plan is designed to fortify our company's position as a leading global building materials company, accelerate our path to investment grade, enhance our total shareholder return, and ultimately, generate long-term value for all our stakeholders.

The talent and constant dedication of our people are the foundation for our construction of a stronger CEMEX. Together, we are focused on providing our customers with a superior experience, including the best construction solutions to their ever-changing needs, while promoting the best health and safety practices across our organization.

Recognizing that our progress begins with our people—thousands of employees from diverse countries, cultures,

and backgrounds—our top priority and permanent commitment is to achieve zero injuries across all of our operations.

This goal is vitally important to the life and integrity of our people, our contractors, and everyone who interacts with our company. Overall, we continued to make significant progress on several fronts. We achieved zero employee fatalities for the first year ever—driving us to remain a global safety leader in our industry. We reduced our total employee and contractor lost-time injuries by 20%, a record low. Moreover, 96% of our operations safeguarded our people and contractors by achieving zero fatalities and lost-time injuries—our highest percentage ever. Nevertheless, we still have much work to do to achieve this level of performance everywhere. Consistent with our dedication to developing



Rogelio Zambrano
Chairman of the Board
of Directors



Fernando A. González
Chief Executive Officer

US\$14.4 BILLION

NET SALES IN 2018
an increase of 6%, on a
like-to-like basis

best risk management practices for our people and our contractors, we cannot and will not accept anything short of a perfect safety record.

As our industry evolves, our values and ethical standards distinguish our company, serving as the pillars for all of our actions and the keys to achieving our strategic vision. Only by acting honestly, responsibly, and transparently—while caring for our people, our communities, and our natural resources—we will build a better future for all of our stakeholders. With this in mind, we strengthened our commitment to the ethical principles and values that enable us to work as One CEMEX by launching our Workplace Diversity and Inclusion Policy, our renewed Human Rights Policy, and our enhanced Code of Ethics and Business Conduct.

In the face of continued headwinds in energy costs, we are encouraged by our favorable financial results for 2018. On a like-to-like basis, our net sales rose by 6% to US\$14.4 billion, and our operating EBITDA increased by 1% to US\$2.6 billion on a like-to-like basis. Our results were underpinned by solid fundamentals across most of our operations, particularly our Mexico and U.S. markets, that translated into positive volume and pricing dynamics for our products. Consequently, we generated net income of US\$543 million for the year.

Notably, we made significant progress on our related Stronger CEMEX initiatives. We implemented all of our cost-reduction initiatives by the end of the year, so we expect most of the benefit of these actions to be reflected in our EBITDA for 2019. We reduced our total debt by close to US\$1 billion, and we are progressing well on our asset divestment commitment. Lastly, we included a proposed cash dividend for our shareholders that will be presented for approval at our annual ordinary general shareholders' meeting to be held on March 28, 2019. As divestments occur and the benefits from our cost-reduction initiatives are realized, we should accelerate our deleveraging and expect to be within metrics consistent with an investment-grade rating by the end of 2020.

A couple of years ago, we decided to become the company to offer the best customer experience within our industry, and we have made important progress by placing our customers at the center of our business decisions. Undoubtedly, one of the most significant steps to improve the experience of our customers is through our CEMEX Go digital platform. We are especially excited about the acceptance that CEMEX Go has achieved. To date, it is already being used by more than 30,000 customers in most of our markets. Representing approximately 85% of our company's total recurring customers worldwide, these customers are al-



ready placing around 45% of the global orders of our main products through this end-to-end digital platform. This industry's first-of-its-kind digital solution not only enables us to serve our customers better, but also translates into important efficiencies in the way we do business. In addition, we expect CEMEX Go to generate data-rich analytics to better anticipate our customers' needs and focus on the most valuable solutions for them. We are witnessing only the beginning of the potential of CEMEX Go, and our other digital transformation initiatives—because by establishing better business relationships with our customers, we both win.

Importantly, we took big steps to promote the use of concrete as the preferred sustainable building material for the construction industry by becoming a founding member of the new

Global Cement and Concrete Association (GCCA). Joining forces with 10 other companies, we are speaking with one voice on behalf of the cement and concrete sectors to achieve responsible industry leadership, improve the social and environmental impact of the sectors' products and activities, foster innovation and collaboration with local and regional industry associations, and inspire architects, engineers, and innovators across the industry's global value chain.

Consistent with this commitment, we continually work to build strong relationships throughout our value chain—from our business partners to our communities. Through both the global and local editions of our Supplier of the Year Program, we recognized suppliers for their contribution to delivering profitable and innovative services and

CLOSE TO
**US\$1
BILLION**
DEBT REDUCTION
during 2018

solutions to our company and our customers. In 2018, we also launched the Global Edition of our "INTEGRATE Your Ideas" Innovation Program, recognizing three global suppliers for their creative ideas that reflected process, product or service efficiencies. Through this



Moreover, through our shared value projects, we continued to bring together our communities and local authorities to tackle critical social issues such as housing, land ownership, access to basic services, employment, and financial inclusion through micro credits. To date, we have worked together with more than 16 million community stakeholders globally, positively impacting their well-being and improving conditions in their communities and cities.

Aligned with our commitment to the United Nations Sustainable Development Goals (SDGs), we prioritized five SDGs that are directly related to our company's business and represent our greatest opportunities to contribute further to the United Nations' established 2030 global goals. These five goals are focused on the promotion of decent employment and economic growth (SDG 8); innovation and infrastructure development (SDG 9); climate change mitigation (SDG 13); environmental and ecosystem conservation (SDG 15); and the advancement of sustainable cities and communities (SDG 11). Moreover, aligned with our previously defined 2020 Sustainability Goals, we have broadened our vision and defined our new 2030 Sustainability Ambitions—which we now make public in this integrated report. By partnering within and outside of our company, we know we can make systemic change for the benefit of all of our stakeholders.

In a world of finite resources, we continually invest and innovate to become an environmentally friendly, sustainable leader—enabling a low-carbon and resource-efficient circular economy. Among our results for the year, we achieved an alternative fuel substitution rate of 27%, our highest rate in the past four years. Together with our other mitigation efforts, this allowed us to reduce our net CO₂ emissions per ton of cementitious products by more than 21%, compared with our 1990 baseline—equivalent to the emissions generated by 1.4 million homes' electricity consumption in a year. Additionally, 98% of our clinker was produced at plants with continuous emissions monitoring systems, nearing our target of 100% by 2020. Furthermore, we renewed our global partnership with BirdLife International for three years to achieve our shared goal of implementing Biodiversity Action Plans across the totality of our active quarries in high biodiversity areas by 2020.

The profound changes brought about by the advancement of the digital economy, along with the growing global attention given to the importance of promoting the sustainable development of cities and communities, opens up enormous business opportunities for us. To make the best of them, we are further exploring value-added initiatives in the construction ecosystem through CEMEX Ventures, our open innovation and corporate venture capital unit.

All of our actions, taken together, will position our company to become a stronger competitor and global leader in the building materials industry. We are committed to proactively managing our business to drive value for all of our stakeholders, and we remain confident in both CEMEX's outlook and ability to grow.

On behalf of CEMEX's Board of Directors, our management team, and our employees, we thank you for the opportunity you give us and for your confidence in CEMEX, as we continue our efforts to build a better future for all of our stakeholders.

Sincerely,

ROGELIO ZAMBRANO
Chairman of the Board of Directors

FERNANDO A. GONZÁLEZ
Chief Executive Officer

program, we foster closer collaboration between our company and our suppliers to generate disruptive new ideas that will enable us to improve our practices across our value chain.

Additionally, our Community Engagement Plans ensure that our efforts around our operations are aligned with what is relevant from our communities' perspective, foster regular dialogue, and build long-term relationships and trust. To date, we are proud to report that 95% of our cement plants have established Community Engagement Plans.

+27%

ALTERNATIVE FUEL rate substitution reached in 2018, our highest rate in the past 4 years

Building a Stronger CEMEX

We are taking decisive, transformational steps to continue building A Stronger CEMEX. All our actions, taken together, are aimed to secure our position as a global leader and an even more challenging competitor in the building materials industry.

We have invested considerable effort focusing on how we create value, proactively managing our business and reshaping everything we do as a company to achieve our vision of building a better future for all our stakeholders.

At the heart of our "A Stronger CEMEX" plan announced in July 2018, we are:



Across our organization, we continued to build a stronger CEMEX on multiple fronts:

ZERO

EMPLOYEE FATALITIES achieved for the first time ever

HEALTH & SAFETY



We achieved ZERO employee fatalities for the first year ever—pushing us to do our best to remain a global safety leader in our industry.

SUPERIOR CUSTOMER EXPERIENCE



CEMEX Go, our end-to-end integrated digital platform, is currently used by more than 30,000 customers in 21 countries.

ETHICS AND COMPLIANCE



We strengthened our commitment to ethical principles and values that enable us to work as One CEMEX by launching our Workplace Diversity and Inclusion Policy, our updated Human Rights Policy, and our enhanced Code of Ethics.

ENVIRONMENT AND CLIMATE CHANGE



We invested US\$83 million in sustainability projects to strengthen our environmental performance. Moreover, we reached 21.6% reduction in our specific CO₂ emissions vs. 1990.

COMMUNITY ENGAGEMENT



More than 2 million people were positively impacted through our social strategy for the year. In addition, 95% of our cement plants have established Community Engagement Plans.

US\$230 MILLION

COST-REDUCTION initiatives identified by the end of 2018

REBALANCE OUR PORTFOLIO

We are undertaking a number of actions that are designed to streamline and reposition our portfolio in order to enhance our diversification and achieve higher profitable growth. To this end, we expect to optimize our portfolio by focusing on the markets with the greatest long-term growth potential, retaining those assets that are best suited to grow, and selling between US\$1.5 to US\$2.0 billion of assets that are not fundamental to our portfolio and better positioned to grow with another owner by the end of 2020.

We expect to remain disciplined sellers and will work to attain high value for these businesses in line with our past achievements. Our recent track record of asset sales underscores our commitment to this disciplined sales approach.

By selling assets not fundamental to our strategy, we expect to free up more cash flow to deleverage our balance sheet faster and reduce our financing costs sooner. This in turn should accelerate our operating cash flow generation and, therefore, enable us to invest in more avenues for greater growth, ultimately delivering more value to our stakeholders.

While this asset divestment program is expected to optimize our portfolio for growth, we will continue to complement this program with organic investments using a metropolis centric approach leveraging our related businesses and digital strategy.

ACHIEVE OPERATIONAL IMPROVEMENTS

After performing a thorough analysis of our operations, we identified opportunities to further improve our profitability, obtain higher returns, and deliver more value for our stakeholders. As part of our business improvement program, we identified US\$230 million in operational improvements to our regional and corporate operations.

We plan to realize these efficiencies through focused operational initiatives, including:

- › Improving our operational performance and expense rationalization, which includes improving cement plant efficiencies through new operational models and increasing performance based on maintenance cost reductions and third-party services optimization
- › Increasing our utilization of alternative fuels in several countries, including developing initiatives to increase our sourcing and processing of alternative fuels, with emphasis on higher refuse derived fuel (RDF) utilization

- › Serving our customers better and at a lower cost
- › Optimizing our production and logistics supply chain models
- › Optimizing our procurement strategy through implementation of new sourcing strategies from lower-cost suppliers.



San Francisco Bay Bridge, USA

We implemented all of our identified US\$230 million of cost-reduction initiatives by the end of 2018. Accordingly, we expect to reflect most of the benefit of these actions in 2019.

ACCELERATE PATH TO INVESTMENT GRADE

We remain committed to returning to investment grade, but now we expect to get there sooner. While we have made significant progress on this front, as a result of this plan, we expect to



Imbanaco Clinic, Colombia

free up substantially more cash to enable us to further reduce our debt, invest in our business, and potentially return capital to our shareholders.

By the end of 2020, we expect to be well within investment grade metrics by further reducing our total debt by US\$3.5 billion. This should bring our total debt reduction since the end of 2013 to more than US\$10 billion.

Aligned with our strategy, we reduced our total debt by 8%—or close to US\$1.0 billion—during 2018, putting us on track to achieve our debt-reduction target.

LOW-COST SOURCING INITIATIVE

In 2018, we continued to focus on cost-reduction opportunities to further improve our profitability, obtain higher returns, and deliver more value to our shareholders.

Our procurement mandate is expected to guarantee the continuity of our operations, looking to provide the best total cost while ensuring the quality of the products and services we acquire by using a strategic sourcing process empowered by our people's knowledge and expert management.

Started in late 2017, our low cost sourcing initiative intends to reduce our operations' cost—while always assuring quality and timely delivery—by buying goods and equipment from China, India, Mexico, Egypt, Turkey, Eastern Europe among others.

Our sourcing initiative plays a fundamental part in our "A Stronger CEMEX" plan. This three-year initiative is expected to generate total savings of US\$160 million according to current parameters, with half of these savings impacting EBITDA and the rest impacting free cash flow since they are related to CAPEX. For 2019, under this initiative, our targeted savings are approximately US\$70 million of which around US\$35 million is expected to impact EBITDA and US\$35 million is expected to impact free cash flow or CAPEX.

To capture these savings, it is critical for us to work as one CEMEX, leveraging our positive low cost sourcing experiences among the countries.



RETURN CAPITAL TO SHAREHOLDERS

In addition to reducing our leverage, we intend to return capital to shareholders through cash dividends and share buybacks. We are aligned with our shareholders in recognizing these actions as top priorities.

Consequently, we included a proposed cash dividend that we will present for approval at our Ordinary General Shareholders Meeting to be held on March 28, 2019. We also intend to maintain an active share repurchase authorization of up to US\$500 million that is expected to complement our dividend proposal.



Performance and Progress Highlights

FINANCIAL HIGHLIGHTS

In millions of US dollars⁽¹⁾, except per-ADS data

	2018 ⁽¹⁾	2017 ⁽¹⁾	% VAR.
Net sales	14,375	13,635	5.4
Operating earnings before other expenses, net	1,724	1,727	(0.2)
Operating EBITDA	2,558	2,574	(0.6)
Controlling interest net income	543	806	(32.6)
Controlling interest basic earnings per ADS ²	0.36	0.53	(31.9)
Controlling interest basic earnings per ADS ² from continuing operations	0.35	0.41	
Controlling interest basic earnings per ADS ² from discontinued operations	0.01	0.12	
Free cash flow after maintenance capital expenditures	918	1,290	(28.8)
Total assets	28,124	28,890	(2.7)
Total debt plus perpetual debentures	10,397	11,349	(8.4)
Total controlling stockholders' equity	9,601	9,137	5.1

as of December 31, 2018

1. For the reader's convenience figures are presented in US dollars. For statements of operations accounts, these figures result from translating the local currency amounts into US dollars at the average exchange rate for the year, which approximates a convenience translation of the Mexican peso results for 2018 and 2017 using the average exchange rates of the year of 19.26 and 18.88 MXN/US\$, respectively. For balance sheet accounts, US dollar figures result from translating the local currency amounts into US dollars at the closing exchange rate for the year, which approximates a convenience translation of the Mexican peso amounts at the end of each year using the end-of-year exchange rate of 19.65 and 19.65 MXN/US\$, respectively.

2. Based on an average of 1,543 and 1,517 million American Depositary Shares (ADSs) for 2018 and 2017, respectively.

(1) As a result of requirements by the National Banking and Exchange Commission, CEMEX prepares its consolidated financial statements using International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"). For further detail refer to page 107 of this report.

NET SALES AND OPERATING EBITDA⁽¹⁾
(millions of US dollars)



FREE CASH FLOW AFTER MAINTENANCE CAPITAL EXPENDITURES⁽¹⁾
(millions of US dollars)



SUSTAINABILITY PERFORMANCE HIGHLIGHTS

● HEALTH AND SAFETY ● CIRCULAR ECONOMY ● EMPLOYEES ● ENVIRONMENT ● CLIMATE CHANGE ● SUPPLIERS ● SUSTAINABLE CONSTRUCTION ● COMMUNITIES ● CUSTOMERS

ZERO
employee fatalities



96%
of our operations had
zero fatalities
and injuries

27.1%
alternative fuels rate,
highest in the
past 4 years


Our consumption of non-recyclable
waste from other industries was
32 times
the waste we
sent for disposal



79%
of employees would
recommend CEMEX as a
good place to work




91%
Biodiversity Action Plans
implemented in quarries with
high biodiversity value



98%
of clinker
produced with continuous
monitoring of major
emissions

21.6%
reduction
in specific CO₂
emissions vs. 1990

26%
of power in cement supplied
by renewable energy



+2,400
suppliers underwent
sustainability assessment




1st CEMEX office
**LEED Gold
Certified**
Houston, Texas, USA Headquarters

+1,000
Green Building
Certification projects
where we contributed



+16M
people positively
impacted by social initiatives
since 1998



95%
of cement sites
established Community
Engagement Plans



+30,000
customers in
21 countries adopted





WE ALL SHARE

A COMMON VISION to
build a better future for
all our stakeholders

How We Create Value

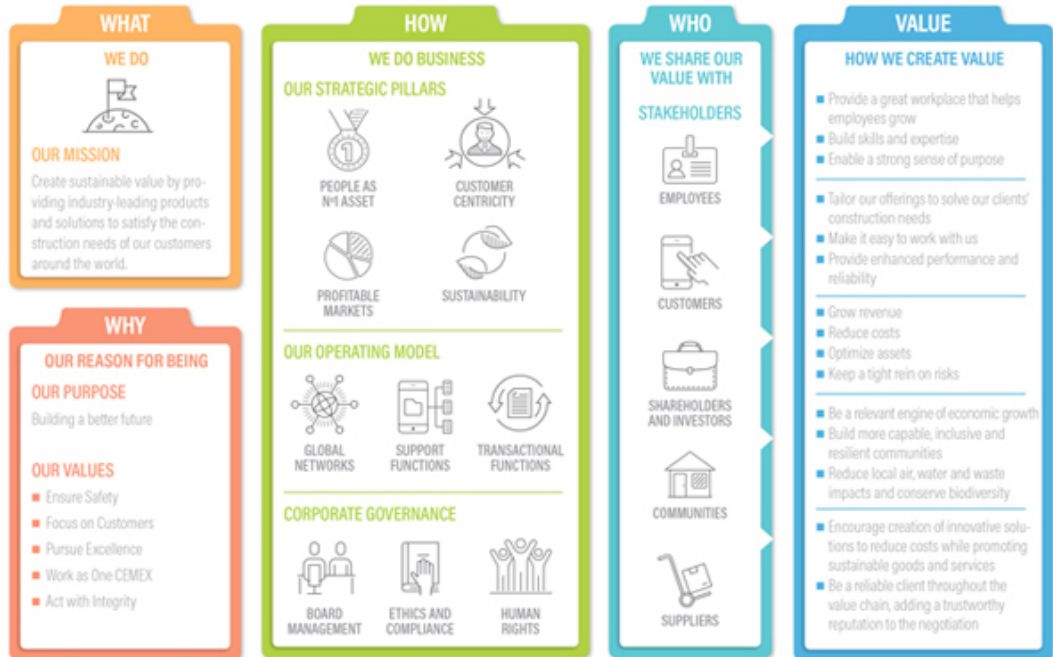
A **stronger** business model designed to maximize value creation for all of our stakeholders

Our Value Creation Model

Our mission is to create sustainable value by providing industry-leading products and solutions to satisfy the construction needs of our customers around the world.

At CEMEX, we all share a common vision: to build a better future for our employees, our customers, shareholders, suppliers, and the communities in which we live and work. We come to work each day excited to develop and deliver high-quality, sustainable construction products and innovative building solutions that exceed our customers' expectations and meet society's growing needs.

By aligning our business strategies with the United Nations Sustainable Development Goals (UN SDGs), we not only better position our business to respond to the biggest challenges facing our world, but also provide opportunities for growth, strengthen our license to operate, and create economic, social, and environmental value for all of our stakeholders.



The Plan for Achieving our Mission

We drive value across all aspects of our business through the integration of our strategic pillars with our operating and governance models.

At its core, we distinguish four strategic pillars in our business strategy. Individually, each element engages and impacts our business in very distinct ways. Collectively, they help us achieve our mission of creating value by building and managing a global portfolio of integrated cement, aggregates, ready-mix concrete, and related businesses.

OUR FOUR STRATEGIC PILLARS

OUR PEOPLE	OUR CUSTOMERS	MARKETS WHERE WE OPERATE	FOCUS ON SUSTAINABILITY
<p>VALUE OUR PEOPLE AS OUR MAIN COMPETITIVE ADVANTAGE</p> <p>We hire the best and foresee that our team's health, safety, and professional growth are top priorities.</p> <p>We develop leaders and encourage them to create new ways of thinking and acting, while assessing risks and opportunities.</p> <p>We foster an open dialogue in all of our interactions to align and achieve greater results.</p> 	<p>HELP OUR CUSTOMERS SUCCEED</p> <p>Our customers deal with important challenges daily.</p> <p>We must invest time in our relationships and listen closely to understand their needs.</p> <p>We help them to succeed by delivering quality products, innovative solutions, and a superior customer experience.</p> 	<p>PURSUE MARKETS THAT OFFER LONG-TERM PROFITABILITY</p> <p>We pursue markets where we can add value for our employees, customers, and shareholders.</p> <p>We focus on what we do best— cement, aggregates, ready-mix concrete, and related businesses.</p> <p>We venture beyond those core businesses when it is essential to better market our products.</p> 	<p>ENSURE SUSTAINABILITY IS FULLY EMBEDDED IN OUR BUSINESS</p> <p>We invest and innovate to become an industry leader in profitable, environmentally friendly, and sustainable operations.</p> <p>We provide products and solutions that contribute to more sustainable cities.</p> <p>We act responsibly in our operations, always looking for a way to minimize our impact on the environment.</p> <p>We collaborate with local communities to empower them and contribute to their development.</p> 
			

OUR OPERATING MODEL

How we operate effectively and get things done

We leverage our global knowledge and scale to establish best practices and common processes worldwide in order to operate more effectively and achieve the greatest value. We accomplish this by sharing what we know, supporting each other and eliminating any boundaries that may separate us.

This is best exemplified with our CEMEX Operating Model in which every function—corporate, regional, and country (business unit)—is united toward a common objective.

LEVERAGING ON INNOVATION AND DIGITAL TECHNOLOGIES

Recognizing that we live and work in a fully digital era, we embarked on a digital transformation of our company and

our industry over two years ago. As we began this journey, we set two goals: 1) Deliver a superior customer experience enabled by digital technology; and 2) Develop new business models driven by digital technology.

To accomplish these goals, we are working on different fronts and undertaking different initiatives to align our organization, update our processes

and policies, deploy digital technology, measure our success, and foster innovation, while continuously evolving and maturing. Among our initiatives, we implemented the Net Promoter Score, along with other KPIs, that standardize the way we measure our progress to deliver a superior customer experience. We created CEMEX Ventures to develop new disruptive ideas designed to revolutionize our industry through digital technologies. We joined forces to establish the Monterrey Digital Hub, Mexico's first digital transformation campus. Most importantly, we led the way with our launch and rollout of CEMEX Go. For more on CEMEX Go and our customer centricity initiatives, see page 48 of this report.

Understanding that the most profound impact of digital technology will be on the way in which markets and customers are served, the first milestone in our digital transformation is CEMEX Go, the first end-to-end e-commerce platform in our industry—designed to deliver a superior customer experience every time, everywhere. Beyond a digital platform for our customers, CEMEX Go also encompasses back-end platforms like CEMEX Go CRM and CEMEX Go Order Fulfillment, together with the digital enablers, capabilities, and advanced analytics that will empower our digital transformation. In short, CEMEX Go is igniting our company's and our industry's digital evolution.

UNTAPPING MEXICO'S DIGITAL POTENTIAL

Together with other companies, industry leaders, and academic institutions, we developed the Monterrey Digital Hub, the first digital transformation campus in Mexico. Designed to position Monterrey among the main tech hubs in the world, it offers an opportunity to not only unlock local potential, but also foster an environment in which digital innovative thrives; where companies, academic institutions, entrepreneurs, and digital talent are committed to revolutionize organizations and communities through the use of technology and digital business models.

Led and owned by a committed group of local industry leaders and academic institutions with a shared vision of fostering Mexico's digital transformation through corporate innovation, entrepreneurial collaboration, and digital talent preparation, the Hub is an inspiring place to learn, work, and connect that puts us in close contact with the talent to transform our country and our company through digital technologies.

Our Operating Model consists of four integrated building blocks:

OUR VALUE CHAIN

Through local execution, our business units deliver the greatest value to our stakeholders and CEMEX. As the core of our business, our business units are the platform on which our management team executes and delivers value for our stakeholders. Our Business Units are divided into five regions: Mexico, United States, South, Central America & the Caribbean (SCAC), Europe, and Asia, Middle East and Africa (AMEA).



GLOBAL NETWORKS

Although each of our regions and businesses are strong, we are even stronger when sharing ideas and working together. Operating as One CEMEX, our Global Networks leverage our know-how worldwide to create competitive advantage.



SUPPORT FUNCTIONS

Our Support Functions help enhance value by defining and enforcing global policies and providing technical knowledge and specialized tools for continuous improvement.



TRANSACTIONAL FUNCTIONS

The goal of these functions is to maximize standardization of processes and minimize transactional costs of doing business.



For more information visit mtydigitalhub.com

Engaging Our Stakeholders

Working with a diverse group of stakeholders—listening to their concerns and managing our relations in a proactive and fruitful way—is crucial to understanding our ecosystem and maximizing our positive impact in the places where we operate.

To set our business priorities, we incorporate stakeholder inputs, company insights, sector initiatives, peer reviews, and global trends. This helps to identify the most important issues for our company and our stakeholders, making it easier to not only define risks, opportunities, and KPIs, but also to report and set strategic targets.

WHAT OUR STAKEHOLDERS CONSIDER IMPORTANT

Understanding, acknowledging, and listening to the concerns of our stakeholders enables us to understand what they consider important, while maintaining our mindset of continuous improvement across our internal processes and strategic business priorities. This process also provides us with essential direction to focus our proactive engagement strategies in order to capture material business

opportunities, reduce our operations' risk, and deliver shared value to our communities.

To identify those issues that are most important to our company and our stakeholders, we conduct a Materiality Assessment every three years, which helps us to prioritize our efforts and minimize any gaps in our business strategy by demonstrating the significance of economic, environmental, social, and governance issues. Developed according to the Global Reporting Initiative (GRI) framework, this analysis is best expressed in our Materiality Matrix last updated in 2017.

Through a four-stage process, we identify the most relevant material issues that influence our stakeholders' assessment and decisions; define and carry out a worldwide survey across



our operations based on the previously identified material issues; classify and prioritize the selected material issues according to their frequency and plot them on our materiality matrix; and based on our stakeholders' prioritization, we select the material issues that most concern them and directly impact our business.

EVERY 3 YEARS

WE CONDUCT A MATERIALITY ANALYSIS to identify the most important issues to our company and our stakeholders

- 1 Customer Experience and Satisfaction
- 2 Health and Safety
- 3 Product Quality and Innovation
- 4 Business Ethics and Transparency
- 5 Employee Engagement and Development
- 6 Growth in Existing Markets and Countries
- 7 Return on Capital Employed
- 8 Environmental and Air Emissions Management
- 9 Transport and Logistics Optimization
- 10 Local Community Development
- 11 Products and Solutions for Sustainable Construction
- 12 CO₂ Management Strategy
- 13 Direct Economic Impact on Stakeholders
- 14 Energy Sourcing, Efficiency and Cost
- 15 Materials Recycling and Circular Economy
- 16 Biodiversity Preservation
- 17 Supplier Management
- 18 Public Affairs and Stakeholder Engagement
- 19 Water Management
- 20 Corporate Governance
- 21 Waste Management
- 22 Risk Management
- 23 Human Rights

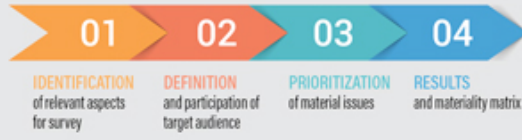
We have classified the material issues into three categories: high, higher, and highest materiality. This report focuses on them and reflects our top priorities based on our comprehensive stakeholder consultation.

GRI 102-40, GRI 102-43, GRI 102-44, GRI 102-46, GRI 102-47

MATERIALITY MATRIX



MATERIALITY ASSESSMENT STAGES



HOW WE ENGAGE WITH OUR STAKEHOLDERS

Across the countries where we operate, we develop and invest in strategic relations through open dialogues with key stakeholders that enable us to collectively accelerate change toward an inclusive and proactive external advocacy agenda. By becoming enablers of innovative dialogue platforms with our stakeholders, we look to achieve transformational change.

We use tailor-made activities to interact with each one of them, depending on our line of business operating in a given location. Our stakeholders include our people, investors, customers, suppliers, governments, regulators, and other businesses through trade associations, academia, local commu-

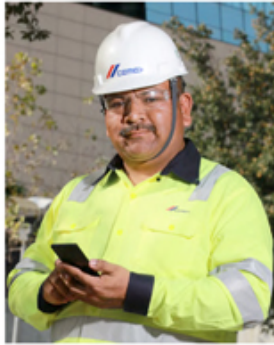
nities, and NGOs. We grow through strategic engagement and building partnerships with this wide range of stakeholders, some who participate directly in our value chain while others are partners in the development of a shared value ecosystem where we operate.

Through our Stakeholder Engagement Policy, launched in 2016, we define the framework that we use when deploying our proactive stakeholder engagement strategy. Along with this policy, our Code of Ethics defines the corporate principles for our engagement with external audiences. Among other principles, we are committed to conduct our business relations with honesty, respect, and integrity. These two tools shape our overall strategy.



OUR PEOPLE

Our more than 42,000 employees—who come from rich and diverse backgrounds—are our competitive advantage and the reason for our success. We take great pride in hiring the best and brightest people, supporting them with a safe, healthy, and inclusive work environment, and providing them with opportunities for growth and development. We continuously communicate and listen to our employees through a multi-channel approach consisting of, but not limited to, global surveys, ethics hotline, as well as global and local newsletters. For more on Our People see pages 39-46 of this report.



SHAREHOLDERS AND INVESTORS

Our commitment to deliver value to our investors rests on a clear recognition that, as a public company, we are stewards of other people's money. Consequently, we embark on a robust investor engagement strategy to foster a clear understanding not only of our company's financial position, performance, business perspectives, and risks, but also of our management and corporate environmental, social, and governance (ESG) practices. For more on our business performance, see pages 31-38 of this report.

CUSTOMERS

Our core strategic goal is to become the most customer-centric company in our industry. We place our customers at the center of everything we do. By listening to their needs and understanding their challenges, we always aim to surpass our customers' expectations. With this in mind, we work to become our customers' partner of choice by conducting our business fairly, professionally, and with integrity. For more on Our Customers see pages 47-56 of this report.

COMMUNITIES

With the goal of enhancing stakeholder experience with our neighboring communities, we encourage formal stakeholder dialogues, which are key to revise expectations, review progress, and continue monitoring our achievement of agreed plans. Regular and formal dialogues with our stakeholders have proven key to building mutual trust between our company and our surrounding communities. By understanding their expectations and analyzing our material themes, we can take action together. For more on Sustainable Communities see pages 57-67 of this report.

SUPPLIERS

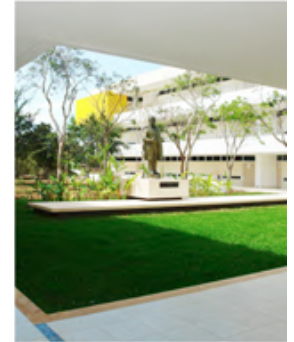
Under our worldwide Procurement Model, we aim to build strong relationships across our network of suppliers as we acquire the quality goods and services our company needs to succeed. We continually work to engage and align our suppliers with our core values, ensuring our suppliers' compliance with our Code of Ethics and Suppliers Code of Conduct When Doing Business with Us. When managing and selecting our business partners, we offer equal opportunities to bid on and win contracts, following strict competitive pricing, quality, experience, and service criteria while adhering to sustainable practices. For more on Our Suppliers see pages 68-71 of this report.

NGOs AND ACADEMIC INSTITUTIONS

We build innovative collaboration platforms through which we can find common ground between entities. To this end, we foster global partnerships in collaboration with NGOs and other stakeholders who share our vision of building a better future.

Our global partnerships are fundamental to the way we deliver value and improve the quality of people's lives. We leverage the knowledge and experience we gain from our collaborative programs with NGOs and leading academic institutions. We invest in research and development (R&D) to drive our adaptive and inclusive business model that benefits both the environment and society. Additionally, we are committed to scientific research that enhances our understanding of how our products can benefit and improve their environmental, societal, and economic impact.

Moreover, we are active participants in global initiatives led by the World Economic Forum, the United Nations, and the World Business Council for Sustainable Development, among other internationally recognized institutions. Through open dialogue, we share best practices, accelerate change, and ensure we are contributing our utmost to a sustainable future.



GOVERNMENTS AND POLICY MAKERS

We cooperate and engage with governments, regulators, and legislators—both directly and through business associations—responsible for regulating and defining relevant industry policy to our company. We actively participate in global and national industry policy discussions covering issues related to Climate Change, Sustainable Infrastructure, Innovation & Digital Transformation, Operational Efficiency, Health & Safety, Circular Economy, Alternative Fuels, and Waste Management Frameworks, among others. We conduct our business and relations with government entities in a manner consistent with our values, our Code of Ethics, policies, and the law.

BUSINESS ASSOCIATIONS

As a global company, we maximize our scale to share operational best practices across our industry—always raising the bar. We actively participate in different business associations at regional, national, and local levels to develop partnerships, provide a voice, and within the sector, promote our core cement, ready-mix concrete, and aggregates businesses.

In Europe, we enjoy a long history of contributing our best practices through our work with the Cement Sustainable Initiative (CSI). Recently absorbed by the Global Cement and Concrete Association (GCCA), the CSI is a global effort of 24 major cement producers to advance sustainable development. Over its history, the CSI has focused on understanding, measuring, managing, and minimizing the impacts of cement production and use by addressing a range of issues, including climate change, fuel use, employee health and safety, airborne emissions, concrete recycling, and quarry management.

On a national level, 19 of our 21 business units enjoy leading roles on the different cement, concrete, and aggregates associations in which we participate. During 2018, executives from CEMEX served as chairmen of 10 national associations. Our active participation in these associations give us crucial influence to push, along with other companies, fundamental topics for our sector such as sustainability practices, health and safety standards, and alternative fuels, among others.



BECOMING THE VOICE OF OUR INDUSTRY

Along with 10 other companies, we took big steps to promote the use of concrete as the preferred sustainable building material for the construction industry by becoming a founding member of the new Global Cement and Concrete Association (GCCA). Officially launched on November 23, 2018, our company not only is a member of the GCCA Management Board, but also our CEO, Fernando A. González, is Vice President of the association.

Together, we are joining forces and speaking with one voice on behalf of the cement and concrete sectors to achieve responsible industry leadership, improve the social and environmental impact of the sectors' products and activities, foster innovation and collaboration with local and regional industry associations, and inspire architects, engineers, and innovators across the industry's global value chain.

As an active member of the working group that created the GCCA, we provided the first steps that turned it into a reality. Through the GCCA, we are creating a dedicated advocacy platform that aims to position concrete as a sustainable building material of choice, while reinforcing that the cement industry is managed and acts responsibly as an important driver of growth to raise standards of living. The GCCA will further serve to fulfill our industry's sustainability commitments, developing guidelines and initiating research on all relevant topics.

By playing a meaningful role in this association, we reinforce our commitment to build a better future for our communities and the world. For more information visit www.gcca.com

MAIN CEMENT AND CONCRETE ASSOCIATIONS

- GLOBAL CEMENT AND CONCRETE ASSOCIATION (GCCA)
Global

- CEMENT SUSTAINABILITY INITIATIVE (CSI)
Global

- EUROPEAN CEMENT ASSOCIATION (CEMBUREAU)
Regional (Europe)

- EUROPEAN READY MIXED CONCRETE ORGANIZATION (ERMCO)
Regional (Europe)

- EUROPEAN AGGREGATES ASSOCIATION (UEPG)
Regional (Europe)

- INTER-AMERICAN CEMENT FEDERATION (FICEM)
Regional (LATAM)

- NATIONAL CHAMBER OF CEMENT (CANACEM)
National (Mexico)

- PORTLAND CEMENT ASSOCIATION (PCA)
National (USA)

- NATIONAL READY MIXED CONCRETE ASSOCIATION (NRMCA)
National (USA)

- AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA)
National (USA)

- CEMENT MANUFACTURERS' ASSOCIATION OF THE PHILIPPINES (CEMAP)
National (Philippines)

COMMUNICATION MECHANISMS WITH OUR STAKEHOLDERS

We outline the key concerns brought up by our materiality assessment and how we engage with our key stakeholders in the table below.

STAKEHOLDERS	KEY CONCERNS	ENGAGEMENT CHANNELS AND FREQUENCY	OUTCOMES
OUR PEOPLE	<ul style="list-style-type: none"> Health and safety Employee experience and engagement Diversity and Inclusion Training and development Career path and growth 	<ul style="list-style-type: none"> ETHOSLine 24/7 Bi-annual Ethics and Compliance campaigns Bi-annual engagement survey Monthly global newsletter Local HR teams on a daily basis and HR process platforms 24/7 Open dialogues and meetings with leaders 	<ul style="list-style-type: none"> Understanding of our employees' needs Talent Management strategy Ethics case reports for investigation Learning strategy Safety workplace environment
CUSTOMERS	<ul style="list-style-type: none"> Customer engagement and satisfaction Company's economic performance in mid and long term Quality products, services, and solutions Sustainability management practices 	<ul style="list-style-type: none"> Ongoing relationship management through sales reps Digital platforms Annual commercial events and customer-satisfaction surveys Customer service centers and help lines Net Promoter Score (NPS) 	<ul style="list-style-type: none"> Customer centricity strategy Clear understanding of our customers' needs and concerns
ANALYSTS, INVESTORS, SHAREHOLDERS	<ul style="list-style-type: none"> Company's economic performance in mid and long term Corporate Governance Environmental, Social, and Governance (ESG) disclosure and performance 	<ul style="list-style-type: none"> Regular meetings, webcasts, and conference calls Quarterly financial updates and guidance Annual integrated report, annual reports, and mandatory filings Ongoing website updates and press releases Annual CEMEX Day investor event 	<ul style="list-style-type: none"> Understanding of CEMEX's financial position, performance, business perspectives, and risks Understanding of management and corporate ESG practices
ACADEMIC INSTITUTIONS & NGOs	<ul style="list-style-type: none"> Development of communities and regions Collaboration in applied research projects Engaging students Develop employees' talent and awareness of global trends Innovation efforts 	<ul style="list-style-type: none"> Yearly collaborative research portfolio Bi-weekly "Lighthouses" talks Quarterly whitepapers Yearly best practices and methodologies playbooks Annual event to share the project's outcomes Hackathons co-organized with Universities 	<ul style="list-style-type: none"> Impact through collaborative projects to develop knowledge and solutions Build strategic partnerships with top universities Employee awareness of global trends Attract new talent for CEMEX
COMMUNITIES	<ul style="list-style-type: none"> Education and capability development Sustainable and resilient infrastructure and mobility Social and environmental innovation and entrepreneurship Health and safety, environment protection culture Human Rights Accountability and transparent communication Contribution to community quality of life and wellbeing Local employment opportunities Economic empowerment for women in communities 	<ul style="list-style-type: none"> Ongoing dialogues with community stakeholders Quarterly community panels, sessions, and meetings Annual open house days at operating sites Ongoing educational programs and training Participation in local career events Development of community infrastructure, volunteering, and social investment initiatives Development of inclusive business programs 	<ul style="list-style-type: none"> Creation of social and inclusive businesses Generation of empowerment and capacity-building Improvement to community infrastructure and wellbeing Development of learning opportunities Open communication and feedback Community transformation
SUPPLIERS	<ul style="list-style-type: none"> Health and safety Company's economic performance in mid and long term Fair business conditions Sustainability management practices 	<ul style="list-style-type: none"> Daily procurement interactions Ongoing capacity building programs Supplier sustainability guidance 	<ul style="list-style-type: none"> CEMEX Supplier Sustainability Program Inclusion of human rights, labor, antitrust, and sustainability clauses in our contracts and purchase orders Promotion of local suppliers
GOVERNMENTS AND POLICY MAKERS	<ul style="list-style-type: none"> Environmental impact mitigation and management Company's economic performance in mid and long term Health and safety Climate change and CO₂ emissions policy Infrastructure and housing solutions Local employment opportunities 	<ul style="list-style-type: none"> Annual integrated report and conservation books Ongoing public policy discussions Long-term partnerships Working groups Periodic plant visits Events and conferences 	<ul style="list-style-type: none"> Collaboration and communication with governments and regulatory bodies Successful adaptations to new local, national, and regional regulations
BUSINESS ASSOCIATIONS	<ul style="list-style-type: none"> Active engagement and guidance 	<ul style="list-style-type: none"> Periodic meetings Annual conferences Ongoing working groups Ongoing research studies 	<ul style="list-style-type: none"> Development of coordinated initiatives with trade associations Best practices sharing

OUR PARTNERSHIPS

Consistent with our commitment to work as One CEMEX, collaboration across external and internal boundaries is crucial to our contribution to UN SDG 17.

Our global partnerships are a key success factor in the meaningful role we play to positively impact society through our collaborative efforts and our ability to transform societal challenges into business opportunities that generate positive, sustainable long-lasting impact.

ENVIRONMENT AND BIODIVERSITY PARTNERS



We work closely with several partners to protect the environment and biodiversity of the countries in which we operate by engaging in fruitful partnerships with global, national, and local organizations.

For more than two decades, we have actively spread a culture of appreciation and respect for nature among our company, our stakeholders, and the global community. We have been honored to work with over 20 conservation NGOs in the past 25 years.

At a global level, we cooperate closely with UNESCO, Wild Foundation, BirdLife International, Wildlife Conservation Society, World Business Council for Sustainable Development, Wildlife Habitat Council (WHC), Conservation International, and the International Union for Conservation of Nature (IUCN). These projects have led to a series of conservation and nature books that have proved widely successful.

KNOWLEDGE AND INNOVATION PARTNERS



CEMEX aims to embed a growth mindset in our employees and to position learning as a high-impact catalyst for the thriving of our business and its transformation.

We leverage the knowledge and expertise of thought partners from varied perspectives such as consulting, research institutions, universities and technology partners.

Some of the most relevant partners we collaborate with include Deloitte Consulting, McKinsey & Company, IBM, ExperiencePoint, MIT Center for Information Systems, MIT Sloan School of Management, Cambridge University-Cambridge Service Alliance, Harvard Business Publishing, Degreed, NovoEd, London School of Economics, Ecole Polytechnique Fédéral de Lausanne (EPFL), and Tec de Monterrey.

These collaborations enable the design, development, curation, and delivery of relevant learning experiences aligned with CEMEX's strategic capabilities and emerging practices.

SHARED VALUE PARTNERS



Through collaboration in responsible business processes, we can achieve better results through the co-creation of value for society.

Our more than 500 partnerships and strategic alliances worldwide have proven a key success factor in multiplying our positive impact on society and in the creation of sustainable communities.

These collaborative alliances have made possible joint projects, best practices documentation, and pilots of socially innovative solutions throughout different lines of action: resiliency, environment, education, social integration, health, women's economic empowerment in the communities, development of employability capabilities for youth and people in vulnerable situations in the communities, inclusive businesses, affordable housing, volunteering, and CEMEX Foundation activities.

Our Approach to the UN SDGs

Building upon our commitment to the United Nations Sustainable Development Goals (SDGs), we continue our journey to contribute even more to these global goals and unlock business opportunities for our company by creating shared value for society.

Since 2015, we made a clear commitment to the tackle the world's greatest challenges and identified those goals that are more connected to our company's impacts, risks, and opportunities.

In 2017, we prioritized the SDGs by analyzing their underlying targets and indicators, and linked them to our materiality assessment, taking into consideration our stakeholders' expectations. By identifying key indicators and targets to measure progress, we identified 11 SDGs to which CEMEX contributes directly.

During 2018, in collaboration with a multidisciplinary group within CEMEX we connected stakeholders' objectives, risks, and financial and non-financial indicators to the SDGs on a target level in a connectivity table that supported

the identification of the focus goals. The result of this analysis is our set of focus SDGs (8, 9, 11, 13, and 15), upon which we can contribute even further to achieving the United Nations' established 2030 goals.

These SDGs are connected to our company's strategy and are reflected in our company's 2030 Sustainability targets. We will continuously track and measure our progress toward these goals through key indicators and disclosures.

We are convinced that, by engaging in these global goals through our day-to-day activities, we are building a better future by tackling global challenges such as poverty, inequalities, climate change, environmental changes, and lack of proper education and capability development, among others.

We selected **FIVE SDGs** that represent our greatest opportunities to contribute further and to identify new business opportunities connected with our business strategy.



PRIORITY SDGs

EMBEDDED IN OUR 2030 SUSTAINABILITY AMBITIONS

By partnering within and outside of our company, we know we can make a systemic change.

Our five priority SDGs represent our greatest opportunities to contribute further and to identify new business opportunities connected with our business strategy, such as innovation, research and development, employability, climate change, diversity, and education, among others. In 2019, we expect to continue embedding the SDGs in our strategy to create engagement, a sense of purpose, and awareness among our stakeholders. For example, we expect to embed the SDGs in our Sustainability Scorecard and train our employees on the SDGs

to make them an integral part of the process. Each of our employees must live these SDGs to make the required impacts on the United Nations' Global Goals and to contribute to our vision of building a better future.

Moreover, aligned to KPMG's True Value Methodology we are also releasing for the second year CEMEX Net Value to Society Statement to communicate our quantified economic, social, and environmental impacts which confirm the positive impact we have in communities. These efforts are a critical part of maintaining our license to operate, innovating, and creating value for society—improving quality of life and wellbeing globally.



COLLABORATING AND SHARING BEST PRACTICES WITH UN INITIATIVES

United Nations High-Level Political Forum - In 2018, CEMEX participated in the United Nations High-Level Political Forum, where sustainable urbanization was put at the heart of member states' commitment to achieve the 2030 Agenda for Sustainable Development. The UN SDG 11 "Sustainable Cities and Communities" was featured as a key focus area of progress alongside other SDGs that are central to making cities and human settlements inclusive, safe, resilient and sustainable. We shared our experience on how multi-stakeholder collaboration and investments in urban areas contribute to sustainable growth and reduction of poverty and prosperity. Through our business strategy, we contribute not only by developing innovative and sustainable solutions for the construction industry, but also by fostering the quality of life and wellbeing of our employees and our communities through inclusive business models and the co-creation of projects with our stakeholders and multi-stakeholder alliances.

Participation Global Board of UNISDR ARISE - CEMEX joined the Global Board of UNISDR ARISE to build resilient cities and communities, fostering collaboration between academia, the public and private sectors, government, and civil society, while launching the ARISE network in Mexico. We are further leading the UN Global compact in Mexico, encouraging more companies to partner to contribute and explore business opportunities while reducing negative impact, and creating shared value to society.

Our 2030 Sustainability Ambitions

CEMEX 2030

WITH THE WORLD MOVING TOWARDS A 2030 AGENDA, we recognize our responsibility to join the collective action to continue positively impacting the world

A fundamental element in our sustainability approach involves setting integral goals that move our organization to achieve global objectives for which all our operations and functions are accountable.

As a leading building materials company, we recognize and embrace our responsibility in the development of sustainable cities and the generation of shared value among communities. As part of this purpose, we collaborate very closely with peers in the sector, field experts, authorities, customers, suppliers, NGOs, and other stakeholders to ensure our products and solutions not only address all construction needs efficiently and effectively, but also accomplish it in the most sustainable way.

After the public announcement of our CEMEX 2020 sustainability targets, we have been annually reporting our progress towards these aspirations. The journey to fulfill these goals has enabled us to integrate sustainability more holistically within our company's strategy. We are motivated to see that, two years from the due date, we are about to achieve

several of these objectives. Nonetheless, we recognize that, while we are fully committed to keep pushing to achieve our targets, we have experienced setbacks and difficulties along the way to reach some others.

With the world moving towards a 2030 Agenda, we recognize our responsibility to join the collective action to continue positively impacting the world. International milestones going from the Paris Agreement on Climate Change and more stringent phases for carbon regulated markets to the UN Sustainable Development Goals (SDGs), continue to set the pace for urgent action from governments, private sector and civil society. These global plans aim to address the most significant problems, especially those linked to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice. To this



end, we have defined a new set of ambitions with a 2030 vision that strengthens our commitment to building a better world and helping to alleviate some of the biggest challenges communities are facing today.

Our new sustainability goals are designed to continue to enhance CEMEX environmental, social, and economic performance and contribute to achieve a better and more sustainable future for all.

FOCUS AREA	KPI	2018	2030 TARGET	LINK TO PRIORITY SDGs
HEALTH AND SAFETY	Employee fatalities (No.)	0	0	
	Employee Lost Time Injuries (No.)	49	0	
SUSTAINABLE CONSTRUCTION	Annual sales from cement and ready-mix concrete products with outstanding sustainable attributes (%)	43	≥50	
CIRCULAR ECONOMY	Total consumption of waste-derived sources from other industries (million ton)	13.2	19	
CLIMATE CHANGE	Reduction of net CO ₂ emissions per cementitious product vs. 1990 aligned to science-based targets methodology (%)	21.6	29	
	Power consumption from renewable energy in cement (%)	26	40	
AIR EMISSIONS	Reduction of dust emissions per ton of clinker vs. 2005 (%)	87	95	
	Reduction of NO _x emissions per ton of clinker vs. 2005 (%)	45	47	
	Reduction of SO _x emissions per ton of clinker vs. 2005 (%)	64	67	
BIODIVERSITY AND WATER	Quarry rehabilitation plans, Biodiversity Action Plans (BAPs), and third party certification (% from target quarries)	65	100	
	Implementation of Water Management Plans in sites located on water-scarce areas (%)	¹	100	
COMMUNITIES	Community engagement plans with formal stakeholder dialogues and committees in all priority sites (%)	88	100	
	Community partners (i.e., individuals positively impacted from our social initiatives) (million people)	16.1	30	

¹ During 2019 we expect to update our former Water Stress Assessment

FOCUS AREA	KPI	2018	2030 TARGET	LINK TO PRIORITY SDGs
EMPLOYEE EXPERIENCE	■ Employees that would recommend CEMEX as a good place to work (%)	79	≥80	
	■ Implementation of key diversity and inclusion initiatives in our business units (%)	0	100	
CUSTOMER CENTRICITY	■ Net Promoter Score (NPS) (%)	44	60	 
SUPPLIERS	■ Sustainability assessment executed by an independent party for our critical suppliers (% spend)	44	80	     
ETHICS AND COMPLIANCE	■ Implementation of Ethics and Compliance Continuous Improvement Program (%)	50	100	

SUSTAINABLE DEVELOPMENT GOALS

THE RATIONALE BEHIND OUR NEW AMBITIONS

We conceive of sustainability as the only safe way to do business. This implies managing risks and opportunities and coordinating environmental, social, and financial demands relying on a solid governance framework. Sustainability is embedded in CEMEX's strategy, and thus, it is linked to all functions across our business lines.

Coordinated by the Sustainability team, the process to define CEMEX 2030 Sustainability Ambitions involved collaboration of more than 10 corporate functions. Representatives from all countries and regions were also

active participants in this effort, given our bottom-up approach to define our commitments with all of our business units accountable for contributing to the global goals' achievement.

Some of the key inputs that fed our internal discussions and analysis to define these new objectives include:

- ▶ 2030 Agenda based on the UN Sustainable Development Goals
- ▶ The Paris Agreement on Climate Change
- ▶ Milestones in carbon regulated markets

- ▶ WBCSD-IEA Low-Carbon Transition in the Cement Industry Roadmap
- ▶ Global trends, risks, challenges, and opportunities
- ▶ Materiality Matrix
- ▶ CEMEX Top Management perspectives
- ▶ Key stakeholders' concerns and interests (e.g., governments, NGOs, universities, ESG analysts, industry associations, etc.)



HEALTH & SAFETY

We are confident that ZERO fatalities are possible, and 2018 evidenced our strong effort to achieve this goal. For the first time, we achieved zero employee fatalities. This new milestone clearly shows that we can make a difference. Health and Safety remains our top priority, and to that end, we are endorsing our determination to avoid any human losses.

Additionally, we have reached a continued low level of Employee Lost-Time Injuries (LTIs) in the sector, which confirms that, although we still have much to do, our strategy is producing positive results. For this reason, we have reinforced our former public goal and aspire to reach zero Employee LTIs by 2030.



SUSTAINABLE CONSTRUCTION

CEMEX acknowledges that the building materials industry plays a key role in addressing some of the most relevant societal challenges—from building the cities of the future to enabling the construction of bridges, airports, schools, hospitals, houses, and roads to minimizing the environmental footprint of our products during their production, application, use, and end-life.

Concrete and cement are natural choices for sustainable construction. On top of this, there is an important

share of our products' portfolio that offers performance characteristics beyond the traditional options. This special set of our ready-mix concrete solutions have demonstrated unique sustainability attributes that include saving water and other resources, energy efficiency, resilience, and health and safety benefits. In addition, we are working hard to not only develop novel types of cements such as low-carbon solutions, but also produce them in a more sustainable manner, increasing alternative fuels and raw materials and reducing clinker content. For 2030, we are committed to ensuring that at least half our ready-mix concrete and cement sales is linked to solutions with superior sustainability performance.

CIRCULAR ECONOMY

Progress toward a more sustainable future requires embedding waste management into the framework of a circular economy. Making this transition is essential to reach a truly sustainable, low-carbon, resource-efficient, and competitive economy. Here again, the building materials sector has plenty to offer.

CEMEX has certainly become one of the industry leaders in alternative fuels consumption. However, to achieve our full potential in actively participating in the solution to many cities' waste management problem, we go beyond



co-processing residues as a cleaner energy option. In addition to converting non-recyclable waste as alternative fuels and alternative raw materials in our cement process, we also seize residues and by-products in our ready-mix concrete production either as a substitute for cement or as a substitute for natural aggregates. Moreover, concrete itself can be recycled after its main use, becoming an alternative aggregate after its demolition.

CEMEX has become a "waste eater" and this year we consumed 32 times more residues from other sectors than the amount of waste we generated and sent for disposal. This is precisely the rationale behind our 2030 vision as an active contributor to a global circular economy.

CLIMATE CHANGE

According to the International Energy Agency, cement is responsible for about 7% of global CO₂ emissions. For several decades, CEMEX has embraced CO₂ emissions mitigation as a priority within our sustainability strategy, and this battle has become one of our biggest responsibilities and challenges given the rising global population and urbanization phenomenon.

This year, we are taking further steps by customizing a CO₂ reduction roadmap by cement installation considering five main levers:

- 1 Energy Sourcing and Efficiency
- 2 Fuel Mix and Raw Meal Composition
- 3 Clinker Substitutes
- 4 Novel Cements
- 5 Carbon Capture, Storage and Utilization Technologies

Beyond this detailed plan, our stronger ambition for continued progress in Climate Change mitigation is reflected in our rigorous 2030 carbon-reduction target, calculated using Science-Based Targets (SBTs) methodology. SBTs are aligned with the reduction pathways for limiting a long-term global temperature increase within 2°C. SBTs are grounded in an objective, scientific

evaluation of the actual contribution needed from a company, and CEMEX is committed to this global goal, consistent with the Paris Agreement.

Moreover, we are also determined to reducing our indirect CO₂ emissions through our new aggressive target of covering 40% of our cement operations' power energy needs with renewable sources.

AIR EMISSIONS

Even though this is not mandatory environmental regulation in all of the geographies where we operate, CEMEX decided to make a public commitment to install Continuous Emissions Monitoring Systems in 100% of our kilns. We are about to complete this task as part of our 2020 targets. For 2030, we are raising the bar again. Our ambition is to reach international environmental excellence levels for major air emissions in all of our cement installations beyond local requirements.

BIODIVERSITY AND WATER

We seek to generate a net positive impact from our mining operations. To this end, CEMEX has a long history of rehabilitating extracted zones and implementing Biodiversity Action Plans (BAPs) in our quarries. For this latter purpose, we have worked in partnership with BirdLife International

for more than a decade. As part of our 2030 ambitions, we are committed to achieving 100% rehabilitation plans for all of our active quarries (more than 280 sites), continuing with the implementation of BAPs in those quarries classified as sites with high-biodiversity value, and extending our objective to obtain third-party certification for our conservation efforts in those quarries identified as high-risk sites based on a recent updated detailed environmental and social assessment.

In addition, although the building materials sector is responsible for less than 1% of industrial water consumption, CEMEX is aware of the invaluable importance of this precious natural resource, especially in geographies where its availability is threatened. For this reason, we are committed to pursue 100% implementation of Water Man-



agement Plans in all of our operations located in water-scarce areas. During 2019, we expect to update our former Water Stress Assessment to prioritize our plans in those sites where major risk is identified.

COMMUNITIES

Our Responsible Business strategy directly contributes to our vision of building a better future and aims to understand and address our stakeholders' expectations and needs. After surpassing our 2020 goal of positively impacting at least 15 million individuals through our social strategy, we are now doubling the ambition and aspire to benefit 30 million individuals by 2030.

Additionally, as part of our 2030 sustainability ambitions, we also intend to establish Community Engagement Plans in all priority sites across our three business lines and implement stakeholder dialogues through formal Corporate Social Responsibility multi-stakeholder committees.

EMPLOYEE EXPERIENCE

One of the pillars of our business strategy is to Value Our People as Our Main Competitive Advantage. Accordingly, we hire the best, and we take care of them. When we support our employees, our entire company flourishes. For some, that means offering opportuni-

ties for growth and leadership development. For others, it's fostering an open environment where dialogue is encouraged. Whatever their needs, we want our employees to feel supported and engaged.



Although we will keep monitoring and reporting our Employee Engagement Index while doing our best to achieve our challenging 2020 objective, we propose to focus our new target on the advocacy element of the engagement equation. Our 2030 objective is to reach and maintain a specific KPI that references the percentage of employees that would recommend CEMEX as a good place to work. We believe this is a more robust and straightforward statistic that ultimately reflects the positive net balance resulting from a holistic employee experience.

Moreover, a key priority of our talent attraction and retention strategy is to strengthen diversity and inclusion. In 2018, we launched CEMEX Global Diversity and Inclusion Policy. With this in mind, we plan to complement and support its implementation with a 2030 deployment plan among all of our business units through a set of key efforts, including the following:

- 50/50 Gender Balance in all entry level programs
- Perform bi-annual review of compensation parity in Global Audience
- Deploy unconscious bias training for "on-line" managers at all levels

CUSTOMER CENTRICITY

Our customer focus is one of our company's core values. We put our customers at the center of every action we take and every decision we make. Accordingly, we have organized our company and redesigned our processes to ensure that we create the best possible experience for them.

For several years, CEMEX has worked to implement and standardize across all of our operations and different business lines an integral and fully reliable methodology to measure and monitor customer satisfaction. As a result, Net Promoter Score (NPS) has

become the most relevant indicator for this purpose. As of this year, CEMEX is not only publicly reporting our annual NPS figure, but also engaging with a very ambitious NPS objective for 2030. Our plan is consistent with our strong commitment to become the most customer-centric company in the building materials industry.

SUPPLIERS

Since 2010, we have been rolling out CEMEX Supplier Sustainability Program, an effort that extends our commitment to sustainable practices and policies to our business partners through an evaluation executed by a specialized independent firm, including criteria such as Health & Safety, Community Relations, Human Rights, Employee Development and Diversity, and Environmental Compliance, among others.

Although we have made progress toward our 2020 goal, considering feedback from our stakeholders we have decided to strategically redirect our efforts and adjust the focus to critical suppliers as the priority target group for evaluation. As a result, our new 2030 objective will transpose our former goal beyond volume to a way in which our resources are more dedicated to managing suppliers' impact and risk.

ETHICS AND COMPLIANCE

Our new ambition refers to the implementation of a global program to continuously strengthen Ethics and Compliance throughout our organization. This effort includes:

- 1 Active management of our Code of Ethics, which includes updating, disseminating, and promoting adherence, while managing our system of complaints, investigations, and conclusions
- 2 Reinforced compliance efforts with strategic action plans covering training and legal audits related to internal policies such as antitrust, anticorruption, insider trading, and conflict of interest.



OUR SUSTAINABILITY SCORECARD: TRACKING OUR PROGRESS

In 2018, we launched the CEMEX Sustainability Scorecard, an internal management tool that aims to assess our regions and countries' performance in a similar way to how international analysts evaluate our company's ESG (environmental, social and governance) profile based on relevant methodologies.

The scorecard will dynamically assess sustainability-related initiatives and indicators among all our operations leading to internal rankings for reference when defining new action plans to improve our ESG performance. Among other advantages, the scorecard will enable our countries to focus on KPIs for which they are accountable and make a greater impact on our overall sustainability strategy; allow our business units to benchmark their ESG maturity against others and identify best practices that they can apply to improve; and provide a guide for all operations to move forward toward our global sustainability goals while achieving excellence in their performance.



Our Performance

A **stronger** execution to achieve our priorities

96%

OF OUR OPERATIONS were fatality and LTI free; our highest percentage of operations on record

Business Review

FINANCIAL POSITION: A STRONGER CEMEX

In order to fortify our company's position as a leading global heavy building materials company, accelerate our path to investment grade, and enhance our total shareholder return, we embarked on our strategic A Stronger CEMEX plan to streamline and reposition our portfolio to maximize our company's profitable growth. During the second half of the year, we made significant advances on our plan:

FIRST

We sold assets for US\$84 million, including our operations in Brazil, progressing toward our target of between US\$1.5 and US\$2.0 billion of asset sales by the end of 2020. By divesting assets not fundamental to our strategy, we expect to free up more free cash flow to de-lever faster and reduce our financing costs sooner. This in turn should accelerate our operating cash flow generation and enable us to invest in more avenues for greater growth, ultimately delivering more value to our shareholders.

SECOND

We implemented US\$230 million of cost-reduction initiatives—designed to further improve our profitability, obtain higher returns, and deliver more value for our stakeholders—US\$170 million of the benefit of these actions is expected to be reflected in our EBITDA for 2019. Over the medium term, we expect to reach EBITDA margin levels of above 20 percent.

THIRD

We reduced our total debt plus perpetual notes by US\$493 million, advancing toward our total debt reduction target of US\$3.5 billion by the end of 2020. As divestments occur and the benefits of our cost-reduction initiatives are realized, we should accelerate our deleveraging and expect to be within metrics consistent with an investment-grade rating by the end of 2020.

FOURTH

We included a proposed cash dividend that we will present for approval at our Ordinary General Shareholders Meeting to be held on March 28, 2019 for an amount of US\$150 million.

All of these actions, taken together, are expected to position CEMEX to be a stronger competitor and global leader in the heavy building materials industry.

US\$150 MILLION

PROPOSED CASH-DIVIDEND for our shareholders

STRONGER TOGETHER

To further strengthen our customer-centric organization and improve our commercial offering while achieving operational efficiencies, we began managing CEMEX Europe as one business unit, similar to CEMEX USA and CEMEX Mexico, effective October 1, 2018. We also manage our European cement business, including our commercial, operational, and supply chain areas, regionally, together with all of our support functions. We further manage our ready-mix concrete and aggregates businesses—now called materials—in two regions:

■ **WEST:** UK, Spain, and France

■ **CENTRAL:** Germany, the Czech Republic, Poland, Latvia, and Croatia



US\$14.4 BILLION

CONSOLIDATED NET SALES in 2018, a 5% increase

CONSOLIDATED RESULTS

Following is a review of operational results and the financial condition of the company.

Consolidated net sales increased 5% to US\$14.4 billion in 2018. On a like-to-like basis for our ongoing operations and adjusting for foreign exchange fluctuations, consolidated net sales increased 6% for the year. The increase on a like-to-like basis was the result of higher prices for our products in local currency terms in all of our regions except our South, Central America and the Caribbean region, as well as higher volumes in our Mexico and U.S. regions.

Cost of sales as a percentage of net sales increased 0.5 percentage points, from 65.6% in 2017 to 66.1% in 2018. The increase was mainly driven by higher energy costs.

Operating expenses as a percentage of net sales increased 0.2 percentage points, from 21.7% in 2017 to 21.9% in 2018. The increase was mainly driven by higher distribution and logistic expenses, mitigated by our cost reduction initiatives.

Operating EBITDA declined 1% to US\$2.6 billion in 2018. On a like-to-like basis, operating EBITDA improved 1% for the year. The increase on a like-to-like basis was mainly due to higher contributions from Mexico and the U.S.

Operating EBITDA margin decreased 1.1 percentage points, from 18.9% in 2017 to 17.8% in 2018, mainly due to the increase in energy costs.

We reported a **gain on financial instruments** of US\$25 million in 2018, resulting mainly from our derivatives related to GCC shares.

We reported a **foreign exchange gain** of US\$18 million in 2018, resulting mainly from the fluctuation of the Mexican peso versus the U.S. dollar.

We reported **controlling interest net income** of US\$543 million in 2018 versus net income of US\$806 million in 2017. The lower income primarily reflects a lower gain on financial instruments, higher other expenses, net, higher income tax, and a negative variation in discontinued operations, partially offset by a positive variation in foreign exchange fluctuations, and lower financial expenses.

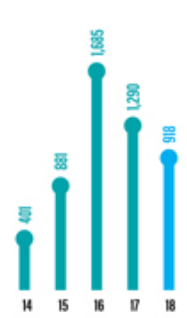
Total debt plus perpetual notes decreased US\$952 million to US\$10.4 billion at the end of 2018



NET SALES AND OPERATING EBITDA
(millions of US dollars)



FREE CASH FLOW AFTER MAINTENANCE CAPITAL EXPENDITURES
(millions of US dollars)



GLOBAL REVIEW OF OPERATIONS

GLOBAL OPERATIONS millions of US dollars as of December 31, 2018	MEXICO	UNITED STATES	EUROPE ¹	SOUTH, CENTRAL AMERICA & THE CARIBBEAN ²	AFRICA, MIDDLE EAST & ASIA ³	OTHERS ⁴	TOTAL
Net sales	3,299	3,748	3,757	1,781	1,434	356	14,375
Operating earnings before other expenses, net	1,062	336	161	315	142	(293)	1,724
Operating EBITDA	1,176	644	363	404	206	(234)	2,558
Assets ⁵	3,483	13,715	5,360	2,799	1,558	1,208	28,124

CAPACITY PER REGION as of December 31, 2018

Cement production capacity (million tons/year)	MEXICO	UNITED STATES	EUROPE ¹	SOUTH, CENTRAL AMERICA & THE CARIBBEAN ²	AFRICA, MIDDLE EAST & ASIA ³	TOTAL
Cement production capacity (million tons/year)	29.5	15.4	23.9	13.9	9.9	92.6
Cement plants (controlled)	15	11	17	10	3	56
Cement plants (minority part.)	3	7	1	0	0	11
Ready-mix plants	256	327	719	107	81	1,490
Aggregates quarries	12	64	177	22	9	284
Land distribution centers	80	39	69	39	31	258
Marine terminals	7	8	30	14	5	64

1. Includes operations in the United Kingdom, France, Germany, Spain, Poland, Czech Republic, Croatia, Latvia, Scandinavia and Finland.
 2. Includes operations in Colombia, Panama, Costa Rica, Caribbean TCL, the Dominican Republic, Puerto Rico, Nicaragua, Jamaica, the Caribbean, El Salvador and Guatemala.
 3. Includes operations in Egypt, Israel, the Philippines, and the United Arab Emirates.
 4. Includes minor subsidiaries with different lines of business (See note 4.4 to the 2018 Annual Report's Financial Statements).
 5. Includes assets in associated participation.

SALES DISTRIBUTION BY PRODUCT (percentage)



SALES DISTRIBUTION BY REGION (percentage)



Mexico

In 2018, our Mexican operations' net sales increased 9% on a like-to-like basis year over year to US\$3.3 billion, and operating EBITDA improved 5% on a like-to-like basis to US\$1.2 billion. Our domestic gray cement, ready-mix concrete, and aggregates volumes increased by 1%, 10%, and 10%, respectively, for the year.

During 2018, our cement volumes were supported by the formal residential and industrial-and-commercial sectors, mitigated by lower infrastructure activity. In the formal residential sector, investment in mortgages for new home acquisitions continued to grow as INFONAVIT surpassed its target for 2018. In the industrial-and-commercial sector, favorable dynamics continued in the tourism, office-space, and manufacturing-related construction segments. The economic indicators that drive the self-construction sector—including employment levels, consumer confidence, and remittance inflows—remained solid during the year.

United States

Our U.S. operations' net sales increased 9% on a like-to-like basis year over year to US\$3.7 billion for 2018. Operating EBITDA increased 7% to US\$644 million during the year. Our U.S. operations' domestic gray cement, ready-mix concrete, and aggregates volumes increased by 5%, 8%, and 3%, respectively, for 2018.

Our volume growth during the year was supported mainly by residential

and infrastructure construction activity, despite adverse weather conditions in the first, third, and fourth quarters. In the residential sector, housing starts were up 3% year over year. In the industrial-and-commercial sector, construction spending was up 4% for the year on the strength of office, lodging, and commercial activity. In the infrastructure sector, street and highway spending continued to grow during the year, up 4% year over year on the back of increased state spending. Contract awards in our key states grew in the double digits and in excess of the national average, driven



Above: Monterrey, Mexico
Above right: Petroleum Coastal, Dominican Republic



by specific state infrastructure funding initiatives.

South, Central America and the Caribbean

In 2018, our net sales for the region declined 3% on a like-to-like basis to US\$1.8 billion. Our operating EBITDA decreased 14% on a like-to-like basis to US\$404 million. As a whole, our regional operations' domestic gray cement, ready-mix concrete, and aggregates volumes decreased by 2%, 11%, and 11%, respectively, for the year. On a like-to-like basis, including the regional operations of TCL, our domestic gray cement volumes in the region declined by 3% for the year.

Our Colombian operations' domestic gray cement and ready-mix concrete volumes decreased by 6% and 11%, respectively, for 2018. During the year, cement consumption was affected by a weak demand environment.

Europe

Our European operations' net sales increased 3% on a like-to-like basis year over year to US\$3.8 billion, and operating EBITDA decreased 4% on a like-to-like basis at US\$363 million in 2018. For the full year, our domestic gray cement volumes increased by 1%, while our ready-mix concrete volumes declined by 1% and our aggregates volumes remained flat.

In the United Kingdom, our operations' domestic gray cement, ready-mix concrete, and aggregates volumes declined by 4%, 5%, and 1%, respectively, during the year. The decline in cement volumes reflected continued uncertainty around Brexit.

In Spain, our operations' domestic gray cement, ready-mix concrete, and aggregates volumes increased by 4%, 34%, and 39%, respectively, during 2018. Our

ready-mix concrete and aggregates volume growth partly reflected our introduction of 10 new ready-mix concrete plants and three new aggregates quarries. Residential and industrial-and-commercial sector activity remained favorable for the year. The residential sector continued to benefit from favorable credit conditions, low interest rates, positive income perspectives, and pent-up housing demand, with double-digit growth in both housing permits and mortgages.

In Germany, our operations' domestic gray cement, ready-mix concrete, and aggregates volumes declined by 1%, 9%, and 2%, respectively, during the year. The decline in our ready-mix concrete volumes partly reflected continued supply constraints in the construction industry, which resulted in lower cement volumes supplied to our ready-mix concrete operations.

In Poland, our operations' domestic gray cement, ready-mix concrete, and aggregates volumes increased by 7%, 4%, and 8%, respectively for 2018. Our cement volume growth during the year was mainly due to our participation in large infrastructure projects—including the S17 expressway—and solid residential sector activity.

In France, our operations' domestic aggregates volumes increased by 3%, while our ready-mix concrete volumes remained flat in 2018. Our volumes for the full year reflected favorable infrastructure activity—including the "Grand



White House, Croatia

Paris” project—as well as continued demand from the industrial-and-commercial sector.

Asia, Middle East and Africa

In the region, our operations’ net sales increased 7% on a like-to-like basis year over year to US\$1.4 billion, while operating EBITDA decreased 6% on a like-to-like basis to US\$206 million during 2018. As a whole, our regional operations’ domestic gray cement increased by 3%, while our ready-mix concrete volumes remained flat and our aggregates volumes declined 2% for the year.

In the **Philippines**, our operations’ domestic gray cement volumes increased by 7% for 2018. Our increased cement volumes during the year were supported by continued infrastructure activity and residential sector growth.

In **Egypt**, our operations’ domestic gray cement volumes remained flat for 2018. Our volumes for the year mainly reflected weaker market demand in the second half of the year and our focus on our most profitable markets.

In **Israel**, our ready-mix and aggregates volumes increased by 4% and 3%, respectively, for the year.

Trading

Our global trading network is one of the largest in the industry. Our trading operations help us to optimize our worldwide production capacity, deliver excess cement to where it is most needed, and explore new markets without the necessity of making immediate capital investments. Our worldwide network of strategically located marine terminals and broad third-party customer base



Kaia Homes, Philippines

also provide us with the added flexibility to place contracted supplies in an optimal way.

In 2018, we enjoyed trading relationships in 102 countries. Our traded volume totaled more than 12.4 million tons of cementitious and non-cementitious materials, including approximately 10.2 million tons of cement and clinker. Approximately 5.7 million tons of the traded cement and clinker consisted of exports and the remaining approximately 4.4 million tons were purchased from third parties. We also maintained a sizeable trading position of 1.3 million tons of granulated blast furnace slag, a non-clinker cementitious material, and 0.9 million tons of other products

Freight rates, which account for a large share of the total import supply cost,

have been subject to significant volatility in recent years. Our trading operations, however, have obtained significant savings by contracting maritime transportation in due time and by using our own and chartered fleet, which transported approximately 62% of our cement and clinker traded volume during 2018.

In addition, based on our spare fleet capacity, we provide freight service to third parties generating additional revenues.

Other information

During the years-ended on December 31, 2018 and 2017, in terms of millions of USD, in the countries in which we operate we paid in cash a total amount of taxes of 227 and 249, respectively, corresponding 178 to corporation income taxes (197 in 2017). Out of the 178 million of corporation income taxes (197 in 2017), 37 were paid by our operations in Europe (26 in 2017), 141 by our operations in the Americas and other countries (171 in 2017). For purposes of this paragraph, our operations in Europe are mainly conformed by the Netherlands, France, the Czech Republic and Switzerland; our operations in Americas are mainly conformed by Mexico, the U.S., Colombia, Costa Rica, the Dominican Republic, Guatemala, Nicaragua and Panama.

In addition, also for the years-ended on December 31, 2018 and 2017, in terms of millions of USD, we had an aggregate tax profit of 247 and 283 million, respec-

tively, regarding our operations in Costa Rica, the Dominican Republic, Israel, the Czech Republic, Colombia, Nicaragua, Panama, Guatemala, Jamaica, the Philippines, The Netherlands, United Kingdom, Trinidad and Tobago and Poland.

As of December 31, 2018 and 2017, we received as grant a free assignment of CO₂ allowances in the countries in which we operate in the European Union (EU) and that are part of the EU Emissions Trading System. For purposes of this paragraph, our operations in Europe are mainly conformed by Croatia, Czech Republic, Germany, Latvia, Spain and United Kingdom. For years 2018 and 2017, we received a total of European Union Allowances (EUAs) of 9,960,483 and 10,531,690 respectively. The EUAs allocated by country during 2018 and 2017 respectively were 1,124,766 and 1,147,135 for Croatia; 408,335 and 416,455 for Czech Republic; 1,256,094 and 1,281,075 for Germany; 881,901 and 899,440 for Latvia; 3,768,827 and 4,216,897 for Spain; 1,227,518 and 1,251,930 for UK. The EUAs received were worth in millions of US dollars 93 and 68 in 2018 and 2017, respectively. Break-down by country of the EUAs worth in millions of US dollars for 2018 and 2017 respectively: 10 and 7 for Croatia; 4 and 3 for Czech Republic; 12 and 8 for Germany; 8 and 6 for Latvia; 35 and 27 for Spain; 11 and 8 for UK.

BOLD STEPS ON OUR DIGITAL TRANSFORMATION

CEMEX Ventures

CEMEX Ventures, our open innovation and corporate venture capital unit, plays a key part in our digital transformation. Through CEMEX Ventures, we leverage our company's knowledge of the business with new, leading-edge technologies and platforms, focusing on solving the main challenges in the construction ecosystem through sustainable solutions.

CEMEX Ventures' open, collaborative platform leads the construction industry's revolution, engaging startups, entrepreneurs, universities, and other stakeholders to tackle current industry challenges and shape tomorrow's value ecosystem.

In addition to the investments, CEMEX Ventures signed a collaborative agreement with NEINOR Homes, a leading real estate developer in Spain, to drive generation of new business models and relationships with key players in the real estate development and construction ecosystems.

In 2018, CEMEX Ventures analyzed more than 1,500 potential businesses, invested in three startups, and con-

ducted its "Second CEMEX Ventures Ideas Challenge" with CEMEX employees. Furthermore, CEMEX Ventures held its 2018 Construction Startup Competition, its second start-up competition that concluded with four times the number of participants' projects compared with 2017, featuring the most promising solutions to today's global construction challenges.

Visit www.cemexventures.com for more information >

Since our launch of CEMEX Ventures in 2017, we have built a broad portfolio of innovative companies in which we invest:



+1,500

POTENTIAL BUSINESSES analyzed for investment by CEMEX Ventures in 2018



INNOVATION AND EFFICIENCY IN OUR CEMENT PLANTS

We became the first company in the cement industry to successfully operate our plants by remote control. From our central location in Monterrey, Mexico, our innovative monitoring and remote control system, Cement Control Center (or C3), operates in real time—24 hours a day, 365 days a year—tracking live data for our operation of 14 cement plants, 25 kilns, and 86 grinding mills in Mexico, as well as monitoring a cement plant in Colombia and another cement plant in the U.S.

By more effectively leveraging the resources and technological innovation across our global operations network, C3 helps us to unify our cement plants' control systems, make real-time decisions, more conveniently share best practices, maximize operating efficiency, and manage energy and other resources. The system's uninterrupted monitoring provides information on each stage of the production process, coupled with the performance of equipment installed in the cement plants. This enables our C3 operators to not only monitor and take immediate corrective actions in coordination with our local operations' staff, but also access installed intelligent control systems to minimize any deviation from safety, environmental, efficiency, and product quality targets.

We are already reaping the benefits of our maintenance, processes, and sustainability departments' teamwork through our C3 system. Among other advantages, we increased safety—achieving a 50% reduction in our number of operational incidents—reduced machine downtime, improved emissions monitoring, simplified decision-making, and increased our overall operating efficiency and reliability.

UNDERSTANDING THE NET VALUE WE CREATE FOR SOCIETY

As a company, we are aware that our financial statements only partly reflect how our activities affect society; there are both positive and negative impacts that are not valued in the capital markets and, therefore, do not appear in our traditional profit and loss calculation.

In the past, CEMEX already developed its own model to quantify these so-called externalities in monetary terms and, after successfully piloting in the UK, we started its deployment at a global level. For the second year, we validated our methodology to estimate the Net Value to Society with the corresponding True Value methodology from KPMG.

This exercise helps us to enhance our understanding of the materiality, relevance, and interdependency of our company's positive and negative impacts. We believe that it is an essential step to informed management and decision-making in order to improve the value that CEMEX contributes to our company, our society, and our planet. Furthermore, it allows us to manage risks, be more transparent, and achieve our sustainability ambitions.

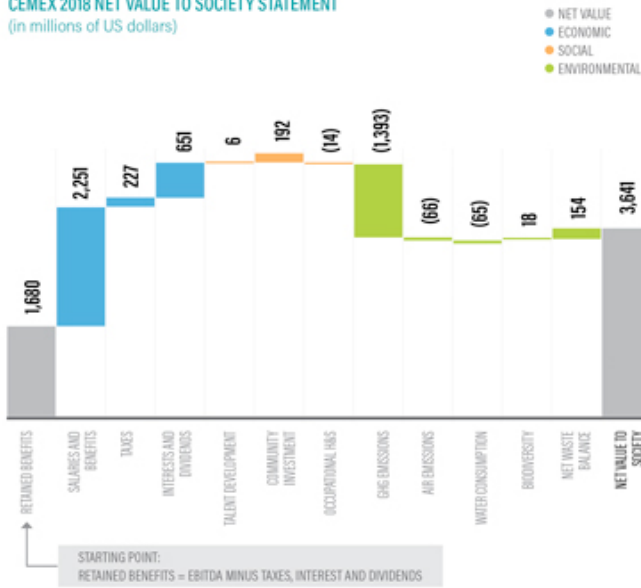
CEMEX Net Value to Society Methodology

The starting point for our analysis is the retained benefit (EBITDA minus taxes, interests and dividends; i.e., the part of our value creation that remains within our company). To this, several economic, social, and environmental impacts are added or subtracted to determine the total value that our company creates.

2.2 TIMES

NET VALUE CREATED BY CEMEX in 2018 vs. retained benefit

CEMEX 2018 NET VALUE TO SOCIETY STATEMENT
(in millions of US dollars)



ECONOMIC IMPACT

- > **SALARIES AND BENEFITS** - value that our company creates for our employees.
- > **TAXES** - value through our contribution to government funding. This item only contains income tax as shown in our profit and loss statement.
- > **INTEREST AND DIVIDENDS** - value for shareholders and creditors.

SOCIAL IMPACT

- > **TALENT DEVELOPMENT** - Value through our training programs and other educational initiatives. This only includes the value created outside our company (employee turnover).
- > **SOCIAL INITIATIVES** - Value for our stakeholders through our social initiatives and inclusive businesses.
- > **HEALTH AND SAFETY** - Impact on employees and their families from accidents (injuries and fatalities).

ENVIRONMENTAL IMPACT

- > **GHG EMISSIONS** - Impact from the emission of greenhouse gases (scopes 1, 2 and 3).
- > **AIR EMISSIONS** - Impact from the emission of other potentially noxious substances (SO_x, NO_x, particles).
- > **WATER CONSUMPTION** - Impact from the use of a scarce resource.
- > **BIODIVERSITY** - Impact from the disturbance of land by our mining operations. This item also includes the value created by our conservation project in El Carmen on the US-Mexican border.
- > **NET WASTE BALANCE** - Value derived from coprocessing waste, minus the impact of waste generated in our operations.

Our People

We are a global, multicultural company with more than 42,000 employees around the world. Our diverse workforce represent a wide range of countries, cultures, backgrounds, and experiences. Every role within our organization is unique and valuable.

We are proud and protective of our workforce; they live our values every day. Above all, we aspire to provide our people with a safe, healthy work environment—with zero incidents and injuries. Together, we are building a better future for our families, our customers, and the communities in which we live and work.

LINK TO PRIORITY SDGS



With this in mind, we continue to contribute even more to the UN Sustainable Development Goals (SDGs), focusing our efforts on the achievement of those goals that are most relevant to our business. Our efforts to provide our employees with competitive compensation, while offering a safe, healthy, and respectful work environment, directly connect to our priority SDGs 8, 9 and 11.

OUR ZERO4LIFE COMMITMENT

Health and Safety remains our top value and priority. Nothing is more important than the health and safety of our employees, contractors, and the people with which we interact within our communities and as we carry out our day-to-day business. Quite simply, our guiding principle is to aspire that everyone always returns home safely to their family.

We constantly work towards our ultimate target of zero injuries worldwide at every location—our Zero4Life goal. We continue our development of a culture where everyone in our organization embraces this commitment. To prevent harm to our people is the most rewarding aspect of our business; this moral imperative is the reason why health and safety is our company's foremost value and priority.

Our dedicated health and safety efforts and action plans are all about protecting the lives and integrity of our people; nothing is more important when performing our day-to-day business.



TRANSFORMING INTO AN INJURY-FREE COMPANY

In 2018, we continued to make progress in most countries, with 96% of our operations achieving ZERO fatalities and Lost-Time Injuries (LTIs). This is both motivation and clear evidence that our ZERO4Life objective is becoming a reality across the vast majority of our sites. While clearly we still have much more to do, we are absolutely committed to continue our positive direction on this important journey.

Consistent with our Zero4Life goal, we are committed to the safety of all of our employees, and we expect to continue to pay close attention to contractor safety. Although we achieved zero employee fatalities for the year, sadly we recorded five contractor fatalities, and although this figure has dropped by more than 70% from four years ago, this stakeholder group remains a key concern. Of these fatalities, 60% occurred off-site and involved road traffic incidents.



Each year, our results show improvement in most of our health and safety KPIs, and 2018 was no exception with several new CEMEX records set:

ZERO
EMPLOYEE FATALITIES
for the first year ever

LOWEST
LEVEL EVER RECORDED
of contractor fatalities

96%
OF OUR OPERATIONS
were fatality and LTI free
our highest percentage of
operations on record

LOWEST
EMPLOYEE AND
CONTRACTOR TRIs
(Total Recordable Injury)

**EMPLOYEE LOST TIME
INJURY FREQUENCY RATE**
(per million hours worked)



0.5
EMPLOYEE LTI
FREQUENCY RATE
a continued low level
for our industry

Accordingly, we expect to continue to focus special attention on contractor and driving safety, including contractors in our varied global campaigns and initiatives. Each injury and fatality is analyzed deeply to identify root causes and required actions to prevent future incidents. By building and implementing the best mobility policies and practices around our operations, we strive to make roads a safe place where cyclists, motorcyclists, drivers, pedestrians, and all users can coexist peacefully without incidents. For example, our Global Supply Chain Network's Health & Safety track further embedded our five-step Vulnerable Road Users program—focused on Education, Collaboration, Community, Awareness Raising, and Vehicle Specifications—and supported the rollout of a communication campaign focused on contract drivers. For more information about our Vulnerable Road User program's community initiatives, please read our Sustainable Communities section.

Furthermore, we have invested over US\$13 million so far in specific safety features for our company's trucks to help improve road safety. Through these and other efforts, we continue to work hard to pursue that all of our contractors become an integral part of our health and safety culture, while advancing toward our company's ultimate target of zero injuries worldwide.



MAKING OUR STREETS SAFER FOR ALL USERS

Consistent with our culture of health and safety, we continually work with our employees and contractors to enhance road safety for all users globally. From defensive driving training to safety features for our trucks to innovative branding campaigns, we aim to make streets a safe place for drivers, motorcyclists, cyclists, pedestrians, and other vulnerable road users.

We have invested on safety equipment for our company's trucks to help improve road safety including additional mirrors to increase our drivers' scope of visibility, warning signs, vehicle sensors, and camera systems that alert our drivers to potential dangers, among others. These features are also being added to our regular contractors' vehicles.

We also offer our drivers a range of defensive driving training around our operations. For instance, in the Philippines, more than 100 drivers have graduated from Driver's Academy, a third-party training program through which participants expand their knowledge of road safety. Similarly, in the UAE, our employees not only attend regular "Toolbox Talks on Road Safety & Safe Driving Practices," but also our drivers participate in Haulage Driver Training and Awareness of Vulnerable Road Users.

Another example of our commitment to help protect road users is our launch of campaign in the UK, whereby some of our trucks are branded with a design to help warn pedestrians to not take risks by stepping out into the road when trying to cross to the other side. With this type of incident familiar to many of our operations in recent years, we decided to adopt the same approach in other countries, with several trucks branded similarly in over 50 cities and towns around the world by the end of the first quarter of 2019.

To read more about our efforts to improve road safety in our communities, please see page 66 of the Sustainable Communities section >

We continue focusing also in the mitigation of the potential occupational health effects through a range of workplace improvements, dedicated training and campaigns. Being musculoskeletal disorders and hearing problems the two most common conditions that we have identified, we have seen a reduction of 30% in the total occupational illnesses reported cases. We expect that with the controls we have put in place, we will see further reductions in reported cases going forward.

BUILDING A STRONG HEALTH & SAFETY CULTURE

Across our operations, we continue investing in initiatives to enhance our healthy practices, reduce our safety risks, and strengthen our culture of health and safety (H&S). Through standardized global programs and best practice sharing, we drive a consistent approach across all of our operations.

Our robust interconnected global H&S organization structure pursues that we work together through a coordinated, consistent, and collaborative approach to reach our companywide goal of zero injuries:

- ▶ **THE H&S FUNCTIONAL NETWORK** involves all of our national H&S specialists.
- ▶ **THE GLOBAL H&S COUNCIL** is comprised of corporate and regional representatives who interact with our extended global H&S networks and Global Networks.

▶ **SIX GLOBAL NETWORK H&S TRACKS** include senior operational people supported by at least one member of our corporate H&S team.

▶ **GLOBAL HEALTH FORUM OF EXPERTS** works on various initiatives and materials to help our employees and contractors lead a healthy lifestyle.

H&S Policies and Procedures: Reinforcing Our Top Priority

As our top value and priority, we have strong policies in place to reinforce our unwavering devotion to H&S throughout our organization. Consistent with our global Health and Safety Policy, we are fully committed to carrying our activities in a safe and efficient manner and to caring for the wellbeing of our employees, contractors, and other people with whom we may interact. This overarching policy is further reinforced in our global Code of Ethics and Business Conduct and Code of Conduct When Doing Business With Us—whereby we extend the high priority that we place on H&S to our contractors, subcontractors, and service providers.

As we continue to improve our H&S culture, we must make all types of injuries to our employees and contractors a thing of the past, especially fatalities and other high severity incidents. To this end, our key proactive efforts include Visible Felt Leadership (VFL) and Near Miss/Hazard Alert Reporting.

VFL involves the development of a constant, and positive leadership approach to H&S management, starting with those at the very top of our organization. VFL encompasses engagement exercises with people in CEMEX operations that aim to reinforce our safety culture and awareness as our company's top priority. Our VFL approach is designed to help everyone "feel" the true commitment of every manager to safety and to motivate and inspire others throughout our organization to behave in the same positive way.

For years, CEMEX has implemented the Near Miss Hazard Alert System across all of our geographies and business lines. Employees, contractors or anyone visiting a CEMEX site can use this tool to report identified risks. This reporting system has greatly contributed to the improvement of working conditions and the elimination of potential hazards.

H&S Initiatives: Supporting Our Zero4Life Commitment

Throughout our Global Network H&S Tracks, during 2018, we implemented diverse initiatives that support our Zero4Life commitment. Among our activities, our Global Cement Track provided a way to support ongoing safety improvements through our "Change Management" program. Our Global Aggregates Track continued to focus on fully implementing minimum safety fea-

tures in our mobile equipment across all of our global operations. Moreover, our Global Ready-Mix Track made further progress on our rigorous approach to safety checklists and driver training.

We further continued to increase our local wellness initiatives. Supported by our Global Health Forum of Experts, we remain focused on our employees' occupational health and wellbeing by providing ongoing health checks, further promoting CEMEX Health Essentials, and better defining a health recognition program for our operations. Additionally, our countries of operation organized a range of health-related activities and events, often involving our employees' families to help raise awareness of and to encourage good health habits. For example, we rolled out a smoking cessation program in the U.S.; we held healthy eating campaigns and fitness workshops in Panama; and we invested in machinery improvements to lower noise exposure levels to prevent potential harm in Egypt.

H&S Training: Achieving Our Goals
At CEMEX, H&S training is a key part of our strategy to achieve our Zero4Life goal. We constantly aspire that all of our employees possess the correct knowledge, skills, and experience to perform their jobs safely.



WE WORK TOGETHER

TO REACH OUR GOAL of zero injuries through a coordinated, consistent, and collaborative approach

As part of our manager-training program, executives and supervisors must complete our H&S Academy. The Academy is designed to enhance the leadership skills of our line managers and supervisors and to pursue that H&S is our top priority across our



organization—from our production plants to our corporate offices.

We launched the Academy in 2016 with our Foundation Module, which prepares our line managers to lead by example and play a fundamental role in ensuring safety throughout our operations. Launched in 2017 and further rolled out in 2018, our Module 2 enables our line managers to utilize the 14 tools of our H&S Management System (HSMS) to help achieve our Zero4Life objective in their operations. In 2018, we also launched our Module 3, which is aimed

at enhancing proficiency in key H&S topics. Each of our regions are expected to begin to deploy this module in 2019.

Since the launch of our H&S Academy, more than 7,800 line managers have completed our Foundation module, while over 4,700 have concluded Module 2.

In addition to our H&S Academy, we continued to provide a wide range of training to our front-line workers on various subjects, including safe driving, machinery isolation, emergency management, and occupational health and wellbeing.

H&S Awards: Recognizing Those Who Excel

Our Global H&S Awards provide us with the opportunity to recognize those operations that excel at ensuring a safe workplace and promoting a healthy lifestyle among our employees and everyone involved with our company. Presented annually, these awards acknowledge our operations' outstanding H&S performance in four categories:

- > ZERO4LIFE CONTRIBUTION AWARDS
- > SECTOR AWARDS (i.e., Cement, Aggregates, Concrete, Road Transportation, and Others)
- > CONTRACTOR MANAGEMENT AWARDS
- > HEALTH CONTRIBUTION AWARDS

EMPLOYEE EXPERIENCE POWERS OUR BUSINESS STRATEGY

We are working to deliver a world-class employee experience, so our employees can enjoy an integrated, seamless, and rewarding experience when they come to work. In order to achieve our commitment to create a superior customer experience, we must link these experiences to pursue we operate internally in a mutually productive way.

At CEMEX, we are committed to create differentiated employee experiences, so our employees are enabled to work to the best of their abilities, unleashing their full potential.

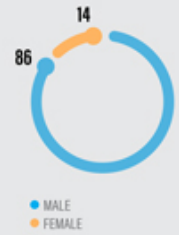
Our employee experience embodies all of the interactions between our employees and our company. It encompasses our whole work environment, including our physical, digital, and organizational interactions. Physically, we are changing our workplaces, creating collaborative environments where our employees want to be and perform at their best. Digitally, we are empowering our people, enabling new capabilities and agile processes, while advancing an understanding of what is digital—how do we experiment and how we make our business more efficient through new ways of working. Organizationally, we share a common vision, values and a clear operative model. We work as One CEMEX through our Global Networks, creating

GLOBAL WORKFORCE (percentage)

BY POSITION



BY GENDER



BY EMPLOYMENT TYPE



BY CONTRACT



BY AGE



BY SENIORITY



synergies and fostering innovation to ensure our talent's knowledge enables us to do what we do best.

As of 2018, we formalized an area dedicated to Employee Experience with the objective of accelerating and supporting a people-driven culture.

As a globally diverse multicultural and multinational group, we value our workforce diversity, we embrace employees from different cultures and backgrounds, and ultimately, we strive to build a great employee experience across our organization. Recognizing that our diversity is what makes us stronger, we take great pride in attracting, hiring, and developing the best and the brightest talent—supporting every one of our people, so we all grow successfully.

Guided by our values, we strive to provide our people with ongoing opportunities for growth and development through programs, benefits, and a work environment that enable them to excel and achieve their potential. To truly offer a superior customer experience, we must create an employee experience that promotes productivity, provides the right resources, supports capacity growth, and brings out the best in them each and every day.

Fostering Workplace Diversity and Inclusion

We take great pride in our workforce diversity. Our integration of people with different backgrounds, perspectives, and life experiences makes our company stronger. Our people are critical to our long-term success, and their diversity is what makes us more competitive, resilient and better able to adapt to an ever-changing global environment.

Consistent with our commitment to build a truly diverse CEMEX team, in 2018, we developed and released our Workplace Diversity and Inclusion Policy. In conjunction with existing and future programs and initiatives, this policy is expected to support our continuous, constantly evolving journey to create a more inclusive, diverse workplace. It underscores our company's serious commitment to cultivate an environment that embraces possibilities for everyone and promotes an atmosphere of openness, courageousness, generosity, and respect, so all of our employees can perform at their best.

In order to promote more women in executive positions, we are creating awareness of the gap and relevance of a more diverse executive population, identifying women with potential for growth and enabling them through leadership development, exposure to senior management and participation in executive forums. We are also closely



following up on women who leave the company through exit interviews to understand the reasons behind them leaving. Moreover, we have just launched the Unconscious Bias course, which is one of the first steps towards promoting gender parity, non-discrimination and diversity in the organization.

We encourage our people to maintain a healthy work-life balance and to this end, we are progressively expanding our existing base of flexible work schedules. Some business units are expanding flexibility for young parents and implementing dynamic work schedules. Our employees in our Headquarters and Mexico operations can choose between different work schemes to select the one that best suits their needs. As part of these efforts, some of our business units are encouraging

employees with children under seven years of age to work from home in the afternoons. We also promote and duly respect family and medical leaves; in 2018, more than 500 male and female employees took advantage of this benefit. Additionally, 33% of our business units grant employees parental leave rights beyond the days established by local labor laws.

CEMEX is respectful of all applicable regulations and policies, including non-discriminatory recruitment processes, facilities and services adapted to suit the population's needs, and specific programs in some of our business units. Moreover, consistent with our company's enhanced workforce diversity and inclusion strategy, we are committed to integrating and developing people with disabilities.

For example, since 2000, our Mexico operations' Congruencia program has focused on identifying and recruiting people with disabilities who hold a professional degree, with 45 currently active employees. Moreover, in Croatia, our operations formally and closely cooperate with the Croatian Centre for Rehabilitation and Employment of Persons with Disabilities (DES), promoting the integration of disabled people by engaging them in different activities in the labor market. During the year, we integrated 834 people with disabilities into our workforce through these and other programs.

Our company follows all applicable local practices, regulations, and policies regarding overtime and work schedules. We are determined to pursue that forced labor is never a practice in any CEMEX site, and for that purpose, we have implemented robust systems to control shifts in each of our operations and closely monitor working hours according to local laws.

Creating A Dynamic, High-Performance Culture

We foster a dynamic, high-performance environment, where open dialogue is encouraged and rewarded. In this way, we hear our employees' needs and expectations, ensure they feel engaged, and enable them to meet their career goals through our institutional processes.



82%

PARTICIPATION RATE
in our Voices into Actions
world-wide survey among
more than 37,000 employees

Voices into Actions is a two-year structured global process through which we gather, analyze, and react to our employees' opinions in order to improve not only our engagement, but also other factors that support our company's priorities such as how our people live our values, how enabled they feel, their level of commitment, and their perception of leadership. More than 37,000 employees worldwide were invited to participate in the 2017 edition of our Voices into Actions survey with a participation rate of 82%.

For the first time, in 2018, we shared the results of this survey with all of our employees worldwide using a global result map accessible through internal channels. This map enabled our people to consult results per country and per survey item. During 2018, we

also invited all of our employees and leadership to define and implement action plans using the Design Thinking methodology, a different approach from previous efforts. We further launched additional training initiatives in our regions to adapt this methodology into our Voices into Actions process.

A multigenerational workforce, coupled with a digital, disruptive, and fast-moving environment, demand an enhanced way to listen to our employees, discover the insights we need, and empower our organization to thrive. Therefore, in 2018, we explored and piloted a new people analytics platform in our U.S. operations that can help us to better achieve our goals. Understanding that our employees have a story to tell, this new platform is expected to provide us with the capability to deploy an agile communication channel to gain valuable employee insights. This new way of accessing information is expected to empower our leaders to make better-informed decisions through meaningful action plans that add value to our overall employee experience.

By early 2019, we expect to release a global action plans map that will provide a view of more than 50 action plans under implementation worldwide—enabling increased visibility and enhanced sharing of best practices.

Open communication keeps everyone on the same page and our priorities on track. Around 90% of our employees with access to our online performance management system used it to set, evaluate, and discuss their individual goals for 2018 with their supervisors. All of them enjoyed the opportunity to receive feedback on their achievements. Employees without access to a personal computer worked with their supervisor directly to conduct evaluations and receive input on their performance.

At CEMEX, performance is calculated based on the goals our employees achieved during the year—what they did—as well as their adherence to our core values—how they did it. Their resulting performance is then defined through the multiplication of the goals rated (1 to 5) with the percentage obtained in the adherence to values evaluation.

Our adherence to values evaluation invites direct supervisors, direct reports, and other employee stakeholders to share their perception of specific behaviors aligned with each one of our core values. The average of the responses per each behavior provides us with our employees' alignment with each of our values and, thus, the final percentage of adherence. Also, this addition to our performance evaluation process is a great way to establish and work on

developmental opportunities for our people and to reinforce our expected behaviors—in which we all believe.

Our evolving approach to talent management aspires for a more efficient and more connected talent cycle, offering clearer benefits and outcomes for our employees' career development. Through our integrated performance, talent review, and succession planning processes, we enable superior career decisions and professional growth. As a result, we help our employees and supervisors to set and align team goals with our company's business objectives. We also pursue that all of our employees' and managers' behavior is aligned with our core values. Additionally, we identify areas of opportunity and development, while delivering meaningful reviews that reinforce employee engagement and retention.

We constantly enhance our talent management processes to adapt to our business context and provide valuable outputs. This continuous iteration leverages digital platforms to increase both our efficiency and effectiveness. During 2018, we launched a new digital platform to enable and connect different processes: performance management, talent reviews, and continuous feedback. Additionally, we launched a process to evaluate individual employees' adherence to our values.

We must always:



LIVE UP TO OUR COMMITMENTS
do what we say we will do



ACT WITH HONESTY AND TRANSPARENCY
in all of our interactions



COMPLY WITH OUR CODE OF ETHICS
do the right thing



CARE FOR OUR PEOPLE, COMMUNITIES AND NATURAL RESOURCES

To learn more, please see our Ethics and Compliance section on pages 97 to 99.

Building A Stronger Work Environment
Through internal communications and displays, face-to-face and online training, and related activities, we work to pursue that our employees act with integrity each and every day.

Competitive Compensation and Succession Management
We know that, if our employees have the resources they need to live healthy, fulfilling lives, they will bring their best to the workplace, and our competitive compensation and employee benefit packages are key contributors to provide much more than a living wage for all of our people.

We constantly seek to improve the way we communicate these benefits to our employees—spanning all of our organizational levels— seeking they all understand the value and opportunities available to them. Moreover, as our company constantly transforms and expands, one of our main objectives is to develop people with the potential to fill key leadership positions—increasing their experience and capabilities to equip them to succeed in even more challenging roles while strengthening our talent up and down our pipelines. Through this process, we make every effort to improve our employees' commitment to our company by helping them meet their own career development expectations and preparing

them for key roles as they face critical challenges in their professional development. Our succession management process enables us to build a talented pool of leaders with the skills and deep understanding of our business fundamentals to continue our pursuit of excellence.

CAPABILITIES TO CONFRONT CHALLENGES, PURSUE EXCELLENCE
We craft career experiences for our employees to develop their inner fire for CEMEX—espousing our values and living by our mission and vision. Our success stems from our employees' hard work and dedication, so we are committed to providing them with the best professional experience. Our work is challenging, invigorating, and rewarding. Accordingly, we want our people to stay connected—aligned with our goals—and to never stop learning.

From firsthand experience, we know that employees who are supported by their company are inspired to excel. Through ongoing training and development opportunities, we teach them new skills and deepen their expertise in several critical areas, including Health and Safety, customer-centric capabilities, environmental conservation and awareness, leadership development, and stakeholder engagement.

CEMEX University: Embedding a Growth Mindset
CEMEX University aims to become our company's trusted learning advisor with a vision of developing a continuous learning ecosystem for our employees and acting as a high impact catalyst for our transformation. It integrates our leadership development programs and our institutional academies—Commercial, Health & Safety, Supply Chain, and Culture & Values—under the concept of CEMEX University.

CEMEX University works together with our Global Networks and our Regional Presidents as executive sponsors to respond to our multi-region, multi-business learning needs, supporting our employees by providing the concepts, practices, and tools required to implement our strategy. CEMEX University favors a blended approach to learning that leverages traditional in-person training and new best-in-class digital learning platforms.

Developing Effective Leaders
It takes sound, strong direction to propel a company our size forward and to ensure we meet our customers' needs. That's why we invest in leadership development programs at different levels of our organization.

~15,000
TOTAL PARTICIPANTS
in 2018 across 30 business units in our CEMEX University

5,432
PARTICIPANTS
completed the first two modules of our Health & Safety Academy

7,126
PARTICIPANTS
in our new Culture & Values Academy



CEMEX UNIVERSITY WINS EXCELLENCE IN LEARNING AWARD

CEMEX University was awarded the bronze medal for Best Advance in Creating a Learning Strategy at the 2018 Brandon Hall Human Capital Management Excellence Awards.

› First launched in 2016, **ENVISION** is a highly immersive program that recognizes leaders who have already made a significant impact on the organization and encompasses two main themes: the leaders' own personal course and their role in CEMEX's course. **ENVISION** caters to the high potential leaders of our organization, enabling them to play a critical role in defining CEMEX's strategic objectives. Along with deep introspection, leaders must develop specific skills to manage the tension between capitalizing on what is known and certain to maximize value for our business today and exploring opportunities to create new sources of value for our company in the future. During 2018, we launched the second generation of **ENVISION** with the participation of 14 global leaders.

› **IGNITE**, a new leadership program launched 2018, is specifically targeted to top-tier managers and newly appointed directors. Comprised of two cornerstones—customer centricity and leadership capability—it is designed to cultivate essential leadership capabilities and new ways of working to drive success within a digital context. **IGNITE** provides new opportunities to learn and practice leadership skills on real work projects and to foster peer relationships globally. In 2018, 57 high-potential leaders from across all of our regions and business units participated in this program.

› **LEADER-TO-LEADER** is a unique initiative that connects current and future CEMEX leaders. During 2018, 47 mentors from this program supported employees who participated in **IGNITE**, providing their valuable experience and mentoring. We also take advantage of this relevant leadership development program to connect it with our ambition to promote more women to higher positions. As part of it, since 2012 more than 50 of our high potential female talent have participated in the mentoring conversations involved by **LEADER-TO-LEADER**.

Building Strategic Capabilities

Our leadership development programs and our institutional academies are the vehicles through which we develop our company's leadership and strategic

capabilities. They are designed to work together to drive CEMEX priorities and help shape our "One CEMEX" culture.

› Our **HEALTH & SAFETY ACADEMY** is designed to help assure the wellbeing of our team members by ensuring participants understand their responsibility and duties as leaders to transmit H&S practices to their teams. During 2018, 5,432 participants completed the first two modules of this program.

› Through our **COMMERCIAL ACADEMY**, participants learn how to deliver against CEMEX's commitment to customer centricity through a combination of both instructor-led sessions and digital content. During 2018, a total of 1,360 participants underwent the different modules of our Commercial Academy.

› Currently under development, we launched the first components of our **CULTURE & VALUES ACADEMY**, including an updated Ethics Module; a Digital Primer Program, which includes an overview of emerging technologies and agile, design thinking; and Takeoff, an institutional onboarding program for new employees. The response to this new Academy was impressive, with 7,126 participants in its modules.

› Through our **SUPPLY CHAIN ACADEMY**, participants understand how to go from strategy to execution; to take the mindset and the way we think about our supply chain and turn it into reality; and to become customer centric every day by working together—across the functional domains of our supply chain to deliver a superior customer experience.

All in all, 2018 represented a significant year for CEMEX University, with a total of almost 15,000 participants undergoing its different programs across 30 business units, while expanding our internal instructor network to 125 trainers.

During 2019, CEMEX University plans to continue its expansion: developing a new Digital Academy; launching **CONNECT**, a new leadership development program targeting new managers; and continuing to work with our Global Networks to support them in the development of new capabilities for their teams.

Delivering a Superior Customer Experience

We continue our journey to become the company within our industry to offer the best customer experience. By placing our customers at the center of everything we do, we continually strive to build a better future for our stakeholders.

LINK TO PRIORITY SDGS



Aligned with UN SDG 8, we work to enable our customers to succeed. Delivering resilient and energy-efficient infrastructure to support growing urban populations contribute to SDG 11. Additionally, delivering solutions for affordable housing and energy-efficient building contributes to SDG 9.

Ultimately, we aim to create solid relationships with our customers by establishing the foundations for long-lasting partnerships. We leverage our leading-edge innovation and agility to develop superior building products and solutions that perform at the highest standards across all applications. We enjoy a solid, wide reach in the markets where we operate, with the facilities and logistical capabilities to serve our customers, so that they view us as reliable, easy to work with, innovative, expert and professional; in short, an excellent partner that enables our customers to succeed.

FOSTERING CUSTOMER CENTRICITY

Our customer focus is a core organizational value and priority built on a comprehensive understanding of who our customers are, what is important to them, and how we can best serve their needs. To this end, we place our cus-

tomers at the center of every action we take and every decision we make, while organizing our company and focusing our processes to ensure that we create the best possible experience for them.

Our strong global network, supported by our operating model, began working more than five years ago on initiatives to shift our organization's center of gravity towards our customers. Through our Customer Centricity Global Network, we have made important progress on our customer centricity initiatives—now integrated into our ongoing operations—that focus on customer segmentation, sales management, and the value proposition we offer to our customers.

As part of these initiatives, and to support the acceleration of cultural change towards a more customer centric organization, we established in 2018 our Global Customer Experience Office. This global function works towards the standardization of best practices in a faster way, as well as fostering innovation both digital and non-digital spaces, to create and document value propositions for our customers.

LISTENING TO OUR CUSTOMERS

As a customer-centric company, we begin by listening to our customers, identifying their pain points, and then taking the right actions. As part of our customer centricity initiatives, we are committed to understanding our customers' perception of us from the beginning to the end of their customer journey. This critical information allows us to transform our client interactions and define strategies, processes, and policies that better enable us to achieve a superior customer experience. By listening to their needs, comprehending their challenges, and appreciating what success means to them, we are devoted to ensuring that doing business with us is easy, delightful, and ultimately, surpasses our customers' expectations.

We deliver on our promises to ensure our customers' satisfaction. On top of our many day-to-day personal interactions, we gain valuable insights by carefully listening to our customers through interviews, commercial events, service centers, help lines, and other feedback channels.



WE PUT OUR CUSTOMERS AT THE CENTER

of everything we do. By listening to their needs and understanding their challenges, we always aim to surpass our customers' expectations

During 2018, we continued to implement Net Promoter Score (NPS), a core KPI that helps us to systematically measure our customer loyalty and satisfaction. We have successfully advanced with its implementation globally, identifying areas for improvement and taking concrete actions to achieve the best experience for our customers.

Today, we have successfully accomplished several milestones on our global NPS implementation program, including a streamlined collection process, strong data analytics, and a closed loop approach. We are proud to have NPS-certified Customer Experience Officers across our countries of operation that are promoting a more customer-centric culture and spreading their knowledge of NPS.

By the end of 2018, we not only publicly reported our annual NPS metric, but also committed to a very ambitious NPS objective for 2030. Aligned with UN SDG 8—Decent Work and Economic Growth—our NPS target is designed to achieve higher levels of productivity and economies of scale through diversification, technological upgrading, and innovation through a focus on high value-added and labor-intensive sectors. Overall, our plan is consistent with our strong commitment to become the most customer-centric company in the building materials industry.

GRI 102-43, GRI 102-44

CONTINUOUS LEARNING TO SERVE OUR CUSTOMERS BETTER

By virtue of our Commercial Academy and related initiatives, we are reinforcing our customer focus as a core organizational value and priority that meets both our customers' and our company's need for growth and profitability. Over the course of 2018, a total of 1,360 professionals worldwide underwent training through our Commercial Academy, which is part of CEMEX University.



For more information about CEMEX University and our institutional academies, please refer to page 45 of this report.

1,360
PROFESSIONALS
underwent training through
our Commercial Academy

DELIVERING A SUPERIOR CUSTOMER EXPERIENCE ENABLED BY DIGITAL TECHNOLOGIES

Beyond changing the way we behave internally, we are leveraging digital technology to transform our company's customer experience. We are embracing digital technology to not only streamline and simplify the way our customers engage with us, but also enhance the way we operate. To this end, we launched our digital transformation strategy in 2016.

Consistent with this strategy, we continue to lead the industry's digital transformation—embracing the power of evolving digital technology to improve the way we live. With this in mind, we keep working to provide a superior customer experience enabled by digital technology.

Digital commercial models provide the highest potential to transform our business and our industry. Thanks to the application of digital technology, we are able to offer a customer experience that is superior to what our company or our competitors can offer today.

CEMEX Go: A Fully-Digital Suite for All Products, All Markets

CEMEX is leading the industry through our end-to-end integrated commercial platform—CEMEX Go—covering the full customer journey. This first-of-its kind digital platform includes all of our

products and services, reaches all of our markets, and is compatible with all devices.

Additionally, we implemented our new digital customer relationship management (CRM) platform. This innovative

Today, we are witnessing only the beginning of the potential of CEMEX Go and our other digital transformation initiatives—because by establishing better business relationships with customers we all win.



CRM platform enables our front-line sales representatives and back-office to manage our customer relationships more efficiently and systematically, dedicating more quality time to their core activities. With our CRM platform we seek to further professionalize our customer service delivery model, through our sales representatives and service agents, and provide a superior customer experience, everywhere and every time.



CEMEX GO: A WIN-WIN VALUE PROPOSITION



Undoubtedly, one of the most significant steps to improve our customers' experience is through our CEMEX Go digital platform. We are especially excited about the acceptance that CEMEX Go has achieved.

To date, it is already being used by close to 30,000 satisfied customers in 21 countries. Representing approximately 85% of our recurring customer base worldwide, those customers are currently conducting close to half of their purchases, or about 45% of our total placed orders of our main products, through this end-to-end digital platform.

CEMEX Go is a win-win value proposition for our customers and our company.

Our customers enjoy an extraordinarily useful tool—unique within our industry—that enables them to select the products and services they need with ease; make their purchases with total security; track their deliveries in real time; and manage their bills, invoices and payments in a way that best suits them, always supported by our specialized team of advisors, sales, and customer service representatives 365 days a year.

Our company gains a valuable source of information that enables us to better understand our clients' buying patterns; anticipate their requirements based on an analysis of a variety of variables; identify new areas of opportunity by further focusing on our customers relationships; and work with our customers from the start of their projects to ensure that they have the most appropriate solutions, while optimizing our business processes, from billing to delivery and collection.

Thanks to the success of CEMEX Go in its first year, we have decided to offer this innovative digital platform to other industry participants around the world, creating more value for our company while generating additional income from this platform.

85%

OF OUR RECURRING CUSTOMERS WORLDWIDE

45%

OF OUR TOTAL ORDERS for our main products

CONSTRURAMA GOES DIGITAL

In 2001, CEMEX developed the Construrama network in order to unify the strength of its distributors, support the development of local hardware store owners, and expand its coverage in the construction industry. Now, Construrama is positioned as the largest retail building materials distribution network in the region with 2,296 stores in Mexico and other Latin American countries. Among other benefits, Construrama dealers receive customer service training, sales strategies, loyalty programs, marketing materials support, and strategic alliances with suppliers to offer value-added commercial advantages.

As part of our company's CEMEX Go digital platform, in 2018, we launched our new digital Construrama platform, through which our distributors can offer our clients the best construction solutions in an efficient, fast, and exclusive online purchasing experience. During the year, a total of 170 Construrama distributors incorporated our Construrama Online Store into their business with approximately 2,000 clients starting to use this platform to place their orders online.

This digital tool is already transforming the global building materials industry. The Construrama Online Store is part



of our company's commercial digital vision which, together with digital platforms such as CEMEX Go, aims to offer our clients a seamless experience for placing orders, live tracking of shipments, and managing invoices and payments for our main products.

Available on all digital devices, our Construrama Online Store enables quicker, simpler order placement 24 hours a day, together with exclusive promotions and better building materials' supply management. Through this transformative digital platform, our clients now enjoy easy access to a wider catalog of products and are able to select, purchase, and follow up on their online order, generating significant savings in productivity for our Construrama network of retail stores, builders, and final customers.

CULTIVATING BETTER, CLOSER PERSONAL RELATIONSHIPS WITH OUR CUSTOMERS

We invest considerable time and effort to building strong, personal partnerships with our stakeholders. Consistent with this commitment, we strive to build transparent, open relationships that generate trust with our customers across every business in which we engage.



Architects constitute an influential group of customers, who inspire and constantly challenge the possibilities of our cutting-edge building materials. Accordingly, we continually foster collaborative relationships with this important constituency, from academic outreach to our annual CEMEX Building Award.

Throughout 2018, we collaborated with universities and architecture firms to identify and explore new ways in which we can use concrete to continue building a better society and creating a symbiotic relationship with nature. Our collaborative relationships included students from the University of Pennsylvania, Syracuse University, the University of Turin, the California College of the Arts, and the European Architectural Students Assembly (EASA).

INNOVATION: A KEY DRIVER OF OUR CUSTOMER CENTRICITY STRATEGY

When our customers succeed, we succeed. Accordingly, our core strategic goal is to become the most customer-oriented company in our industry—serving as our clients' best option.

Led by Global Research & Development (R&D) in Switzerland, our team of experts works in close collaboration with our customers to offer them unique, integrated, cost-effective solutions that fulfill their specific performance requirements, including a growing portfolio of value-added solutions.

As the only global building materials company with our own concrete admixtures business, CEMEX is able to design and develop novel, tailor-made concrete technologies with our proprietary chemicals. Moreover, our experts in fields such as geology, chemistry, materials science, and various other engineering disciplines work alongside behavioral scientists, cultural anthropologists, and commercial strategists to anticipate and understand society's trends to create innovative, sustainable construction solutions that satisfy our customers' current and future needs,



while truly challenging the current state of the art. Among other benefits, our superior concrete solutions help improve land use, increase water and energy efficiency, mitigate noise pollution, and lower buildings' carbon footprint.

CEMEX GLOBAL VALUE-ADDED READY-MIX PRODUCTS

Promptis

Rapid hardening concrete that allows for at least 90 minutes workability.

Insularis

Fire-resistant concrete solution for thermal and acoustic insulation.

Resilia

Fiber-reinforced concrete with hyper strength and ductility.

Hidratium

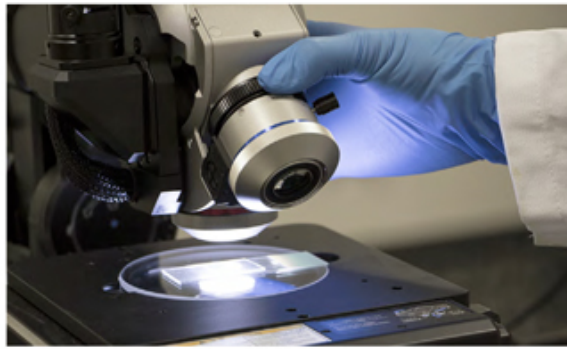
Self-curing concrete that reduces the need of water and external chemicals during the curing process.

Pervia

Structural pervious concrete that can manage water permeation to offer drainage solutions for pavements.

evolution

A highly flowable concrete that can spread into place under its own weight to achieve excellent consolidation without vibration.



Following our Intellectual Property Strategy, technologies developed by Global R&D are protected by more than 50 international patent families, covering new cements, cementitious materials, concrete mix designs, admixtures formulations, and construction systems—offering unique exclusive solutions to our customers.

In 2018, our R&D effort and model continued to develop and evolve in the area of customer centricity, with increasing emphasis on digitalization and socio-urban dynamics, as well as material innovations.

CONNECTING R&D TO SOLVE OUR CUSTOMERS' NEEDS

CEMEX's customer interaction and engagement are growing and evolving. Our R&D group is exploring, adopting, and implementing new methodologies to engage specific types of customers, who are key decision-makers in the very early stages of a construction project. Such novel dynamics are defining innovative approaches to involve and develop existing, potential, and future customers, including engineering and architectural students to our value-added cement, ready-mix concrete, aggregates, and admixtures products and construction solutions. We aspire to create a unique customer experience in which they can see, touch, interact with and even stimulate the evolution of our technologies.

The maturity and positive outcome of our R&D group's customer relationships is exemplified by our collaborative projects' increasing recognition. This year projects and customers working in collaboration with our R&D group earned recognition at different distinguished events such as Architect Magazine's Annual R+D Awards, Honorable Mention at The Eduardo Torroja Foundation's International AEC Conference in Spain, and AIA New York Design Award of Merit, which granted the collaborating team a fellowship to further develop the awarded project at the Autodesk BUILD Space in Boston, U.S.

Increasingly, our customers play an integral part in our innovation process. Many of our products and construction systems are developed through a co-creation process in which an R&D team of experts and customers work symbiotically to achieve a building solution.

For example, in 2018, after full-scale experimentation at the Polytechnic University of Turin, we finalized the technology for a concrete façade that is able to reduce the temperature of currents traversing it by up to 8°C. Similarly, we collaborated with Pich Architects to launch our climate concrete, designed to achieve zero net energy consumption at the future Wellness Hub in Monterrey, Mexico—the first application of its kind in Latin America.

+50
INTERNATIONAL

PATENT FAMILIES
PROTECTING
technologies developed by
our Global R&D

THE CONCRETE HOUSE: A COLLABORATIVE JOURNEY

Showcased on the British TV program Grand Designs, the Corrigan "Concrete House" exemplifies the spirit of collaboration between our R&D, customers, architects, and engineers.



Following a visit to our Global R&D Center in Switzerland, our customer decided that he would go beyond conventional building materials and utilize innovative concrete technology to build the family house of his dreams. His objective was to minimize, if not eliminate, conventional steel reinforcement while achieving high thermal efficiency.

Using our Resilia ultra-high strength and hyper ductile fiber-reinforced concrete, the outcome was the first building in the UK where steel reinforcement was reduced by 75%, embodying a 39% reduction of CO₂ in the concrete structure or the equivalent of 120 tCO₂. Our Insularis concrete technology was also used to achieve high thermal insulation, reducing the structure's thermal bridges and its overall energy consumption by 17%.

In addition to these unique and innovative solutions, this collaborative project also underscores the types of issues that our R&D is addressing—from buildings' energy efficiency, comfort, and novel, more efficient construction systems to their CO₂ footprint.

GRAND PARIS: EUROPE'S LARGEST ONGOING URBAN INFRASTRUCTURE PROJECT

Our work on the Grand Paris project, earned an award for innovative urban solutions with the potential to improve inhabitants' living environment, correct territorial inequalities, and build a sustainable metropolitan area.

CEMEX's award-winning proposal consisted of an innovative paving solution for the area surrounding a public school in the heart of Paris, which combined our concrete technologies in a novel and creative way. The project exemplified our ability to offer solutions that address cities' social and sustainable development needs. Our Pervia concrete technology was used to enable rainwater to filter through the natural soil and avoid flooding, while our inclusion of photoluminescent aggregates provided a unique character and night effect to the surroundings. Beyond its innovative and sustainable urban solutions, the project also involved an important social component, focused on community engagement—specifically the school's teachers and students. A workshop was organized to introduce teachers and students to the project, including the specific concrete technology utilized. To engage such a young audience and explain the main concepts in simple terms, the project was illustrated through a story that was produced and published as a kids' book entitled "Arnaud the Tree."



RESILIA FOLDING TECHNOLOGY: INNOVATIVE FABRICATION TECHNIQUE

Furthermore, our R&D team developed an innovative fabrication technique branded Resilia Folding technology. This technology folds Resilia ultra high-strength, hyper ductile concrete to create structural elements or even entire structures. Underlying Resilia Folding technological development is a material-fabrication technique synergy that favors automation and digitalization. A result of our collaboration with architects from Aptum, our joint team worked to explore and develop novel methods to create construction elements that are pro-automation, simple, minimize formwork, ensure uniform material properties, and are economically attractive. Together, we are exploring and developing novel materials that can be best exploited through digital and automated processes.

Engineering and design firms are already exploring applications of Resilia Folding technology. As a result of this interest, our R&D team was invited to exhibit this fabrication technique at a weekend of engineering with AKT II during Open House London 2018.

DELIVERING TRAINING ON EARTHQUAKE RESILIENT BUILDING TECHNOLOGY IN EL SALVADOR

El Salvador is highly vulnerable to earthquakes. That is why various technologies have been introduced in recent years to make structures safer and more resistant to earthquakes.

However, small builders often do not have access to this information, so we are bringing knowledge about new construction trends to them. In 2018, our department of technical advisors trained 70 construction material retailers who transferred this know-how to builders.



Our goal is to raise awareness among people in the construction industry and to ensure they know about the anti-seismic building technologies that we offer. Accordingly, our plan is to expand this monthly training to more companies in order to replicate this expertise.

For any construction project, it is imperative to select the best building materials and solutions to reduce risks in the event of natural disasters. A bad construction decision can cause serious consequences.

CONCRETE'S MAKING CITIES MORE SUSTAINABLE AND RESILIENT

Concrete plays a critical role in making cities sustainable and resilient. Of all the construction materials used for buildings and other infrastructure, concrete is by far the most durable and disaster-resistant. Factoring resilience into a building's design can help to reduce lifetime repair and maintenance costs in hazard-prone areas and enable communities to recover more quickly from a disaster.

CEMEX is building a better future, enabling the development of durable infrastructure with quality products and construction practices with reduced environmental impact. Our products and innovative technologies support in the development of energy efficient buildings, resilient infrastructure, and affordable housing, thus contributing to UN SDG 11.



According to the National Institute of Building Sciences¹, every dollar spent on resilient building and construction can save six dollars in recovery costs. Clear evidence of concrete's resilience and sustainability compared with other construction materials has led builders and architects to recognize that infrastructure and homes built with this material are not only more durable and resistant to damage from natural disasters, but also reduce the entire impact that communities have on our planet. This is critical to supporting the growth of urban populations, especially as climate change creates more extreme weather.

According to the MIT Concrete Sustainability Hub², a paving project's future costs can comprise more than 50% of its total cost. As one of the world's leaders in concrete-based pavement solutions, we help connect cities and surrounding communities with safer, more durable, and energy-efficient highways, mass transit systems, airport runways, rural roadways, and city streets.

1 National Institute of Building Sciences Reference Info <https://www.nibs.org/news/381874/National-Institute-of-Building-Sciences-Issues-New-Report-on-the-Value-of-Mitigation.html>
 2 MIT Concrete Sustainability Hub Reference <https://cshub.mit.edu/infographics>

UTILIZING POWERFLOATING TECHNOLOGY FOR THE FIRST TIME IN THE UK

During the year, we completed our largest Roller-Compacted Concrete (RCC) project in the UK. For this big purpose-built storage area, we supplied over 40,000 tons of RCC using our powerfloating technology for the first time.

Powerfloating represents an evolution in the RCC pavement process, achieving an engineered solution that lays fast and features the appearance and durability of a conventional concrete surface. This technology provides our customer with a pavement solution that combines the strength and durability of concrete with the ease of asphalt construction.

RCC alone delivers significant cost savings of up to 30% over traditional pavements, and now with powerfloating technology, RCC offers a significantly harder wearing surface that's more aesthetically pleasing.

To produce powerfloated RCC's extremely hardwearing surface, a specially designed admixture is sprayed onto the RCC before powerfloating and curing. This creates a more closed, even surface than the more textured appearance of natural RCC. The smooth cement paste created during this process offers increased abrasion resistance—making it attractive for high stress areas.



OUR READY-MIX CONCRETE TECHNOLOGIES

We are strategically expanding our manufacturing and distribution capabilities to serve our customers' and communities' increasing demand for high-quality public infrastructure, commercial buildings, and housing projects more efficiently, effectively, and reliably.

Paving Solutions

In 2018, our company enabled the installation of close to 4 million m² of concrete pavement by supporting the construction of more than 370 infrastructure projects throughout our operations.

Our concrete pavement solutions include:

- > CONVENTIONAL CONCRETE
- > THIN CONCRETE
- > ROLLER-COMPACTED CONCRETE (RCC)
- > CONCRETE OVERLAY/WHITETOPPING
- > CEMENT TREATED BASE
- > SOLID CEMENT

Housing Solutions

Beyond resilient structures, city planners are constantly challenged to provide ways to efficiently and affordably house rapidly growing urban populations. With this in mind, we support communities' social and economic development and deliver housing for all socioeconomic markets.

We integrate design, products, and wall systems into housing solutions that are flexible and replicable:

- > **INDUSTRIALIZED HOUSING:** Fast, efficient, and large-scale housing construction
- > **DISASTER RELIEF HOUSING:** The best response for reconstruction after natural disasters
- > **ENERGY-EFFICIENT HOUSING:** Cost-competitive solution for high-performance buildings
- > **AFFORDABLE HOUSING:** The lowest possible cost without giving up quality
- > **VERTICAL HOUSING:** Fast and efficient construction for high-rise and mid-rise residential

Our expertise with tailor-made, adaptable systems contributed to the construction of more than 2,600 affordable housing units in 2018, representing approximately 170,000 m² of livable space.

PARTNERING WITH ICF PERFORMANCE TO DEPLOY ITS THERMOFORM® SOLUTION IN FRANCE

To reinforce our market position for construction solutions of the future, we partnered with ICF Performance, which designs, develops, and sells a next-generation insulated shuttering system with very high thermal performance. This partnership is dedicated to the commercial development of the THERMOFORM® constructive solution, launched by CEMEX in 2013.

In France, we have already marketed nearly 25,000 m² of walls built with insulating formwork blocks. The synergy between the two manufacturers should significantly increase the market penetration of this process, especially in the individual and collective housing sector where it can represent the future of low-carbon homes.

Innovative and unmatched in the market, the THERMOFORM® solution combines the high performance of two building materials: polystyrene and concrete. The system consists of expanded polystyrene (EPS) insulated formwork blocks, ready-mix concrete, and pumping equipment. Thus, the resulting wall combines the indoor/outdoor insulation capacity of EPS with the inertia and strength of reinforced concrete.



Our new U.S. headquarters complied with specific sustainable criteria to earn the LEED Gold Certificate, including:

52%

POWER REDUCTION for the entire building

10

AREAS FOR RECYCLING paper, cardboard, glass, plastics, metals, and food waste

100%

OF THE BUILDING'S ELECTRONIC equipment meets ENERGY STAR certification

32%

WATER CONSUMPTION reduction through efficient water fixtures

20%

OF THE BUILDING is constructed with recycled materials that also meet ISO 14021

91%

OF THE BUILDING is illuminated by daylight

88%

OF CONSTRUCTION WASTE was diverted from landfills

ENABLING AND PROMOTING GREEN BUILDING

At CEMEX, we believe in leading by example. With this in mind, we established a Green Building Management and Certification Policy to mitigate potential environmental impacts associated with the design, construction, and operation of our buildings. The policy provides that the planning, design, construction, management, renovation, and demolition activities of all company-owned and leased facilities are carried out in a sustainable way.

Consistent with this commitment, in 2018, we earned LEED Gold Certification from the U.S. Green Building Council for our new U.S. headquarters in Houston, Texas.

We also work collaboratively across the construction value chain to optimize our results and maximize profits, partnering with national and international experts to complement our skills and provide a complete array of specialized services in sustainable construction.

CEMEX Green Building Certification Service

In addition to Green Building Services, we provided sustainable building materials for the projects in the table. During 2018 we also provided products and solutions for more than 1,000 projects that aim to achieve LEED or BREAM certifications, representing close to 6 million m² of construction space.



PROJECT	LOCATION	TYPE	CONSTRUCTION AREA (m ²)	CERTIFICATION TARGET	COMPLETION STATUS
ICA Reserva Escondida	Mexico City, Mexico	Residential	22,584	LEED Certified	Completed
SEMARNAT 223	Mexico City, Mexico	Offices	32,000	LEED Certified	Completed
Esfera City Center	Monterrey, Mexico	Commercial	276,925	LEED Platinum	Completed
Torre Cosmopolitan	Tijuana, Mexico	Offices	13,950	LEED Platinum & ecoperating PLUS	Completed
Lucena	San Pedro Garza García, Mexico	Residential	14,000	ecoperating PLUS	Completed
Casas 199, 200, 201 and 202 Sorteo TEC	San Pedro Garza García, Mexico	Residential	2,267	ecoperating	Completed
Casas 203 and 204 Sorteo TEC	San Pedro Garza García, Mexico	Residential	1,302	ecoperating PLUS	Completed
CEMEX Corporate Offices	Makati City, Philippines	Offices	1,200	ecoperating PLUS	Completed
CEMEX Corporate Offices	Houston, USA	Offices	7,620	LEED Gold	Completed
CEMEX Corporate Offices	Madrid, Spain	Offices	6,900	ecoperating PLUS	Completed
CEMEX Corporate Offices	Prague, Czech Republic	Offices	2,686	ecoperating PLUS	Completed
OUM Wellness Center	San Pedro Garza García, Mexico	Commercial	5,000	Net Zero Energy Building	Ongoing
CEMEX Corporate Offices	Kingston, Jamaica	Offices	1,050	LEED Certified	Ongoing

CEMEX BUILDING AWARD: HONORING THE BEST OF THE BEST

Through our annual CEMEX Building Award, one of the most renowned competitions in the construction field, we not only honor engineers, architects, and other building professionals, but also encourage creativity in the application of new concrete technology to improve our communities. The CEMEX Building Award recognizes the best projects in Mexico and the rest of the world in five categories and with four special prizes.

For the XXVII Edition, a total of 623 projects competed in the Mexico Edition, while 63 projects from 19 different countries competed in the International Edition.

623 PROJECTS

COMPETED IN MEXICO while 63 projects from 19 different countries competed in the International Edition

FIRST PLACE WINNERS FOR THE 2018 INTERNATIONAL EDITION



RESIDENTIAL HOUSING
Bruma House. Mexico City, Mexico



AFFORDABLE HOUSING
Salvatierra 150. Mérida, Mexico



BUILDING
House/Office in Landshut. Landshut, Germany



COLECTIVE SPACE
Revitalization of the Boulevard Upon the Oder in Wrocław, Wrocław, Poland



INFRASTRUCTURE
Mersey Gateway. Runcorn, England



SPECIAL PRIZE: SUSTAINABLE BUILDING
Salesforce Tower. San Francisco, United States



SPECIAL PRIZE: CONSTRUCTION INNOVATION
Nueva Edificación Centro Médico Imbanaco, Cali, Colombia



SPECIAL PRIZE: SOCIAL VALUE
Foro Boca Concert Hall. Boca del Río, Mexico



SPECIAL PRIZE: UNIVERSAL ACCESIBILITY
Revitalization of the Boulevard Upon the Oder in Wrocław. Wrocław, Poland

Sustainable Communities

CEMEX's Corporate Social Responsibility (CSR) strategy contributes directly to our vision of building a better future, ensuring our society's sustainability, wellbeing, and quality of life. Our responsible business culture contributes to our license to operate, enhances our stakeholders' experience, strengthens our reputation, and creates shared value.

We continue to listen and understand our stakeholders' expectations by fully managing our company's impacts and creating value and wellbeing through three strategic priorities:



As a company that makes a progressive impact through its innovative services and solutions, our ability to operate as a responsible business is fundamental to our business model. This enables us to understand stakeholders' material issues, map impacts, and identify risks and opportunities in order to create shared value for our company and society.

Community Engagement Plans (CEPs)

Our Community Engagement Plans ensure that our efforts around our operations are aligned with what is relevant from our communities' perspective, foster regular dialogue, and build long-term relationships and trust. Each business unit develops a CEP that is the product of our engagement with local stakeholders—translating their needs, expectations, and our business priorities into an annual schedule of activities, projects, and programs that focus on people and environment.

LINK TO PRIORITY SDGs

Through our CEPs, we contribute directly to our company's five priority SDGs upon which we can develop business opportunities that create shared value, and also contribute directly to other underlying SDGs including 1, 3, 4, 5, 12, and 17 through our community initiatives.



To date, we have 75 active plants with CEPs covering most of our cement and selected aggregates operations. By 2019, we expect to continue increasing the number of our active plants with CEPs and enhancing our stakeholders' experience.

Internal and External CSR Committees Ensure Alignment

To ensure alignment of our efforts with our community and business aims, we have two types of committees: inward facing and externally oriented. Both are multi-disciplinary committees that contribute to the management of community issues, provide expert opinion on topics of concern to stakeholders, make

75 ACTIVE PLANTS

TO DATE WITH CEPs covering most of our cement and selected aggregates operations



STAKEHOLDER DIALOGUES AND CSR COMMITTEES IN POLAND AND SPAIN

Effective implementation of our CSR strategy requires a good understanding of our stakeholders' needs. Thus, we continue our ongoing dialogues with stakeholders at our Chelm and Rudniki cement plants in Poland. To get to know them—while successfully and consistently implementing our strategic principles—since 2013, we have conducted social dialogues in accordance with the AA1000 SES international standard. These dialogues enable us to better engage on social issues and follow-up on our agreed progress, results, and commitments. Considering their strategic context, in 2018, we organized three stakeholder dialogue sessions in Poland that resulted in several proposed activities. Of these activities, the most highly rated are robotics classes for children and youth, development courses for adults, and sports activities for senior citizens.

In Spain, our cement plants' internal and external committees work together to build positive, sustainable relationships with our neighboring communities. The committees are composed of our plant's director and local environmental officials, trade union representatives, local mayors of nearby towns, neighborhood representatives, and other local institutions. Consequently, we co-create and implement actions that are of interest to our communities and connected to our CSR strategy. For example, in response to the community of Morata's interest in education, since 2016, we have carried out the CEMEX Morata summer camp for kids, enabling them to learn about other cultures and foreign language skills.

Our stakeholder dialogues and committees enhance multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology, and financial resources to create shared value and support achievement of the UN SDGs, contributing directly to SDG 17.

commitments to follow-up on issues related to their areas, and contribute to the design, execution, and evaluation of our stakeholder engagement efforts.

Aware of our negative impacts, we collaborate with our stakeholders to increase value creation and wellbeing and to enhance our stakeholders' experience. By understanding their expectations and analyzing our material themes, we take action together.

In 2018, our committees conducted more than 400 stakeholder dialogues globally, through which we made and reviewed progress on our commitments, contributing to the design, execution and evaluation of our CEPs. We take into account community interests when we determine the material themes that are linked to the UN SDGs. In turn, the SDGs are connected to our company's ambitions and are reflected in our company's 2030 sustainability targets. To date, we have worked together with more than 16 million community stakeholders globally, positively impacting their wellbeing and improving conditions in their communities and cities.

Through cooperation, we can achieve better results through the co-creation of value for society. As our internal collaboration has enabled a wide variety of projects to thrive, our more than 500 partnerships and strategic alliances worldwide have proven a key success factor in multiplying our

positive impact on society. These collaborative alliances have enabled joint projects, best practices documentation, and pilots of socially innovative solutions throughout different lines of action: resiliency, environment, education, social integration, health, women's economic empowerment in the communities, development of employability capabilities for youth and people in vulnerable situations in the communities, inclusive businesses, affordable housing, volunteering, and CEMEX Foundation activities.

Our capacity to develop and continually strengthen partnerships is key to our ability to face daily societal challenges and transform them into business opportunities that generate positive long-lasting impact.

Accordingly, in 2019, we will continue to strengthen our community engagement plans, enhance our stakeholders' experience, partner with academia, civil society, the private sector, and government to continue contributing to the UN SDGs. Our leadership on the UN Global Compact in Mexico encourages more companies to partner, contribute, and explore business opportunities, while reducing negative impacts. We will continue to partner with our global alliances to foster our communities' transformation, share globally scalable and replicable best practices, and work together for a more sustainable future.



**+18,700
PEOPLE**

CHILDREN AND YOUTH participated in cultural and sports academies

RESPONSIBLE PRACTICES ALIGNED WITH COMMUNITY INVESTMENT PILLARS

In 2018, we continued to strengthen our CSR global network and collaborated cross-functionally with more than 1,200 employees to turn challenges into opportunities and to facilitate best practice sharing.

Through our four community investment pillars—which contribute directly to the UN SDGs—we activate local actions that contribute to the transformation of communities globally and create shared value via our CEPs:



1. Education and Development of Capabilities for Employability

Education is key to facing current and future challenges. Hence, we seek to develop skills and capabilities that foster employability—strengthening both technical and soft skills—and, thus, ensure sustainable communities. As a

result, we foster more self-sufficient and empowered communities. By increasing the number of youth and adults who have access to relevant skills, including technical and vocational skills, we contribute directly to SDG 4.

We support different education initiatives—from formal education scholarships to development of capabilities for employability—and foster education within our communities to create awareness on cultural topics such as youth employability, women's economic empowerment, and urban mobility. We are also committed to the wellbeing of our neighboring communities' by providing health campaigns, whenever access to such services is unavailable, and promoting healthy lifestyles for youth through sports programs that prevent violence and address children and youth in vulnerable situations. By collaborating with government, community, and civil society, we have supported 28 sports academies in Mexico, Egypt, Spain, Colombia, Costa Rica, Panama, and Nicaragua.

Community Centers

A significant part of our efforts is concentrated on Community Centers, which offer a wide variety of courses to develop the skills and capabilities to foster sustainable communities. Our Social Integration programs, including football academies and integral development courses, further empower

PROMOTING AN INCLUSIVE CULTURE IN SCHOOLS IN MEXICO

In Mexico, our Inclusive Schools Program promotes the implementation of sustainable, self-managed, inclusive, safe, and adaptable schools. These schools offer an example of sustainable public schools for the country, acting as social agents of change. The program creates a positive impact through various initiatives in the areas of education, quality infrastructure, urban safety, community development, environment, technology, accessibility, and ethics.

Beginning with basics such as infrastructure, we are changing paradigms by integrating a culture of inclusiveness into the schools' philosophies. To date, under this program, actions were carried out at six educational centers in the state of Nuevo León, in Mexico, benefiting 2,500 people. Also, support programs and infrastructure works are in progress at four schools. Moreover, infrastructure projects have been successfully completed at two sites. During December 2018, the program launched a call under the central concept of total accessibility, through which educational institutions will develop projects to adapt accessible routes on their campuses. With more than 30 schools responding to this call, led by our global headquarters, we look to replicate this program globally.



**2,500
PEOPLE**

BENEFITED WITH OUR INCLUSIVE SCHOOL program at six educational centers in Nuevo León Mexico

different groups such as youth and women. To date, we have 20 Community Centers that offer more than 1,700 workshops to over 285,000 annual participants in Panama, Puerto Rico, Costa Rica, Colombia, and Mexico.

Under the Framework Cooperation and Technical Assistance Agreement between our company and Panama's National Vocational Training Institute and Training for Development Human (INADEH), we create spaces where knowledge and empowerment are shared to drive the population's development. Operating for two years at our Community Development Center, 745 members participated in this program's courses during 2018. Course participants were awarded certificates in areas such as gastronomy, office automation, beauty, English, business management, civil construction, electricity, and plumbing, among others. By providing certification for vocational and employment skills, we foster vulnerable populations' access to decent jobs and entrepreneurship, contributing directly to SDG 4.

Youth Employability and Entrepreneurial Skills

Through New Employment Opportunities (NEO), a multi-stakeholder alliance involving government, civil society, academia, and the private sector, we offer employment and training opportunities to close the gap between youth's skills and employer demands for a qualified workforce in Latin America and the Caribbean—providing high-impact, market-relevant training and services to disadvantaged youth and mobilizing companies' support. As a NEO leader and member, we work to generate and strengthen employment opportunities for young people between the ages of 18 and 29 through scholarships, guidance, and employment training. Among our initiatives, we reinforce the quality of upper secondary technical education programs, including comprehensive courses and workshops in



SUPPORTING SAFE SCHOOLS IN THE DOMINICAN REPUBLIC

With the support of the Ministry of Education, our Safe School program in the Dominican Republic grants certification to educational centers that develop actions to foster a safe education and implement improvements to schools' and their communities' safe conditions. Designed to promote safety in schools' daily lives, our Safe School program follows our corporate value of pursuing safety and helping the most vulnerable populations through our company's most valuable safety and disaster response practices. This program seeks to strengthen the resilience and response capacities of schools in communities neighboring our production plants by promoting safe practices in schools and preparing them for vulnerable situations, contributing directly to SDG 11.



TEACHING SUSTAINABILITY TO STUDENTS IN POLAND

As part of our community activity programs in municipalities neighboring our Chelm and Rudniki cement plants in Poland, for the first time, we organized the Sustainability Academy for students. The academy's objective is to educate young people on subjects related to a circular economy and alternative fuels. Through modules conducted in the form of group activities, games, and presentations, students learn about theoretical and practical issues concerning sustainability, the UN SDGs, the circular economy, the importance of alternative fuel use in cement production, and the cement production process by visiting our plants.

soft skills such as resilience, teamwork, and communication. We also provide guidance and employment services to graduates of the programs. In Mexico, together with our local partnerships, NEO positively impacted almost 40,000 young people in 2018. Through our participation in the Global Alliance for Youth, we made a commitment to help more than 65,000 by 2022. By supporting employment opportunities, we contribute directly to SDG 8.

Women's Economic Empowerment

Our Community Diversity and Inclusion Strategy fosters women's economic empowerment through education and capabilities development, enabling them to become agents of social change within their families and communities through four pillars:

- 1 Self Esteem
- 2 Education
- 3 Development of Technical Capabilities
- 4 Development of Entrepreneurship and Employability Capabilities

We foster social conditions that provide opportunities for women and girls by developing the technical and leadership capabilities to empower them economically—either through employment or the development of their own business, thus contributing directly to SDG 5.



PROMOTING WOMEN'S INTEGRAL DEVELOPMENT THROUGH ANSPAC

By sharing the importance of values, capacity building, and entrepreneurial tools, we promote the integral development of women through the ANSPAC program in Latin America. In 2018, more than 2,100 women benefited from this program's workshops.

In Panama alone, we have operated this program for 10 years—which is currently comprised of four groups: beauty, pastry, embroidery, and crafts. In 2018, 90 women from different communities received their certificates of participation in the ANSPAC program's courses. In addition to values-based training for their integral growth, they enhanced their personal skills and acquired useful life tools.

PARTNERING WITH THE OEA TO ECONOMICALLY EMPOWER WOMEN

Through our partnership with the Organization of American States (OEA) and the Trust for the Americas, we continued to develop economically empowering entrepreneurship and soft skill capabilities in women via VIVE (Ven, Inspírate y Vende).

In 2018, we trained 227 women through our Community Centers in Mexico.



2. Sustainable and Resilient Infrastructure and Mobility

With the firm objective of contributing to improve the livelihoods of the cities or communities immediately surrounding our operations, we have developed self-sustaining business models in the construction industry. Through these models, we support society by building durable infrastructure that contributes to the resilience of our communities and society. We further bring together our communities and local authorities to tackle critical social issues such as credit, housing, employment, basic services, resilient infrastructure, and public spaces.

Resiliency and Urban Transformation Strategy

We foster the sustainable development of our communities by making them more resilient, safe, and committed to the environment. Through our Resiliency and Urban Transformation Strategy, we transfer our knowledge of how to promote a culture of prevention, as well as how to act upon a natural disaster. This is enhanced through our participation in the Global Board of UNISDR Private Sector Alliance for Disaster Resilient Societies, as well as our leadership in the ARISE national network. Through our leadership, we have mobilized more than 150 companies in Mexico to support the implementation of the Sendai Framework for Disaster Risk Reduction, the global blueprint for reducing disaster losses. Moreover, through our reconstruction education programs in Guatemala, the Philippines, Trinidad and Tobago, Puerto Rico, and Mexico, we have benefited more than 8,100 people, rebuilding two roads and 113 houses, enabling 11 relief centers, and contributing 170 tons of aid, while helping out with heavy machinery, mini-light plants, and emergency equipment

PROVIDING COMPREHENSIVE NATURAL DISASTER RECOVERY IN MEXICO

Our integral reconstruction project is working through the four phases of the natural disaster recovery cycle—immediate response, recovery, mitigation, and preparation—to provide adequate housing for 62 families affected by the 2017 earthquake in Oaxaca, Mexico.

Overall, the project aims to:

- **RECOVER** their physical space through Construyo Contigo
- **PROVIDE** psychosocial support to all of the families in partnership with a local university
- **SPREAD** construction skills in the region for proper home expansion through Yo Construyo
- **RESTORE** key public spaces that promote the population's wellbeing
- **PREPARE** the population on civil protection issues to better face future events in partnership with Civil Protection
- **FACILITATE AND ENHANCE** existing production projects in partnership with local communities and associations



62
HOMES BUILT

138
INTERVENTION SESSIONS
AND COMMUNITY
WORKSHOPS

397
PEOPLE POSITIVELY
IMPACTED



FACILITATING NORTHERN MEXICO'S URBAN TRANSFORMATION

As part of our Urban Transformation Strategy, we support the urban polygons upgrade into more resilient, safe, inclusive and sustainable communities, thus promoting the breaking of the intergenerational chain of poverty and enhancing stakeholders' experience. Our seven strategic pillars—social peace and security, social inclusion, urban inclusion, housing, economic inclusion, education, and health—are part of this strategy.

In the "La Campana" neighborhood of Nuevo Leon, Mexico, we have seen the local transformation, and how residents develop the ability to prevent and recover from adverse situations by working together to strengthen their communities' resiliency and social foundations.



Growing Platform

Our culture of innovation—together with the crucial support of our senior management—has led us to design new products and services, including some that address social and environmental challenges. To date, we have replicated some of our affordable housing initiatives, including Patrimonio Hoy, Productive Centers for Self-Employment, and Clean Cook Stoves, in Mexico, Colombia, Costa Rica, and Guatemala through our Growing Platform.

Our Growing Platform is comprised of shared value projects across Latin America: Patrimonio Hoy, Construyo Contigo, ConstruApoyo, Yo Construyo, and Clean Cook Stoves. This platform addresses the main problems inherent to poverty and inequality in vulnerable communities, such as housing, land ownership, access to basic services, unemployment, and financial inclusion through micro credits. Community programs are strengthened through our collaboration with local authorities, academic institutions, and non-governmental organizations (NGOs). Through the new jobs created under our Growing Platform initiatives, as well as the cost savings that result from access to affordable housing and services, we directly reduce the proportion of men, women, and children of all ages living in poverty in all of its dimensions, contributing directly to SDG 1 and 11.

Patrimonio Hoy tackles the lack of affordable housing in low-income communities, enabling those with low startup capital and income to afford high-quality materials and technical assistance, contributing directly to SDG 11. Participants gain access to our company's network of contractors, support with land ownership, a micro-credit loan with a customized financial plan, and reduce the time and cost of building a home by 30%. The program is currently present in Mexico, Costa Rica, Colombia, the Dominican Republic, and Nicaragua. Its ultimate goal is to foster home safety and quality, while positively impacting partners' health, wealth, and education.

CONSTRUYO CONTIGO is a flexible business model that brings our building products and solutions to low-income families who live in sub-standard housing and require a partial subsidy and/or micro-loan in order to make home improvements or build new homes. It reduces the construction time to build a 44-m² house from 15 years to three to six months and develops skills that enable homeowners to upgrade their homes. Through partnerships with governments, our Centers for Self-Employment enables them to receive technical assistance and training regarding the production of building materials, including concrete blocks that they can use to expand their homes. This program promotes job creation and self-employment.



YO CONSTRUYO is a commercial and capability-building strategy that increases demand for our products by developing potential construction workers and masons' technical and entrepreneurial skills to foster housing upgrades and construction. It promotes high-quality and cost-effective building, as well as the use of sustainable criteria, including energy saving and affordable green technologies. Participants become new customers as they improve their homes and provide services to others.



2.9 MILLION
PEOPLE POSITIVELY IMPACTED SINCE 1998

~75,000
PEOPLE PARTICIPATED IN THE PROGRAM IN 2018

4.6 MILLION
SQUARE METERS BUILT CUMULATIVELY TO DATE

65,000
FAMILIES PARTICIPATED IN PRODUCTIVE CENTERS FOR SELF-EMPLOYMENT CUMULATIVELY TO DATE

+274,000
INDIVIDUALS BENEFITED FROM PRODUCTIVE CENTERS FOR SELF-EMPLOYMENT CUMULATIVELY TO DATE

1,400
GRADUATES OF THE PROGRAM TO DATE

CONSTRUAPOYO is an inclusive business that enables micro finance entities and distributors from our value chain to offer financial solutions to DIY (do it yourself) homeowners, so they can acquire construction materials to improve their homes. ConstruApoyo utilizes flexible technology that allows other entities, such as private companies and governments, to provide funding for upgrading housing, including relief projects, and to deliver building materials clearly and efficiently.

+38,500

FAMILIES PARTICIPATED IN THE PROGRAM CUMULATIVELY TO DATE

+184,000

INDIVIDUALS POSITIVELY IMPACTED BY THE PROGRAM CUMULATIVELY TO DATE



CLEAN COOK STOVES is a business model that enables our company and social entrepreneurs to reach new markets with cleaner, healthier cooking solutions through the production and commercialization of concrete cook stoves. By partnering with Microfinance Institutions (MFIs), government, and local women's groups, we have reached almost 23,000 households. The implementation of Clean Cook Stoves has not only mitigated 560,000 tons of CO₂, but also improved families' quality of life—saving time in the collection of firewood and cooking and reducing the risk of lung diseases, eye infections, and burns by open stoves.

During 2018, we installed 3,000 ecological stoves in 135 communities in the State of Quintana Roo, Mexico, while providing more than 10 awareness workshops for the adoption of these stoves. We reached more than 13,000 community partners by the end of the year.

~23,000

HOMES WITH CLEAN COOK STOVES TO DATE

3. Social Innovation and Environmental Entrepreneurship

We provide sustainable solutions to address social and environmental issues by providing support and promoting or otherwise contributing to organizations and activities that focus on creating disruptive ideas. Our social innovation and shared value creation position us as a benchmark in responsible business. By investing in productive activities, entrepreneurship, and innovation, we encourage the creation and growth of micro, small, and medium-sized enterprises, contributing directly to SDG 8.

CEMEX-Tec Center for Sustainable Development

Since its foundation in Mexico in 2010, the goal of the CEMEX-Tec Center for Sustainable Communities is to promote sustainable communities through applied research, innovation, and entrepreneurship programs, creating opportunities for collaboration with academia, civil society, and the public and private sectors in order to raise the quality of life in rural and urban environments.

The Center consists of several multi-sectoral programs:



1 KNOWLEDGE TRANSFER PROGRAMS:

The Center fosters self-employment in the construction field and promotes local networks for the generation of environmental initiatives. For example, Yo Emprendo aims to professionalize the workforce through skilled construction workers, promote the formality of the sector, and raise the quality of construction in the country.

2 RESEARCH AND CONSULTING:

By conducting Social Baseline Studies, we evaluate the sustainability of communities surrounding our operations, and we look to improve urban and rural areas access to safe, affordable, accessible and sustainable services, while helping them to become more resilient and self-sufficient, contributing

directly to SDG 11. Through these studies, a multidisciplinary group of researchers from the CEMEX-Tec Center for the Development of Sustainable Communities generate applied research and models that allow for the reconfiguration of urban and rural areas, creating proposals for the improvement of communities with a sustainable vision, involving the inhabitants of the study areas in this process. So far, the Center has conducted 16 studies of the environment in communities surrounding our company's plants in Mexico, Colombia, Costa Rica, and Panama. Based on these studies, we continue our permanent stakeholder dialogues, defining processes that can impact our communities and offering input for our CEPs.

3 PARTNERSHIPS FOR SUSTAINABLE DEVELOPMENT: Through an active membership in RedEAmérica, the Center develops partnerships that make a positive impact on public and private sector sustainable development. Founded in 2002 with the support of the Inter-American Foundation (IAF), RedEAmérica is a thematic network comprised of more than 80 companies and corporate foundations that promote sustainable communities in 14 countries of Latin America. The network has invested in coaching and micro financing for more than 200 projects that have indirectly benefited more than 45,000 people and over 400 organizations in Latin America and the Caribbean. Led by Red SumARSE in Mexico, we are partnering to achieve our goals through more than 30 alliances worldwide with innovative institutions such as Ashoka, MassChallenge, BlueBox Ventures, and Makesense.

Through the CEMEX-Tec Award, we help to establish and support new micro, small, and medium enterprises (MSMEs) through training, financing, and networking, contributing directly to SDG 8. The CEMEX-TEC Award annually recognizes entrepreneurs and students who develop high-impact proposals and projects that foster sustainable development, innovation, and entrepreneurship. The Award offers funding, specialized workshops, and networking opportunities. In 2018, we expanded its scope globally; to date, we have 2,300 projects participating from 32 different countries. In 2019, in addition to the Transforming Communities and Social Entrepreneurs categories, we will launch two new categories: Community Entrepreneurship and Collaborative Action.



GRI 102-43



STRENGTHENING LOCAL ENTREPRENEURSHIP WHILE PROTECTING BEES

Bees are crucial for protecting our earth's and our quarries' biodiversity. With this in mind, a local beekeeper is managing his 10 bee colonies at our quarry site in Rüdersdorf, Germany, for the robinia blossom. To foster this entrepreneurial enterprise, we designed and developed glasses and branded the natural honey in order to offer it internally and donate it for all kinds of events. We will use the revenue generated from approximately 400 glasses of this organic honey for further environmental projects in Rüdersdorf.

This initiative not only conserves and protects bees, but also supports productive business activities and job creation, contributing directly to SDG 8 and 15.

FOSTERING ENTREPRENEURSHIP IN COSTA RICA AND COLOMBIA

The Rural Business Entrepreneurs program provides the necessary tools to rural entrepreneurs in Costa Rica to commercially sell their products directly to markets with greater potential. This program achieves its goal through collaborative efforts between central and local government, academia, media, and private enterprises. It boosts local economies and generates a positive social impact in less developed areas of the country by increasing the income of small producers, generating employment, empowering vulnerable groups, fostering direct marketing, and creating access to formal markets. In 2018, this program supported 12 rural businesses, with 200 entrepreneurs registered for the program. Local businesses produce and sell local products—from coffee to honey and bread—outside of the community and across the country. Consequently, this program has positively impacted local social entrepreneurs' economic wellbeing and sustainable growth.

The Entrepreneurship Facilitation program supports and strengthens local ventures in Payande, Colombia. Focused on people, teamwork, and the creation of value networks, this program empowers entrepreneurs as the main protagonists in their own development. The program consists of five differentiators:

- > NETWORKING WITH CLIENTS AND RESOURCES
- > MOTIVATIONAL, DEVELOPING LEADERSHIP AND INTERPERSONAL SKILLS
- > PERSONAL, CUSTOM-MADE FOR EVERY ENTREPRENEUR AT NO COST TO THEM
- > ENTERPRISE FACILITATION COMMITTEE, A MENTORING COMMITTEE OF EXPERTS AND PEOPLE FROM THE COMMUNITY
- > FACILITATOR, AN ENTREPRENEUR'S TUTOR THAT PROVIDES FOLLOW-UP AND FEEDBACK

During 2018, this program supported a total of 122 entrepreneurship, enabling them to increase their sales by 70% after participating in the program, while 90% met new potential clients. Moreover, by offering training, financing, and links to the supply chain through our entrepreneurship initiatives, more than 100 MSMEs achieved significant increases in revenue and employment generation.

4. Culture of Environmental Protection, Health, and Safety

To achieve a more sustainable environment, we promote a responsible use of resources, encourage a proactive attitude to diversity conservation and restoration, and reinforce a culture of health and safety. With our employees and community partners, we create awareness and foster a culture of environmental protection, health, and safety, which is key to the sustainable implementation of our initiatives.

By partnering with other organizations to protect and restore endangered areas, we take significant action to reduce the degradation of natural habitats, halt the loss of biodiversity, and protect and prevent the extinction of threatened species.

In Mexico, the Community Environmental Restoration Program seeks to train young people as environmental promoters and leaders within their communities—who can develop projects for environmental restoration and improvement. To date, more than 1,200 young leaders have received training as environmental promoters, and eight active groups work within our operations.

Fostering integral rural development

Our Integral Program for Rural Development fosters and protects local flora and fauna that contribute to the preservation of endangered species such as the Mexican wolf. This program also

ENABLING WASTE REDUCTION IN EGYPT

Our garbage collection project serves the village of Mankabad in Egypt's Assiut governorate. Because the government's garbage trucks cannot access the village's very narrow roads, we fund the rental of tractors to accomplish necessary collection. We expect the availability of proper personal protective equipment for employees responsible for collection, transportation to dump sites, and garbage sorting. We also fund the transportation of waste to recycling plants, from which we purchase refuse-derived fuel for our plant. By implementing circular business models, we substantially reduce waste generation through prevention, reduction, recycling, and reuse, contributing directly to SDG 12.

ENCOURAGING ENVIRONMENTAL AWARENESS AMONG CHILDREN IN SPAIN

At our Buñol plant in Spain, we inaugurated a Practical Space for Agricultural and Forestry Techniques, where approximately 40 students from a local institute carry out training practices. The trees and vegetation grown at this facility contributes to the rehabilitation of our quarries and the reforestation of public spaces where we operate. By integrating ecosystem and biodiversity values into our youth educational programs, we contribute directly to SDG 15. Similarly, in collaboration with the environmental group GADMA and the CEMEX Foundation, we enabled 350 schoolchildren from municipalities near our cement plant in Lloseta, Spain, to discover and respect the environmental and cultural wealth of the Cabrera Archipelago under the "Cabrera Archipelago, A Natural Paradise" environmental education campaign.



generates employment opportunities through entrepreneurial projects that create handmade products such as apple jam, which was recently introduced for sale to local markets. By partnering with other organizations to protect and restore endangered areas,



we take significant action to reduce the degradation of natural habitats, halt the loss of biodiversity, and protect and prevent the extinction of threatened species, contributing directly to SDG 15.

Through our Health, Safety & Preparedness program in the Philippines, we hold disaster preparedness sessions for community members. We further donate medical equipment for the community's health center. By building the resilience of those in vulnerable situations, we reduce their exposure and vulnerability to disasters,

1,200 YOUNG LEADERS HAVE RECEIVED training as environmental promoters

WORKING TOGETHER TO ENHANCE ROAD SAFETY

Consistent with our culture of health and safety, we continually engage with communities, organizations, and industry actors to enhance road safety for all users. From awareness raising initiatives for cyclists and pedestrians to our collaborative educational efforts, we strive to make streets a safe place for cyclists, motorcyclists, drivers, pedestrians, and other vulnerable road users.

One of our main goals is to increase road safety awareness through education. This year, more than 3,500 cyclists and pedestrians attended our Exchanging Places safety events around the world, climbing aboard our trucks to appreciate what is visible from our drivers' perspective. Through targeted campaigns and action plans across our countries of operation, we aim to prevent incidents by educating all relevant parties, enabling them to understand each other's point of view.

We focus on collaboration with communities, organizations, industry actors, and safety experts to improve road safety. In France, Mexico, Spain, and many other

operations, we work hand in hand with community authorities, politicians, and associations to promote understanding, peaceful coexistence, and respect on the road.

➤ **IN MEXICO**, through 20,000 community members, Mission Zero strategic initiative provides interventions for unsafe roads, training for public servants and the general public on mobility issues, and a communication strategy to raise society's general awareness.

➤ **IN THE CZECH REPUBLIC**, we provided practical road safety training to first- and second-year pupils at the local elementary school in Prachovice. Through this training session, we showed children how the driver of a big truck sees the road and the pedestrian zone, talked to pupils about the risks of irresponsible behavior on the street, and demonstrated ways to reduce those risks.

[To learn more about our efforts to improve road safety, please read page 40 of Our People section >](#)

contributing directly to SDG 3. Additionally, our recently launched TSEK waste segregation program teaches household members how to segregate waste. By creating awareness of a product's lifecycle, including sorting for recycling or reusing waste, we contribute directly to SDG 12.

We encourage healthy lives and promote wellbeing in the communities, by fostering activities that promote good health and safety. In Croatia, we encourage positive employee teamwork and healthy lifestyles through our participation in Croatia's National Race to Promote Healthcare. In the United States, we also promote employee engagement and health safety through a race. Moreover, we awarded funding for the construction of a mini-football field at the Broceni secondary school in Latvia, which officially opened on December 5, 2018. In the Alcanar Plant in Spain, for three years now, an employee suggested a cycling race for employees and families, it has been a success and engages employees in activities that contribute to their own health and well-being.

Under our alliance with the National Association for the Conservation of Nature (ANCON) and Prisma and ACOCHA community organizations, our Biodiversity Action Plan (BAP) in Panama protects and conserves our quarries' biological diversity. Accord-

+3,500

CYCLISTS AND PEDESTRIANS attended our Exchanging Places safety events around the world

ing to our BAP and consistent with our commitment to environmental sustainability, we are undertaking the first project in the country focused on the ecological restoration of an experimental plot that benefits 40 families from communities close to our operation. By fostering land remediation and rehabilitation, habitat protection and restoration, and biodiversity protection on our operational sites, while working with relevant public and private stakeholders to promote ecosystem conservation, we contribute directly to SDG 15.



+320

VOLUNTEER ACTIVITIES

+4,600

EMPLOYEES PARTICIPATING

+29,000

EMPLOYEE HOURS DEDICATED TO VOLUNTEERING

CLOSE TO

128,000

TOTAL NUMBER OF PLANTS DONATED THROUGH OUR NURSERY GARDENS

+32,000

TOTAL NUMBER OF TREES PLANTED THROUGH VOLUNTEER PROGRAMS



VOLUNTEERS ACT AS GLOBAL AGENTS OF CHANGE

Through our strategic global volunteer program—CEMEX Volunteers—we provide the means for all of our employees to participate in opportunities to address challenges that better our communities and the world. Part of our responsible and sustainable business culture, this program aligns our employees' volunteer activities with our company's business strategy while promoting the creation of shared value, a core aim of our stakeholder engagement. We encourage our employees to get involved with both skilled and hands-on volunteer projects, as facilitators of local efforts, that contribute to the community and their own wellbeing. We also hold periodic meetings with neighbors, schools, NGOs, governments, and employees to listen to them and address common topics.

In the UK, our employees keep lending-a-hand to the community through their volunteer activities, benefiting both our employees and our communities' quality of life and wellbeing. Employees dedicate from one day to longer-term support to help neighboring communities by working with local institutions such as schools or new startups. In 2018, our cement commercial and aggregates team worked as One CEMEX to attach three fence rails to preinstalled posts over a staggering 350 meters of a fence.

Through our Hands On Program, more than 660 of our employees participated in over 50 events in Mexico, positively impacting our communities through reforestation activities and road safety initiatives. Moreover, in Israel, we volunteer in the community during Good Deeds Day, including

visits to hospitals and painting public buildings.

During 2018, we earned seven awards for our company's positive social impact initiatives. We also continue to participate on more than 20 boards of international organizations, NGOs, and academia. We further shared and replicated more than 40 of our organization's most innovative practices globally, while collaborating with external partners to more positively impact and contribute to the 2030 UN SDG targets.

In 2019, we will continue to strengthen our community engagement plans, enhance our stakeholders' experience, and partner with academia, civil society, the private sector, and government to continue contributing to the UN SDGs. Our leadership on the UN Global Compact in Mexico will encourage more companies to partner, contribute, and explore business opportunities, while reducing negative impacts. Importantly, we expect to continue to partner with our more than 500 global alliances to foster our communities' transformation, share globally scalable and replicable best practices, and work together for a more sustainable future.



Responsible Suppliers

At CEMEX, our relationship with our suppliers is integral to our ultimate objective of serving our customers' needs—achieving a superior customer experience—and creating value for all of our stakeholders.

LINK TO PRIORITY SDGS



We closely cooperate with our supply chain to foster our continuous innovation and implement the most sustainable techniques in our day-to-day operations. Consequently, we look to create a culture of communication that reflects the best relationship with our suppliers, while working towards our company's objectives. These efforts support our five priority SDGs.

BUILDING STRONG RELATIONSHIPS WITH OUR SUPPLIERS

Our worldwide Procurement Model is designed to ensure a standard way of managing our company's supplier network through a uniform strategic sourcing process at country, regional, and global levels in order to:

- › Guarantee our operations' continuity by sourcing quality goods and services.
- › Utilize a replicable set of standard global policies, processes, and tools for our supply planning, negotiations, purchasing, and inventory management functions.
- › Capitalize our knowledge and best practice sharing.

Under this model, we aim to build strong relationships across our network of suppliers as we acquire the goods and services our company needs to operate, leveraging the knowledge and expertise of our team at the local, regional, and global level to perform efficiently and effectively. At the same time, we capture economies of scale from our negotiations through such efforts as our Low-Cost Countries initiative, that manages our strategic supplier relationships to achieve the best cost/benefit from our sources of supply by certifying suppliers and contractors in key areas.

Our commitment to our values goes beyond our own activities. We continually work to engage and align our suppliers with our core values, including our enduring emphasis on health and safety, our unwavering pursuit of excellence, and our steadfast focus on integrity. We further integrate sustainability into our supplier engagement and procurement processes, while taking account of local and diverse suppliers. Aligned with our company's principles, policies, and values, we are committed to ensuring our suppliers compliance with CEMEX Code of Ethics and Business Conduct and Suppliers Code of Conduct.

SUPPLIERS CODE OF CONDUCT WHEN DOING BUSINESS WITH US

Our company's success depends on supplier relationships that are built on trust and mutual benefit. Accordingly, we expect to manage our supplier relationships with honesty, respect, and integrity, offering equal opportunities to all concerned parties. When doing business with us, we expect our suppliers to honor our Suppliers Code of Conduct's 10 principles:

- 1 Encourage suppliers to adhere to high ethical standards and practices
- 2 Seek equality and fairness in supplier relations
- 3 Honor contracts and proprietorship, obeying the law, and complying with regulations
- 4 Comply with all anti-bribery laws
- 5 Maintain standard business practices related to gifts, services, and other courtesies
- 6 Ensure basic labor conditions
- 7 Generate environmental and biodiversity engagement
- 8 Promote high priority on health and safety
- 9 Enhance diversity and equality
- 10 Strengthen human rights

Our Suppliers Code of Conduct is available in two different languages. Please visit cemex.com to learn more >>

SUPPLIERS' HEALTH & SAFETY AS A TOP PRIORITY

At CEMEX, we are committed to the health and safety of our employees, suppliers, and partners as a top priority. For us, zero injuries and zero fatalities are more than a goal; they are a moral mandate.

In addition to our Supplier Sustainability Program, our Contractor Health & Safety Certification Program is designed to have contractors that come into our facilities possess a valid certification. Certification requires liability policies, risk premiums, security manuals, and accreditations, among other requirements. Valid for one year, certification pursues that contractors know the safety procedures and keep safe while working with us.

Starting in 2018, we committed to evaluate, through a third-party organization that specializes in the evaluation of health and safety practices, at least 80% of our company's procurement contractors' spend. Thus far, we achieved certification of more than 4,700 contractors with access to our operations' facilities in which they could be exposed to risks while performing their activities.

SUPPLIER SUSTAINABILITY ENGAGEMENT PROGRESS

- 2009
 - > Identification of best practices in CEMEX countries
 - > Program validated by Corporate Sustainability
- 2010
 - > Launched Supplier Sustainability Program
 - > Joined the UN Global Compact Advisory Group on Supply Chain Sustainability
- 2011
 - > Implemented "Code of Conduct when Doing Business with Us"
- 2013
 - > Pilot suppliers evaluated by a third party on Corporate Social Responsibility maturity
 - > Joined the Cement Sustainability Initiative's (CSI) Supply Chain
- 2014
 - > Established global contract with a specialized company to evaluate suppliers' sustainability practices
 - > Defined a 2020 global target to assess 55% of procurement spend
- 2015
 - > 250 suppliers invited to participate in assessment
 - > Evaluation of suppliers covered 8% of target spend
- 2016
 - > Evaluation of suppliers covered 17% of target spend
 - > Monitored yearly objectives
- 2017
 - > Evaluation of suppliers covered 25% of target spend
- 2018
 - > Definition of 2030 ambition to assess 80% of our spend on critical suppliers with sustainability criteria



ENGAGING OUR SUPPLIERS

We believe that fostering sustainable practices and innovation alongside our suppliers is fundamental: a win-win process that promotes continuous improvement for our supply chain, benefiting both CEMEX and our suppliers.

Through various programs and processes, we engage suppliers and recognize their contribution to our business by maintaining sustainable practices and by delivering profitable and innovative solutions and services to our company and our customers.

90%
OF THE PURCHASES IN 2018 were sourced by locally-based suppliers

EXTENDING OUR SUSTAINABILITY COMMITMENT TO OUR SUPPLIERS

Since 2010, our Supplier Sustainability Program has made an extensive commitment to sustainability across our value chain—communicating and promoting responsible practices. Under



this program, this year we assessed 1,066 suppliers who are key business partners within our company’s procurement and energy spend.

A third-party evaluator performs this assessment based on ISO 26000—covering social, environmental, health and safety (H&S), business ethics, stakeholder relationships, and financial performance standards. After our suppliers are evaluated, the specialized third-

party firm analyses the information provided, prepares a consolidated report, including findings and conclusions from the assessment and identified opportunity areas, and proposes an action plan to close the gaps. This evaluation is periodically updated, and suppliers are expected to continuously improve their score. This grade is integrated into the supplier’s scorecard to track and reward suppliers that demonstrate advanced sustainability practices.

We constantly learn from our suppliers and partners, gaining knowledge and experience from their sustainability practices. We’ve made improvements to our Supplier Sustainability Program based on these relevant insights, and, with this in mind, we have also defined new 2030 goals for this program.

As part of our Sustainability 2030 Ambitions, we have decided to refine our former supplier assessment focus. Our new plan is to assess at least 80% of the critical suppliers spend under our company’s global procurement scope. By critical we refer to those business partners who can have significant impact on our three core businesses (cement, ready-mix concrete, and aggregates). Specifically, this involves those who could affect the continuity of our operations, involve environmental risks, and/or contribute the highest spend.

Additionally, we will continue to reinforce our expectations of sustainability by including Human Rights, Labor, Antitrust, and Sustainability clauses in our contracts and purchase orders. We are also fully committed to ensuring that 100% of our procurement suppliers comply with our Suppliers Code of Conduct When Doing Business With Us.

Every year, we recognize our best-performing suppliers of the Supplier Sustainability Program. For 2018, we acknowledged the following companies for their outstanding performance and high level of engagement with their sustainability practices:



Enel Fortuna S.A. (Panama)



Maquinaria y Tractores Ltda (Costa Rica)



Kao Chemicals GmbH (Germany)

Promoting Our Suppliers’ Innovation
At CEMEX, we recognize that our performance is dependent on our ability to partner with suppliers that share our passion for excellence. Fostering innovation alongside our suppliers is fundamental. It is a win-win process that promotes continuous improvement for our supply chain, benefiting both our company and our suppliers.

Through our Supplier of the Year Program, we recognize suppliers for their contribution to our business by delivering profitable and innovative solutions and services to our company and our customers.

During 2018, we established two editions of this program: Global Procurement and Procurement Croatia. We recognized suppliers for their outstanding results in several categories: Health and Safety, Sustainability, Applied Innovation, Customer Focus, and The Supplier of the Year Award—which is granted to a supplier that excels and achieves outstanding performance in more than at least one of the previous four categories.

Supplier of the Year – Global Procurement 2018 Edition

> Supplier of the year:

Volvo CE/SDLG (Sweden / China)

> Health & Safety:

Volvo CE (Sweden)

> Sustainability:

Kao Chemicals (Japan / Germany)

> Applied Innovation:

BillerudKorsnäs (Sweden)

> Customer Focus:

RHI Magnesita (Austria)

Supplier of the Year – Procurement Croatia 2018 Edition

> Health & Safety:

Wiena Grupa d.o.o. (Croatia)

> Supplier of the Year/Small Companies:

HYMAK d.o.o. (Croatia)

> Supplier of the Year/Large Companies:

Knauf d.o.o. (Germany / Croatia)

Our "INTEGRATE Your Ideas" Innovation Program encourages suppliers to share their disruptive ideas to continuously improve our products, processes, and services. In 2018, we implemented the Global Edition of our "INTEGRATE Your Ideas" Innovation Program, recognizing three global suppliers for their creative ideas that reflected process, product or service efficiencies:

Volvo (Sweden)

Idea: Competence development of machine operators with simulators

Klüber Lubrication (Germany)

Idea: First hydro lubricant for gears

Refratechnik (Germany)

Idea: Counteract knowledge loss – special training on site

INTEGRATE YOUR IDEAS

INNOVATION PROGRAM recognizes suppliers for their creative ideas



ENABLING DIGITAL PROCUREMENT

Aligned with our company's digital transformation, we promoted two digital initiatives—CEMEX Marketplace and CEMEX Supply.

CEMEX Marketplace is a digital platform that increases the visibility of vendors, products, and prices across territories and business lines, enabling our company's end users to efficiently purchase the right product at the best price. This initiative streamlines our purchasing processes, shifting from traditional procurement methods to an agile digital commercial space, providing cost savings, convenience, and collaboration for our company and our suppliers.

CEMEX Supply is a digital tool designed to serve as an industrial partner, supporting companies by supplying goods for their operations and maintenance, repair, and personal protective equipment for their employees. All of the products available on this online store undergo a thorough validation and negotiation process and aspire that they meet the highest quality and performance standards in the market. Importantly, we use these materials in all of our plants to maintain our operational excellence. Our best-selling products are tires, oils and lubricants, batteries, road safety supplies, personal protection equipment, and mixer trucks, among others.

Our Commitment to the Planet

Climate change mitigation is a top priority for our company and our planet. Urgent action is required to combat global warming and its consequences.

LINK TO PRIORITY SDGS



Through an integral sustainability strategy, we are firmly committed to reducing our environmental impact, enabling a low-carbon, resource-efficient circular economy, and working together to support the world's achievement of the Paris Agreement. All our efforts on this matter contribute to priority SDGs 8, 9, 11, 13 and 15, as well as other linking SDGs 7 and 12.

As a key input for concrete production and the most widely used construction material in the world, cement plays a fundamental role in global efforts for climate change mitigation. At the same time, the cement sector is expected to play a vital role in the expansion of the built environment and the growth of countries, especially in emerging economies. Moreover, demand for infrastructure development and urbanization is not limited to housing and buildings, but

relies on concrete to enable communities' access to clean water, sanitation, and energy services—from transportation systems to wind farms construction. Thus, the concrete and cement sectors face the need for significant expansion to support the necessary development of sustainable cities at a time when their emissions must fall fast.

We recognize this responsibility, and we are fully committed to maximize our positive contribution to society, minimize our environmental impact, contribute to a low-carbon circular



economy, and collaborate to reach the temperature goal that science necessitates in the urgent fight to control global warming's devastating consequences.

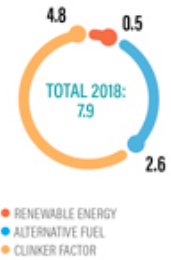
EMBRACING OUR COMMITMENT TO CLIMATE CHANGE MITIGATION

There is no single alternative or technology that will lead to the level of emissions reduction required from the cement sector as a key player in this global challenge. Only a combination of different paths can achieve substantial progress.

With this in mind, for almost two decades, CEMEX has implemented an integral carbon emissions reduction strategy across our global operations. As a result of our efforts, this year we reduced our net CO₂ emissions per ton of cementitious materials by 21.6% and avoided 7.9 million tons of CO₂ compared with our 1990 baseline. This is comparable to offsetting the carbon emissions from 1.4 million homes' electricity consumption in one year.

In 2018, CEMEX went a step further in its approach to climate change mitigation. We developed a CO₂ Reduction

AVOIDED DIRECT AND INDIRECT CO₂ EMISSIONS vs. 1990 BASELINE (million tons)



7.9 MILLION
TONS OF CO₂ EMISSIONS avoided compared to our 1990 baseline

Roadmap that was launched across all our cement sites to model and assess the carbon mitigation potential that can be seized from each installation, considering local challenges, regulations, materials supply, technical limitations, and market dynamics, among other decisive factors. This newly defined Roadmap considers five strategic levers that cover the options that are expected to enable the cement sector to strengthen its contribution to the fight against global warming:

FIRST

Energy Sourcing and Efficiency

SECOND

Fuel Mix and Raw Meal Composition

THIRD

Clinker Substitutes

FOURTH

Novel Cements

FIFTH

Carbon Capture, Storage and Utilization

EXPANDING OUR CLEAN ENERGY PORTFOLIO

Our company is committed to identify and develop energy procurement opportunities that not only contribute to carbon emission mitigation, but also represent sustainable, economically attractive sources of energy for the countries in which we operate.

Beyond our previous renewable energy agreements, in 2018, CEMEX UK expanded the scope of its 10-years partnership with ENGIE to consume 100% renewable energy. Additionally, in Mexico, we signed a long-term agreement with the Tuli-Helios solar facility that is expected to start operations in the second half of 2019. On top of our current supply from wind farms, this facility is expected to cover approximately 18% of our cement operations' power needs. Furthermore, in Spain, we entered into a long-term contract with Starkraft through Fortia for the supply of approximately 20% of our electricity requirements from renew-

able sources starting in 2019. And finally, in the Dominican Republic, we entered into a long-term contract with AES for the development of a 20 MW solar project to supply about one fourth of our electricity requirements in the country, which is expected to be operational in 2021.

As a result of our efforts to migrate to cleaner energy sources, 26% of our cement operations' power supply came from renewable projects at year-end 2018. Based on public information, we believe this makes CEMEX the company with the highest share of renewable electricity in its cement production. On top of that, we are announcing our ambition is to increase this figure to 40% by 2030.

Energy efficiency is also one of our key objectives in advancing best resource conservation practices. As a result of our partnership with Sinoma Energy Conservation Ltd., construction of a 4.5 MW Waste Heat Recovery facility at

our APO cement plant in the Philippines is underway and is expected to begin operations by 2020. Moreover, in 2018, three of our U.S. cement plants earned the EPA ENERGY STAR® Certification, recognizing their energy efficiency and sustainability efforts. Notably, our Miami, Victorville, and Brooksville South plants have ranked in the top 25% for energy conservation when compared to similar facilities for at least the past six years.

Our clean power projects and renewable energy purchase agreements include the following projects:

- › 250 MW Eurus wind farm in Mexico
- › 7 MW wind portfolio in California
- › 30 MW waste-to-energy facility in Germany
- › 30 MW plant from sugarcane bagasse in Colombia
- › 6 MW hydropower portfolio in Colombia
- › Enel Fortuna hydroelectric plant in Panama
- › 1.5 MW solar project in the Dominican Republic
- › Los Cocos wind farm in the Dominican Republic
- › 6 MW waste heat recovery facility in Solid, Philippines



CEMEX TO USE 100% RENEWABLE ELECTRICITY AT OVER 320 UK SITES IN 2019

In partnership with energy, services, and regeneration group ENGIE, we expect to consume 100% renewable electricity in over 320 of our sites in the UK in 2019. Through our extended and revamped contract with ENGIE, all of the electricity supplied to these sites will come from 100% renewable energy sources, including wind energy. Because these sources produce zero carbon emissions, this will make a significant contribution to reducing our UK operation's carbon footprint. ENGIE's renewable electricity supply is underpinned by Renewable Energy Guarantees of Origin (REGOs).

"Cement manufacturing is inherently energy-intensive, and we work hard to minimize energy consumption within process constraints. Our switch to electricity from renewable sources is playing a key role in our carbon reduction strategy."

Martin Hills
Head of Energy and Carbon, CEMEX UK



ACCELERATING RENEWABLE ENERGY DEPLOYMENT THROUGH INNOVATIVE ENERGY STORAGE

We formed a technological and commercial partnership with Energy Vault, an Idealab company, to optimize concrete and soil composite materials that form an integral part of its breakthrough energy storage solution. Innovative energy storage represents the largest, near-term opportunity to accelerate renewable energy deployment, while bringing us closer to replacing fossil fuels as the primary resource to meet growing global energy demand.

Inspired by pumped hydroelectric plants' utilization of gravity's power and water's movement to store and discharge electricity, Energy Vault's technological solution replaces water with our custom-made concrete bricks. These customized concrete bricks are combined with Energy Vault's patented system design and proprietary algorithm-based software, which calibrates energy storage and electricity charge/discharge while accounting for various factors—from power supply and demand volatility to wind and weather. Consequently, Energy Vault can deliver all of the benefits of a pumped hydroelectric system at a much lower cost with higher round trip efficiency, without the need for specific land topography or the negative environmental impacts.

Additionally, our collaboration focuses on carbon and CO₂ reduction methodologies given the role that utility-scale energy storage will now play in enabling various renewable energy technologies.

FROM WASTE TO FUEL

Waste is produced all over the world at an exponential rate due to increasing populations and urbanization. Cement production is ideal for the sustainable and safe disposal of many types of waste generated by cities and residues from other industries that cannot be recycled and can be used as a substitute for fossil-based fuels.

We have the know-how to source, process, store, and recover energy from alternative fuels responsibly. We are confident that our increasing use of co-processed residues from other sectors will further contribute to overcoming challenges such as climate change, waste management, and fossil fuel depletion—while utilizing the principles of a circular economy.

Our Alternative Fuels Strategy is one of the main pillars to achieve a Stronger CEMEX. This initiative enables us to become more independent from fossil fuels, while helping to overcome critical challenges such as climate change and waste management. Moreover, we are fostering local business creation and employment by developing alternative fuels supply chains. Our strong commitment to waste management and our migration to cleaner energy sources to displace traditional fossil fuels like petcoke and coal with low or even zero-carbon alternatives—such as municipal solid waste, tires, and biomass residues—generated very successful



results this year. After some challenging years, we continued increasing our fossil fuels substitution from 26.2% in 2017 to 27.1% in 2018—achieving our highest rate in the past four years.

Our alternative fuels substitution rate positively impacts both our company and society in many ways. In 2018, we generated fuel cost savings of US\$150 million and more than US\$30 million of additional savings thanks to avoided carbon emissions in the regulated regions where we operate. Moreover, 92% of our cement plants co-processed a total of 3.3 million tons of waste as alternative fuels, enabling the replacement of almost 2 million tons of coal. Of these plants, our cement operations with the highest share of alternative fuels included Chelm in Poland, Broceni in Latvia, Prachovice in the Czech Republic, Clinchfield in the U.S., and Rüdersdorf in Germany.

3.3
MILLION

TONS OF WASTE
were co-processed as
alternative fuel in 92%
of our plants

Although we face barriers that sometimes hinder our increased use of alternative fuels in our different operating regions—including waste availability and quality, infrastructure and logistics, co-processing regulations and permitting issues, market dynamics, economics of waste-derived alternative fuels, and technical limitations, among others—we continue to work to reach our targets, while remaining a prominent industry advocate and leading user of alternative fuels for cement production.

CARBON CAPTURE, STORAGE, AND UTILIZATION TECHNOLOGIES

In addition to those conventional levers, we actively seek to develop new technologies to reduce our carbon footprint. Notably, we are currently involved in European research projects that aim to directly or indirectly reduce our company's carbon emissions:

- **SOLPART** intends to pilot a high-temperature (950°C) 24-hour/day solar process suitable for the calcination of cement raw materials.
- **EPOS** main objective is to enable cross-sector industrial symbiosis and to provide a wide range of technological and organizational options for making business and operations more efficient, cost-effective, competitive, and sustainable.

TURNING TAR WASTE INTO FUEL IN LATVIA

In Latvia, CEMEX helped to dispose of more than 6,000 tons of tar waste per year in an environmentally friendly way. Before its use as fuel, the waste is neutralized through a pre-process that mixes it with other materials and fuels—resulting in a hard, loose, peat-like material. The ash from the fuel is further used in clinker production. After three years, we expect to convert the actual tar waste location into a green meadow.



CEMEX LAUNCHES LOW-CARBON CEMENT IN EGYPT

Our R&D team successfully developed a novel cement product with 15% to 20% less carbon emissions, a new revolution in the Egyptian cement industry. This new product uses clinker with approximately 20% natural pozzolanic material after it has been treated mechanically and chemically. Pozzolanic material also works to enhance cement and concrete properties. It further complies with applicable Egyptian and European Standard Specifications.

This innovative product can be used for all types of concrete infrastructure projects, including reinforced buildings, water tanks, roads, and any other construction that is not subject to the effects of sulfate. It can also be used for relevant construction sectors as hollow and solid blocks, tiles, and railway line concrete supports.

- **LEILAC** targets carbon capture as its main outcome by developing an indirect calciner that enables the capture of pure CO₂ as it is released from limestone.
- **GENESIS** explores the use of metallic organic frameworks to entrap CO₂ from flue gas. The CO₂ can then be stored but, in the GENESIS context, it will be fed into an algae bioreactor.
- **DESTINY** aims to employ microwave energy in clay calcination for use in low clinker cements. The target is to demonstrate the concept through a microwave-powered plant targeted to a production rate of 20 kg of calcined clay per hour.
- **eCO₂** aims to set up a CO₂ capture and conversion process using renewable electricity and water steam to directly produce fuels, targeting a CO₂ per-pass conversion of greater than 85%, energy efficiency of more than 85%, and net specific demand of less than 6 MWh/t CO₂. The demonstration phase intends to produce over 250 g of fuel per day.
- **OXYFUEL** seeks to integrate and adapt technology for capturing pure CO₂ for use according to the current cement production process and equipment.



- Additionally, led by the National Petroleum Council (NPC) in the US, we are collaborating to conduct a study to provide the Department of Energy (DOE) with advice on Carbon Capture, Use, and Storage (CCUS)

Furthermore, we are exploring alternatives to traditional clinker and cement chemistry that enable the production of less CO₂-intensive cements.

ADVANCING TOWARDS A CIRCULAR ECONOMY

Cement and concrete play a central role in the circular economy. Together with our industry, we are taking strong actions to reduce our consumption of traditional inputs in both our manufacturing process and our products use across our three core businesses.

WASTE EATER

WE CONSUMED 32 TIMES MORE WASTE than we sent for disposal in 2018

For clinker production, we are gradually switching from petcoke and coal as the main fuels in the mix to alternative fuels such as urban, industrial, and agricultural residues. We are also seizing the mineral content of waste from other industries as alternative raw materials. We are further recycling material in the cement production process by replacing part of the clinker with by-products from other industries, including fly ash and slag. Additionally, we are consuming waste and recycling material in the ready-mix concrete production process thanks to our use of cement substitutes and alternative aggregates. Importantly, concrete can be 100% recycled as alternative aggregates in the construction of transportation infrastructure or as a base for roads.

Among all of these virtuous cycles, our company's main contribution to a circular economy is our transformation of discarded materials from other industries into valuable inputs for our cement, ready-mix concrete, and aggregates production processes. This contribution leads directly to natural resource conservation.

With regard to the waste generated from our production processes, we have managed to recover, reuse, and recycle almost all of this waste with only 5% of our waste going to landfill. To minimize most of the waste generated from our processes, we maximize

our reuse of clinker kiln dust in the production loop, largely avoiding its landfill disposal.

We have actually become a "waste eater," consuming 32 times more waste than we sent for disposal in 2018. The non-recyclable by-products that we utilized from other sectors—including the power, iron, and steel industries, as well as agricultural and municipal residues—amounted to more than 13 million tons for the year, equivalent to the waste close to 50 million people generate a year. On top of that, we are committed to increase by 50% the amount of waste we seize as alternative fuels and raw materials across all of our business lines by 2030. This is clear evidence of our company's interest and significant potential contribution to alleviating the waste management challenge that cities, governments, and communities face across the globe.

ENHANCING ENVIRONMENTAL MANAGEMENT

We use CEMEX Environmental Management System (EMS) to evaluate and facilitate consistent, complete implementation of risk-based environmental management tools across our operations. CEMEX EMS consists of key mechanisms for environmental impact assessment, stakeholder engagement, and accident response based upon input from a range of environmental



and biodiversity specialists. The system meets ISO 14001 and EU Eco-Management and Audit Scheme (EMAS) certification and applies to substantially all of our business activities.

At the end of 2018, close to 90% of our operations had implemented either CEMEX EMS or equivalent programs. As we approach full implementation of our global EMS by 2020, our goal is for all of our company's facilities to be 100% compliant with our internal environmental management standards and having 100% of our cement sites ISO 14001 certified.

MANAGING OUR AIR EMISSIONS

Through our internal EMS and our Atmospheric Emissions Global Procedure, we are committed to reducing our air emissions' impact on the environment.

ENHANCING OUR ENVIRONMENTAL MANAGEMENT SYSTEM WITH ISO 14001

Our cement operations in the U.S. are committed to enhancing our Environmental Management System (EMS) through their ongoing working toward International Organization for Standardization (ISO) 14001 certification. Our alignment with ISO 14001 standards provides a framework to drive a systematic approach to environmental management in applicable day-to-day operations and decision-making, enabling our continuous improvement to achieve environmental excellence.



FIRST PLANTS IN THE U.S. AND LATIN AMERICA TO EARN CSC CERTIFICATION

Five of our ready-mix concrete plants in northern California became the first facilities of any company in the U.S. to earn responsible sourcing certification from the Concrete Sustainability Council (CSC). Moreover, our Panama Norte plant became the first ready-mix concrete facility to attain CSC certification in Latin America.

Launched in 2017 by 11 founding members—including the World Business Council for Sustainable Development, the Portland Cement Association, and CEMEX—the CSC acts as a responsible sourcing certification system, grading building materials facilities on responsible environmental, social, and governance practices throughout supply chains. Through its certification system, the CSC aims to improve the transparency of the concrete sector, while highlighting the essential role that concrete plays in creating a sustainable construction sector by getting recognition in green procurement government policies and building rating systems.

The release of nitrogen oxides (NO_x), sulfur compounds (SO_x), and dust occurs during cement manufacturing. Other emissions, including dioxins, furans, volatile organic compounds, and heavy metals, are released in very small or negligible quantities, but we are committed to monitor them on a regular basis. To control our stack emissions and remain compliant with or exceed local and national regulations, we have steadily expanded continuous emissions monitoring at our manufacturing operations.

To improve on these efforts, we have further updated the minimum annual performance levels for major emissions,

establishing more stringent environmental standards for air emissions based on EU Best Available Techniques.

During 2018, we invested more than US\$83 million in sustainability initiatives, including projects to monitor and reduce our air emissions. These projects include our efforts to replace electro filters with bag filters, such as at our Solid cement plant in the Philippines; and new abatement installations or installation improvements to reduce our NO_x and SO_x emissions.

In 2018, 98% of our clinker was produced at plants with continuous emissions monitoring systems (CEMs)

in place, and our target is to reach 100% by 2020, including our recently acquired TCL plants in the Caribbean.

ENVIRONMENTAL INCIDENT MANAGEMENT

We permanently work to minimize our negative environmental and social impacts, and we are well prepared to respond to any emergency that may pose a potential threat to our operations and local communities:

› **WE WORK WITH OUR NEIGHBORS**, law enforcement officials, public agencies, and other stakeholders to develop contingency plans at each of our sites.

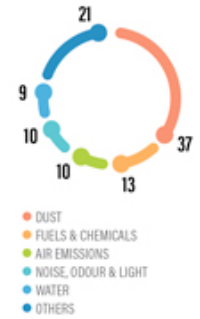
› **WE CREATED EMERGENCY RESPONSE TEAMS** that are specifically trained to address environmental incidents and hold annual emergency drills.

› **WE CONSISTENTLY RECORD AND REPORT INCIDENTS** at every level of our business to identify recurring root causes and to share corrective actions.

As of 2018, we have updated our Global Environmental Incident Reporting Tool to include social incidents, consolidating our holistic approach to the integral management of events causing some impact to people or the environment, as well as complaints coming from local communities.



2018 ENVIRONMENTAL AND SOCIAL INCIDENTS AND COMPLAINTS REPORTING (percentage)



As a result of this change in methodology, in 2018, total reported incidents increased by 40% year over year. We recognize that reporting environmental and social incidents is the first step to reducing their occurrence and severity, together with analyzing their main root causes and putting in place corrective and preventive actions.

From the incidents and complaints registered for the year, almost 50% were related to dust and other air emissions. To remediate these cases and avoid their occurrence in the future, we implemented an action plan, including:

- > **REINFORCED PREVENTIVE** maintenance routines in all sites
- > **CONTINUED INVESTMENT** and installation of Continuous Emissions Monitoring Systems (CEMS) in all of our kilns to reach our 100% goal by 2020
- > **REPLACEMENT OF ELECTROFILTERS** with bag houses to increase dust control efficiency
- > **CONTINUED CLOSE WORKING** relationships with communities.

At CEMEX, we maintain open communications to disclose our progress and continue to work with governments and community groups that support environmental improvement.

MANAGING WATER TO MINIMIZE USE

Our operations benefit directly from water, and we must take care of this invaluable resource by optimizing its consumption and expecting discharge quality.

Water availability is vital for the future of our operations and the sustainability of our business. Equally important, our use, diversion, and discharge of water into the environment impacts people, nature, and the ecosystems on which we rely. That is why we are working to establish a water baseline, prioritizing water-related risks and opportunities while following up on relevant key performance indicators.

This includes setting water-related targets and recognizing the role our business must play with local stakeholders to develop sustainable solutions to water management. To this end, understanding the way we use water in our business operations is a key step to determining where future issues may occur not only for our operational use, but also for the ecosystems and people who rely on flowing rivers and ground-water resources.

To protect this natural resource and enable our business to succeed, we are increasing our water efficiency through the implementation of our Corporate Water Policy across our operations. This includes standardization of our



water measurement based on the Water Protocol developed in coordination with the International Union for Conservation of Nature (IUCN), together with our use of the Global Water Tool for the Cement Sector in order to prioritize our actions to reduce water consumption such as water recycling systems and rain and storm water runoff collectors. Additionally, we provide guidance to our operations through a holistic water management plan that prioritizes countries and sites where the water-related risks are highest, and the business impact is most significant.

In 2018, we defined the strategy that we will follow to update our water stress map, and we set a new long-term target to develop a specific water management plan for each of those operations overlapping water-scarce areas.

WATER MISSION IN THE U.S. MID-SOUTH - USE LESS, SAVE MORE

To aspire the availability of this vital resource, our U.S. operations prioritized water-related opportunities by identifying the region that was most significantly contributing to water usage costs in our ready-mix concrete division and working to increase water efficiency in this region through the implementation of: 1) Maintenance fixes, including unidentified leaks; 2) Operational improvements, including recycling water when possible; 3) Increasing awareness by conducting training and placing signs in strategic water use areas to remind drivers and plant management not to waste water; and 4) Setting water-related targets.

This ongoing project has already generated cost savings, while positively contributing to our communities through socially responsible water conservation. Our operations' communication campaign has also produced successful efforts throughout the region that we plan to duplicate across CEMEX USA as water conservation plays a key role in our long-term resource management strategy.



PRESERVING LAND AND BIODIVERSITY

Biodiversity Action Plans (BAPs) are the principal tool for our company to achieve a Net Positive Impact on biodiversity. Since 2007, our operations have worked closely with BirdLife International, optimizing their unique local network of grassroots NGOs and their rich knowledge of biodiversity and ecosystem services. This work is guided by our Corporate Biodiversity Policy—which is fully integrated into our business model in all of our countries and operations and is aligned with the Convention on Biological Diversity (CBD) and its Aichi Biodiversity Targets.

In 2018, we continued to enhance biodiversity in and around our quarries—located in or close to high biodiversity value areas—while starting new BAP projects at other key quarries. We are making a tremendous effort to

extend our strategy to other quarries that do not overlap high value biodiversity areas, aiming to strengthen our conservation activity. To this end, we expanded the scope of our strategy to a selected group of 100 quarries at which we plan to implement a BAP or earn third-party certification from different environmental organizations such as the Wildlife Habitat Council and ECOCERT. We also continued to develop quarry rehabilitation plans for all of our active cement and aggregates quarries.

At year-end, 96% of our more than 280 cement and aggregates quarries had a rehabilitation plan in place.

Additionally, 91% of our active quarries located within or adjacent to high biodiversity value areas have implemented a BAP certified by a third party.



BUILDING ON A DECADE OF BIODIVERSITY CONSERVATION

Capitalizing on 10 years of conservation across several continents, in 2018, we renewed our global partnership with BirdLife for three years to achieve our goal of implementing Biodiversity Action Plans across the totality of our active quarries in high biodiversity areas by 2020, continuing our efforts to accomplish environmentally sustainable development.

Founded on an in-depth scoping study, this global alliance launched CEMEX-BirdLife Biodiversity Action Plan (BAP) Standard—now being implemented in 91% of our active quarries located in high biodiversity areas as of 2018. Through our joint efforts, we have not only significantly improved the biodiversity of our quarries, but also earned wide recognition for our national collaborations from organizations such as the European Aggregates Association, the World Business Council for Sustainable Development's Cement Sustainability Initiative, the European Union Natura 2000 Awards, the Mineral Products Association, and the Wildlife Habitat Council.

For more information on BirdLife, please visit: www.birdlife.org.

Some of our active conservation efforts during 2018 included:

GRASSLAND RESTORATION FOR LEPIDOPTERA IN THE UK



Southam Quarry is located close to our Rugby cement plant and supplies shale used in the manufacturing process. A decade ago, plans were made to move alkaline waste from the cement plant and deposit it in cells constructed at Southam Quarry. The area was then restored to a mixture of tree, scrub, lime rich grassland, and wetland of marshy areas and ponds. The aim of this project was to not only create suitable habitat for Lepidoptera, but also develop wildlife corridors that would allow isolated colonies to connect and help reverse decreasing population trends. Working closely with the local branch of Butterfly Conservation, we ensured that the newly created grassland was seeded to create an ideal habitat for the small blue butterfly. Recent surveys have identified 120 Lepidoptera species on site at Southam, which has now become a regionally important site. With a large colony of small blue butterflies now in residence, this project can point to this as a success in its effort to help reverse their decline.

MANGROVE RECOVERY IN COSTA RICA



This project aims to rescue 800 hectares of mangrove at the Cipancí Wildlife Refuge, which is currently suffering from deforestation linked to shrimp farming activities. The mangrove ecosystem is of great importance to the country's environmental balance because it has the highest CO₂ sink rate in the world compared with any other ecosystem and serves as a filter to prevent solid waste coming from the rivers, reaching the sea. It also serves as a crucial spawning site for a large number of species and a bird refuge, among other critical functions. CEMEX has been working on this and similar initiatives with the National System of Conservation Areas; a synergistic relationship that enables us to have a very positive impact on communities through projects that help regenerate ecosystems, promote responsible use of resources, foster a culture of environmental care and protection, and create a proactive attitude to biodiversity conservation and restoration.

IMPROVING PREY SPECIES FOR ROCKY BIRDS IN SPAIN



Since 2016, we have collaborated with SEO/BirdLife on a project at our quarry in Morata de Jalón. Located within the "Desfiladeros del Río Jalón" zones, this quarry's main conservation value is its communities of rocky birds. One of these species is the endangered Bonelli's eagle (*Aquila fasciata*), whose main threats include scarce prey, especially rabbit and red partridge. Through this collaborative project, we aim to improve the availability of prey for this species in the quarry and its surrounding environment. To this end, we have begun to execute a two-part plan: (1) indirect measures to improve the habitat for prey species of the Bonelli's eagle such as the growth of alfalfa micro-cultures, the creation of rabbit shelters, or the development of heat shelters for the red partridge; and (2) direct measures such as the construction of a fence for rabbits where the Bonelli's eagle, as well as other raptors, can easily hunt.

QUARRY REHABILITATION IN MEXICO



As part of our initiatives to preserve biodiversity and ecosystems, we constantly undertake activities to conserve our natural spaces such as our quarry rehabilitation program. Overall, we have 152,000 square meters of rehabilitated land that was once used as quarries, including lagoons that now serve as sources of water for migrant species and habitats that currently serve as a refuge for several species of animals, as well as regional flora and fauna. Moreover, through our vineyard program, where we once extracted limestone, we now produce grapes. On more than 90,000 square meters, we now harvest up to 40,000 kg of grapes, which we share with more than 250 families in Torreón, Sonora, and other Mexican states.



In addition to our conservation efforts with BirdLife International, CEMEX has also partnered with the Wildlife Habitat Council (WHC). This synergistic partnership provides a valuable opportunity to engage employees and local communities in wildlife enhancement initiatives and foster awareness of how industry and natural habitats can coexist. The WHC promotes and certifies habitat conservation and management on corporate lands through partnerships and education. Through a focus on building collaboration for conservation with corporate employees, other conservation organizations, government agencies, and community members, WHC programs focus on healthy ecosystems and connected communities.

CEMEX currently maintains 47 on-site conservation projects that have obtained WHC Certification, including 18 quarries in the U.S., 13 in Mexico, six in Panama, five in Nicaragua, two in Costa Rica, and one in the Dominican Republic. During 2018, we also obtained our first WHC certifications in Europe for projects in Latvia and Poland.

Importantly, CEMEX has now earned the most WHC certifications out of any company in the U.S. Additionally, in 2018, WHC awarded CEMEX the Gold Tier Program of the Year for biodiversity conservation through our Las Salinas y Laguna Cabral Biodiversity Action Plan in the Dominican Republic—the winner of special recognition its reptile project. CEMEX also earned this prestigious WHC award last year for our biodiversity conservation efforts at our El Carmen Nature Reserve.

**47
ON SITE**

CONSERVATION PROJECTS that have obtained WHC Certification

CEMEX AWARDED HIGHEST CERTIFICATION BY THE WHC IN DOMINICAN REPUBLIC

The Wildlife Habitat Council (WHC) awarded our operations in the Dominican Republic its Gold Certification for a project led by our company in collaboration with Grupo Jaragua and BirdLife International. Created five years ago, the "Las Salinas and Laguna Cabral Biodiversity Action Plan" mitigates environmental impacts and involves local communities in environmental conservation by playing the role of environmental guardians. Conservation efforts include helping to safeguard two endangered species, the Rhinoceros Iguana (the largest endemic vertebrate in the area) and the Hispaniolan Slider Turtle; protecting Laguna Cabral, an Important Bird and Biodiversity Area and a Ramsar site; restoring the Lemba River's native riverbank vegetation; working to enhance the quality of life of local communities; and empowering women, among other initiatives.

The Gold Conservation Certification is the highest distinction granted by the American NGO Wildlife Habitat Council. In addition, the project received three nominations in the categories of Forest Project, Wetland Project (Swamps) and Reptiles and Amphibians Project.

"Our collaborative project will not only guide CEMEX quarry restoration efforts in the future, but has provided a lifeline for two critical species threatened with local extinction. We are thrilled that our team effort has been awarded the highest recognition by the WHC."

Yolanda León
President of Grupo Jaragua

We invite you to view a video of this conservation project:
<https://youtu.be/u63LnWpSSH0>

EL CARMEN NATURE RESERVE

Located along the border between Mexico and the United States, this private cross-border conservation region is one of the most important biodiversity hotspots and transboundary ecosystems in the world. With over 140,000 hectares, El Carmen is equivalent to the size of Mexico City, including its 16 delegations, the size of Houston, Texas, or close to half the size of Big Bend National Park, Texas. It enables us to restore habitats and wildlife in an area that is more than eight times larger in size than the total sum of the areas impacted by our operations worldwide.

Over the past 17 years, El Carmen Nature Reserve has provided abundant wildlife management, including the recovery of several large mammal species, such as desert bighorn, pronghorn antelope, and black bear.

El Carmen Nature Reserve also represents a live conservation promoter, a special outdoor classroom enabling national and international collaboration opportunities.

RESEARCH AND EDUCATION: In 2018, almost 20 students from the University of Nuevo Leon, Mexico, and Sul Ross State University, U.S., visited El Carmen. During their visit, reptiles, birds and mammal populations were monitored. Additionally, a wildlife management lecture was given to

students of the Agriculture University Antonio Narro, Mexico.

COLLABORATION: Consistent with active cooperation agreements with our neighboring communities, conservation NGOs, and Mexican and U.S. governments, in April 2018, El Carmen staff conducted a workshop on black bear conflict prevention and management to our community neighbors and the wildlife monitoring brigade of Maderas del Carmen, related to the Mexican Commission of Natural Protected Areas (CONANP), in order to train them on how to live and interact without conflict with the largest black bear population in Mexico.

FIRE PREVENTION: Regular fire workshops and live practices were conducted in March and November 2018, in which 40 representatives from the Mexico Forestry Commission (CONAFOR), the Mexican Commission of Natural Protected Areas (CONANP), Coahuila State Secretary of the Environment (SEMA), and conservation NGOs Pronatura Noreste and the Mexican Fund for Nature Conservation participated in brush management and forest fuel reduction. Through these activities, El Carmen staff and our government and NGO partners received their annual training, while 24 hectares of grasslands and 10 hectares of forest were restored.



AWARDS AND RECOGNITION: El Carmen Nature Reserve's U.S. section was honored by "Texan by Nature," a non-profit conservation organization founded by former First Lady Mrs. Laura Bush, for its ongoing commitment to sustainability and land preservation. Specifically, Texan by Nature's 2018 Conservation Wranglers program recognized El Carmen Nature Reserve's U.S. section, a partnership between CEMEX USA and J. Austin Ranches, as one of the most innovative and transformative conservation projects in the state of Texas.



CEMEX CONSERVATION AND NATURE BOOK SERIES

This year, we published the 26th volume of CEMEX Nature and Conservation Book Series. The sixth edition of our celebrated Nature Series, this inspiring and brilliantly illustrated volume continues the more than two-decade tradition of our Conservation Book Series.

The 2018 edition, "Islands," is published with our new lead partner, Island Conservation, together with Grupo de Ecología y Conservación de Islas, Global Wildlife Conservation, SeaLegacy, American Bird Conservancy, and our long-time partner the International Union for Conservation of Nature. With this book, we underscore the biodiversity richness of our world's magnificent islands.

Covering only five percent of the land on our planet, islands are home to an estimated 20% of the world's bird, reptile and plant species, as well as the most astonishing examples of species' evolution. Importantly, islands are home to almost 40% of all known critically endangered animals as a result of major threats such as invasive species, habitat loss, and climate change.



"Islands" captures the spectacular diversity and singularity of many of our planet's outstanding islands. Through a combination of impressive photography and expert commentaries, this volume aims to inspire global audiences to appreciate our islands' many examples of conservation successes and to create awareness of the importance of protecting the natural diversity of these extraordinary places.

To learn more about "Islands," please visit: www.cemexnature.com/libro/islands

A 26-YEAR JOURNEY: CEMEX CONSERVATION AND NATURE BOOKS

Since 1993, we have published a series of 26 hardbound books and three electronic conservation books, with more than 35,000 downloads. The series encompasses more than 7,600 pages and 2,800 photographs, involving the collaboration of 150 authors and photographers.

Thus far, 260,000 books have been distributed among CEMEX stakeholders in 20 countries, and 100,000 books have been donated to conservation NGOs to generate funds for species protection and creation of natural protected areas in America, Europe, Africa, and Asia.

For over 26 years, CEMEX has been honored to work with some of the world's most prestigious conservation organizations such as Conservation International, IUCN, Wild Foundation, UNESCO, Wildlife Conservation Society, BirdLife International, National Geographic, as well as Agrupación Sierra Madre and Unidos por la Conservación.

Each volume has developed environmental awareness for decision-making on conservation issues, while reinforcing our company's commitment to promote a culture of biodiversity conservation.



To learn more about CEMEX Conservation and Nature Books go to www.cemexnature.com/books/

Risk Management

CEMEX Enterprise Risk Management (ERM) function provides support to management to make better decisions by anticipating and coordinating management of short-term, medium-term and long-term risks and opportunities that could prevent our company from achieving its strategic objectives.

Risk management is fundamental to reducing the impact of adverse events and for capitalizing on opportunities resulting from a more complex and uncertain business environment.

Risk management is an institutional process present at global, regional, and local levels that emphasizes risk discussion and mitigation at the top management and risk oversight at the board level.

Risk and opportunity agendas are updated at least on a biannual basis, considering all types of risks, trends, and emerging concerns that could impact our company in the short (zero to two years), medium (two to five years), and long term (five to ten years).

ERM uses several risk identification techniques that focus on both strategic and operational issues. A combined

bottom-up and top-down approach expects that perspectives from all levels are included.

Risks are analyzed and assessed using quantitative and qualitative methods and then prioritized based on their estimated impact and probability of materialization. A mitigation strategy with specific action plans is defined for each risk and a risk owner—main responsible for risk treatment—is assigned. Risk developments are continuously monitored and changes in their status are promptly provided to management.

The Board of Directors, Executive Committee, the Corporate Practices and Finance Committee discuss the Global Risk Agenda at least twice a year.

Other risk management processes within our company, such as internal



audits, internal controls, compliance, and financial risk management, complement the surveillance and risk management function.

Our ERM process follows and replicates best world standard practices like ISO 31000 "Risk Management Guidelines," ISO 31010 "Risk Assessment Techniques," ISO 22301 "Business Continuity Management Systems" and the Business Continuity Institute "Good Practices Guidelines" among other certifications. Additionally, we actively participate in several world

standard forums like Mexico Delegates in ISO/TC 262 "Technical Committee on Risk Management" (responsible for ISO 31000) and ISO/TC 292 "Technical Committee on Security and Resilience" (responsible for ISO 22301). Furthermore, we are also members of global associations like London-based Business Continuity Institute and the US-based RIMS Risk Management Society, with one of our ERM executives presiding the local RIMS Mexico Chapter as Board President.



MAIN RISKS AND MITIGATION STRATEGIES

The following is a brief description of some of the main short-term, medium-term and long-term term risks faced by CEMEX and their corresponding mitigation strategies:

1. COMPLEX COMPETITIVE DYNAMICS

RISKS:

The markets in which we operate are highly competitive and are served by numerous established companies with recognized brand names, as well as new market entrants, increasing imports, and substitute products. New entrants, capacity expansions, and imports have caused and may continue to cause supply-demand imbalances in several markets where we operate, affecting our prices and sales. If we are not able to compete effectively, we may lose substantial market share, our net sales could decline or grow at a slower rate, which could have a material adverse effect on our business, financial condition, and result of operations.

CEMEX MITIGATION ACTIONS

- › Deliver superior customer experience
- › Leverage sales through our digital commercial strategy
- › Continue pursuing pricing strategy
- › Drive operational excellence



2. TIGHTER ENVIRONMENTAL REGULATIONS

RISKS:

Our operations are subject to a broad range of environmental laws and regulations which impose stringent standards regarding, among other things, air emissions, wastewater discharges, the use and handling of hazardous waste or materials, waste disposal practices and the remediation of environmental damage or contamination. These laws and regulations expose us to the risk of environmental costs and liabilities.

Specially, CO₂ emissions regulations and Emission Trading Systems are ramping-up worldwide. Efforts to reduce greenhouse gas emissions can create economic risks and uncertainties for our business, as it could increase the cost of purchasing CO₂ allowances in coming years.

CEMEX MITIGATION ACTIONS

- › Carbon mitigation strategy focused on alternative fuels and raw materials, clinker substitution, renewable energy, and novel cements. Ongoing development of CO₂ Reduction Roadmap by installation
- › Active involvement in pilot projects and research efforts to assess potential technologies to reduce carbon footprint
- › Investment in equipment to monitor and control emission levels in all our kilns beyond compliance with local regulations
- › Implementation of an Environmental Management System (EMS) that meets ISO 14001 and EU Eco-Management and Audit Scheme (EMAS) certification and applies to all our operations

3. INCREASED REGULATORY OVERSIGHT

RISKS:

We are subjected to the laws and regulations of the countries where we operate, and any changes in such laws and regulations and/or any delay in assessing the impact and/or adapting to such changes may have an adverse effect on our business, financial condition, and result of operations. Any significant delays in assessing the impact or adapting to the changes could a material adverse effect on our business, financial condition, and result of operations.

CEMEX MITIGATION ACTIONS

- › Compliance with laws and regulations
- › Assessment and, if required, adjustment of our operations to comply with new laws
- › Enhancement of our Code of Ethics and Business Conduct, which addresses anti-bribery, related-person transactions, health and safety, environmental responsibility, confidentiality, conflicts of interest, financial controls, and preservation of assets

4. EXPOSURE TO ANTI-CORRUPTION AND ANTI-BRIBERY LAWS

RISKS:

We are subject to anti-corruption, anti-bribery, anti-money laundering, anti-trust, and other international laws and are required to comply with the applicable laws and regulations of the countries in which we operate. Given the large number of contracts that we are party to around the world and the great variety of actors that we interact within the course of business, we are exposed to the risk that our affiliates, employees, directors, officers, partners, agents and service providers make improper payments or engage in corruption, bribery or other illegal activity. If we fail to fully comply with applicable laws and regulations, the relevant government authorities of the countries where we operate have the power and authority to impose fines and other penalties. Any violations by us to anti-bribery and anti-corruption laws or sanctions regulations could have a material adverse effect on our business, reputation, results of operations and financial conditions.

CEMEX MITIGATION ACTIONS

- > Commitment to conduct all of our business activities with high ethical standards and in full compliance with applicable laws
- > Enhancing CEMEX's anti-corruption and bribery policies and trainings
- > Acknowledgement and understanding of the Code of Ethics by employees
- > Secured ETHOS lines to submit suggestions, inquiries and report alleged ethics, compliance or governance violations
- > Continuous internal audits and internal controls in place to prevent misconducts by our employees

5. UNCERTAIN ECONOMIC CONDITIONS

RISKS:

Our business, financial condition, and results of operations are highly dependent on the economic conditions of the countries where we operate. We face risks particular to each region, as well as global economic risks. Main potential sources of risk: Slowing global economic growth, particularly due to a shift toward protectionist policies; a possibly sharp tightening of financial conditions and its impact on foreign exchange rates and financial markets; Economic vulnerability of emerging market economies; Elections and political turmoil in some Latin American countries and newly formed governments; Economic and political uncertainties in Europe and the U.S.; China's economic performance; and Other geopolitical risks. The materialization of any of these risks may have a material adverse effect on our business, financial condition, and result of operations.

CEMEX MITIGATION ACTIONS

- > "A Stronger CEMEX" plan
- > Deliver a superior customer experience enabled by digital strategy
- > Maximize organic growth
- > Continue pursuing pricing strategy
- > Drive operational excellence

6. FINANCIAL RISKS

RISKS:

We are exposed to several financial risks, including debt level, access to favorable refinancing, financial covenants and restrictions, foreign currency and interest rates, among others.

We have debt and other financial obligations maturing in the next several years, if we are unable to secure refinancing on favorable terms or at all, we may not be able to comply with our future payment obligations. Our main financial agreements contain several restrictions and covenants, our ability to comply with such may depend on us implementing certain initiatives, which may include making asset sales, and there is no assurance that we will be able to implement any such initiatives or execute such sales, if needed, on terms favorable to us or at all. We cannot assure you that in the future we will be able to comply with our financial obligations. Any failure to comply with such obligations, including covenants and limitations, could materially and adversely affect our business, financial condition and results of operations.

Additionally, we have to service our debt and other financial obligations denominated in Dollars with revenues generated in Mexican Pesos or other currencies. We do not generate sufficient revenue in Dollars from our operations to service all our debt and other financial obligations denominated in Dollars. This could adversely affect our ability to service our obligations in the event of a devaluation or depreciation in the value of the Mexican Peso, or any of the other currencies of the countries in which we operate, compared to the U.S. Dollar.

CEMEX MITIGATION ACTIONS

- > Focus on recovering investment grade credit metrics
- > Drive prudent financial strategy
- > Focus on EBITDA growth
- > Manage working capital efficiently

7. POLITICAL UNCERTAINTY AND SOCIAL INSTABILITY

RISKS:

We are subject to the political and social environment of the countries where we operate. Any political or social actions that significantly affects a country's economic development or its business environment has the potential to materially affect our business, financial conditions, and result of operations. Newly formed governments and presidential, legislative, regional, and local elections that take place in the countries where we operate, and any other political events such as Brexit and turmoil in Latin American countries that have had and may continue to have a negative impact on the economy, financial markets, social stability, and laws and regulations could affect our results of operations and prospects for our business.

CEMEX MITIGATION ACTIONS

- › Business continuity plans to minimize business disruption
- › Monitoring and scenario planning to anticipate potential risks and opportunities



8. HIGH ENERGY AND FUEL COST

RISKS:

Electric power and fuel costs represent an important part of our overall cost structure. The price of electric power and fuels is generally subject to market volatility and, therefore, may have an increase on our costs which could affect our results of operations. Furthermore, if third-party suppliers fail to provide us the required amounts of power or fuel under existing agreements, we may need to acquire energy or fuel at an increased cost from other suppliers. In addition, governments in several of the countries in which we operate are working to reduce energy subsidies, introduce clean energy obligations or impose new excise taxes, which could increase our costs and affect our results of operations.

CEMEX MITIGATION ACTIONS

- › Increase use of alternative fuels
- › Secure long-term renewable contracts for power and fuel supply that not only provide clean energy, but also certainty in future energy costs
- › Develop processes and products to reduce heat consumption in our kilns
- › Executing hedging for coal and diesel in the financial markets in order to reduce volatility

9. ADVERSE WEATHER AND NATURAL DISASTERS

RISKS:

Construction activity, and thus demand for our products, decreases substantially during periods of cold weather, when it snows or when heavy or sustained rainfalls occur. Such adverse weather conditions can negatively affect our results of operations if they occur with unusual intensity or last longer than usual in our major markets, especially during peak construction periods. Additionally, adverse weather conditions (e.g., floods, typhoons, hurricanes) have had and may continue to have the potential to damage our assets and disrupt our business operations.

CEMEX MITIGATION ACTIONS

- › Have business continuity plans to avoid major disruptions to our business
- › Insure assets - Some of our main operations and assets are insured against such events. However, in most cases, the insurance policy does not cover the total impact that an adverse event could have, which limits its effect.



10. LABOR ACTIVISM, TALENT SHORTAGE AND HEALTH AND SAFETY RISKS

RISKS:

Labor activism, unrest or disputes and the failure to maintain satisfactory labor relations may adversely affect our operations and thereby adversely affect the results of our operations. Furthermore, increasing difficulties to retain and attract talent, particularly as it relates to technical skills which are highly sought in the job market, have the potential to increase our costs and increase the challenges that we face to execute our business plan efficiently. Likewise, labor shortages in the construction industry as a whole has the potential to impact overall construction activity which could affect our business and the results of our operations.

Additionally, activities in our business can be hazardous and can cause injury to people or damage to property in certain circumstances. Our production facilities require individuals to work with chemicals, equipment and other materials that may potentially cause harm, injury or fatalities when used without due care. Accidents or injuries that occur at our facilities could result in disruptions to our business and may have legal and regulatory consequences. We also may be required to compensate such individuals or incur other costs and liabilities, which in turn could adversely affect our reputation, business, and results of operations.

CEMEX MITIGATION ACTIONS

- › Engagement and development programs to improve talent retention
- › Efforts to increase the talent pool for highly demanded candidates
- › Full adherence to the highest Health & Safety standard and ensuring nothing comes before the health and safety of our employees, contractors and the community

11. BUSINESS DISRUPTION DUE TO COMMUNITY ACTIVISM AND SOCIAL EVENTS

RISKS:

Social developments in the countries in which we operate, such as civil disturbances, the rise of violence or perception of violence, increase in community activism have the potential to impact our operations and our results. As any other competitor in the industry, we are exposed to community protests and strikes that could have the capacity to difficult our operations or disrupt business continuity.

CEMEX MITIGATION ACTIONS

- › Adherence to high social responsibility standards
- › Implementation of sustainable community engagement plans to build mutually beneficial long-term relations with nearby districts and key stakeholders
- › Business continuity plans to minimize business disruption



12. CYBERATTACKS

RISKS:

We increasingly rely on a variety of information technology and automated operating systems to manage and support our operations, as well as to offer our products to our customers. Our systems and technology, as well as those provided by our third-party service providers, may be vulnerable to damage, disruption or intrusion caused by circumstances beyond our control, such as physical or electronic break-ins, catastrophic events, power outages, natural disasters, computer system or network failures, viruses or malware, unauthorized access, and cyber-attacks. Any significant disruption to our systems, information leakages or theft of information could affect our compliance with data privacy laws, damage our relationships with employees, customers, and suppliers, and have a material adverse impact on our business, financial condition, results of operations, and reputation.

CEMEX MITIGATION ACTIONS

- › Enforce Information Security Policy and culture
- › Have cybersecurity controls and monitoring services in place
- › Have disaster recovery plans and rapid response teams in place
- › Enhance insurance coverage

13. POTENTIAL DISRUPTION BY EMERGING TECHNOLOGIES

RISKS:

As in any other industry, new technologies or a disrupting innovation may have the capacity to affect our ability to compete. Digitalization may challenge traditional ways to operate and could migrate value across the supply chain. It also opens new channels to our markets and provides access to new industry players. As part of this technology trend, the building materials industry has started to incorporate new construction technologies and products that could reduce the demand and prices for our products, and therefore, it could impact our business and results of operations.

CEMEX MITIGATION ACTIONS

- › Deliver a superior customer experience enabled by digital technologies (e.g. CEMEX Go)
- › Early detection, development and commercialization of disruptive and revolutionary construction projects (e.g. CEMEX Ventures)



14. EXPOSURE TO HUMAN RIGHTS VIOLATIONS

RISKS:

We seek to align our strategy and operations with universal principles on human rights and we expect all our employees and business partners to similarly adhere to these principles. Even though we have a strict Human Rights Policy and a process of ongoing due diligence to monitor its adherence, it is possible that an affiliate, employee, director, officer, partner or a third party related to us could be accused or perceived to deviate from this policy. A significant deviation from our human rights principles could impact our employees, communities, suppliers or customers related to our company, as well as our reputation, which in turn could cause some actors to avoid business transactions with our company, impact our capacity to operate without disruptions and complicate talent retention and attraction efforts, all of which could have an impact on the results of our operations.

CEMEX MITIGATION ACTIONS

- › Mandatory compliance with CEMEX's Human Rights Policy and ongoing due diligence to monitor compliance
- › Training to increase awareness on our Human Rights values
- › ETHOS line, managed by third party, available to report any perceived violation of Human Rights principles





Governance

A **stronger** commitment to transparency and accountability

VALUE CREATION

IS OUR COMMITMENT and the guiding principle of our management and governance practices

Our Board of Directors and management are committed to maintaining high standards of corporate governance. As a public company, it is imperative that we keep our investors informed of all activities and expect our financial disclosures meet high ethical standards.



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LISTED
NYSE

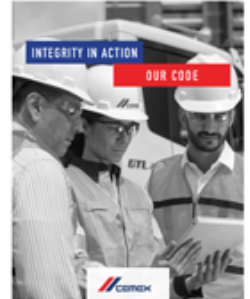
We are committed to abide by the laws and regulations of where we operate. CEMEX S.A.B. de C.V.s shares are listed on the Mexican Stock Exchange and on the New York Stock Exchange ("NYSE"), and as such, we adhere to applicable Mexican regulations and NYSE and U.S. Securities and Exchange Commission requirements for foreign private issuers, including the Sarbanes-Oxley Act of 2002 ("SOX").

Nonetheless, we recognize that our adherence to the law is not enough to run a growing, global organization. Beyond compliance, our commitment—to ourselves, our investors, and to all of our stakeholders—is to manage CEMEX with integrity. Everything we do rests on this foundation.

Our financial culture and management style are open and transparent. Through our regular meetings, reports, guidance, conference calls, and personal interactions, we vigorously work to keep our investors informed of our activities and to expect our financial disclosure meets high ethical standards.

We know that to succeed we must not just do the right things but do them the right way. Hence, our Code of Ethics works to pursue that all of our employees abide by the same high standards of conduct in their daily interactions. The code—which reflects the requirements of SOX—governs our relationships with all of our stakeholders, including such important areas as workplace safety, environmental responsibility, confidentiality, conflicts of interest, financial controls, and preservation of assets.

While our Board of Directors is ultimately responsible for supervising the overall operation of our company, all of our employees play a critical role in enforcing good governance and financial reporting practices. We, therefore, encourage them to comment on our reporting methods and processes and to voice any concerns. To this end, we have created a collaborative environment that includes: 1) A system to pursue relevant information reaches senior management in a timely manner; 2) A system for anonymously and confidentially communicating to the audit committee complaints and concerns regarding accounting and audit issues; 3) A process for anonymously and confidentially submitting complaints related to unethical conduct and misuse of assets; and 4) A task force to follow legal requirements and best corporate-governance practices and, when appropriate, propose further improvements.



OUR CODE

OF ETHICS works to pursue that all of our employees abide by the same high standards of conduct

Board of Directors

Our Board of Directors is ultimately responsible for supervising the overall operation of our company.

Our Board of Directors is composed of qualified directors who provide appropriate oversight and includes directors that meet the independence criteria under the laws of Mexico. In addition, one member of our audit committee meets the requirements of a "financial expert" as defined by SOX.

Chaired by Rogelio Zambrano, our Board of Directors consists of 15 directors, nine of whom qualify as independent directors according to criteria specified under Mexican Securities Law. During the year, our board met four times to report on a wide range of relevant issues, including sustainability-related concerns and financial strategy, with average board meeting attendance of approximately 95%.

BOARD OF DIRECTORS¹

NON-INDEPENDENT DIRECTORS

Rogelio Zambrano Lozano
Executive Chairman of the Board²

Fernando A. González Olivieri
Tomás Milmo Santos
Ian Christian Armstrong Zambrano
Marcelo Zambrano Lozano
Ramiro Gerardo Villarreal Morales³

INDEPENDENT DIRECTORS

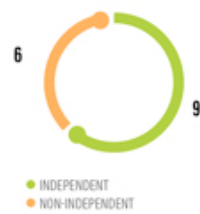
Armando J. García Segovia
Rodolfo García Muriel
Dionisio Garza Medina
José Manuel Rincón Gallardo Purón
Francisco Javier Fernández Carbajal
Armando Garza Sada
David Martínez Guzmán
Everardo Elizondo Almaguer
Gabriel Jaramillo Sanint

SECRETARY

Roger Saldaña Madero
(Not a member of the Board of Directors)

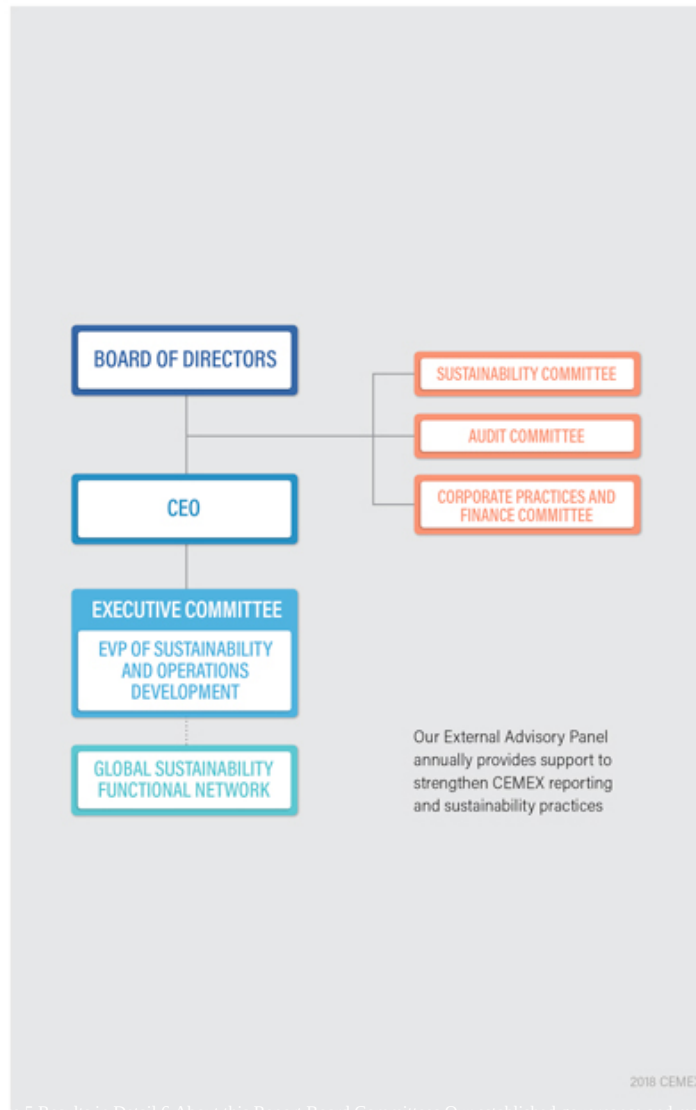
¹ As of December 31, 2018
² Not independent because is on company's payroll
³ Independent member from January 1, 2019

BOARD OF DIRECTORS (members)



Board Committees

Our established governance and management practices are consistent with our relentless commitment to creating sustainable, long-term stakeholder value.



AUDIT COMMITTEE*

The Audit Committee is responsible for evaluating our internal controls and procedures and identifying deficiencies; following up with corrective and preventive measures in response to any non-compliance with our operation and accounting guidelines and policies; evaluating the performance of our external auditors; describing and valuing non-audit services performed by our external auditors; reviewing our financial statements; assessing the effects of any modifications to the accounting policies approved during any fiscal year; and overseeing measures adopted as a result of any observations made by our shareholders, directors, executive officers, employees or any third parties with respect to accounting, internal controls, and internal and external audits, as well as any complaints regarding management irregularities, including anonymous and confidential methods for addressing concerns raised by employees and analyzing the risks identified by our company's independent auditors, accounting, internal control, and process assessment areas.

In accordance with our company's bylaws, all members of the Audit Committee, including its President, must be independent directors. During 2018, the Audit Committee met four times with meeting attendance of 100%.

José Manuel Rincón Gallardo Purón
President

Rodolfo García Muriel
Francisco Javier Fernández Carbajal
Everardo Elizondo Almaguer

CORPORATE PRACTICES AND FINANCE COMMITTEE*

The Corporate Practices and Finance Committee is responsible for evaluating the hiring, firing and compensation of our Chief Executive Officer; reviewing the hiring and compensation policies for our executive officers; reviewing related party transactions; reviewing policies regarding the use of corporate assets; reviewing unusual or material transactions; evaluating waivers granted to our directors or executive officers regarding seizure of corporate opportunities; identifying, evaluating, and following up on the operating risks affecting our company and its subsidiaries; evaluating our company's financial plans; reviewing our company's financial strategy and its implementation; and reviewing mergers, acquisitions, market information, and financial plans, including financing and related party transactions.

In accordance with our company's bylaws, all members of the Corporate Practices and Finance Committee, including its President, must be independent directors. During 2018, the Corporate Practices and Finance Committee met four times with meeting attendance of 100%.

Dionisio Garza Medina
President

Francisco Javier Fernández Carbajal
Rodolfo García Muriel
Armando Garza Sada

SUSTAINABILITY COMMITTEE*

The Sustainability Committee is responsible for ensuring sustainable development is embedded in our strategy; supporting our Board of Directors in fulfilling its responsibility to shareholders regarding our company's sustainable growth; evaluating the effectiveness of our sustainability programs and initiatives; providing guidance to our Chief Executive Officer and senior management team regarding our strategic direction on sustainability; and endorsing our model of sustainability, priorities, and key indicators. The Committee also pursues CEMEX's board-level oversight on Climate Change and CO₂ Management Strategy. During 2018, the Sustainability Committee met four times with meeting attendance of 100%.

Some of the most relevant topics in the 2018 Agenda included:

- > CEMEX's 2017 Integrated Report Structure and Content
- > Sustainability KPIs Annual Performance and Improvement Plan
- > Health & Safety Overview and Action Plan for ZERO4Life Goal
- > Global and Regional Sustainability Risks Agenda Update
- > Climate Change Strategy and CO₂ Management
- > Human Rights Respect Strengthening Plan
- > High-impact Social Initiatives

The enriching Sustainability Committee discussions led to valuable outcomes such as:

- > Launch of CEMEX Sustainability Scorecard to closely monitor performance of all countries in core KPIs and ensure progress towards our global objectives
- > Decision to have all contractors audited by a specialized firm to ensure compliance with H&S policies
- > CEMEX CO₂ Reduction Roadmap by cement installation kicked-off
- > Highlights and lessons learned from Global Environmental and Social Incidents Report monthly shared by our CEO to all operations
- > Human Rights Policy Enhancement
- > Release of a Diversity and Inclusion Policy

Armando J. García Segovia
President

Ian Christian Armstrong Zambrano
Francisco Javier Fernández Carbajal
Marcelo Zambrano Lozano

*As of December 31, 2018

Executive Committee

Our commitment to deliver value to our stockholders rests on a clear recognition that, as a public company, we are stewards of other people's money.

They invest with us to achieve superior long-term returns at acceptable risk. We have never—and will never—lose sight of that fact.

At the executive level, our CEO and members of our Executive Committee oversee the day-to-day operation of our company. They develop, refine, and direct the implementation of our business strategy



FERNANDO A. GONZÁLEZ (64)
Chief Executive Officer

Since joining CEMEX in 1989, Fernando A. González has held several senior management positions, including Corporate Vice President of Strategic Planning, head of operations in Venezuela, President of CEMEX Asia, President of the CEMEX South America and the Caribbean region, President of the CEMEX Europe, Middle East, Africa, Asia and Australia region, and Executive Vice President of Strategic Planning, Finance and Administration (CFO). Fernando was appointed Chief Executive Officer in 2014. He also serves in the Board of Directors of Grupo Cementos de Chihuahua, Axtel, and EGADE Business School of Tecnológico de Monterrey. He earned his BA in Administration and an MBA, both from Tecnológico de Monterrey.



MAHER AL-HAFFAR (60)
Executive Vice President of Investor Relations, Corporate Communications and Public Affairs

Maher Al-Haffar joined CEMEX in 2000, and has held several executive positions, including Managing Director of Finance, Head of Investor Relations, and Vice President of Investor Relations, Corporate Communications and Public Affairs. Currently, as part of his role, he is also leader of the digital marketing effort at CEMEX and is member of the NYSE Advisory Board. Before joining CEMEX, Maher spent nineteen years with Citicorp Securities Inc. and with Santander Investment Securities, as an investment banker and capital markets professional. Maher holds a BS in Economics from the University of Texas, and a Master's degree in International Relations and Finance from Georgetown University.



MAURICIO DOEHNER (44)
Executive Vice President of Corporate Affairs and Enterprise Risk Management

Mauricio Doehner joined CEMEX in 1996, and has held several executive positions in Strategic Planning and Enterprise Risk Management at CEMEX Europe, Asia, the Middle East, South America, and Mexico. He has also worked in the public sector, at the Mexican Presidency. Mauricio holds a BA in Economics from Tecnológico de Monterrey, an MBA from IESE/IPADE, and a Professional Certification in Competitive Intelligence from the FULD Academy of Competitive Intelligence in Boston, Massachusetts.



JAIME ELIZONDO (55)
Executive Vice President Global Supply Chain Development

Jaime Elizondo joined CEMEX in 1985, and has held several executive positions, including head of operations in Panama, Colombia, Venezuela, and Mexico, President of the CEMEX South, Central America and the Caribbean region, and more recently as President of the CEMEX Europe region. He holds a BS in Chemical and Systems Engineering and an MBA, both from Tecnológico de Monterrey.

*As of February 1, 2019



JOAQUÍN ESTRADA (55)
President CEMEX Asia, Middle East and Africa

Joaquín Estrada joined CEMEX in 1992, and has held several executive positions, including head of operations in Egypt and Spain, and more recently as President of CEMEX Asia. Currently, as President of the CEMEX Asia, Middle East and Africa region, he is also responsible of Global Trading. Joaquín holds a BA in Economics from the University of Zaragoza, Spain, and an MBA from the Instituto de Empresa.



JESÚS GONZÁLEZ (53)
Executive Vice President of Sustainability and Operations Development

Jesús González joined CEMEX in 1998, and has held several senior positions, including Corporate Director of Strategic Planning, Vice President of Strategic Planning in CEMEX USA, President of CEMEX Central America, and more recently as President of CEMEX UK. In his current position, Jesús heads the areas of Health and Safety, Operations and Technology, Energy, Procurement, Sustainability, Research and Development, and Vendor Management Office. He holds a MSc in Naval Engineering from the Polytechnic University of Madrid and an MBA from IESE - University of Navarra, Barcelona.



JOSÉ ANTONIO GONZÁLEZ (48)
Executive Vice President of Finance and Administration

José Antonio González joined CEMEX in 1998, and has held several executive positions in the Finance, Strategic Planning, and Corporate Communications and Public Affairs areas. In his current position, José Antonio heads the areas of Finance, Legal, Controllership, Tax, Global Service Organization, and Process Assessment. Jose Antonio holds a BS in Industrial Engineering from Tecnológico de Monterrey, and an MBA from Stanford University.



LUIS HERNÁNDEZ (55)
Executive Vice President of Digital and Organization Development

Luis Hernández joined CEMEX in 1996, and has held senior management positions in Strategic Planning and Human Resources. In his current position, he heads the areas of Organization and Human Resources, Information Technology, Digital Innovation, as well as Neoris. Luis holds a BS in Civil Engineering from Tecnológico de Monterrey, and a Master's degree in Civil Engineering and an MBA, both from the University of Texas at Austin.



IGNACIO MADRIDEJOS (53)
President CEMEX USA

Ignacio Madridejos joined CEMEX in 1996, and has held senior management positions in the Strategic Planning area, as well as head of operations in Egypt, Spain, Western Europe, and more recently, Northern Europe. Ignacio holds a MSc in Civil Engineering from the Polytechnic University of Madrid, and an MBA from Stanford University.



SERGIO MENÉNDEZ (48)
President CEMEX Europe

Sergio Menéndez joined CEMEX in 1993. He has held several executive positions, including Director of Planning and Logistics in Asia, Corporate Director of Commercial Development, President of CEMEX Philippines, Vice President of Strategic Planning for Europe, Middle East, Africa and Asia region, President of CEMEX Egypt, Vice President of Infrastructure Segment and Government Sales in Mexico, and more recently as Vice President of Distribution Segment Sales in Mexico. Sergio holds a BS in Industrial Engineering from Tecnológico de Monterrey, and an MBA from Stanford University.



JAIME MUGUIRO (50)
President CEMEX South, Central America and the Caribbean

Jaime Muguíro joined CEMEX in 1996, and has held several executive positions in the Strategic Planning, Business Development, Ready-Mix Concrete, Aggregates, and Human Resources areas, and also headed CEMEX operations in Egypt and our operations in the Mediterranean region. He holds a BA in Management from San Pablo CEU University, Spain, a Law degree from the Universidad Complutense of Madrid, and an MBA from the Massachusetts Institute of Technology.



RICARDO NAYA (46)
President CEMEX Mexico

Ricardo Naya joined CEMEX in 1996. He has held several executive positions, including Vice President of Strategic Planning for South, Central America and the Caribbean region, Vice President of Strategic Planning for Europe, Middle East, Africa and Asia region, President of CEMEX Poland and Czech Republic, Vice President of Commercial and Marketing in Mexico, Vice President of Distribution Segment Sales in Mexico, and more recently as President of CEMEX Colombia. Ricardo holds a BA in Economics from Tecnológico de Monterrey, and an MBA from the Massachusetts Institute of Technology.



JUAN ROMERO (62)
Executive Vice President of Global Commercial Development

Juan Romero joined CEMEX in 1989, and has held several senior positions, including head of operations in Colombia and Mexico, President of the CEMEX South America and the Caribbean region, President of the CEMEX Europe, Middle East, Africa and Asia region, and more recently as President of CEMEX Mexico. Juan Romero holds BA and BS degrees in Law, Economics and Management from the University of Comillas, Spain.



JUAN PABLO SAN AGUSTÍN (50)
Executive Vice President of Strategic Planning and New Business Development

Juan Pablo San Agustín joined CEMEX in 1994, and has held senior positions in the Strategic Planning, Continuous Improvement, e-Business, and Marketing areas. Currently, he is also President of CEMEX Ventures. He holds a BS in Administration from the Metropolitan University, Spain, and an MBA from the Instituto de Empresa.

Ethics and Compliance



ETHOSline

STRENGTHENING BUSINESS ETHICS AND TRANSPARENCY

At CEMEX, we are committed to conducting our business in compliance with applicable laws, rules, and regulations and in accordance with high ethical standards. As our industry evolves, our values continue to serve as the pillars upon which we base our actions. They express who we are, how we behave, and what we believe in.

A culture of integrity is critical to achieving our sustainable growth. High levels of trust, together with a strong business reputation, make it easier to operate; help attract and retain our people, customers, and suppliers; contribute to good relationships in our local communities; and pave the way to confidently enter new markets. Compliance is an essential element of our company's culture of integrity—requiring responsible conduct from all of our employees, directors, and third-party business partners in accordance with all applicable laws, internal codes, and policies.

CEMEX'S CODE OF ETHICS

We established our enhanced Code of Ethics and Business Conduct that seeks that all of our employees abide by the same high standards of conduct. The Code governs our relationships with all of our stakeholders and addresses anti-bribery, antitrust compliance, prevention of money laundering, related-person transactions, workplace health and safety, environmental responsibility, confidentiality terms, conflicts of interest, financial controls and records, and preservation of assets. Through our local ethics committees, training programs, global integrity campaigns, and secure internal communication channels, we create awareness and enforcement of the Code. We periodically evaluate and update its provisions as needed; in fact, this year we decided to enhance it. The main updates to the Code are:

- › A reference that guides our actions, inspires choices, and helps us live up to our ethical principles in the day-today activities
- › Emphasizes the role that each of us plays in building trust, and the approach we should take in making decisions.

- › Easy to read for a multigenerational workforce (removed redundancies)
- › Addition of relevant items (e.g. cap on gifts & courtesies, sexual harassment, conflict of interest clarity)
- › Provide clarity on whether it is accepted or not
- › Provide answers to most common inquiries.

For its official presentation to all of our employees, our CEO hosted a global webcast, highlighting the Code's importance and seeking that we all remain aware of the right ethical behaviors and of the guidelines and controls in place.

OUR REPORTING MECHANISM - ETHOSLINE

If there are concerns or suspected ethics, governance or compliance violations, it's important that our employees, our stakeholders, and the general public have a trusted place to which they can turn. Managed by an autonomous third party, our ETHOSline provides an online portal and phone line for sending comments, requesting advice, and submitting complaints on these

topics. Accessible through our company website, this secure, confidential, and independent portal is available 24 hours a day, seven days a week. It is open and free for all to use.

Our main goal is to get to the bottom of every report; all cases are looked at. We carry out a review, then if needed, an investigation to handle it according to our ETHOS Manual, and if applicable, apply consequences if our Code of Ethics is violated.

CASES REPORTED THROUGH ETHOSline



2018 REPORTED ETHICS BREACHES BY CATEGORY
(number of cases)



Overall, from a total of 630 cases reported through our official reporting channels in 2018, 483 were closed, of which 187 were found to be true and 166 disciplinary actions were taken. From the true cases reported, 78 employees were dismissed as a result of investigations.

BUSINESS ETHICS TRAINING AND COMMUNICATION

Our employees are informed of CEMEX's business ethics principles in various ways, including our Code of Ethics, internal communication channels, face-to-face and online legal training, as well as through our Policy Center in our intranet, legal audits, relevant global policies, and other related activities. In 2018, we designed and rolled out two global communication campaigns in relation to ETHOSline awareness and our ethics framework. Additionally, more than 1,000 communication actions to strengthen employees' awareness of business ethics and human rights issues were deployed across our business units, reaching our online and offline employees. These campaigns and actions also help to promote our company values, policies and procedures and to inform our employees about unacceptable behavior such as discrimination, improper treatment, mobbing, theft, rules for gifts and courtesies, and workplace harassment, as well as to reinforce our institutional reporting mechanisms.

During 2018, close to 8,400 employees received training related to business ethics, human rights and legal compliance dedicating for this purpose 14,400 hours in total. As a special effort, this year, our CEO sent a dedicated invitation to all executive position employees to complete an Anti-Corruption online course.

Moreover, 903 employees, including top management, participated in our ETHOS Awareness sessions, designed and launched in 2017 to create awareness about our ethics program and its composition, the expected way each employee should embrace integrity daily, and discuss possible scenarios. Employees from different organizational levels and backgrounds were able to participate in an open conversation about ethics topics.

CEMEX ETHOS GLOBAL PROGRAM

CEMEX abides by fair trade and competition principles, and we do not tolerate price-fixing, market allocation, predatory pricing or other illegal market practices. Our Anti-Bribery/ Anti-Corruption Global Policy, Global Antitrust Policy, Global Conflict of Interest Policy, Related Person Transactions Policy, and Insider Trading Policy outline our procedures and commitment to global expectations and standards.

2018 ETHICS AND COMPLIANCE RELATED TRAINING

TOPIC	EMPLOYEES TRAINED	TOTAL TRAINING HOURS
Antitrust, Anti-corruption	6,346	10,942
ETHOS Awareness Sessions	903	1,806
Data Protection	387	924
Code of Ethics and Business Conduct	275	286
Conflict of Interest	227	247
Workplace behavior / Workplace harassment	191	191
Anti-Money Laundering	31	19
TOTAL	8,360	14,414



+14,000 HOURS

OF BUSINESS ETHICS and Human Rights training to our employees in 2018.

To further foresee that our employees act in a manner consistent with our values, CEMEX Global Compliance Program evolved into a more integrated approach: CEMEX ETHOS Global Program. With a worldwide focus, led by our ETHOS Group and local ETHOS Committees, the program consists of a set of principles, rules, controls, procedures, guidelines, and bodies designed to comply with the laws and standards of conduct applicable to our company. CEMEX ETHOS Global Program works as an internal network coordinating six core corporate functions with ethics and compliance-related responsibilities:

1. **LEGAL** - responsible for developing and updating relevant policies; carrying out trainings and legal audits; setting and carrying out proper oversight of third-party management; and managing compliance-related complaints.
2. **OHR** - responsible for defining and enhancing CEMEX Code of Ethics; deploying the ethics training program; administering ETHOSline; coordinating and administering local ETHOS Committees; investigating cases within their responsibilities; assuming co-responsibility for CEMEX ETHOS Global Program; promoting a culture of ethics and reporting; and providing end-to-end case management.



3. **INTERNAL CONTROL** - responsible for implementing controls and compliance with policies; and deploying an internal control model in order to reduce risk exposure and the likelihood of significant and/or severe deficiencies in the processes and procedures governing our company's operations.

4. **GLOBAL SERVICE ORGANIZATION (GSO)** - responsible for delivering business services to CEMEX operations, while complying with both our internal and external control requirements and corporate governance model; and performing internal control responsibilities, such as performing SOX testing, following up on remediation plans, advising process owners on items related to internal control, performing change management tests, and promoting compliance with policies.

5. **PROCESS ASSESSMENT** - responsible for overseeing internal audits of controls and compliance with policies; conducting worldwide internal audits; conducting special fraud investigations; performing SOX audit compliance; conducting CAPEX audits; and monitoring risk.

6. **ENTERPRISE RISK MANAGEMENT (ERM)** - responsible for analyzing local and global compliance risks; performing risk oversight, includes risk identification, monitoring, assessment, reporting, and mitigation; and following up on risk mitigation measures.

As part of the Legal function's program responsibilities, special attention is given to the most sensitive countries concerning corruption risks to our business system process. With a focus on such relevant policies as insider trading, anticorruption, antitrust, conflicts of interest, information retention, and privacy, among others, in 2018, we conducted 250 internal legal audits in 19 countries. Our Code of Ethics reflects the requirements of the Sarbanes-Oxley Act of 2002 (SOX).

Our Commitment to Respect Human Rights

PROGRESS TOWARDS OUR COMMITMENT TO HUMAN RIGHTS

Human rights are the fundamental rights, freedoms, and standards of treatment to which all people are entitled. Respecting human rights is reinforced in our core value of "Acting with Integrity," which is embedded in the way we do business.

At CEMEX, we aim to align our strategy and operations with universal principles of human rights. We understand that these principles constitute a global standard of expected corporate conduct applicable to all our operations.

Accordingly, we are actively and continuously determined to meet our responsibility to respect all human rights while fostering their respect among our business partners.

As a signatory and active participant in the UN Global Compact (UNGC) since 2004, we reaffirm our support of its 10 principles on Human Rights, Labor, Environment, and Anti-Corruption. To demonstrate our strong commitment

to these principles, we annually submit an Advanced Communication of Progress (COP) to the UNGC.

During 2018, we worked to enhance our Human Rights Policy based on a Human Rights Compliance Self Assessment conducted in over 30 countries. This bottom-up exercise enabled us to upgrade and integrate our 2014 Human Rights Policy.

Our 2018 Human Rights Policy reflects our support and respect for the protection of internationally proclaimed human rights principles, as expressed in the International Bill of Human Rights and the International Labor Organization's Declaration on Fundamental Principles and Rights at Work. In addition, it recognizes employees, communities, contractors, and suppliers as main areas of impact and reaffirms our commitment to the promotion of and respect for human rights throughout our worldwide operations, local communities, and supply chain.



2004

CEMEX becomes a signatory to the UN Global Compact.



2014

CEMEX approaches Shift for expert advice on the UN Guiding Principles on Business and Human Rights (UNGPs) and key gaps in policies and processes.



2014

CEMEX releases its first Human Rights Policy Statement.

2017

CEMEX executes a Human Rights Compliance Assessment in 30 countries to identify risks to people.

2018

CEO signs enhanced Human Rights Policy.

2018

Release of Diversity and Inclusion Global Policy.

2018

CEMEX Code of Ethics is enhanced



2018

CEMEX enrollment in the UN Global Compact changes to participant

HUMAN RIGHTS POLICY IMPLEMENTATION

The implementation of our Human Rights Policy is focused on establishing the right controls throughout our existing governance processes and tools. Human Rights is currently included in both our Code of Ethics and Business Conduct and our Suppliers Code of Conduct.

Policies that govern our day-to-day operations enable us to implement and safeguard our Human Rights commitments, including our Health and Safety Policy, Stakeholder Engagement Policy, Environmental Policy, Water Policy, and Biodiversity Policy, among others.

We expect all of our policies and procedures to be applied consistently wherever we operate by our employees, suppliers, contractors, and other business partners.

As a result of our Human Rights Compliance Self-Assessment, we also reinforced our expectations for our suppliers by including Human Rights, Labor, Antitrust, and other Sustainability clauses in their contracts and purchase orders.

Consistent with our commitment to build a truly diverse CEMEX team in conjunction with existing and future programs and initiatives, our Global Diversity and Inclusion Policy will sup-



port our continuous, constantly evolving journey to create a more inclusive, diverse workplace.

This new policy underscores our serious commitment to cultivate an environment that embraces possibilities for everyone and promotes an atmosphere of openness, courageousness, generosity, and respect, so all of our employees can perform at their best.

EXISTING CEMEX GLOBAL POLICY	HUMAN RIGHTS COMPONENTS
HEALTH AND SAFETY POLICY	<ul style="list-style-type: none"> Zero injuries is not only possible but our moral responsibility Provide a safe and healthy workplace for our employees and contractors Comply with companies' policies, Health and Safety Management System, procedures and all applicable local laws Develop a positive health and safety culture whereby individuals look after the health and safety of each other and share our belief that the achievement of ZERO injuries is possible.
STAKEHOLDER ENGAGEMENT POLICY	<ul style="list-style-type: none"> We strive to build mutually beneficial relationships with our stakeholder and communities CEMEX is committed to engage its stakeholders in an ongoing and transparent way We seek to create value to society through our core business activities
ENVIRONMENTAL POLICY	<ul style="list-style-type: none"> Actively pursue a policy of pollution prevention, applying best available techniques (BAT) to minimize the impact of our operations. Comply with company policies and procedures and all applicable local laws and regulations. Make strategic efforts to maximize our energy and resource efficiency, lower our carbon intensity and reduce emissions by managing our usage of energy, water consumption and waste generation. Responsibly manage the land within our operations to protect ecosystems and biodiversity and to maximize our contribution to nature conservation.
WATER POLICY	<ul style="list-style-type: none"> CEMEX is fully committed to carrying out our business activities in a sustainable manner, minimizing pressure on water resources and covering three essential aspects such as resource availability, resource quality and ecosystem integrity.
BIODIVERSITY POLICY	<ul style="list-style-type: none"> Align our biodiversity initiatives with our business model so that the identification, assessment and management of biodiversity values is considered in our decision-making process and management systems, throughout the life cycle of our sites
GLOBAL DIVERSITY AND INCLUSION POLICY	<ul style="list-style-type: none"> Our people represent a great range of different countries and cultures, as well as a broad range of backgrounds and experience; making CEMEX a stronger and more inclusive environment The company aligns its values with the principles of the United Nations Global Compact CEMEX aims to be a great place to work for all our employees Decisions are made without regard to gender, race, color, age, religion, mental or physical disability, pregnancy and maternity/paternity, marriage or civil partnership, sexual orientation or preference, political affiliation or nation origin

EXISTING CEMEX GLOBAL POLICY	HUMAN RIGHTS COMPONENTS
GLOBAL DATA PROTECTION AND PRIVACY POLICY	<ul style="list-style-type: none"> ■ CEMEX is fully committed to international compliance with data protection laws for protecting personal data of customers, suppliers, business partners and employees. ■ Processing of personal data must be done lawfully, fairly and in a transparent manner in order to protect the rights of data subjects from whom CEMEX processes personal data. Collection, processing and sharing of personal data should always be based on lawful purposes. ■ Data can be processed following consent by the data subject. Before giving consent, the data subject must be informed how his/her data is being used and for what purpose. ■ Only people who have a need to know and are authorized to use the personal data can access it. ■ Data subjects are entitled to a reasonable expectation of privacy in the processing of their personal data.
ANTI-BRIBERY/ ANTI-CORRUPTION GLOBAL POLICY	<ul style="list-style-type: none"> ■ This Global Policy applies to all CEMEX directors, officers and employees, regardless of where they reside or conduct business, CEMEX subsidiaries, affiliates and third party relationships over which CEMEX has control, including joint ventures, as well as all agents, consultants, business partners and other third-party representatives when they act on CEMEX's behalf. ■ Seeks compliance with anti-bribery/ anti-corruption laws.
CODE OF CONDUCT WHEN DOING BUSINESS WITH US	<ul style="list-style-type: none"> ■ Supplier Sustainability <ul style="list-style-type: none"> > Strengthen Human Rights > Encourages supplier to adhere to the highest ethical standards and practices > Comply with all antibribery laws > Seek for equality and fairness in supplier relations

HUMAN RIGHTS DUE DILIGENCE

CEMEX Human Rights due diligence process is embedded in our existing approach to risk management with a special focus on potential human rights risks to people. It is integrated into our company's regularly running formal processes, including:

➤ **ENTERPRISE RISK MANAGEMENT (ERM):** This dedicated corporate function permanently executes a process of risk detection and analysis at global, regional, and local levels by enabling the deployment of corresponding monitoring, mitigation, and reporting measures in a timely manner. As part of this process, a Global Risk Agenda is bi-annually presented to the Risk

Management Committee, comprised of CEMEX Executive Committee. Additionally, key material risks are evaluated and tracked by the Board-level Corporate Practices and Finance Committee. Other risk management processes within CEMEX, including internal controls and audits, complement the ERM function.

➤ **GLOBAL COMPLIANCE PROGRAM (GCP):** Legal compliance audits mostly focused on antitrust, anti-bribery, and insider trading issues are conducted throughout the year in all of the geographies where we operate, especially in the most sensitive countries relative to transparency and risks.

➤ **SUPPLIERS ASSESSMENT:** We partner with specialized independent firms to perform sustainability assessments of our suppliers across the globe. As part of their scope, these assessments include respect and promotion of human rights in their workforce and supply chain.

➤ **CONTRACTORS ASSESSMENT:** This program is designed to pursue that those contractors with which we engage are equally committed to respect human rights aligned with the health and safety of their employees, clients, and the communities in which they operate. To support CEMEX in this important program, we rely on leading global technology and applications development firms.



GRIEVANCE MECHANISM: In addition to the above processes, our global grievance mechanisms enable us to maintain permanent communication with our key stakeholder groups, especially those that might be vulnerable under certain circumstances. Moreover, these open communication channels enable us to obtain valuable feedback to evaluate the effectiveness of implemented mitigation actions based on identified risks to people. Our main grievance mechanisms include:

a. ETHOSLINE: We seek to pursue that our values remain alive and our Code of Ethics is properly managed. Therefore, we encourage our employees, stakeholders, and the general public to submit suggestions, inquiries, and possible violations through our ETHOSLine communication channel available 24/7. This reporting mechanism

enables us to identify human rights related risks not only in our operations, but also in the communities where we work.

b. GLOBAL AND LOCAL ETHICS COMMITTEES: Composed of representatives from different functions in each of the countries in which we operate, these dedicated taskforces seek to ensure awareness and enforcement of our Code of Ethics. All of them receive, investigate, and collaborate to resolve reported ethics breaches, including those related to human rights.

c. STAKEHOLDER DIALOGUES: Aimed at getting to know and understand our stakeholders' needs and concerns, these dialogues enable us to identify potential impacts on people and properly address these risks.

d. LOCAL CORPORATE SOCIAL RESPONSIBILITY COMMITTEES: Composed of our plant's director and local environmental officials, trade union representatives, local mayors of nearby towns, neighborhood representatives, and other local institutions, these groups aim to build positive, sustainable relationships with our neighboring communities.

IDENTIFYING, PRIORITIZING, AND MITIGATING HUMAN RIGHTS IMPACTS

Complementary with our due diligence efforts, last year we carried out an internal Human Rights Compliance Self-Assessment to identify and assess potential human rights impacts and prioritize them according to their likelihood and impact severity.

Our internal Human Rights Compliance Self-Assessment was performed using our existing 2014 Human Rights Policy and was mainly complemented by the Danish Institute for Human Rights Quick Check methodology. It also included best practices from the Global Compact Self-Assessment tool and the UN Guiding Principles on Business and Human Rights, among others. To make the process more robust, we consulted international risk maps—compiled and published for consultation by globally recognized organizations—showing the level of vulnerability or the likelihood of human rights violations by country in areas such as working conditions, modern slavery, freedom of association,

tolerance and inclusion, civil and political rights, and environmental quality.

CEMEX Human Rights Compliance Assessment was deployed in more than 30 business units representing all of the countries in which we have cement, ready-mix concrete, and aggregates operations, maritime terminals, and our largest corporate offices, including CEMEX Global Headquarters. The human rights impacts evaluation in each country was executed through a joint effort coordinated by the local Ethics Committee, supported by a dedicated multidisciplinary group of experts from key functions, including Human Resources, Legal, Enterprise Risk Management, Procurement, Sustainability, Health & Safety, Communication, and Social Responsibility.

The Assessment encompassed approximately 100 questions focused on six main dimensions, which were defined considering the potential human rights impacts associated with our organization's core business, as well as relationships linked to these activities. For this purpose, the potentially vulnerable groups targeted not only included our employees, but was also extended to contractors and communities surrounding our operations segregated by children, women, disabled individuals, indigenous people, and migrant labor.



CEMEX Human Rights Compliance Assessment led to the overall identification of the main potential impacts on people in our operations and value chain. After classifying these issues based on their likelihood of occurrence and impact severity, we prioritized them and confirmed that the assessment indicated CEMEX five potential salient human rights impacts are:

- HEALTH AND SAFETY
- ENVIRONMENTAL FOOTPRINT
- COMMUNITY IMPACTS
- DIVERSITY AND DISCRIMINATION
- WORK-LIFE BALANCE



Considering the findings of the Human Rights Compliance Assessment, as a follow-up step, the identified impacts were discussed with each of the 30 evaluated countries and a basic remediation and mitigation plan was set to start working on the correction and prevention of those situations where human rights could be breached.

SALIENT HUMAN RIGHTS	POTENTIALLY IMPACTED STAKEHOLDERS				MAIN FUNCTIONS LEADING MITIGATION ACTIONS	RELATED ACTIVITIES
	EMPLOYEES	SUPPLIERS AND CONTRACTORS	CUSTOMERS	LOCAL COMMUNITIES		
HEALTH AND SAFETY					<ul style="list-style-type: none"> > H&S > OPERATIONS > PROCUREMENT > HUMAN RESOURCES > SUSTAINABILITY 	<ul style="list-style-type: none"> ■ Employee and contractor awareness and training foresee their decisions and actions align with safe and healthy behavior. During 2018, we dedicated about 70,000 hours to H&S training. ■ Open-door policy for our employees, contractors, and community members to share related complaints or suggestions
ENVIRONMENTAL FOOTPRINT					<ul style="list-style-type: none"> > SUSTAINABILITY > OPERATIONS > CSR > PROCUREMENT > LEGAL 	<ul style="list-style-type: none"> ■ Continuous assessment of our environmental impacts and risks to manage them proactively ■ Our global environmental policies seek to avoid, prevent, mitigate, and remediate impacts related to our activities. ■ A Monthly Environmental and Social Incidents Report details all events in the period. Besides statistics, it results in a direct message from our CEO requesting our operations to address and remediate identified situations.
COMMUNITY IMPACTS					<ul style="list-style-type: none"> > CSR > PUBLIC AFFAIRS > LEGAL > OPERATIONS > ERM > SUSTAINABILITY 	<ul style="list-style-type: none"> ■ CSR multi-stakeholder committees across all geographies foster empathy with our neighboring communities and enable us to incorporate insights into our human rights promotion and respect strategy. ■ Implementation of our Social and Environmental Model strengthens our responsible business strategy by deeply understanding and addressing our stakeholders' conditions, needs, and concerns. ■ Our inclusive business models tackle the many side effects of poverty, providing families with the space and privacy all humans need to live in harmony and children with healthy living and learning conditions.
DIVERSITY AND DISCRIMINATION					<ul style="list-style-type: none"> > HUMAN RESOURCES > CSR > LEGAL > SUSTAINABILITY 	<ul style="list-style-type: none"> ■ Development and launch of CEMEX Diversity and Inclusion Policy ■ Creation of Diversity Committees in our different business units help to shape and implement CEMEX inclusion strategy. ■ Recruitment personnel are trained on our non-discrimination policies. Furthermore, our employees receive training on how to identify and report discrimination issues. ■ In 2018, 58% of our business units implemented initiatives for women empowerment and 47% to create opportunities for those with disabilities. A total of 834 collaborators with some type of disability were integrated into our workforce by year-end.
WORK-LIFE BALANCE					<ul style="list-style-type: none"> > HUMAN RESOURCES > LEGAL > SUSTAINABILITY 	<ul style="list-style-type: none"> ■ Full implementation of time attendance systems and overtime policies ■ All of our business units have formal channels for employees to communicate needs and concerns regarding work-life balance and define actions for implementation based on this feedback. ■ In 2018, 580 initiatives to improve work-life balance were implemented across our business units, reaching 85% of our total employees. Examples include programs that support child and/or elderly care, allow sabbaticals, parental leave, and other benefits such as flex-time, home office, work time reduction on Fridays, and activities for families' integration, among others.

MOVING FORWARD TO CLOSE THE GAP

During 2018, we made significant progress in identifying and implementing preventive measures to avoid any human rights impacts in our operations. Through our operations' identification of their top five human rights impacts, we are developing a culture of awareness and accountability with the implementation of the UN Guiding Principles on Business and Human Rights.

CEMEX Human Rights Compliance Assessment enabled us to discuss and define action plans by country in order to proactively anticipate any potential human rights impacts. Nonetheless, we continue to work very closely with our operations to build their capabilities and maintain a robust mitigation and remediation model that enables us to prioritize and address human rights issues, while working to maximize our positive impacts.

Moreover, our 2030 sustainability targets—closely aligned with the UN SDGs—reflect our clear commitment to positively contribute to the most relevant themes of the Global United Nations Agenda. Our SDG strategy is human rights driven and integrates all of our efforts to positively excel in our contributions to society

OUR TOP FIVE

HUMAN RIGHTS IMPACTS are addressed through the development of a culture of awareness and accountability.





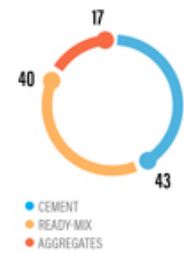
Our Performance in Detail

A **stronger** position to maximize opportunities

US\$2.6 BILLION

OPERATING EBITDA in 2018, an increase of 1% on a like-to-like basis.

SALES DISTRIBUTION BY PRODUCT (percentage)



SELECT CONSOLIDATED

Financial Information*

CEMEX, S.A.B. de C.V. and Subsidiaries (in millions of US dollars, except ADSs and per ADS amounts)

OPERATING RESULTS ⁽¹⁾	2014 ⁽¹⁾⁽²⁾	2015 ⁽¹⁾	2016 ⁽¹⁾	2017 ⁽¹⁾	2018 ⁽¹⁾
Net sales	14,975	13,723	13,327	13,635	14,375
Cost of sales ⁽²⁾	(10,096)	(9,043)	(8,544)	(8,944)	(9,500)
Gross profit	4,879	4,680	4,783	4,691	4,875
Operating expenses	(3,241)	(2,998)	(2,880)	(2,964)	(3,151)
Operating earnings before other expenses, net	1,638	1,682	1,903	1,727	1,724
Other expenses, net	(350)	(190)	(89)	(202)	(303)
Financial expense	(1,609)	(1,238)	(1,148)	(1,022)	(654)
Financial income (expense) and other items, net ⁽⁴⁾	194	(83)	239	192	5
Earnings (loss) before income taxes	(105)	217	941	725	805
Discontinued Operations, net of tax	9	64	38	183	11
Non-controlling interest net income ⁽⁵⁾	(85)	58	63	75	41
Controlling interest net income (loss)	(490)	75	750	806	543
Millions of average ADSs outstanding ⁽⁶⁾⁽⁷⁾	1,256	1,353	1,431	1,517	1,543
Controlling interest basic earnings (losses) per ADS ⁽⁸⁾⁽⁹⁾	(0.39)	0.06	0.53	0.53	0.35
Controlling interest basic earnings (losses) per ADS from continuing operations ⁽⁸⁾⁽⁹⁾		0.02	0.49	0.41	0.36
Controlling interest basic earnings (losses) per ADS from discontinued operations ⁽⁸⁾⁽⁹⁾		0.04	0.04	0.12	0.01
Dividends per ADS ⁽¹⁰⁾⁽¹¹⁾	na	na	na	na	na

STATEMENT OF FINANCIAL POSITION INFORMATION ⁽¹²⁾

Cash and cash equivalents	854	887	561	699	309
Net working capital ⁽¹³⁾	1,377	974	387	153	33
Assets from operations held for sale	-	313	1,015	70	107
Property, plant, and equipment, net ⁽¹⁴⁾	13,767	12,428	11,107	11,815	11,422
Total assets	34,936	31,472	28,949	28,890	28,124
Liabilities from operations held for sale	-	39	51	-	16
Short-term debt & other financial obligations ⁽¹⁵⁾	1,765	917	622	1,849	693
Long-term debt & other financial obligations ⁽¹⁶⁾	14,818	14,648	12,596	9,663	9,878
Total liabilities	24,884	21,967	19,455	18,182	16,951
Non-controlling interest and perpetual debentures ⁽¹⁷⁾	1,158	1,178	1,397	1,571	1,572
Total controlling interest	8,894	8,327	8,097	9,137	9,601
Total stockholders' equity	10,052	9,505	9,494	10,708	11,172
Book value per ADS ⁽¹⁸⁾⁽¹⁹⁾	7.08	6.15	5.66	6.02	6.22

OTHER FINANCIAL DATA

Operating margin	10.9%	12.3%	14.3%	12.7%	12.0%
Operating EBITDA margin ⁽²⁰⁾	17.8%	18.9%	20.7%	18.9%	17.8%
Operating EBITDA ⁽²⁰⁾	2,664	2,596	2,757	2,574	2,558
Free cash flow after maintenance capital expenditures ⁽²¹⁾	401	881	1,685	1,290	918

NOTES TO SELECT CONSOLIDATED FINANCIAL INFORMATION

1 In connection with the latest financial statements issued as of December 31, 2018, the financial information of 2018, 2017 and 2016 presents as discontinued operations CEMEX's operations in Brazil sold in September 2018, the Pacific Northwest Materials Business in the United States sold in June 2017, the Concrete Pipe Business in the United States sold in January 2017, the Bangladesh and Thailand operations sold in May 2016. In addition, the financial information of 2015 and 2014 presents as discontinued operations CEMEX's operations in Austria and Hungary sold in October 2015. The information of 2014 was not restated to reflect the discontinued operations in Brazil and the Pacific Northwest Materials Business and the Concrete Pipe Business in the United States but includes as discontinued operations CEMEX's operations in Croatia, including assets in Bosnia and Herzegovina, which were available for sale in 2014 but that CEMEX decided to retain in 2017 after the European Commission ruled in that year against the sale. See note 4.2 in our consolidated financial statements included elsewhere in this annual report.

2 Selected financial information of the statement of financial position of 2014 presents CEMEX's operations in Austria and Hungary as held for sale and was not restated to reverse the discontinued operations in Croatia. The amounts are not material.

3 Cost of sales includes depreciation, amortization and depletion of assets involved in the production, expenses related to storage in producing plants, freight

expenses of raw material in plants and delivery expenses of CEMEX's ready-mix concrete business.

4 Financial income (expense) and other items, net, includes financial income, realized and unrealized gains and losses from financial instruments, foreign exchange results and the effects of net present value on assets and liabilities.

5 From 2014 through 2018, non-controlling interest includes US\$466 million, US\$440 million, US\$438 million, US\$448 million and US\$444 million, respectively; of aggregate notional amounts of perpetual debentures issued by consolidated entities. For accounting purposes, these debentures represent equity instruments (See note 20.4 to the 2018 Annual Report's Financial Statements).

6 CEMEX, S.A.B. de C.V.'s CPOs are listed on the Mexican Stock Exchange. CEMEX, S.A.B. de C.V.'s ADSs, each of which currently represents ten CPOs, are listed on the New York Stock Exchange ("NYSE"). In the Consolidated Financial Statements, earnings (loss) per share are presented on a per-share basis (See note 22 to the 2018 Annual Report's Financial Statements).

7 The number of ADSs outstanding, stated in millions of ADSs, represents: (i) the total average amount of ADS equivalent units outstanding of each year, (ii) includes the total number of ADS equivalents issued in underlying derivative transactions, and (iii) excludes the total number of ADS equivalents issued by CEMEX and owned by its subsidiaries.

8 For purposes of the selected financial information for the periods ended December 31, 2014 through 2018, the controlling interest basic earnings (losses) per ADS amounts were determined by considering the average amount of balance number of ADS equivalent units outstanding during each year. These numbers of ADSs outstanding were not restated retrospectively neither to give effect to stock dividends occurring during the period nor to present the controlling earnings (loss)-per-ADS of continuing and discontinuing operations, as it is required under IFRS for their disclosure in the consolidated financial statements.

9 Dividends declared at each year's annual stockholders' meeting for each period are reflected as dividends for the preceding year. We did not declare a dividend for fiscal years 2014 to 2017. Instead, at our annual shareholders' meetings held on years 2015 through 2017, CEMEX's stockholders approved a capitalization of retained earnings. New CPOs issued pursuant to the capitalization were allocated to shareholders on a pro-rata basis. As a result, shares equivalent to approximately 500 million CPOs, 539 million CPOs, and 562 million CPOs were issued and paid each year from 2015 through 2017, respectively. CPO holders received one new CPO for each 25 CPOs held, and ADS holders received one new ADS for each 25 ADSs held. There was no cash distribution and no entitlement to fractional shares. In our annual shareholders' meeting held in 2018, there was no capitalization of retained earnings. (See note 20.1 to the 2018 Annual Report's Financial Statements).

10 In 2014 this item was not restated to reverse the presentation of Croatian Operations in discontinued operations. Please refer to page 213 for the definition of terms.

11 In 2018 excludes the assets of central region of France; that were classified as held for sale. In 2017 excludes the assets of Andorra, Spain; that were classified as held for sale. In 2016 excludes the assets of Fairborn cement plant, United States; Concrete pumping equipment, Mexico; and Andorra, Spain that were classified as held for sale. In 2015, excludes the assets of Andorra, Spain (See note 12.1 to the 2018 Annual Report's Financial Statements).

12 From 2014 through 2018, other financial obligations include the liability components associated with CEMEX's financial instruments convertible into CEMEX's CPOs, liabilities secured with accounts receivable as well as CEMEX's capital leases (See note 16.2 to the 2018 Annual Report's Financial Statements).

1 As a result of requirements by the National Banking and Exchange Commission, CEMEX prepares its consolidated financial statements using International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board.

2 The effects associated with newly issued IFRS are recognized in the year when they become mandatory and are applied retrospectively only for comparative prior periods presented in the set of financial statements issued in the year of adoption. Earlier periods are not restated to give retroactive effect to such new standards.

Consolidated Income Statements

CEMEX, S.A.B. de C.V. and Subsidiaries
(Millions of Mexican pesos,
except for earnings per share)

	Notes	Years ended December 31,		
		2018	2017	2016
Revenues	3	\$ 276,855	257,437	249,477
Cost of sales	2.16	(182,965)	(168,858)	(159,946)
Gross profit		93,890	88,579	89,531
Operating expenses	2.16, 5	(60,694)	(55,967)	(53,913)
Operating earnings before other expenses, net	2.1	33,196	32,612	35,618
Other expenses, net	6	(5,837)	(3,815)	(1,670)
Operating earnings		27,359	28,797	33,948
Financial expense	16	(12,597)	(19,301)	(21,487)
Financial income and other items, net	7	96	3,616	4,467
Share of profit of equity accounted investees	13.1	653	588	688
Earnings before income tax		15,511	13,700	17,616
Income tax	19	(4,467)	(520)	(3,125)
Net income from continuing operations		11,044	13,180	14,491
Discontinued operations	4.2	212	3,461	713
CONSOLIDATED NET INCOME		11,256	16,641	15,204
Non-controlling interest net income		789	1,417	1,173
CONTROLLING INTEREST NET INCOME		\$ 10,467	15,224	14,031
Basic earnings per share	22	\$ 0.22	0.34	0.32
Basic earnings per share from continuing operations	22	\$ 0.22	0.26	0.30
Diluted earnings per share	22	\$ 0.22	0.34	0.32
Diluted earnings per share from continuing operations	22	\$ 0.22	0.26	0.30

The accompanying notes are part of these consolidated financial statements.

Consolidated Statements of Comprehensive Income

CEMEX, S.A.B. de C.V. and Subsidiaries
(Millions of Mexican pesos)

	Notes	Years ended December 31,		
		2018	2017	2016
CONSOLIDATED NET INCOME		\$ 11,256	16,641	15,204
Items that will not be reclassified subsequently to the income statement				
Net actuarial gains (losses) from remeasurements of defined benefit pension plans	18	3,404	3	(4,019)
Income tax recognized directly in other comprehensive income	19	(530)	(1)	788
		2,874	2	(3,231)
Items that are or may be reclassified subsequently to the income statement				
Effects from available-for-sale investments and derivative financial instruments designated as cash flow hedges	13.2, 16.4	(2,285)	275	36
Currency translation results of foreign subsidiaries	20.2	(1,700)	(9,519)	11,630
Income tax recognized directly in other comprehensive income	19	752	233	(696)
		(3,233)	(9,011)	10,970
Total items of other comprehensive income, net		(359)	(9,009)	7,739
TOTAL COMPREHENSIVE INCOME		10,897	7,632	22,943
Non-controlling interest comprehensive income		9	1,928	5,164
CONTROLLING INTEREST COMPREHENSIVE INCOME		\$ 10,888	5,704	17,779

The accompanying notes are part of these consolidated financial statements.

Consolidated Statements of Financial Position

CEMEX, S.A.B. de C.V. and Subsidiaries
(Millions of Mexican pesos)

	Note	December 31,	
		2018	2017
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	8	\$ 6,068	13,741
Trade accounts receivable, net	9	29,248	30,588
Other accounts receivable	10	6,149	4,970
Inventories, net	11	21,248	18,852
Assets held for sale	12.1	2,100	1,378
Other current assets	12.2	2,447	1,946
Total current assets		67,260	71,475
NON-CURRENT ASSETS			
Equity accounted investees	13.1	9,492	8,572
Other investments and non-current accounts receivable	13.2	5,271	5,758
Property, machinery and equipment, net	14	224,440	232,160
Goodwill and intangible assets, net	15	234,598	234,909
Deferred income tax assets	19.2	11,567	14,817
Total non-current assets		485,368	496,216
TOTAL ASSETS		\$ 552,628	567,691
LIABILITIES AND STOCKHOLDERS' EQUITY			
CURRENT LIABILITIES			
Short-term debt	16.1	\$ 883	16,973
Other financial obligations	16.2	12,739	19,362
Trade payables		49,846	46,428
Income tax payable		4,169	5,129
Other current liabilities	17	22,200	24,396
Liabilities directly related to assets held for sale	12.1	314	-
Total current liabilities		90,151	112,288
NON-CURRENT LIABILITIES			
Long-term debt	16.1	182,074	177,022
Other financial obligations	16.2	12,028	12,859
Employee benefits	18	18,937	23,653
Deferred income tax liabilities	19.2	14,900	15,801
Other non-current liabilities	17	15,005	15,649
Total non-current liabilities		242,944	244,984
TOTAL LIABILITIES		333,095	357,272
STOCKHOLDERS' EQUITY			
Controlling interest:			
Common stock and additional paid-in capital	20.1	145,322	144,654
Other equity reserves	20.2	11,869	13,483
Retained earnings	20.3	20,992	6,179
Net income		10,467	15,224
Total controlling interest		188,650	179,540
Non-controlling interest and perpetual debentures	20.4	30,883	30,879
TOTAL STOCKHOLDERS' EQUITY		219,533	210,419
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		\$ 552,628	567,691

The accompanying notes are part of these consolidated financial statements.

Consolidated Statements of Cash Flows

CEMEX, S.A.B. de C.V. and Subsidiaries
(Millions of Mexican pesos)

	Notes	Years ended December 31,		
		2018	2017	2016
OPERATING ACTIVITIES				
Consolidated net income		\$ 11,256	16,641	15,204
Discontinued operations		212	3,461	713
Net income from continuing operations		\$ 11,044	13,180	14,491
Non-cash items:				
Depreciation and amortization of assets	5	16,070	15,988	15,987
Impairment losses	6	1,188	2,936	2,518
Share of profit of equity accounted investees	13.1	(653)	(588)	(688)
Results on sale of subsidiaries, other disposal groups and others		(239)	(4,340)	(2,128)
Financial income and other items, net		12,501	15,685	17,020
Income taxes	19	4,467	520	3,125
Changes in working capital, excluding income taxes		(1,062)	8,039	11,017
Net cash flow provided by operating activities from continuing operations before financial expense, coupons on perpetual debentures and income taxes		43,316	51,420	61,342
Financial expense and coupons on perpetual debentures paid	20.4	(12,846)	(15,759)	(18,129)
Income taxes paid		(3,935)	(4,664)	(5,183)
Net cash flow provided by operating activities from continuing operations		26,535	30,997	38,030
Net cash flow provided by operating activities from discontinued operations		10	108	1,192
Net cash flows provided by operating activities		26,545	31,105	39,222
INVESTING ACTIVITIES				
Property, machinery and equipment, net	14	(11,631)	(10,753)	(4,563)
Acquisition and disposal of subsidiaries and other disposal groups, net	4.1, 13.1	(481)	23,841	1,424
Intangible assets and other deferred charges	15	(3,627)	(1,607)	(1,427)
Non-current assets and others, net		52	126	(914)
Net cash flows provided by (used in) investing activities from continuing operations		(15,687)	11,607	(5,480)
Net cash flows provided by (used in) investing activities from discontinued operations		-	-	1
Net cash flows provided by (used in) investing activities		(15,687)	11,607	(5,479)
FINANCING ACTIVITIES				
Sale of non-controlling interests in subsidiaries	20.4	-	(55)	9,777
Derivative instruments		392	246	399
Repayment of debt, net	16.1	(9,260)	(37,826)	(41,044)
Other financial obligations, net	16.2	(7,082)	(1,473)	(5,779)
Share repurchase program	20.1	(1,520)	-	-
Securitization of trade receivables		644	169	(999)
Non-current liabilities, net		(2,716)	(3,745)	(1,972)
Net cash flows used in financing activities		(19,542)	(42,684)	(39,618)
Decrease in cash and cash equivalents from continuing operations		(6,694)	(80)	(7,068)
Increase in cash and cash equivalents from discontinued operations		10	108	1,193
Cash conversion effect, net		1,011	2,097	2,169
Cash and cash equivalents at beginning of period		13,741	11,616	15,322
CASH AND CASH EQUIVALENTS AT END OF PERIOD	8	\$ 6,068	13,741	11,616
Changes in working capital, excluding income taxes:				
Trade receivables, net		\$ 207	1,489	(4,386)
Other accounts receivable and other assets		(1,670)	1,120	(286)
Inventories		(2,970)	526	(1,239)
Trade payables		4,680	3,635	13,729
Other accounts payable and accrued expenses		(1,309)	1,269	3,199
Changes in working capital, excluding income taxes		\$ (1,062)	8,039	11,017

The accompanying notes are part of these consolidated financial statements.

Statements of Changes in Stockholders' Equity

CEMEX, S.A.B. de C.V. and Subsidiaries
(Millions of Mexican pesos)

	Note	Common stock	Additional paid-in capital	Other equity reserves	Retained earnings	Total controlling interest	Non-controlling interest	Total stockholders' equity
Balance as of December 31, 2015		\$ 4,158	115,466	15,273	8,582	143,479	20,289	163,768
Net income		-	-	-	14,031	14,031	1,173	15,204
Total other items of comprehensive income	20.2	-	-	3,748	-	3,748	3,991	7,739
Capitalization of retained earnings	20.1	4	6,966	-	(6,970)	-	-	-
Share-based compensation	21	-	742	-	-	742	-	742
Effects of perpetual debentures	20.4	-	-	(507)	-	(507)	-	(507)
Changes in non-controlling interest	20.4	-	-	6,279	-	6,279	3,498	9,777
Balance as of December 31, 2016		4,162	123,174	24,793	15,643	167,772	28,951	196,723
Net income		-	-	-	15,224	15,224	1,417	16,641
Total other items of comprehensive income, net	20.2	-	-	(9,520)	-	(9,520)	511	(9,009)
Capitalization of retained earnings	20.1	5	9,459	-	(9,464)	-	-	-
Effects of early conversion of convertible subordinated notes	16.2	4	7,059	(1,334)	-	5,729	-	5,729
Share-based compensation	21	-	791	26	-	817	-	817
Effects of perpetual debentures	20.4	-	-	(482)	-	(482)	-	(482)
Balance as of December 31, 2017		4,171	140,483	13,483	21,403	179,540	30,879	210,419
Effects from adoption of IFRS 9	2.1	-	-	-	(411)	(411)	(5)	(416)
Balance as of January 1, 2018		4,171	140,483	13,483	20,992	179,129	30,874	210,003
Net income		-	-	-	10,467	10,467	789	11,256
Total other items of comprehensive income, net	20.2	-	-	421	-	421	(780)	(359)
Own shares purchased under share repurchase program	20.1	-	-	(1,520)	-	(1,520)	-	(1,520)
Share-based compensation	21	-	668	38	-	706	-	706
Effects of perpetual debentures	20.4	-	-	(553)	-	(553)	-	(553)
Balance as of December 31, 2018		\$ 4,171	141,151	11,869	31,459	188,650	30,883	219,533

The accompanying notes are part of these consolidated financial statements.

Notes to the Consolidated Financial Statements

CEMEX, S.A.B. de C.V. and Subsidiaries
As of December 31, 2018, 2017 and 2016
(Millions of Mexican pesos)

1) DESCRIPTION OF BUSINESS

CEMEX, S.A.B. de C.V. founded in 1906, is a public stock corporation with variable capital (S.A.B. de C.V.) organized under the laws of the United Mexican States, or Mexico, 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. In addition, in order to facilitate the acquisition of financing and to run its operations in Mexico more efficiently, CEMEX, S.A.B. de C.V. carries out all businesses and operational activities of the cement, ready-mix concrete and aggregates sectors 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") 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 January 30, 2019 considering the favorable recommendation of its Audit Committee. These financial statements will be submitted for authorization to the Annual General Ordinary Shareholders' Meeting of the Parent Company on March 28, 2019.

2) SIGNIFICANT ACCOUNTING POLICIES

2.1) Basis of presentation and disclosure

The consolidated financial statements as of December 31, 2018 and 2017 and for the years ended December 31, 2018, 2017 and 2016, 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

During the reported periods, the presentation currency of the consolidated financial statements was the Mexican peso. When reference is made to "pesos" or "\$" it means Mexican pesos. 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, 2018 and 2017, translations of pesos into dollars and dollars into pesos, were determined for statement of financial position amounts using the closing exchange rate of \$19.65 for both years, and for statements of operations amounts, using the average exchange rates of \$19.26, \$18.88 and \$18.72 pesos per dollar for 2018, 2017 and 2016, 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.

Amounts disclosed in the notes in connection with tax and/or legal proceedings (notes 19.4 and 24), which are originated in jurisdictions where currencies are different from the peso or 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.

Newly issued IFRS adopted in 2018

IFRS 9, *Financial Instruments: classification and measurement* ("IFRS 9") (note 2.6)

Effective beginning January 1, 2018, IFRS 9 sets forth the guidance relating to the classification and measurement of financial assets and financial liabilities, the accounting for expected credit losses of financial assets and commitments to extend credits, as well as the requirements for hedge accounting; and replaced IAS 39, *Financial Instruments: recognition and measurement* ("IAS 39"). CEMEX applied IFRS 9 prospectively. The accounting policies were changed to comply with IFRS 9. The changes required by IFRS 9 are described as follows:

Among other aspects, IFRS 9 changed the classification categories for financial assets under IAS 39 and replaced them with categories that more closely reflect the measurement method, the contractual cash flow characteristics and the entity's business model for managing the financial asset:

- Cash and cash equivalents, trade and other accounts receivable and other financial assets, which were classified as "Loans and receivables" and measured at amortized cost under IAS 39, are now classified as "Held to collect" under IFRS 9 and continue to be measured at amortized cost.
- Investments and non-current accounts receivable that were classified as "Held to maturity" and measured at amortized cost under IAS 39, are now classified as "Held to collect" under IFRS 9 and continue to be measured at amortized cost.
- Investments that were classified as "Held for trading" and measured at fair value through profit or loss under IAS 39, are now classified as "Other investments" under IFRS 9 and are measured at fair value through profit or loss.
- Certain investments that were classified as "Held for sale" and measured at fair value through other comprehensive income under IAS 39, are now considered as strategic investments under IFRS 9 and continue to be measured at fair value through other comprehensive income.

Debt instruments and other financial obligations continue to be classified as "Loans" and measured at amortized cost under IFRS 9 and derivative financial instruments continue to be measured at fair value through profit or loss under IFRS 9.

CEMEX assessed which business models applied to its financial assets and liabilities as of the date of initial application of IFRS 9 and classified its financial instruments into the appropriate IFRS 9 categories. As of January 1, 2018, the changes due to the classification and measurement requirements under IFRS 9 did not impact either the measurement or carrying amount of financial assets and liabilities and there was no effect on CEMEX's retained earnings.

In addition, under the new impairment model under IFRS 9 based on expected credit losses, impairment losses for the entire lifetime of financial assets, including trade accounts receivable, are recognized 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. CEMEX developed an expected credit loss model applicable to its trade accounts receivable that considers the historical performance and economic environment, as well as the credit risk and expected developments for each group of customers and applied the simplified approach upon adoption of IFRS 9. The effects of the adoption of IFRS 9 on January 1, 2018 related to the expected credit loss model represented an increase in the allowance for expected credit losses of \$570 recognized against retained earnings, net of a deferred income tax asset of \$154. The balances of such allowance and deferred tax assets increased from the reported amounts as of December 31, 2017 of \$2,145 and \$14,817, respectively, to \$2,715 and \$14,971 as of January 1, 2018, respectively, after the adoption effects.

In connection with hedge accounting under IFRS 9, among other changes, there is a relief for entities in performing: a) the retrospective effectiveness test at inception of the hedging relationship; and b) the requirement to maintain a prospective effectiveness ratio between 0.8 and 1.25 at each reporting date for purposes of sustaining the hedging designation, both requirements of IAS 39. Under IFRS 9, a hedging relationship can be 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. IFRS 9 maintains the same hedge accounting categories of cash flow hedge, fair value hedge and hedge of a net investment established in IAS 39, as well as the requirement of recognizing the ineffective portion of a cash flow hedge immediately in the income statement. CEMEX performed an analysis of its derivative financial instruments upon adoption of IFRS 9 on January 1, 2018 and determined that the changes in hedge accounting described above did not impact either the measurement or carrying amount of the assets and liabilities related to its derivative financial instruments and there was no effect on CEMEX's retained earnings.

IFRS 15, Revenues from contracts with customers ("IFRS 15") (note 2.15)

Under IFRS 15, an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services, following a five step model: Step 1: Identify the contract(s) with a customer (agreement that creates enforceable rights and obligations); Step 2: Identify the different performance obligations (promises) in the contract and account for those separately; Step 3: Determine the transaction price (amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services); Step 4: Allocate the transaction price to each performance obligation based on the relative stand-alone selling prices of each distinct good or service; and Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation by transferring control of a promised good or service to the customer. A performance obligation may be satisfied at a point in time (typically for the sale of goods) or over time (typically for the sale of services and construction contracts). IFRS 15 also includes disclosure requirements to provide comprehensive information about the nature, amount, timing and uncertainty of revenue and cash flows arising from the entity's contracts with customers. IFRS 15 was effective on January 1, 2018 and supersedes all existing guidance on revenue recognition.

After an extensive analysis of its contracts with customers, business practices and operating systems for all the reported periods in all the countries in which the Company operates in order to review the different performance obligations and other promises (discounts, loyalty programs, rebates, etc.) included in such contracts, aimed to determine the differences in the accounting recognition of revenue with respect to prior IFRS, CEMEX adopted IFRS 15 on January 1, 2018 using the retrospective approach, without any significant effects on its operating results and financial situation, and restated the previously reported amounts of revenues for 2017 and 2016, resulting in an initial reclassification of other provisions to contract liabilities of \$660 as of January 1, 2016, and a subsequent net decrease in revenue of \$2 in 2016 and a net decrease in revenue of \$8 in 2017 related to IFRS 15 (note 3). These changes in revenues refer to certain discounts and rebates included in certain contracts and were recognized against deferred revenue as contract liabilities in the statement of financial position after IFRS 15 effects (note 17). Changes in equity upon adoption were not significant.

Discontinued operations (note 4.2)

Considering the disposal of entire reportable operating segments, CEMEX's income statements present in the single line item of "Discontinued Operations," the results of: a) its construction materials operations in Brazil sold on September 27, 2018 for the years 2016, 2017 and the period from January 1 to September 27, 2018; b) its Pacific Northwest Materials Business operations in the United States sold on June 30, 2017 for the year 2016 and the six-months ended June 30, 2017; c) its Concrete Pipe Business operations in the United States sold on January 31, 2017 for the year 2016 and the one-month ended January 31, 2017; and d) its operations in Bangladesh and Thailand sold on May 26, 2016 for the period from January 1 to May 26, 2016. Discontinued Operations are presented net of income tax.

Income statements

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, including impairment losses of long-lived assets, results on disposal of assets and restructuring costs, among others (note 6). 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 its financing agreements, for purposes of notes 4.4 and 16, 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. 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 2017 and 2016, in connection with the capitalization of retained earnings (note 20.1), the increases in common stock and additional paid-in capital associated against retained earnings for \$9,464 and \$6,970, respectively; and in connection with the CPOs issued as part of the executive share-based compensation programs (note 21), the total increases in equity for \$706 in 2018, \$817 in 2017 and \$742 in 2016;
- In 2017, in connection with the early conversion of part of the 2018 optional convertible subordinated notes (note 16.2), the decrease in debt for \$5,468, the net decrease in "Other equity reserves" for \$1,334, the increase in common stock for \$4 and the increase in additional paid-in capital for \$7,059; and
- In 2016, the increase in debt and in other current accounts receivable for \$148, in connection with a structure pursuant to which CEMEX Colombia, S.A. ("CEMEX Colombia") guarantees the debt of a trust committed to the development of housing projects in Colombia. CEMEX Colombia in turn holds a beneficial interest in the assets of such trust, which are comprised by titles to land (note 10).

Investing activities:

- In 2018, 2017 and 2016, in connection with the finance leases negotiated during the year, the increases in property, plant and equipment for \$88, \$2,096 and \$7, respectively (note 14).

2.2) Principles of consolidation

The consolidated financial statements include those of CEMEX, S.A.B. de C.V. and those of the entities in which the Parent Company exercises control, including structured entities (special purposes entities), by means of which the Parent Company 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 in the financial statements, 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.

2.3) Use of estimates and critical assumptions

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect 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, as well as the measurement of financial instruments at fair value, and the assets and liabilities related to employee benefits. Significant judgment is required by management to appropriately assess the amounts of these concepts.

2.4) 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 20.2) until the disposal of the foreign net investment, at which time, the accumulated amount is recycled 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 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 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 20.2) 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 and the approximate average exchange rates for statement of financial position accounts and statement of operations accounts as of December 31, 2018, 2017 and 2016, were as follows:

Currency	2018		2017		2016	
	Closing	Average	Closing	Average	Closing	Average
Dollar	19.6500	19.2583	19.6500	18.8800	20.7200	18.7200
Euro	22.5169	22.7036	23.5866	21.4122	21.7945	20.6564
British Pound Sterling	25.0557	25.6059	26.5361	24.4977	25.5361	25.0731
Colombian Peso	0.0060	0.0065	0.0066	0.0064	0.0069	0.0062
Egyptian Pound	1.0943	1.0806	1.1082	1.0620	1.1234	1.8261
Philippine Peso	0.3737	0.3655	0.3936	0.3747	0.4167	0.3927

The financial statements of foreign subsidiaries are initially translated from their functional currencies into dollars and subsequently into pesos. Therefore, the foreign exchange rates presented in the table above between the functional currency and the peso represent the implied exchange rates resulting from this methodology. The peso to U.S. dollar exchange rate used by CEMEX is an average of free market rates available to settle its foreign currency transactions. No significant differences exist, in any case, between the foreign exchange rates used by CEMEX and those exchange rates published by the Central Bank of Mexico.

2.5) Cash and cash equivalents (note 8)

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."

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

2.6) Financial instruments

As mentioned in note 2.1, IFRS 9 was adopted prospectively by CEMEX for the period starting January 1, 2018. The accounting policies under IFRS 9 are described as follows:

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 2.5 and 8).
- Trade receivables, other current accounts receivable and other current assets (notes 9 and 10). 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 9 and 16.2).
- Investments and non-current accounts receivable (note 13.2). 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 13.2). 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 13.2).

Debt instruments and other financial obligations are classified as "Loans" and measured at amortized cost (notes 16.1 and 16.2). 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 16.4).

Impairment of financial assets

Impairment losses of financial assets, including trade accounts receivable, are recognized using the expected credit loss model 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.

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.

Finance leases

Finance leases are recognized as financing liabilities against a corresponding fixed asset for the lesser of the market value of the leased asset and the NPV of future minimum lease payments, using the contract's implicit interest rate to the extent available, or the incremental borrowing cost. The main factors that determine a finance lease are: a) ownership title of the asset is transferred to CEMEX at the expiration of the contract; b) CEMEX has a bargain purchase option to acquire the asset at the end of the lease term; c) the lease term covers the majority of the useful life of the asset; and/or d) the NPV of minimum payments represents substantially all the fair value of the related asset at the beginning of the lease.

Financial instruments with components of both liabilities and equity (note 16.2)

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 in 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 liability component represents the difference between the principal amount and the fair value of the conversion option premium, which reflects the equity component (note 2.14). When the transaction is denominated in a currency different than the functional currency of the issuer, the conversion option is accounted for as a derivative financial instrument at fair value in the income statement.

Hedging instruments (note 16.4)

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 16.5). 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 2.4), 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 and investees

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 subsidiary of CEMEX. When the obligation should be settled in cash or through the delivery of another financial asset, CEMEX recognizes 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 CEMEX has the election to settle using its own shares.

In respect of a put option granted for the purchase of an investee, CEMEX would recognize a liability against a loss in the statements of operations whenever the estimated purchase price exceeds the fair value of the net assets to be acquired by CEMEX, had the counterparty exercised its right to sell. As of December 31, 2018 and 2017, there were no written put options.

Fair value measurements (note 16.3)

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 has the ability to 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 Operative EBITDA, including risk assumptions consistent with what market participants would use to arrive at fair value.

2.7) Inventories (note 11)

Inventories are valued using the lower of cost or net realizable value. The cost of inventories 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, as a result 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, whereas, if an obsolescence situation occurs, the inventory obsolescence reserve is increased. In both cases, these adjustments are recognized against the results of the period. Advances to suppliers of inventory are presented as part of other current assets.

2.8) Property, machinery and equipment (note 14)

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 (note 5) 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, 2018, the average useful lives by category of fixed assets were as follows:

	Years
Administrative buildings	32
Industrial buildings	29
Machinery and equipment in plant	16
Ready-mix trucks and motor vehicles	8
Office equipment and other assets	6

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 in order 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 on fixed assets is expensed as incurred. Advances to suppliers of fixed assets are presented as part of other long-term accounts receivable.

The useful lives and residual values of property, machinery and equipment are reviewed at each reporting date and adjusted if appropriate.

2.9) Business combinations, goodwill and other intangible assets (notes 4.1 and 15)

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 2.10). Goodwill may be adjusted for any correction 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 straight-line basis as part of operating costs and expenses (note 5).

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 maximum useful lives that range from 30 to 100 years, depending on the sector and the expected life of the related reserves. As of December 31, 2018, 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.

2.10) Impairment of long-lived assets (notes 14 and 15)

Property, machinery and equipment, intangible assets of definite life and other investments

These assets are tested for impairment upon the occurrence of a significant adverse event, 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 determined by 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.

Impairment of long-lived assets - Goodwill

Goodwill is tested for impairment when required due to significant adverse changes 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 generally determined over periods of 5 years. However, in specific circumstances, when CEMEX considers that actual results for a CGU do not fairly reflect historical performance and most external economic variables provide confidence that a reasonably determinable improvement in the mid-term is expected in their operating results, CEMEX uses cash flow projections over a period of up to 10 years, to the point in which future expected average performance resembles the historical average performance, to the extent CEMEX has detailed, explicit and reliable financial forecasts and is confident and can demonstrate its ability, based on past experience, to forecast cash flows accurately over that longer period. 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 to which goodwill has been allocated. Impairment charges recognized on goodwill are not reversed in subsequent periods.

The reportable segments reported by CEMEX (note 44), 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. Likewise, the amounts of discounted estimated future cash flows are significantly sensitive to the weighted average cost of capital (discount rate) applied. The higher the growth rate in perpetuity applied, the higher the amount of undiscounted future cash flows by group of CGUs obtained. Conversely, the higher the discount rate applied, the lower the amount of discounted estimated future cash flows by group of CGUs obtained.

2.11) 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, 2018 and 2017, 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 24.1.

Considering guidance under IFRS, CEMEX recognizes provisions for levies imposed by governments until 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 17)

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 17 and 24)

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 23 and 24)

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.

2.12) Pensions and other post-employment benefits (note 18)

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: a) defined benefit pension plans; and b) other post-employment benefits, basically 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, based on actuarial estimations of the benefits' present value with 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 reduce significantly 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.

2.13) Income taxes (note 19)

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. Consolidated deferred income taxes represent the addition of the amounts determined in each subsidiary 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 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. In order 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, and they are measured using a cumulative probability model. Each position has been considered on its own, regardless of its relation to any other broader tax settlement. The high 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 income statements.

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 19.3). 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, 2018, 2017 and 2016, the statutory tax rates in CEMEX's main operations were as follows:

Country	2018	2017	2016
Mexico	30.0%	30.0%	30.0%
United States	21.0%	35.0%	35.0%
United Kingdom	19.3%	19.3%	20.0%
France	34.4%	34.4%	34.4%
Germany	28.2%	28.2%	28.2%
Spain	25.0%	25.0%	25.0%
Philippines	30.0%	30.0%	30.0%
Colombia	37.0%	40.0%	40.0%
Egypt	22.5%	22.5%	22.5%
Others	7.8% - 39.0%	7.8% - 39.0%	7.8% - 39.0%

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 rates 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.

2.14) Stockholders' equity

Common stock and additional paid-in capital (note 20.1)

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 (note 20.2)

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. 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:

- 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 2.4);
- 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 2.6);
- Changes in fair value of other investments in strategic securities (note 2.6); 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 related to controlling stockholders' equity for changes or transactions affecting non-controlling interest stockholders in CEMEX's consolidated subsidiaries;
- 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 equity component of securities which are mandatorily or optionally convertible into shares of the Parent Company (notes 2.6 and 16.2). Upon conversion, this amount will be reclassified to common stock and additional paid-in capital; and
- The cancellation of the Parent Company's shares held by consolidated entities.

Retained earnings (note 20.3)

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 20.4)

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 notes) 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.

2.15) Revenue recognition (note 3)

As mentioned in note 2.1, CEMEX adopted IFRS 15 on January 1, 2018 using the retrospective approach. CEMEX policies under IFRS 15 are as follows:

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 by CEMEX's subsidiaries for goods and services supplied as a result of their 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 apply 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 and costs related to such construction contracts are 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 a short-term or long-term advanced payments, as appropriate.

2.16) Cost of sales and operating expenses (note 5)

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.

2.17) Executive share-based compensation (note 21)

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.

2.18) Emission rights

In certain countries where CEMEX operates, such as EU countries, mechanisms aimed at reducing carbon dioxide emissions ("CO₂") have been established by means of which, the relevant environmental authorities have granted certain number of emission rights ("certificates") free of cost to the different industries releasing CO₂, which must submit to such environmental authorities at the end of a compliance period, certificates for a volume equivalent to the tons of CO₂ released. Companies must obtain additional certificates to meet deficits between actual CO₂ emissions during the compliance period and certificates received, or they can dispose of any surplus of certificates in the market. In addition, the United Nations Framework Convention on Climate Change ("UNFCCC") grants Certified Emission Reductions ("CERs") to qualified CO₂ emission reduction projects. CERs may be used in specified proportions to settle emission rights obligations in the EU. CEMEX actively participates in the development of projects aimed to reduce CO₂ emissions. Some of these projects have been awarded with CERs.

CEMEX does not maintain emission rights, CERs and/or enter into forward transactions with trading purposes. CEMEX accounts for the effects associated with CO₂ emission reduction mechanisms as follows:

- Certificates received for free are not recognized in the statement of financial position. Revenues from the sale of any surplus of certificates are recognized by decreasing cost of sales. In forward sale transactions, revenues are recognized upon physical delivery of the emission certificates.
- Certificates and/or CERs acquired to hedge current CO₂ 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 CO₂ are expected to exceed the number of emission rights, net of any benefit obtained through swap transactions of emission rights for CERs.
- CERs received from the UNFCCC are recognized as intangible assets at their development cost, which are attributable mainly to legal expenses incurred in the process of obtaining such CERs.

During 2018, 2017 and 2016, there were no sales of emission rights to third parties. In addition, in certain countries, the environmental authorities impose levies per ton of CO₂ or other greenhouse gases released. Such expenses are recognized as part of cost of sales as incurred.

2.19) 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, 2018, 2017 and 2016, 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.

2.20) Newly issued IFRS not yet adopted

IFRS issued as of the date of issuance of these financial statements which have not yet been adopted are described as follow:

IFRS 16, Leases ("IFRS 16")

IFRS 16 defines leases as any contract or part of a contract that conveys to the lessee the right to use an asset for a period in exchange for consideration and the lessee directs the use of the identified asset throughout that period. IFRS 16 introduces a single lessee accounting model, and requires a lessee to recognize, for all leases, allowing exemptions in case of the leases with a term of less than 12 months or when the underlying asset is of low value, assets for the right-of-use the underlying asset against a corresponding financial liability, representing the NPV of estimated lease payments under the contract, with a single income statement model in which a lessee recognizes amortization of the right-of-use asset and interest on the lease liability. A lessee shall present either in the statement of financial position, or disclose in the notes, right-of-use assets separately from other assets, as well as, lease liabilities separately from other liabilities. IFRS 16 is effective beginning January 1, 2019 and will supersede all current standards and interpretations related to lease accounting.

As of December 31, 2018, by means of analyses of its outstanding lease contracts and other contracts that may have embedded the use of an asset and the assessment of the most relevant characteristics of such contracts (types of assets, committed payments, maturity dates, renewal clauses, etc.), CEMEX has substantially concluded the inventory and measurement of its leases for purposes of adopting IFRS 16 and is in its final review. Moreover, CEMEX has defined its accounting policy under IFRS 16 and will apply the recognition exception for short-term leases and low-value assets, as well as the practical expedient to not separate the non-lease component from the lease component included in the same contract. CEMEX will adopt IFRS 16 using the full retrospective approach pursuant to which prior periods will be restated. Upon adoption of IFRS 16 beginning on January 1, 2019, CEMEX has estimated a range for its opening statement of financial position effects as of January 1, 2017, as follows:

	As of January 1, 2017	
	Low	High
Assets for the right-of-use	US\$ 920	942
Financial liabilities	(1,030)	(1,060)
Retained earnings ¹	US\$ (110)	(118)

¹ The effect refers to a timing difference between depreciation expense of the assets calculated under the straight-line method and the interest expense from the liability determined under the effective interest rate method since the beginning of the contracts. This difference will reverse over the remaining life of the contracts.

In addition to IFRS 16, 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 9	Prepayment features with negative compensation do not automatically preclude amortized cost accounting.	January 1, 2019
IFRIC 23, <i>Uncertainty over income tax treatments</i>	When an entity concludes that it is not probable that a particular tax treatment is accepted, the decision should be based on which method provides better predictions of the resolution of the uncertainty.	January 1, 2019
Amendments to IAS 28, <i>Long-term interests in associates and joint ventures</i> ("IAS 28")	The amendment clarifies that IFRS 9, including its impairment requirements, applies to long-term interests.	January 1, 2019
Amendments to IAS 12, <i>Income taxes</i>	Clarify that an entity should recognize the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognized the transactions that generated the distributable profits.	January 1, 2019
Amendments to IAS 23, <i>Borrowing costs</i>	Clarify that if any specific borrowing remains outstanding after the related asset is ready for its intended use or sale, that borrowing becomes part of the funds that an entity borrows generally when calculating the capitalization rate on general borrowings.	January 1, 2019
Amendments to IFRS 3, <i>Business combinations</i>	Clarify that when an entity obtains control of a business that is a joint operation, the entity applies the requirements for a business combination achieved in stages, including remeasuring its previously held interest in the joint operation at fair value.	January 1, 2019
Amendments to IAS 19, <i>Employee benefits</i>	Clarify that the past service cost (or of the gain or loss on settlement) is calculated by measuring the defined benefit liability (asset) using updated assumptions and comparing benefits offered and plan assets before and after the plan amendment (or curtailment or settlement) but ignoring the effect of the asset ceiling (that may arise when the defined benefit plan is in a surplus position).	January 1, 2019
Amendments to IFRS 10, <i>Consolidated financial statements</i> 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
IFRS 17, <i>Insurance contracts</i>	The new Standard establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts and supersedes IFRS 4, <i>Insurance contracts</i> . 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, 2021

3) 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. CEMEX grants credit for terms ranging from 15 to 90 days depending of the type and risk of each customer. For the years ended December 31, 2018, 2017 and 2016, revenue, after eliminations between related parties resulting from consolidation, is as follows:

	2018	2017	2016
From the sale of goods associated to CEMEX's main activities ¹	\$ 265,584	246,135	239,230
From the sale of services ²	3,064	3,313	3,110
From the sale of other goods and services ³	8,207	7,969	7,137
	\$ 276,855	257,437	249,477

¹ Includes in each period revenue generated under construction contracts that are presented in the table below.

² Refers mainly to revenues generated by Neoris NV 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 2018, 2017 and 2016 is presented in note 4.4.

As of December 31, 2018 and 2017, amounts receivable for progress billings to customers of construction contracts and/or advances received by CEMEX from these customers were not significant. For 2018, 2017 and 2016, revenues and costs related to construction contracts in progress were as follows:

	Accrued ¹	2018	2017	2016
Revenue from construction contracts included in consolidated revenues ²	\$ 1,063	1,383	992	1,033
Costs incurred in construction contracts included in consolidated cost of sales ³	(1,055)	(1,312)	(1,205)	(1,133)
Construction contracts gross operating profit (loss)	\$ 8	71	(213)	(100)

¹ Revenues and costs recognized from inception of the contracts until December 31, 2018 in connection with those projects still in progress.

² Revenues from construction contracts during 2018, 2017 and 2016, were mainly obtained in Mexico and Colombia.

³ Refers to actual costs incurred during the periods.

Under IFRS 15, some commercial practices of CEMEX, in the form of certain promotions and/or discounts and rebates offered as part of the sale transaction, result in that 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, 2018, 2017 and 2016 changes in the balance of contract liabilities with customers are as follows:

	2018	2017	2016
Opening balance of contract liabilities with customers	\$ 770	645	660
Increase during the period for new transactions	1,070	1,156	1,040
Decrease during the period for exercise or expiration of incentives	(890)	(1,148)	(1,038)
Currency translation effects	(175)	117	(17)
Closing balance of contract liabilities with customers	\$ 775	770	645

For the years 2018, 2017 and 2016, CEMEX did not identify any costs required to be capitalized as contract fulfillment assets and released over the contract life according to IFRS 15.

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

4.1) Business combinations

On December 5, 2016, through its subsidiary Sierra Trading ("Sierra"), CEMEX presented an offer and take-over bid, which was amended on January 9, 2017 (the "Offer"), to all shareholders of Trinidad Cement Limited ("TCL"), a company publicly listed in Trinidad and Tobago, to acquire up to 132,616,942 ordinary shares in TCL (equivalent to approximately 30.2% of TCL's common stock). TCL's main operations are in Trinidad and Tobago, Jamaica and Barbados. TCL shares deposited in response to the Offer together with Sierra's then existing 39.5% shareholding in TCL represented approximately 69.8% of the outstanding shares of TCL. The total consideration paid by Sierra for the TCL shares under the Offer was US\$86 (\$1,791). CEMEX started consolidating TCL on February 1, 2017. CEMEX determined a fair value of TCL's assets as of February 1, 2017 of US\$531 (\$11,061), which considered a price of TT\$5.07 per share for the percentage acquired in the Offer and TT\$415 per share, or the market price before the Offer, for the remaining shares, and US\$113 (\$2,354) of debt assumed, among other effects. The purchase of TCL represented a step acquisition. As a result, the remeasurement of CEMEX's previous held ownership interest in TCL of 39.5% generated a gain of US\$32 (\$623) in 2017 as part of "Financial income and other items, net." All convenience translations to pesos above consider an exchange rate of 20.83 pesos per dollar as of February 1, 2017.

After concluding in 2018 the allocation of TCL's fair value to the assets acquired and liabilities assumed, the statement of financial position of TCL at the acquisition date of February 1, 2017 was as follows:

	As of February 1, 2017	
Current assets	US\$	84
Property, machinery and equipment		331
Intangible assets and other non-current assets (includes goodwill of US\$106)		116
Total assets		531
Current liabilities (includes debt of US\$47)		122
Non-current liabilities (includes debt of US\$97 and deferred tax liabilities of US\$19)		160
Total liabilities		282
Net assets	US\$	249
Non-controlling interest net assets		70
Controlling interest net assets	US\$	179

In addition, in August 2018, a subsidiary of CEMEX in the United Kingdom acquired all the shares of the ready-mix producer Procon Readymix Ltd ("Procon") for an amount in pounds sterling equivalent to US\$22, considering the pound sterling to dollar exchange rate as of August 31, 2018. As of December 31, 2018, based on the preliminary valuation of the fair values of the assets acquired and liabilities assumed, the net assets of Procon amount to US\$10 (\$196) and goodwill was determined in the amount of US\$12 (\$244).

4.2) Discontinued operations

On September 27, 2018, CEMEX concluded the sale of its construction materials operations in Brazil (the "Brazilian Operations") through the sale to Votorantim Cimentos N/NE S.A. of all the shares of CEMEX's Brazilian subsidiary Cimento Vencemos Do Amazonas Ltda, consisting of a fluvial cement distribution terminal located in Manaus, Amazonas province, as well as the operation license. The sale price was US\$31 (\$580). CEMEX determined a net gain on sale of US\$12 (\$234), including a withholding tax expense of US\$3 and the reclassification of a foreign currency translation loss accrued in equity of US\$7 (\$140). CEMEX's Brazilian Operations for the period from January 1 to September 27, 2018 and the years 2017 and 2016 were reclassified to the single line item "Discontinued Operations."

On June 30, 2017, CEMEX concluded the sale of its Pacific Northwest Materials Business consisting of aggregate, asphalt and ready-mix concrete operations in Oregon and Washington to Cadman Materials, Inc., a subsidiary of HeidelbergCement Group, for US\$150. CEMEX determined a net gain on disposal of these assets of US\$22 (\$399), which included a proportional allocation of goodwill of US\$73 (\$1,324). Considering the disposal of its Pacific Northwest Materials Business, the operations of that business for the six-month period ending June 30, 2017 and for the year 2016 were reclassified to the single line item "Discontinued Operations."

On January 31, 2017, CEMEX concluded the sale of its Concrete Reinforced Pipe Manufacturing Business ("Concrete Pipe Business") in the United States to Quikrete Holdings, Inc. for US\$500 plus an additional US\$40 contingent consideration based on future performance. CEMEX determined a net gain on disposal of these assets for US\$148 (\$3,083), which included a proportional allocation of goodwill of US\$260 (\$5,369). Considering the disposal of the entire Concrete Pipe Business, its operations for the one-month period ending January 31, 2017 and the year 2016 were reclassified to the single line item "Discontinued Operations."

On May 26, 2016, CEMEX closed the sale of its operations in Bangladesh and Thailand to Siam City Cement Public Company Ltd. for US\$70 (\$1,450). CEMEX determined a gain on sale of US\$24 (\$424) net of the reclassification of foreign currency translation gains accrued in equity of US\$7 (\$122). The operations in Bangladesh and Thailand for the period from January 1 to May 26, 2016, included in CEMEX's income statements, were reclassified to the single line item "Discontinued Operations."

The following table presents condensed combined information of the statement of operations of CEMEX's discontinued operations in Brazil for the period from January 1 to September 27, 2018 and for the years 2017 and 2016, in the Pacific Northwest Materials Business in the United States for the six-months period ended June 30, 2017 and for the year 2016; the Concrete Pipe Business operations in the United States for the one-month period ended January 31, 2017 and for the year 2016, and the operations in Bangladesh and Thailand for the period from January 1 to May 26, 2016:

	2018	2017	2016
Sales	\$ 503	2,235	9,445
Cost of sales and operating expenses	(495)	(2,257)	(8,983)
Other products (expenses), net	(1)	14	(3)
Financial expenses, net and others	(5)	-	(32)
Earnings before income tax	2	(8)	427
Income tax	(6)	(1)	(102)
Result of discontinued operations	(4)	(9)	325
Disposal result, withholding taxes and reclassification of currency translation effects	216	3,470	388
Net result of discontinued operations	\$ 212	3,461	713

As of December 31, 2017, the condensed information of the statement of financial position of the Brazilian Operations was as follows:

	2017
Current assets	\$ 148
Property, machinery and equipment, net and other non-current assets	140
Total assets	288
Current liabilities	66
Non-current liabilities	-
Total liabilities	66
Net assets	\$ 222

4.3) Other disposal groups

As of December 31, 2018, CEMEX is in negotiations for the sale of its ready-mix and aggregates business in the central region of France. The transaction is subject to several customary authorizations and CEMEX expects to conclude this sale in the short-term. The assets and liabilities of this business are presented as assets held for sale and liabilities directly related in the statement of financial position as of December 31, 2018, including a proportional allocation of goodwill related to this reporting segment of US\$22 (\$439).

On November 18, 2016, a subsidiary of CEMEX in the United States closed the sale to an affiliate of Grupo Cementos de Chihuahua, S.A.B. de C.V. ("GCC") of certain assets consisting of CEMEX's cement plant in Odessa, Texas, two cement terminals and the building materials business in El Paso, Texas and Las Cruces, New Mexico, for an amount of US\$306 (\$6,340). The Odessa plant had an annual production capacity of approximately 537 thousand metric tons (unaudited). The transfer of control was effective on November 18, 2016. As a result of the sale of these assets, CEMEX recognized in 2016 a gain of US\$104 (\$2,159) as part of "Other expenses, net" in the income statement of 2016, net of an expense for the proportional write-off of goodwill associated to CEMEX's reporting segment in the United States based on their relative fair values for US\$161 (\$3,340) and the reclassification of proportional foreign currency translation gains associated with these net assets accrued in equity until disposal for US\$65 (\$1,347).

On September 12, 2016, CEMEX announced that one of its subsidiaries in the United States signed a definitive agreement for the sale of its Fairborn, Ohio cement plant and cement terminal in Columbus, Ohio to Eagle Materials Inc. ("Eagle Materials") for US\$400 (\$8,288). Fairborn plant had an annual production capacity of approximately 730 thousand metric tons (unaudited). On February 10, 2017, CEMEX closed the divestment of these assets, and recognized in 2017 a gain on disposal for US\$188 (\$3,694) as part of "Other expenses, net" in the income statement, net of an expense for the proportional write-off of goodwill associated to CEMEX's reporting segment in the United States based on their relative fair values for US\$211 (\$4,365).

The operations of the net assets in the central region of France and those sold to GCC and Eagle Materials, mentioned above, did not represent discontinued operations and were consolidated by CEMEX line-by-line in the income statements for the year 2018, 2017 and 2016, until their disposal. In arriving at this conclusion, CEMEX evaluated: a) the Company's ongoing operations in France and cement operations of its CGUs in Texas and the Mid-West; and b) the relative size of the net assets sold and held for sale in respect to the Company's remaining overall ongoing operations in France and the United States. Moreover, as a reasonability check, CEMEX measured the materiality of such net assets as a percentage of consolidated net sales, operating earnings before other expenses, net, net income and total assets. The percentage was not material in any case.

For the year 2018, 2017 and 2016, selected combined income statement information of the net assets in the central region of France and those sold to GCC and Eagle Materials, until their disposal, was as follows:

	2018	2017	2016
Net sales	\$ 1,169	1,194	4,544
Operating costs and expenses	(1,205)	(1,201)	(4,064)
Operating earnings (losses) before other expenses, net	\$ (36)	(7)	480

As of December 31, 2018, the condensed balance sheet of the net assets expected to be sold in the central region of France was as follows:

	2018
Current assets	\$ 189
Non-current assets	763
Total assets of the disposal group	952
Current liabilities	211
Non-current liabilities	103
Total liabilities directly related to disposal group	314
Total net assets of disposal group	\$ 638

In addition, on April 28, 2017, CEMEX 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 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 subject to results for up to \$557 linked to annual metrics beginning in the first year and up to the fifth year of the agreement. For the first year of operation under the agreements from May 2017 to April 2018, CEMEX received \$25 of this contingent revenue.

4.4 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. For the reported periods, the Company's operations were organized in five geographical regions, each under the supervision of a regional president, as follows: 1) Mexico, 2) United States, 3) Europe, 4) South, Central America and the Caribbean ("SCA&C"), and 5) Asia, Middle East and Africa ("AMEA"). The accounting policies applied to determine the financial information by reportable segment are consistent with those described in note 2.

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 Europe" refers mainly to CEMEX's operations and activities in Croatia, Latvia, Scandinavia and Finland; b) "Rest of South, Central America and the Caribbean" refers mainly to CEMEX's operations and activities in Puerto Rico, Nicaragua, Jamaica, the Caribbean, Guatemala and El Salvador, excluding the acquired operations of TCL; c) "Caribbean TCL" refers to TCL's operations mainly in Trinidad and Tobago, Jamaica, Guyana and Barbados; and d) "Rest of Asia, Middle East and Africa" refers mainly to CEMEX's operations in the United Arab Emirates. The segment "Others" refers to: 1) cement trade maritime operations, 2) Neoris NV, 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.

Selected information of the consolidated income statements by reportable segment for the years 2018, 2017 and 2016, excluding the share of profits of equity accounted investees by reportable segment that is included in the note 13.1, was as follows:

2018	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	\$ 63,543	(1,759)	61,784	22,204	2,198	20,006	(626)	(469)	(29)
United States	72,345	-	72,345	12,069	5,917	6,152	(362)	(571)	(217)
Europe									
United Kingdom	20,431	-	20,431	2,071	1,064	1,007	133	(67)	(406)
France	18,308	-	18,308	1,272	577	695	(959)	(62)	(3)
Germany	10,836	(1,450)	9,386	748	531	217	(152)	(14)	(79)
Spain	7,627	(898)	6,729	220	662	(442)	(303)	(43)	58
Poland	6,989	(80)	6,909	783	390	393	8	(4)	7
Czech Republic	3,796	(31)	3,765	867	300	567	16	(2)	(36)
Rest of Europe	6,365	(869)	5,496	747	375	372	(447)	(10)	(10)
SCA&C									
Colombia ¹	10,088	-	10,088	1,845	533	1,312	(251)	(132)	(483)
Panama ¹	4,490	(226)	4,264	1,234	313	921	(52)	(4)	3
Costa Rica ¹	2,674	(274)	2,400	873	91	782	(5)	(2)	148
Caribbean TCL ²	4,893	(99)	4,794	1,080	375	705	(316)	(48)	(28)
Dominican Republic	4,218	(310)	3,908	1,153	180	973	(17)	(7)	(64)
Rest of SCA&C ¹	7,781	(393)	7,388	1,427	170	1,257	(128)	(15)	70
AMEA									
Philippines ²	8,612	-	8,612	1,183	523	660	54	(20)	(50)
Egypt	4,586	-	4,586	529	303	226	(176)	(29)	(70)
Israel	12,128	-	12,128	1,548	292	1,256	8	(36)	(8)
Rest of AMEA	2,263	-	2,263	352	88	264	(4)	(3)	(5)
Others	24,667	(13,396)	11,271	(2,939)	1,188	(4,127)	(2,258)	(11,059)	1,298
Continuing operations	296,640	(19,785)	276,855	49,266	16,070	33,196	(5,837)	(12,597)	96
Discontinued operations	503	-	503	11	3	8	(1)	-	(5)
Total	\$ 297,143	(19,785)	277,358	49,277	16,073	33,204	(5,838)	(12,597)	91

2017	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	\$ 58,442	(1,075)	57,367	21,215	2,246	18,969	(687)	(409)	(534)
United States	65,536	-	65,536	10,652	6,200	4,452	3,202	(631)	(177)
Europe									
United Kingdom	20,179	-	20,179	2,763	997	1,766	450	(77)	(397)
France	16,162	-	16,162	855	549	306	(129)	(61)	18
Germany	10,056	(1,339)	8,717	743	509	234	(11)	(14)	(63)
Spain	6,870	(990)	5,880	344	638	(294)	(711)	(34)	12
Poland	5,552	(74)	5,478	647	361	286	(140)	(30)	(8)
Czech Republic	3,450	(33)	3,417	815	333	482	37	44	53
Rest of Europe	5,989	(831)	5,158	648	355	293	(168)	(68)	18
SCA&C									
Colombia ¹	10,685	-	10,685	2,166	507	1,659	(642)	(129)	(36)
Panama ¹	5,112	(98)	5,014	2,007	319	1,688	(20)	(5)	7
Costa Rica ¹	2,805	(379)	2,426	1,000	99	901	-	(5)	29
Caribbean TCL ²	4,332	(49)	4,283	1,059	610	449	(139)	(215)	(25)
Dominican Republic	3,913	(339)	3,574	1,073	191	882	(23)	(10)	(5)
Rest of SCA&C ¹	7,803	(533)	7,270	1,529	258	1,271	(1,046)	(13)	(7)
AMEA									
Philippines ²	8,296	-	8,296	1,394	528	866	89	(3)	(24)
Egypt	3,862	-	3,862	594	299	295	(210)	(60)	574
Israel	11,377	-	11,377	1,469	287	1,182	(15)	3	21
Rest of AMEA	2,139	-	2,139	386	76	310	(159)	(31)	(9)
Others	21,820	(11,203)	10,617	(2,759)	626	(3,385)	(3,493)	(17,553)	4,169
Continuing operations	274,380	(16,943)	257,437	48,600	15,988	32,612	(3,815)	(19,301)	3,616
Discontinued operations	2,235	-	2,235	39	61	(22)	14	-	-
Total	\$ 276,615	(16,943)	259,672	48,639	16,049	32,590	(3,801)	(19,301)	3,616

2016	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	\$ 53,579	(848)	52,731	19,256	2,390	16,866	(608)	(339)	2,695
United States	66,554	-	66,554	10,973	6,400	4,573	2,919	(487)	(212)
Europe									
United Kingdom	21,153	-	21,153	3,606	1,047	2,559	711	(63)	(393)
France	14,535	-	14,535	669	484	185	(110)	(53)	2
Germany	9,572	(1,385)	8,187	553	464	89	(64)	(15)	(85)
Spain	6,563	(841)	5,722	814	663	151	(112)	(37)	(9)
Poland	4,799	(88)	4,711	579	330	249	6	(11)	123
Czech Republic	3,027	(30)	2,997	622	328	294	(117)	(4)	2
Rest of Europe	4,908	(511)	4,397	519	332	187	14	(29)	75
SCA&C									
Colombia ¹	12,415	(1)	12,414	3,975	489	3,486	(575)	46	38
Panama ¹	4,906	(124)	4,782	2,170	340	1,830	(7)	(27)	5
Costa Rica ¹	2,818	(351)	2,467	1,127	116	1,011	(23)	(11)	27
Dominican Republic	4,223	(525)	3,698	1,210	199	1,011	(67)	(6)	34
Rest of SCA&C ¹	7,155	(253)	6,902	1,665	238	1,427	(1,159)	(22)	(216)
AMEA									
Philippines ²	9,655	-	9,655	2,687	530	2,157	21	(1)	(24)
Egypt	6,950	(5)	6,945	2,454	539	1,915	(213)	(78)	(253)
Israel	9,650	-	9,650	1,346	232	1,114	5	(24)	6
Rest of AMEA	2,208	(12)	2,196	271	67	204	(117)	(3)	21
Others	18,381	(8,600)	9,781	(2,891)	799	(3,690)	(2,174)	(20,323)	2,631
Continuing operations	263,051	(13,574)	249,477	51,605	15,987	35,618	(1,670)	(21,487)	4,467
Discontinued operations	9,652	(207)	9,445	1,159	697	462	(3)	(10)	(22)
Total	\$ 272,703	(13,781)	258,922	52,764	16,684	36,080	(1,673)	(21,497)	4,445

¹ CEMEX Latam Holdings, SA, ("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 2018 and 2017, there is a non-controlling interest in CLH of approximately 26.75% and 26.72%, respectively, of its ordinary shares, excluding shares held in CLH's treasury (note 20.4).

² 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, 2018 and 2017, there is a non-controlling interest in CHP of 45.0% of its ordinary shares (note 20.4).

³ As mentioned in note 41, in February 2017, CEMEX's acquired a controlling interest in TCL, whose shares trade on the Trinidad and Tobago Stock Exchange. As of December 31, 2018 and 2017, there is a non-controlling interest in TCL of approximately 30.2% of its ordinary shares in both years (note 20.4).

Debt by reportable segment is included in note 16. As of December 31, 2018 and 2017, selected statement of financial position information by reportable segment was as follows:

2018	Equity accounted investees	Other segment assets	Total assets	Total liabilities	Net assets by segment	Additions to fixed assets ¹
Mexico	\$ -	68,449	68,449	17,906	50,543	2,285
United States	2,485	267,011	269,496	33,756	235,740	4,611
Europe						
United Kingdom	118	32,248	32,366	19,220	13,146	908
France	927	16,316	17,243	7,111	10,132	441
Germany	85	8,350	8,435	6,546	1,889	314
Spain	6	25,134	25,140	2,957	22,183	499
Poland	8	5,523	5,531	2,605	2,926	564
Czech Republic	157	4,195	4,352	1,224	3,128	169
Rest of Europe	-	11,299	11,299	2,250	9,049	226
South, Central America and the Caribbean						
Colombia	-	24,514	24,514	8,721	15,793	428
Panama	-	7,156	7,156	1,187	5,969	231
Costa Rica	-	1,640	1,640	580	1,060	61
Caribbean TCL	-	11,230	11,230	4,954	6,276	535
Dominican Republic	-	4,010	4,010	1,182	2,828	150
Rest of South, Central America and the Caribbean	29	6,430	6,459	2,621	3,838	183
Asia, Middle East and Africa						
Philippines	6	12,235	12,241	2,929	9,312	544
Egypt	1	4,795	4,796	1,906	2,890	176
Israel	-	9,592	9,592	6,712	2,880	412
Rest of Asia, Middle East and Africa	-	3,991	3,991	1,451	2,540	103
Others	5,670	16,918	22,588	206,963	(184,375)	129
Continuing operations	9,492	541,036	550,528	332,781	217,747	12,969
Assets held for sale and related liabilities (note 12.1)	29	2,071	2,100	314	1,786	-
Total	\$ 9,521	543,107	552,628	333,095	219,533	12,969

2017	Equity accounted investees	Other segment assets	Total assets	Total liabilities	Net assets by segment	Additions to fixed assets ¹
Mexico	\$ 241	71,280	71,521	23,574	47,947	2,133
United States	1,573	266,769	268,342	32,366	235,976	3,498
Europe						
United Kingdom	107	34,774	34,881	24,160	10,721	1,010
France	1,055	18,481	19,536	7,360	12,176	372
Germany	85	9,010	9,095	6,848	2,247	441
Spain	-	25,731	25,731	3,543	22,188	553
Poland	9	5,477	5,486	3,086	2,400	230
Czech Republic	149	4,867	5,016	1,338	3,678	157
Rest of Europe	9	11,256	11,265	2,289	8,976	164
South, Central America and the Caribbean						
Colombia	-	24,406	24,406	11,307	13,099	1,178
Panama	-	7,232	7,232	1,029	6,203	152
Costa Rica	-	1,869	1,869	646	1,223	42
Caribbean TCL	-	11,004	11,004	4,917	6,087	584
Dominican Republic	-	4,362	4,362	1,132	3,230	172
Rest of South, Central America and the Caribbean	31	6,936	6,967	3,234	3,733	185
Asia, Middle East and Africa						
Philippines	6	11,548	11,554	2,617	8,937	518
Egypt	1	4,602	4,603	1,776	2,827	418
Israel	-	9,760	9,760	6,838	2,922	391
Rest of Asia, Middle East and Africa	-	3,911	3,911	1,189	2,722	58
Others	5,306	24,466	29,772	218,023	(188,251)	163
Continuing operations	8,572	557,741	566,313	357,272	209,041	12,419
Assets held for sale and related liabilities (note 12.1)	-	1,378	1,378	-	1,378	-
Total	\$ 8,572	559,119	567,691	357,272	210,419	12,419

¹ In 2018 and 2017, the column "Additions to fixed assets" includes capital expenditures of \$12,341 and \$9,514, respectively (note 14).

Revenues by line of business and reportable segment for the years ended December 31, 2018, 2017 and 2016 were as follows:

2018	Cement	Concrete	Aggregates	Others	Eliminations	Revenues
Mexico	\$ 44,295	17,277	4,051	12,358	(16,197)	61,784
United States	30,518	40,249	16,393	7,581	(22,396)	72,345
Europe						
United Kingdom	4,837	7,441	8,139	8,102	(8,088)	20,431
France	-	15,092	7,321	176	(4,281)	18,308
Germany	3,608	4,841	2,353	2,732	(4,148)	9,386
Spain	6,010	1,365	377	609	(1,632)	6,729
Poland	3,864	3,066	960	299	(1,280)	6,909
Czech Republic	1,555	2,377	835	362	(1,364)	3,765
Rest of Europe	5,263	565	221	24	(577)	5,496
South, Central America and the Caribbean						
Colombia	6,792	3,631	1,065	1,769	(3,169)	10,088
Panama	3,285	1,368	445	355	(1,189)	4,264
Costa Rica	2,126	427	120	114	(387)	2,400
Caribbean TCL	4,712	199	91	1,716	(1,924)	4,794
Dominican Republic	3,441	526	171	470	(700)	3,908
Rest of South, Central America and the Caribbean	7,668	782	150	122	(1,334)	7,388
Asia, Middle East and Africa						
Philippines	8,549	4	59	43	(43)	8,612
Egypt	3,993	511	14	225	(157)	4,586
Israel	-	10,026	3,061	2,127	(3,086)	12,128
Rest of Asia, Middle East and Africa	943	1,763	-	-	(443)	2,263
Others	-	-	-	24,667	(13,396)	11,271
Continuing operations	141,459	111,510	45,826	63,851	(85,791)	276,855
Discontinued operations	503	-	-	-	-	503
Total	\$ 141,962	111,510	45,826	63,851	(85,791)	277,358
2017	Cement	Concrete	Aggregates	Others	Eliminations	Revenues
Mexico	\$ 42,195	14,672	3,416	11,211	(14,127)	57,367
United States	27,804	35,400	14,436	6,235	(18,339)	65,536
Europe						
United Kingdom	4,879	7,459	7,758	8,067	(7,984)	20,179
France	-	13,367	6,373	205	(3,783)	16,162
Germany	3,595	4,668	2,134	2,335	(4,015)	8,717
Spain	5,499	944	259	676	(1,498)	5,880
Poland	3,230	2,532	701	226	(1,211)	5,478
Czech Republic	1,287	2,148	880	334	(1,232)	3,417
Rest of Europe	4,949	567	175	128	(661)	5,158
South, Central America and the Caribbean						
Colombia	7,043	4,024	1,224	1,960	(3,566)	10,685
Panama	3,876	1,725	452	180	(1,219)	5,014
Costa Rica	2,095	386	122	120	(297)	2,426
Caribbean TCL	4,097	29	19	215	(77)	4,283
Dominican Republic	3,193	564	191	117	(491)	3,574
Rest of South, Central America and the Caribbean	7,534	744	77	190	(1,960)	6,585
Asia, Middle East and Africa						
Philippines	8,093	67	159	52	(75)	8,296
Egypt	3,347	479	16	173	(153)	3,862
Israel	-	9,400	2,875	2,146	(3,045)	11,376
Rest of Asia, Middle East and Africa	928	1,678	-	2	(468)	2,140
Others	-	-	-	22,505	(11,203)	11,302
Continuing operations	133,644	100,853	41,267	57,077	(75,404)	257,437
Discontinued operations	686	525	340	687	(3)	2,235
Total	\$ 134,330	101,378	41,607	57,764	(75,407)	259,672

2016	Cement	Concrete	Aggregates	Others	Eliminations	Revenues
Mexico	\$ 37,647	13,664	3,156	11,773	(13,509)	52,731
United States	28,585	35,843	14,565	7,107	(19,546)	66,554
Europe						
United Kingdom	5,267	7,830	8,195	7,889	(8,028)	21,153
France	-	11,883	5,640	278	(3,266)	14,535
Germany	3,416	4,539	2,112	2,262	(4,142)	8,187
Spain	5,478	823	196	472	(1,247)	5,722
Poland	2,811	2,237	579	219	(1,135)	4,711
Czech Republic	1,118	1,871	796	336	(1,124)	2,997
Rest of Europe	4,168	383	115	2	(271)	4,397
South, Central America and the Caribbean						
Colombia	8,814	4,522	1,364	1,761	(4,047)	12,414
Panama	3,794	1,577	413	139	(1,141)	4,782
Costa Rica	2,144	390	179	126	(372)	2,467
Dominican Republic	3,255	620	210	124	(511)	3,698
Rest of South, Central America and the Caribbean	7,276	906	112	174	(2,032)	6,436
Asia, Middle East and Africa						
Philippines	9,405	143	164	70	(127)	9,655
Egypt	6,076	943	26	217	(317)	6,945
Israel	-	8,016	2,519	1,372	(2,258)	9,649
Rest of Asia, Middle East and Africa	961	1,519	-	7	(290)	2,197
Others	-	-	-	18,849	(8,602)	10,247
Continuing operations	130,215	97,709	40,341	53,177	(71,965)	248,477
Discontinued operations	889	1,366	785	6,665	(260)	9,445
Total	\$ 131,104	99,075	41,126	59,842	(72,225)	258,922

5) OPERATING EXPENSES, DEPRECIATION AND AMORTIZATION

Consolidated operating expenses during 2018, 2017 and 2016 by function are as follows:

	2018	2017	2016
Administrative expenses ¹	\$ 22,387	21,053	20,733
Selling expenses	6,315	6,429	6,945
Distribution and logistics expenses	31,992	28,485	26,235
	\$ 60,694	55,967	53,913

¹ All significant R&D activities are executed by several internal areas as part of their daily activities. In 2018, 2017 and 2016, total combined expenses of these departments recognized within administrative expenses were \$758 (US\$38), \$754 (US\$38) and \$712 (US\$38), respectively.

Depreciation and amortization recognized during 2018, 2017 and 2016 are detailed as follows:

	2018	2017	2016
Included in cost of sales	\$ 14,181	14,143	14,177
Included in administrative, selling and distribution and logistics expenses	1,889	1,845	1,810
	\$ 16,070	15,988	15,987

6) OTHER EXPENSES, NET

The detail of the line item "Other expenses, net" in 2018, 2017 and 2016 was as follows:

	2018	2017	2016
Results from the sale of assets and others, net ¹	\$ (2,994)	91	1,719
Restructuring costs ²	(1,382)	(843)	(778)
Impairment losses ³	(1,188)	(2,936)	(2,518)
Remeasurement of pension liabilities ⁴	(168)	-	-
Charitable contributions	(105)	(127)	(93)
	\$ (5,837)	(3,815)	(1,670)

¹ In 2018, includes \$1,080 in connection with property damages and natural disasters. In 2017, includes an expense of \$491 (US\$25) related to a penalty in connection with a market investigation in Colombia (note 24.2).

² In 2018, 2017 and 2016, restructuring costs mainly refer to severance payments and the definite closing of operating sites.

³ In 2018, 2017 and 2016, among others, includes impairment losses of fixed assets for \$445, \$984 and \$1,899, respectively, as well in 2018 losses in the valuation of assets held for sale of \$439 and impairment losses of goodwill in 2017 of \$1,920 (notes 13.2, 14 and 15).

⁴ Refers to a remeasurement of the employee benefits liability in connection with CEMEX's defined benefit plan in the United Kingdom determined in 2018 as a result of a recently enacted gender parity law.

7) FINANCIAL INCOME AND OTHER ITEMS, NET

The detail of financial income and other items, net in 2018, 2017 and 2016 was as follows:

	2018	2017	2016
Results in the sale of associates and remeasurement of previously held interest before change in control of associates (notes 4.1 and 13.1)	\$ (204)	4,164	-
Financial income	355	338	402
Results from financial instruments, net (notes 13.2 and 16.4)	692	161	113
Foreign exchange results	341	(26)	4,982
Effects of amortized cost on assets and liabilities and others, net	(1,088)	(1,021)	(1,030)
	\$ 96	3,616	4,467

8) CASH AND CASH EQUIVALENTS

As of December 31, 2018 and 2017, consolidated cash and cash equivalents consisted of:

	2018	2017
Cash and bank accounts	\$ 5,071	9,292
Fixed-income securities and other cash equivalents	997	4,449
	\$ 6,068	13,741

Based on net settlement agreements, the balance of cash and cash equivalents excludes deposits in margin accounts that guarantee several obligations of CEMEX of \$234 in 2018 and \$196 in 2017, 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.

9) TRADE ACCOUNTS RECEIVABLE, NET

As of December 31, 2018 and 2017, consolidated trade accounts receivable consisted of:

	2018	2017
Trade accounts receivable	\$ 31,584	32,733
Allowances for expected credit losses	(2,336)	(2,145)
	\$ 29,248	30,588

As of December 31, 2018 and 2017, trade accounts receivable include receivables of \$13,048 (US\$664) and \$12,713 (US\$647), 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 \$11,770 (US\$599) in 2018 and \$11,313 (US\$576) in 2017, were recognized within the line item of "Other financial obligations," the difference in each year against the trade receivables sold was maintained as reserves. 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 \$446 in 2018, \$308 in 2017 and \$258 in 2016. CEMEX's securitization programs are negotiated for periods of one to two years and are usually renewed at their maturity.

Allowances for doubtful accounts were established until December 31, 2017 based on incurred loss analyses over delinquent accounts considering aging of balances, the credit history and risk profile of each customer and legal processes to recover accounts receivable. Beginning in 2018 such allowances are determined and recognized upon origination of the trade accounts receivable based on a model that calculates the expected credit loss ("ECL") of the trade accounts receivable (note 2.1).

Under this ECL model, 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.

As of December 31, 2018, the balances of trade accounts receivable and the allowance for ECL were as follows:

	Accounts receivable	ECL allowance	ECL average rate
Mexico	\$ 5,185	717	13.8%
United States	8,432	78	0.9%
Europe	9,087	618	6.8%
South, Central America and the Caribbean	2,817	550	19.5%
Asia, Middle East and Africa	5,327	272	5.1%
Others	736	101	13.7%
	\$ 31,584	2,336	

Changes in the allowance for expected credit losses in 2018, 2017 and 2016, were as follows:

	2018	2017	2016
Allowances for expected credit losses at beginning of period	\$ 2,145	2,196	2,152
Adoption effects of IFRS 9 charged to retained earnings (note 2.1)	570	-	-
Charged to selling expenses	156	252	556
Additions through business combinations	-	141	-
Deductions	(385)	(449)	(867)
Foreign currency translation effects	(150)	5	355
Allowances for expected credit losses at end of period	\$ 2,336	2,145	2,196

10) OTHER ACCOUNTS RECEIVABLE

As of December 31, 2018 and 2017, consolidated other accounts receivable consisted of:

	2018	2017
Non-trade accounts receivable ¹	\$ 2,712	1,918
Interest and notes receivable ²	895	1,125
Current portion of valuation of derivative financial instruments	8	1,056
Loans to employees and others	243	233
Refundable taxes	2,291	638
	\$ 6,149	4,970

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

² In 2018 and 2017, includes CEMEX Colombia's residual interest in a trust oriented to promote housing projects, which its only asset is land in the municipality of Zapaquirá, Colombia and its only liability is a bank credit for \$129 and \$141, respectively, obtained to purchase the land, guaranteed by CEMEX Colombia. The estimated realizable value of the land as determined by external appraiser covers the amount of the loan. Related to this structure, on December 17, 2018, CEMEX Colombia and the other partner in the project accepted the binding offer of a local construction firm, pending of execution, whom, pursuant to the agreements, will join the trust as beneficiary and joint obligor of the debt and will acquire the project through the full repayment of the trust's debt by means of a repayment of approximately 50% during 2019 and the remaining portion in November 2020. Once the respective agreements are formalized in 2019, the construction firm will sign promissory notes to CEMEX Colombia securing its obligations and additionally the firm and the other partner will pledge their beneficial interest in the trust in favor of CEMEX Colombia.

11) INVENTORIES, NET

As of December 31, 2018 and 2017, the consolidated balance of inventories was summarized as follows:

	2018	2017
Finished goods	\$ 6,777	5,933
Work-in-process	3,818	3,814
Raw materials	3,813	3,237
Materials and spare parts	5,964	4,996
Inventory in transit	876	872
	\$ 21,248	18,852

For the years ended December 31, 2018, 2017 and 2016, CEMEX recognized within "Cost of sales" in the income statement, inventory impairment losses of \$114, \$23 and \$52, respectively.

12) ASSETS HELD FOR SALE AND OTHER CURRENT ASSETS

12.1) Assets held for sale

As of December 31, 2018 and 2017, 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:

	2018			2017		
	Assets	Liabilities	Net assets	Assets	Liabilities	Net assets
Assets in the central region of France (note 4.3)	\$ 952	314	638	\$ -	-	-
Idle assets in Spain ¹	-	-	-	580	-	580
Other assets held for sale	1,148	-	1,148	798	-	798
	\$ 2,100	314	1,786	\$ 1,378	-	1,378

¹ During December 2018, considering the withdrawal of potential buyers and the absence of new offers, CEMEX reclassified these assets to fixed assets.

12.2) Other current assets

As of December 31, 2018 and 2017, other current assets are mainly comprised of advance payments.

In addition, as of December 31, 2018, the balance of other current assets includes cash for US\$12 (\$236) of CEMEX Colombia subject to a temporary restriction on its availability due to a seizure order issued by a civil court in Colombia within an executory proceeding initiated by a supplier in connection with a commercial dispute over an amount being claimed of approximately US\$2 (\$39). CEMEX Colombia considers that such seizure order was excessive in relation to the amount claimed, and as of the reporting date, because of the nature of the proceeding, CEMEX Colombia's defense arguments that were put forth in its negotiations with the supplier have not yet been evaluated. As of the issuance date of these consolidated financial statements, CEMEX Colombia is following required legal procedures in the civil court and considers probable that the cash amounts will be released in 2019.

13) EQUITY ACCOUNTED INVESTEEES, OTHER INVESTMENTS AND NON-CURRENT ACCOUNTS RECEIVABLE

13.1) Equity accounted investees

As of December 31, 2018 and 2017, the investments in common shares of associates were as follows:

	Activity	Country	%	2018	2017
Camcem, S.A. de C.V.	Cement	Mexico	40.1	\$ 4,087	3,618
Concrete Supply Co. LLC	Concrete	United States	40.0	1,306	1,192
Lehigh White Cement Company	Cement	United States	36.8	1,172	375
Akmenes Cementas AB	Cement	Lithuania	37.8	527	585
ABC Capital, S.A. Institución de Banca Múltiple	Financing	Mexico	—	—	228
Société Méridionale de Carrières	Aggregates	France	33.3	318	367
Société d'Exploitation de Carrières	Aggregates	France	50.0	306	318
Cemento Interocéánico S.A.	Cement	Panama	25.0	160	168
Other companies	—	—	—	1,616	1,721
				\$ 9,492	8,572
Out of which:					
Book value at acquisition date				\$ 7,218	6,957
Changes in stockholders' equity				\$ 2,274	1,615

In April 2018, CEMEX entered into an agreement for the sale of its 33.9% equity interest to the controlling shareholders of ABC Capital, S.A. Institución de Banca Múltiple for \$105, recognizing a loss of \$157 as part of "Financial income and other items, net." The transaction is pending for authorization from the Mexican authorities. As of December 31, 2018, the investment is presented within assets held for sale in the statement of financial position (note 12.1).

During 2018, a subsidiary of CEMEX in the United States invested a total of US\$36 (\$707) and increased the Company's ownership over the Lehigh White Cement Company investee from 24.5% to 36.8%. This deal also includes an agreement in which the Company contributed all of its rights, title and interest in the white cement business in Florida to the investee and entered into an agreement in which a Company's terminal will receive and pack white cement for Lehigh White Cement Company to sell and distribute in the Florida market.

On January 25, 2017, in a public offering to investors in Mexico conducted through the BMV and in a concurrent private placement to eligible investors outside of Mexico, the Parent Company and Grupo Cementos de Chihuahua, S.A.B. de C.V. announced the offering of up to 76,483,332 shares (then all the shares of GCC owned by CEMEX). During 2017, after conclusion of the public offering and the private placement, CEMEX sold 45 million shares, 13.53% of the common stock of GCC, at a price of 95.00 pesos per share receiving \$4,094 after deducting commissions and offering expenses and recognized a gain on sale in 2017 of \$1,859 as part of "Financial income and other items, net" in the income statement.

In addition, on September 28, 2017, CEMEX announced the definitive sale to two financial institutions of the remaining 31,483,332 shares of GCC, which represented approximately 9.47% of the equity capital of GCC. Proceeds from the sale were \$3,012 and generated a gain on sale of \$1,682 in 2017 recognized as part of "Financial income and other items, net" in the income statement. CEMEX continues to have an approximate 20% indirect interest in GCC through Camcem, S.A. de C.V., GCC's parent company.

Combined condensed statement of financial position information of CEMEX's associates as of December 31, 2018 and 2017 is set forth below:

	2018	2017
Current assets	\$ 16,677	21,527
Non-current assets	32,901	32,071
Total assets	49,578	53,598
Current liabilities	5,685	10,863
Non-current liabilities	17,272	17,730
Total liabilities	22,957	28,593
Total net assets	\$ 26,621	25,005

Combined selected information of the statements of operations of CEMEX's associates in 2018, 2017 and 2016 is set forth below:

	2018	2017	2016
Sales	\$ 28,487	28,158	29,791
Operating earnings	4,401	4,458	4,730
Income before income tax	2,182	2,451	3,111
Net income	1,711	1,891	1,860

The share of equity accounted investees by reportable segment in the income statements for 2018, 2017 and 2016 is detailed as follows:

	2018	2017	2016
Mexico	\$ 254	269	452
United States	297	266	253
Europe	134	108	54
Corporate and others	(32)	(55)	(71)
	\$ 653	588	688

13.2) Other investments and non-current accounts receivable

As of December 31, 2018 and 2017, consolidated other investments and non-current accounts receivable were summarized as follows:

	2018	2017
Non-current accounts receivable ¹	\$ 4,329	4,248
Investments at fair value through the income statement ²	428	441
Non-current portion of valuation of derivative financial instruments (note 16.4)	297	794
Investments in strategic equity securities ³	217	275
	\$ 5,271	5,758

¹ Includes, among other items: a) accounts receivable from investees and joint ventures of \$1,273 in 2018 and \$1,301 in 2017; b) advances to suppliers of fixed assets of \$886 in 2018 and \$55 in 2017; c) employee prepaid compensation of \$114 in 2018 and \$112 in 2017; d) refundable taxes of \$263 in 2018 and \$261 in 2017; and e) warranty deposits of \$246 in 2018 and \$240 in 2017.

² Refers to investments in private funds and investments related to employee' savings funds. In 2018 and 2017, no contributions were made to such private funds.

³ This line item refers mainly to a strategic investment in CPOs of Axtel, S.A.B. de C.V. ("Axtel"). This investment is recognized at fair value through other comprehensive income.

14) PROPERTY, MACHINERY AND EQUIPMENT, NET

As of December 31, 2018 and 2017, consolidated property, machinery and equipment, net and the changes in such line item during 2018, 2017 and 2016, were as follows:

	2018				Total
	Land and mineral reserves ¹	Building ¹	Machinery and equipment ²	Construction in progress	
Cost at beginning of period	\$ 95,495	53,927	242,636	19,457	411,515
Accumulated depreciation and depletion	(16,842)	(26,225)	(136,288)	-	(179,355)
Net book value at beginning of period	78,653	27,702	106,348	19,457	232,160
Capital expenditures	525	578	11,038	-	12,141
Additions through capital leases	-	-	88	-	88
Stripping costs	740	-	-	-	740
Total capital expenditures	1,265	578	11,126	-	12,969
Disposals ⁴	(258)	(116)	(597)	-	(971)
Reclassifications ⁴	(353)	(45)	(81)	580	101
Business combinations	83	-	133	-	216
Depreciation and depletion for the period	(3,618)	(2,001)	(8,400)	-	(14,019)
Impairment losses	(121)	(33)	(291)	-	(445)
Foreign currency translation effects	210	(349)	(5,733)	301	(5,571)
Cost at end of period	94,692	53,292	242,740	20,338	411,062
Accumulated depreciation and depletion	(18,831)	(27,556)	(140,235)	-	(186,622)
Net book value at end of period	\$ 75,861	25,736	102,505	20,338	224,440

	2017				Total	2016 ³
	Land and mineral reserves ¹	Building ¹	Machinery and equipment ²	Construction in progress		
Cost at beginning of period	\$ 97,218	51,740	229,717	17,247	395,922	360,089
Accumulated depreciation and depletion	(16,301)	(24,224)	(125,263)	-	(165,788)	(143,395)
Net book value at beginning of period	80,917	27,516	104,454	17,247	230,134	216,694
Capital expenditures	547	802	8,165	-	9,514	12,676
Additions through capital leases	-	-	2,096	-	2,096	7
Capitalization of financial expense	-	-	-	-	-	175
Stripping costs	809	-	-	-	809	421
Total capital expenditures	1,356	802	10,261	-	12,419	13,279
Disposals ⁴	(347)	(223)	(1,274)	-	(1,844)	(1,841)
Reclassifications ⁴	(784)	(82)	(768)	-	(1,634)	(4,549)
Business combinations	2,179	749	3,136	428	6,492	-
Depreciation and depletion for the period	(2,571)	(1,967)	(9,413)	-	(13,951)	(14,037)
Impairment losses	(202)	(1)	(763)	(18)	(984)	(1,899)
Foreign currency translation effects	(1,895)	908	715	1,800	1,528	22,487
Cost at end of period	95,495	53,927	242,636	19,457	411,515	395,922
Accumulated depreciation and depletion	(16,842)	(26,225)	(136,288)	-	(179,355)	(165,788)
Net book value at end of period	\$ 78,653	27,702	106,348	19,457	232,160	230,134

¹ Includes corporate buildings and related land sold to financial institutions in previous years, which were leased back. The aggregate carrying amount of these assets as of December 31, 2018 and 2017 was \$1,602 and \$1,690, respectively.

² Includes assets, mainly mobile equipment, acquired through finance leases, which carrying amount as of December 31, 2018 and 2017 was \$88 and \$2,096, respectively.

³ In 2016, CEMEX Colombia concluded the construction of a cement plant in the municipality of Maceo in the Antioquia department in Colombia with an annual capacity of approximately 11 million tons. The plant 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 related to certain operating permits and other legal proceedings (note 24.1). As a result of internal audits of the project, in 2016, CEMEX Colombia reduced construction in progress for \$483 (US\$23), of which, \$295 (US\$14) were recognized as impairment losses against "Other expenses, net" in connection with the write off of certain advances for the purchase of land through a representative have low probability for their recoverability due to deficiencies in the legal processes, and \$188 (US\$9) were decreased against "Other accounts payable" in connection with the cancellation of the portion payable of such assets (note 24.1). As of December 31, 2018, the carrying amount of the plant, net of adjustments, is for an amount in Colombian pesos equivalent to US\$280 (\$5,502).

⁴ In 2018, includes sales of non-strategic fixed assets in the United States, Spain and Mexico for \$371, \$158 and \$125, respectively. In 2017, includes sales of non-strategic fixed assets in Mexico, the United States and Spain for \$343, \$223 and \$220, respectively. In 2016, includes sales of non-strategic fixed assets in the United States, Mexico, and France for \$317, \$281 and \$165, respectively.

⁵ In 2018, refers mainly to the reclassification of the assets in Spain for \$580 (note 12.1). In 2017, refers mainly to those assets of the Pacific Northwest Materials Business in the United States for \$1,634 (note 4.2). In 2016, refers mainly to those assets of the Concrete Pipe Business in the United States for \$2,747, as well as other disposal groups in the United States reclassified to assets available for sale for \$1,386.

As a result of impairment tests conducted on several CGUs considering certain triggering events, mainly: a) the closing and/or reduction of operations of cement and ready-mix concrete plants resulting from adjusting the supply to current demand conditions, such as the situation in Puerto Rico in the last quarter of 2016 due to the adverse outlook and the overall uncertain economic conditions in such country; b) the transferring of installed capacity to more efficient plants, such as the change in operating model of a cement mill to distribution center in Colombia; as well as c) the recoverability of certain investments in Colombia as described above, for the years ended December 31, 2018, 2017 and 2016, 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 2.10 and 6).

During the years ended December 31, 2018, 2017 and 2016 impairment losses of fixed assets by country are as follows:

	2018	2017	2016
United States	\$ 252	153	277
Poland	94	-	-
Colombia	37	-	454
Spain	35	452	-
Mexico	25	45	46
Czech Republic	-	157	-
Panama	-	56	-
France	-	50	-
Latvia	-	46	-
Puerto Rico	-	-	1,087
Others	2	25	35
	\$ 445	984	1,899

15) GOODWILL AND INTANGIBLE ASSETS, NET

15.1) Balances and changes during the period

As of December 31, 2018 and 2017, consolidated goodwill, intangible assets and deferred charges were summarized as follows:

	2018			2017		
	Cost	Accumulated amortization	Carrying amount	Cost	Accumulated amortization	Carrying amount
Intangible assets of indefinite useful life:						
Goodwill	\$ 194,779	-	194,779	\$ 195,474	-	195,474
Intangible assets of definite useful life:						
Extraction rights	38,881	(7,017)	31,864	39,603	(6,480)	33,123
Industrial property and trademarks	864	(397)	467	929	(364)	565
Customer relationships	3,859	(3,859)	-	3,859	(3,852)	7
Mining projects	834	(107)	727	797	(96)	701
Others intangible assets	18,048	(11,287)	6,761	14,941	(9,902)	5,039
	\$ 257,265	(22,667)	234,598	\$ 255,603	(20,694)	234,909

The amortization of intangible assets of definite useful life was \$2,051 in 2018, \$2,037 in 2017 and \$1,950 in 2016, and was recognized within operating costs and expenses.

**Goodwill**

Changes in consolidated goodwill in 2018, 2017 and 2016, were as follows:

	2018	2017	2016
Balance at beginning of period	\$ 195,474	206,319	184,156
Business combinations	309	1,965	-
Disposals, net (note 4.3)	-	-	(3,340)
Reclassification to assets held for sale and other current assets (notes 4.2, 4.3 and 12)	(439)	(1,804)	(9,734)
Impairment losses	-	(1,920)	-
Foreign currency translation effects	(565)	(9,086)	35,237
Balance at end of period	\$ 194,779	195,474	206,319

Intangible assets of definite life

Changes in intangible assets of definite life in 2018, 2017 and 2016, were as follows:

	2018						Total
	Extraction rights	Industrial property and trademarks	Customer relations	Mining projects	Others ¹	Total	
Balance at beginning of period	\$ 33,123	565	7	701	5,039	39,435	
Additions (disposals), net ¹	(219)	(32)	-	120	2,913	2,782	
Reclassifications (notes 4.1, 4.2 and 12)	(223)	-	-	-	6	(217)	
Amortization for the period	(626)	(93)	(7)	(12)	(1,313)	(2,051)	
Impairment losses	(186)	-	-	-	-	(186)	
Foreign currency translation effects	(5)	27	-	(82)	116	56	
Balance at the end of period	\$ 31,864	467	-	727	6,761	39,819	

	2017						Total
	Extraction rights	Industrial property and trademarks	Customer relations	Mining projects	Others ¹	Total	
Balance at beginning of period	\$ 35,047	357	259	877	4,648	41,188	36,566
Additions (disposals), net ¹	278	(783)	-	(148)	424	(229)	(598)
Business combinations (note 4.1)	-	-	-	4	72	76	-
Reclassifications (notes 4.1, 4.2 and 12)	-	-	(27)	-	-	(27)	-
Amortization for the period	(716)	(110)	(225)	(12)	(974)	(2,037)	(1,950)
Impairment losses	(38)	-	-	-	(12)	(50)	(25)
Foreign currency translation effects	(1,448)	1,101	-	(20)	881	514	7,195
Balance at the end of period	\$ 33,123	565	7	701	5,039	39,435	41,188

¹ As of December 31, 2018 and 2017, "Others" includes the carrying amount of internal-use software of \$4,459 and \$2,981, respectively. Capitalized direct costs incurred in the development stage of internal-use software, such as professional fees, direct labor and related travel expenses, amounted to \$2,583 in 2018, \$1,422 in 2017 and \$769 in 2016.

15.2) Analysis of goodwill impairment

As of December 31, 2018 and 2017, goodwill balances allocated by operating segment were as follows:

	2018	2017
Mexico	\$ 7,371	7,371
United States	152,486	152,486
Europe		
Spain	10,270	10,000
United Kingdom	6,367	6,335
France	4,154	4,796
Czech Republic	589	709
South, Central America and the Caribbean		
Colombia	5,874	6,146
Dominican Republic	264	279
Caribbean TCL	2,042	2,027
Others South, Central America and the Caribbean ¹	972	985
Asia, Middle East and Africa		
Philippines	1,751	1,817
United Arab Emirates	1,885	1,769
Egypt	232	232
Others		
Other reporting segments ²	522	522
	\$ 194,779	195,474

¹ This caption refers to the operating segments in the Caribbean, Costa Rica and Panama.

² This caption is primarily associated with Neoris NV, CEMEX's subsidiary involved in the sale of information technology and services.

For purposes of goodwill impairment tests, all cash-generating units within a country are aggregated, as goodwill is allocated at that level. Considering materiality for disclosure purposes, certain balances of goodwill were presented for Others of South, Central America and the Caribbean, but this does not represent that goodwill was tested at a higher level than for operations in an individual country.

During the last quarter of each year, CEMEX performs its annual goodwill impairment test. Based on these analyses, during 2017, in connection with the operating segment in Spain, considering the uncertainty over the improvement indicators affecting the country's construction industry, and consequently in the expected consumption of cement, ready-mix and aggregates, partially a result of the then country's complex prevailing political environment, which had limited expenditure in infrastructure projects, as well as the uncertainty in the expected price recovery and the effects of increased competition and imports, CEMEX's management determined that the net book value of such operating segment in Spain, exceeded in \$1,920 (US\$98) the amount of the net present value of projected cash flows. As a result, CEMEX recognized an impairment loss of goodwill for such amount as part of "Other expenses, net" in the income statement on 2017 against the related goodwill balance.

During 2018 and 2016, CEMEX did not determine impairment losses of goodwill.

Impairment tests are significantly sensitive to, among other factors, 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 long-term growth rates applied. CEMEX's cash flow projections to determine the value in use of its CGUs to which goodwill has been allocated considering the use of long-term economic assumptions. CEMEX believes that its discounted cash flow projections and the discount rates used reasonably reflect current economic conditions at the time of the calculations, considering, among other factors that: a) the cost of capital reflects current risks and volatility in the markets; and b) the cost of debt represents the average of industry specific interest rates observed in recent transactions. Other key assumptions used to determine CEMEX's discounted cash flows are volume and price increases or decreases by main product during the projected periods. Volume increases or decreases generally reflect forecasts issued by trustworthy external sources, occasionally adjusted based on CEMEX's actual backlog, experience and judgment considering its concentration in certain sectors, while price changes normally reflect the expected inflation in the respective country. Operating costs and expenses during all periods are maintained as a fixed percent of revenues considering historic performance.

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:

Groups of CGUs	Discount rates			Growth rates		
	2018	2017	2016	2018	2017	2016
United States	8.5%	8.8%	8.6%	2.5%	2.5%	2.5%
Spain	8.8%	9.5%	9.5%	1.7%	1.7%	1.6%
Mexico	9.4%	10.2%	9.8%	3.0%	2.7%	2.9%
Colombia	9.5%	10.5%	10.0%	3.6%	3.7%	4.0%
France	8.4%	9.0%	9.7%	1.6%	1.8%	1.8%
United Arab Emirates	11.0%	10.4%	10.2%	2.9%	3.1%	3.4%
United Kingdom	8.4%	9.0%	8.8%	1.6%	1.7%	1.9%
Egypt	10.8%	11.8%	11.4%	6.0%	6.0%	6.0%
Range of rates in other countries	8.5% - 13.3%	9.7% - 11.7%	9.1% - 12.8%	2.5% - 6.9%	2.3% - 6.8%	2.2% - 7.0%

As of December 31, 2018, the discount rates used by CEMEX in its cash flows projections in the countries with the most significant goodwill balances decreased slightly in most cases in a range of 0.3% up to 1 percentage point, except for United Arab Emirates and the Caribbean, as compared to the values determined in 2017. This reduction was mainly attributable to a decrease in the Parent Company's stock volatility (beta) and general decreases in the country specific sovereign yields in the majority of the countries where CEMEX operates and the weighing of debt in the calculation, effects that were partially offset for increases during 2018 in the funding cost observed in the industry that changed from 6.1% in 2017 to 7.3% in 2018 and the risk free rate associated with CEMEX which increased from 2.8% in 2017 to 2.9% in 2018. As of December 31, 2017, the discount rates increased slightly in most cases as compared to the values determined in 2016. Among other factors, the funding cost observed in industry decreased from 6.2% in 2016 to 6.1% in 2017 and the risk-free rate increased from approximately 2.7% in 2016 to 2.8% in 2017. Nonetheless, these decreases were offset by increases in 2017 in the country specific sovereign yields in most of the countries where CEMEX operates. As of December 31, 2016, the discount rates remained almost flat in most cases as compared to the values determined in the previous year. With respect to long-term growth rates, following general practice under IFRS, CEMEX uses country specific rates, which are mainly obtained from Consensus Economics, a compilation of analysts' forecasts worldwide, or from the International Monetary Fund when the former is not available for a specific country.

In connection with the assumptions included in the table above, CEMEX performed 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, and an independent possible decrease of 1% in the long-term growth rate. In addition, CEMEX performed cross-check analyses for reasonableness of its results using multiples of Operating EBITDA. To arrive at these multiples, which represent a reasonableness check of the discounted cash flow models, CEMEX determined a weighted average multiple of Operating EBITDA to enterprise value observed in the industry and/or 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 weighted average Operating EBITDA multiple of 11.1 times in 2018 and multiple of 9.0 times in 2017 and 2016. The lowest multiple observed in CEMEX's benchmark was 6.7 times in 2018, 6.5 times in 2017 and 5.9 times in 2016, and the highest being 14.9 times in 2018, 18.9 times in 2017 and 18.3 times in 2016.

As of December 31, 2018, 2017 and 2016, except for the operating segment in Spain described above, in which CEMEX determined an impairment loss of goodwill in 2017, none of the other CEMEX's sensitivity analyses resulted in a potential impairment risk in CEMEX's operating segments. CEMEX continually monitors the evolution of the specific CGUs to which goodwill has been allocated that have presented relative goodwill impairment risk in any of the reported periods and, in the event that the relevant economic variables and the related cash flows projections would be negatively affected, it may result in a goodwill impairment loss in the future.

As of December 31, 2018 and 2017, goodwill allocated to the United States accounted in both years for approximately 78% 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. CEMEX has also considered recent developments in its operations in the United States, such as the decrease in ready-mix concrete volumes of approximately 1% in 2017, affected by the hurricanes occurred in Texas and Florida during the year, and the increase of 1% in 2016, and the increases in ready-mix concrete prices of approximately 2% in 2018, 1% in 2017 and 1% in 2016, which are key drivers for cement consumption and CEMEX's profitability, and which trends are expected to continue over the next few years, as anticipated in CEMEX's cash flow projections.

16) FINANCIAL INSTRUMENTS

16.1) Short-term and long-term debt

As of December 31, 2018 and 2017, CEMEX's consolidated debt summarized by interest rates and currencies, was as follows:

	2018			2017		
	Short-term	Long-term	Total	Short-term	Long-term	Total
Floating rate debt	\$ 262	66,819	67,081	\$ 7,282	53,389	60,671
Fixed rate debt	621	115,255	115,876	9,691	123,633	133,324
	\$ 883	182,074	182,957	\$ 16,973	177,022	193,995
Effective rate ¹						
Floating rate	7.8%	3.6%		6.1%	3.0%	
Fixed rate	4.2%	5.6%		4.8%	5.7%	

Currency	2018				2017			
	Short-term	Long-term	Total	Effective rate ¹	Short-term	Long-term	Total	Effective rate ¹
Dollars	\$ 589	114,696	115,285	5.8%	\$ 6,206	107,508	113,714	5.9%
Euros	12	52,368	52,380	3.3%	9,705	54,906	64,611	3.5%
Pounds	-	8,631	8,631	2.9%	-	9,141	9,141	2.6%
Philippine pesos	52	5,041	5,093	4.6%	-	5,408	5,408	4.6%
Other currencies	230	1,338	1,568	5.9%	1,062	59	1,121	6.2%
	\$ 883	182,074	182,957		\$ 16,973	177,022	193,995	

¹ In 2018 and 2017, represents the weighted-average nominal interest rate of the related debt agreements.

As of December 31, 2018 and 2017, CEMEX's consolidated debt summarized by type of instrument, was as follow:

	2018		2017		
	Short-term	Long-term	Short-term	Long-term	
Bank loans			Bank loans		
Loans in foreign countries, 2019 to 2024	\$ 614	6,436	Loans in foreign countries, 2018 to 2022	\$ 910	5,439
Syndicated loans, 2020 to 2022	-	62,460	Syndicated loans, 2018 to 2022	-	50,132
	614	68,896		910	55,571
Notes payable			Notes payable		
Medium-term notes, 2023 to 2026	-	110,157	Medium-term notes, 2018 to 2026	224	133,949
Other notes payable, 2019 to 2025	140	3,150	Other notes payable, 2018 to 2025	154	3,187
	140	113,307		378	137,136
Total bank loans and notes payable	754	182,203	Total bank loans and notes payable	1,288	192,707
Current maturities	129	(129)	Current maturities	15,685	(15,685)
	\$ 883	182,074		\$ 16,973	177,022

As of December 31, 2018 and 2017, discounts, fees and other direct costs incurred in the issuance of CEMEX's outstanding notes payable and bank loans for US\$65 and US\$84, respectively, reduce the balance of notes payable and are amortized to financing expense over the maturity of the related debt instruments under the amortized cost method.

As of December 31, 2018 and 2017, from total debt of \$182,957 and \$193,995, respectively, approximately 79% in 2018 and 80% in 2017 was held in the Parent Company, 15% in 2018 and 15% in 2017 was in finance subsidiaries in the Netherlands and the United States, and 6% in 2018 and 5% in 2017 was in other countries.

Changes in consolidated debt for the years ended December 31, 2018, 2017 and 2016 were as follows:

	2018	2017	2016
Debt at beginning of year	\$ 193,995	236,238	229,343
Proceeds from new debt instruments	43,765	93,620	48,748
Debt repayments	(53,025)	(131,446)	(89,792)
Foreign currency translation and accretion effects	(1,778)	(4,417)	47,939
Debt at end of year	\$ 182,957	193,995	236,238

As of December 31, 2018 and 2017, as presented in the table above of debt by type of instrument, approximately 38% and 29%, respectively, of CEMEX's total indebtedness, was represented by bank loans, of which the most significant portion corresponded to those balances under CEMEX's facilities agreement entered into with 20 financial institutions on July 19, 2017 for an amount in different currencies equivalent to approximately US\$4,050 at the origination date (the "2017 Credit Agreement"), as described elsewhere in this note.

As of December 31, 2018 and 2017, non-current notes payable for \$113,307 and \$137,136, respectively, was detailed as follows:

Description	Date of issuance	Issuer ^{1, 2}	Currency	Principal amount	Rate ¹	Maturity date	Repurchased amount ³ US\$	Outstanding amount ³ US\$	2018	2017
April 2026 Notes ⁴	16/Mar/16	CEMEX, S.A.B. de C.V.	Dollar	1,000	7.75%	16/Apr/26	-	1,000	\$ 19,575	19,568
July 2025 Notes	02/Apr/03	CEMEX Materials LLC	Dollar	150	7.75%	21/Jul/25	-	150	3,042	3,061
March 2025 Notes	03/Mar/15	CEMEX, S.A.B. de C.V.	Dollar	750	6.125%	05/May/25	-	750	14,696	14,691
January 2025 Notes	11/Sep/14	CEMEX, S.A.B. de C.V.	Dollar	1,100	5.75%	11/Jan/25	(29)	1,071	20,994	20,988
December 2024 Notes ⁷	05/Dec/17	CEMEX, S.A.B. de C.V.	Euro	650	2.75%	05/Dec/24	-	745	14,572	15,257
June 2024 Notes ⁴	14/Jun/16	CEMEX Finance LLC	Euro	400	4.625%	15/Jun/24	-	458	8,968	9,390
April 2024 Notes	01/Apr/14	CEMEX Finance LLC	Dollar	1,000	6.00%	01/Apr/24	(10)	990	18,995	18,924
March 2023 Notes	03/Mar/15	CEMEX, S.A.B. de C.V.	Euro	550	4.375%	05/Mar/23	-	630	12,356	12,938
October 2022 Notes ⁴	12/Oct/12	CEMEX Finance LLC	Dollar	1,500	9.375%	12/Oct/22	(1,500)	-	-	-
January 2022 Notes ⁴	11/Sep/14	CEMEX, S.A.B. de C.V.	Euro	400	4.75%	11/Jan/22	(480)	-	-	9,434
April 2021 Notes ⁴	01/Apr/14	CEMEX Finance LLC	Euro	400	5.25%	01/Apr/21	(480)	-	-	-
January 2021 Notes ^{4, 5}	02/Oct/13	CEMEX, S.A.B. de C.V.	Dollar	1,000	7.25%	15/Jan/21	(1,000)	-	-	6,606
December 2019 Notes ^{4, 5}	12/Aug/13	CEMEX, S.A.B. de C.V.	Dollar	1,000	6.50%	10/Dec/19	(1,000)	-	-	-
October 2018 Variable Notes ^{4, 5}	02/Oct/13	CEMEX, S.A.B. de C.V.	Dollar	500	L+475bps	15/Oct/18	(500)	-	-	6,154
Other notes payable									109	125
									\$ 113,307	137,136

¹ The letter "L" included above refers to LIBOR, which represents the London Inter-Bank Offered Rate, variable rate used in international markets for debt denominated in U.S. dollars. As of December 31, 2018 and 2017, 3-Month LIBOR rate was 2.8076% and 1.6943%, respectively. The contraction "bps" means basis points. One hundred basis points equal 1%.

² Unless otherwise indicated, all issuances are fully and unconditionally guaranteed by CEMEX, S.A.B. de C.V., CEMEX México, S.A. de C.V., CEMEX Concretos, S.A. de C.V., Empresas Tolteca de México, S.A. de C.V., New Sunward Holding BV, CEMEX España, S.A., CEMEX Asia BV, CEMEX Corp., CEMEX Africa & Middle East Investments BV, CEMEX Finance LLC, CEMEX France Gestion, (S.A.S.), CEMEX Research Group AG and CEMEX UK. In March 2018, CEMEX Egyptian Investments BV changed its legal name to CEMEX Africa & Middle East Investments BV.

³ Presented net of all outstanding notes repurchased and held by CEMEX's subsidiaries.

⁴ On January 10, 2018, CEMEX completed the purchase of the outstanding amount of the January 2022 Notes for an aggregate principal amount of €400 using available funds from the issuance of the December 2024 Notes by means of an offer communicated on November 28, 2017.

⁵ In March 2018, CEMEX early redeemed the outstanding amount of the October 2018 Variable Notes and the January 2021 Notes for US\$313 and US\$341, respectively.

⁶ In December 2017, CEMEX repurchased the outstanding amount of the December 2019 Notes for an aggregate principal amount of US\$601. During September and October 2017, CEMEX repurchased US\$1,044 aggregate principal amount of the October 2022 Notes that remained outstanding.

⁷ On December 5, 2017, CEMEX issued €650 of 2.75% senior secured notes due December 5, 2024 (the "December 2024 Notes"). The proceeds were used to repay other indebtedness.

⁸ In May 2017, CEMEX redeemed the remaining €400 of aggregate principal amount of the April 2021 Notes. Moreover, in February 2017, CEMEX repurchased US\$385 aggregate principal amount of the January 2021 Note and US\$90 of the December 2019 Notes. In addition, during 2016, using available funds from the issuance of the April 2026 Notes, the June 2024 Notes, the sale of assets and cash flows provided by operating activities, CEMEX completed the purchase of US\$179 principal amount of the October 2018 Variable Notes and US\$242 principal amount of the January 2021 Notes, among other debt repurchases incurred that year with those resources.

During 2018, 2017 and 2016, as a result of the debt transactions incurred including exchange offers and tender offers to replace and/or repurchase existing debt instruments, CEMEX paid premiums, fees and issuance costs for a combined amount of US\$51 (\$1,006), US\$251 (\$4,930) and US\$196 (\$4,061), respectively, of which US\$51 (\$1,006) in 2018, US\$212 (\$4,160) in 2017 and US\$151 (\$3,129) in 2016, associated with the extinguished portion of the exchanged or repurchased notes, were recognized in the income statement in each year within "Financial expense". In addition, US\$39 (\$770) in 2017 and US\$45 (\$932) in 2016, corresponding to issuance costs of new debt and/or the portion of the combined premiums, fees and issuance costs treated as a refinancing of the old instruments, adjusted the carrying amount of the new debt instruments, and are amortized over the remaining term of each instrument. Moreover, proportional fees and issuance costs related to the extinguished debt instruments for US\$4 (\$87) in 2018, US\$16 (\$310) in 2017 and US\$37 (\$767) in 2016 that were pending for amortization were recognized in the income statement of each year as part of "Financial expense."

The maturities of consolidated long-term debt as of December 31, 2018, were as follows:

	2018	
2020	\$	11,523
2021		23,603
2022		30,175
2023		15,342
2024 and thereafter		101,431
	\$	182,074

As of December 31, 2018, CEMEX had the following lines of credit, of which, the only committed portion refers to the revolving credit facility, at annual interest rates ranging between 0.75% and 8.50%, depending on the negotiated currency:

	Lines of credit		Available
Other lines of credit in foreign subsidiaries	\$	9,440	7,286
Other lines of credit from banks		11,294	8,956
Revolving credit facility		22,303	16,211
	\$	43,037	32,453

2017 Credit Agreement and 2014 Credit Agreement

On July 19, 2017, the Parent Company and certain subsidiaries entered into the 2017 Credit Agreement with 20 financial institutions for an amount in different currencies equivalent to US\$4,050 at the origination date, the proceeds from which were used to refinance in full the US\$3,680 then outstanding under the 2014 Credit Agreement and other debt repayments, allowing CEMEX to increase the average life of its syndicated bank debt with a final maturity in July 2022. All tranches under the 2017 Credit Agreement have substantially the same terms, including an applicable margin over the benchmark interest rate of between 125 to 350 basis points, depending on CEMEX's consolidated debt leverage ratio; and the tranches share the same guarantors and collateral package as the original tranches under the 2014 Credit Agreement and other secured debt obligations of CEMEX. As of December 31, 2018 and 2017, total commitments under the 2017 Credit Agreement included US\$2,746, €741 and £344, in both years, out of which about US\$1,135 in both years were in a revolving credit facility. All tranches under the 2017 Credit Agreement amortize in five equal semi-annual payments beginning in July 2020, except for the commitments under the revolving credit which have a five-year maturity.

All tranches under the 2017 Credit Agreement have substantially the same terms, including an applicable margin over LIBOR or EURIBOR, as applicable, of between 125 to 350 basis points, depending on the Leverage Ratio (as defined below) of CEMEX, as follows:

Consolidated Leverage Ratio	Applicable margin
>= 5.50x	350 bps
< 5.00x > 4.50x	300 bps
< 4.50x > 4.00x	250 bps
< 4.00x > 3.50x	212.5 bps
< 3.50x > 3.00x	175 bps
< 3.00x > 2.50x	150 bps
< 2.50x	125 bps

The 2017 Credit Agreement also modified the consolidated Leverage Ratio and consolidated Coverage Ratio limits as described below in the financial covenants section.

The balance of debt under the 2017 Credit Agreement and previously under the 2014 Credit Agreement is guaranteed by CEMEX México, S.A. de C.V., CEMEX Concretos, S.A. de C.V., Empresas Tolteca de México, S.A. de C.V., New Sunward Holding BV, CEMEX España, S.A., CEMEX Asia BV, CEMEX Corp., CEMEX Africa & Middle East Investments BV, CEMEX Finance LLC, CEMEX France Gestion, (S.A.S.), CEMEX Research Group AG and CEMEX UK. In addition, the debt under these agreements (together with all other senior capital markets debt issued or guaranteed by CEMEX, and certain other preceding facilities) is also secured by a first-priority security interest in: (a) substantially all the shares of CEMEX México, S.A. de C.V., CEMEX Operaciones México, S.A. de C.V., New Sunward Holding BV, CEMEX Trademarks Holding Ltd. and CEMEX España, S.A. (the "Collateral"); and (b) all proceeds of such Collateral.

For the years ended December 31, 2018, 2017 and 2016, under both the 2017 Credit Agreement and the 2014 Credit Agreement, CEMEX was required to comply with the following thresholds: (a) the aggregate amount allowed for capital expenditures cannot exceed US\$1,000 per year excluding certain capital expenditures, and, joint venture investments and acquisitions by CHP and its subsidiaries and CLH and its subsidiaries, which capital expenditures, joint venture investments and acquisitions at any time then incurred are subject to a separate aggregate limit for each of CHP and CLH of US\$500 (or its equivalent); and (b) the amounts allowed for permitted acquisitions and investments in joint ventures cannot exceed US\$400 per year. Nonetheless, such limitations do not apply if capital expenditures or acquisitions do not exceed free cash flow generation or are funded with proceeds from equity issuances or asset disposals.

In addition to the restrictions mentioned above, and subject in each case to the permitted negotiated amounts and other exceptions, CEMEX is also subject to a number of negative covenants that, among other things, restrict or limit its ability to: (i) create liens; (ii) incur additional debt; (iii) change CEMEX's business or the business of any obligor or material subsidiary (in each case, as defined in the 2017 Credit Agreement); (iv) enter into mergers; (v) enter into agreements that restrict its subsidiaries' ability to pay dividends or repay intercompany debt; (vi) acquire assets; (vii) enter into or invest in joint venture agreements; (viii) dispose of certain assets; (ix) grant additional guarantees or indemnities; (x) declare or pay cash dividends or make share redemptions while the Leverage Ratio remains above 4.0 times; and (xi) enter into speculative derivatives transactions. The 2017 Credit Agreement contains several affirmative covenants that, among other things, require CEMEX to provide periodic financial information to its lenders. However, a number of those covenants and restrictions will automatically cease to apply or become less restrictive if CEMEX so elects when: (i) CEMEX's Leverage Ratio (as defined hereinafter) for the two most recently completed quarterly testing periods is less than or equal to 3.75 times; and (ii) no default under the 2017 Credit Agreement is continuing. At that point the Leverage Ratio must not exceed 3.75 times. Restrictions that will cease to apply when CEMEX satisfies such conditions include the capital expenditure limitations mentioned above and several negative covenants, including limitations on CEMEX's ability to declare or pay cash dividends and distributions to shareholders, limitations on CEMEX's ability to repay existing financial indebtedness, certain asset sale restrictions, and restrictions on exercising call options in relation to any perpetual bonds CEMEX issues. At such time, several baskets and caps relating to negative covenants will also increase, including permitted financial indebtedness, permitted guarantees and limitations on liens. However, CEMEX cannot assure that it will be able to meet the conditions for these restrictions to cease to apply prior to the final maturity date under the 2017 Credit Agreement.

In addition, the 2017 Credit Agreement, and previously the 2014 Credit Agreement, contains events of default, some of which may occur and are outside of CEMEX's control such as expropriation, sequestration and availability of foreign exchange. As of December 31, 2018 and 2017, CEMEX was not aware of any event of default. CEMEX cannot assure that in the future it will be able to comply with the restrictive covenants and limitations contained in the 2017 Credit Agreement. 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.

Financial Covenants

The 2017 Credit Agreement and previously the 2014 Credit Agreement requires CEMEX to comply with financial ratios, which mainly include: a) the consolidated ratio of debt to Operating EBITDA (the "Leverage Ratio"); and b) the consolidated ratio of Operating EBITDA to interest expense (the "Coverage Ratio"). These financial ratios are calculated according to the formulas established in the debt contracts using the consolidated amounts under IFRS.

As of December 31, 2018, CEMEX must comply with a Coverage Ratio and a Leverage Ratio for each period of four consecutive fiscal quarters as follows:

Period	Coverage Ratio	Period	Leverage Ratio
For the period ending on December 31, 2018 up to and including the period ending on March 31, 2020	> = 2.50	For the period ending on December 31, 2018 up to and including the period ending on March 31, 2019	< = 4.75
		For the period ending on June 30, 2019 up to and including the period ending on March 31, 2020	< = 4.50
For the period ending on June 30, 2020 and each subsequent reference period	> = 2.75	For the period ending on June 30, 2020 and each subsequent reference period	< = 4.25

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. For the compliance periods ended as of December 31, 2018, 2017 and 2016, under the 2017 Credit Agreement and the 2014 Credit Agreement, as applicable, the main consolidated financial ratios were as follows:

		Consolidated financial ratios		
		2018	2017	2016
Leverage Ratio ^{1,2}	Limit	< = 4.75	< = 5.25	< = 6.00
	Calculation	3.84	3.85	4.22
Coverage Ratio ³	Limit	> = 2.50	> = 2.50	> = 1.85
	Calculation	4.41	3.46	3.18

¹ The Leverage Ratio is calculated in pesos by dividing "Funded debt" by pro forma Operating EBITDA for the last twelve months as of the calculation date. Funded debt equals debt, as reported in the statement of financial position, excluding finance leases, components of liability of convertible subordinated notes, plus perpetual debentures and guarantees, plus or minus the fair value of derivative financial instruments, as applicable, among other adjustments.

² Pro forma Operating EBITDA represents, all calculated in pesos, Operating EBITDA for the last twelve months as of the calculation date, 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.

³ The Coverage Ratio is calculated in pesos using the amounts from the financial statements, by dividing the pro forma Operating EBITDA by the financial expense for the last twelve months as of the calculation date. Financial expense includes interest accrued on the perpetual debentures.

CEMEX will classify all of its outstanding debt as current debt in its statement of financial position 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 2017 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) a signed refinancing agreement to refinance the relevant debt on a long-term basis. Moreover, concurrent with such classification of debt as short-term, the noncompliance of CEMEX with the financial ratios agreed upon pursuant to the 2017 Credit Agreement 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 2017 Credit Agreement. That scenario would have a material adverse effect on CEMEX's operating results, liquidity or financial position.

16.2) Other financial obligations

As of December 31, 2018 and 2017, other financial obligations in the consolidated statement of financial position are detailed as follows:

	2018			2017		
	Short-term	Long-term	Total	Short-term	Long-term	Total
I. Convertible subordinated notes due 2020	\$ -	10,097	10,097	\$ -	9,985	9,985
II. Convertible subordinated notes due 2018	-	-	-	7,115	-	7,115
III. Mandatorily convertible securities due 2019	374	-	374	323	371	694
IV. Liabilities secured with accounts receivable	11,770	-	11,770	11,313	-	11,313
V. Finance leases	595	1,931	2,526	611	2,503	3,114
	\$ 12,739	12,028	24,767	\$ 19,362	12,859	32,221

Financial instruments convertible into CEMEX's shares contain components of liability and equity, which are recognized differently depending upon the currency in which the instrument is denominated and the functional currency of the issuer (note 2.6).

I. Optional convertible subordinated notes due 2020

During 2015, the Parent Company issued US\$521 aggregate principal amount of 3.72% convertible subordinated notes due in March 2020 (the "2020 Convertible Notes") as a result of exchanges or settlements of other convertible notes. The 2020 Convertible Notes, which are subordinated to all of CEMEX's liabilities and commitments, are convertible into a fixed number of the Parent Company's ADSs at any time at the holder's election and are subject to antidilution adjustments. The aggregate fair value of the conversion option as of the issuance dates which amounted to \$199 was recognized in "Other equity reserves." As of December 31, 2018 and 2017, the conversion price per ADS for the 2020 Convertible Notes was approximately 11.01 dollars in both years. After antidilution adjustments, the conversion rate for the 2020 Convertible Notes as of December 31, 2018 and 2017 was 90.8592 ADS per each 1 thousand dollars principal amount of such notes in both years.

II. Optional convertible subordinated notes due in 2018

On March 15, 2011, the Parent Company closed the offering of US\$690 principal amount of 3.75% convertible subordinated notes due in 2018 (the "2018 Convertible Notes"). The notes were subordinated to all of CEMEX's liabilities and commitments. The notes were convertible into a fixed number of the Parent Company ADSs and are subject to antidilution adjustments. On June 19, 2017, the Parent Company agreed with certain institutional holders on the early conversion of US\$325 of the 2018 Convertible Notes in exchange for the issuance of approximately 43 million ADSs, which included the number of additional ADSs issued to the holders as non-cash inducement premiums. As a result of the early conversion, the liability component of the converted notes of \$5,468 was reclassified from other financial obligations to "Other equity reserves." In addition, the Parent Company increased common stock for \$4 and additional paid-in capital for \$7,059 against "Other equity reserves," and recognized expense for the inducement premiums paid in shares of \$769, recognized within "Financial income and other items, net" in the income statement for 2017. After the early conversion of notes described above, the US\$365 of the 2018 Convertible Notes that remained outstanding, were repaid in cash at their maturity on March 15, 2018. Concurrent with the offering of the 2018 Convertible Notes, a portion of the net proceeds from this transaction was used to fund the purchase of capped call options, which, when purchased, were generally expected to reduce the potential dilution cost to CEMEX upon the potential conversion of such notes (note 16.4).

III. Mandatorily convertible securities due in 2019

In December 2009, the Parent Company exchanged debt into US\$315 principal amount of 10% mandatorily convertible securities in pesos with maturity in 2019 (the "2019 Mandatorily Convertible Securities"). Reflecting antidilution adjustments, the notes will be converted at maturity or earlier if the price of the CPO reaches \$26.22 into approximately 236 million CPOs at a conversion price of \$17.48 per CPO. Holders have an option to voluntarily convert their securities on any interest payment date into CPOs. The conversion option embedded in these securities is treated as a stand-alone derivative liability at fair value through the statement of operations (note 16.4).

IV. Liabilities secured with accounts receivable

As mentioned in note 9, as of December 31, 2018 and 2017, in connection with CEMEX's sale of trade accounts receivable under securitization programs and/or factoring programs with recourse, the funded amounts of such receivables sold are recognized in "Other financial obligations" in the statement of financial position.

V. Finance leases

CEMEX has several operating and administrative assets, including buildings and mobile equipment, under finance lease contracts. Future payments associated with these contracts are presented in note 23.5.

16.3) Fair value of financial instruments

Financial assets and liabilities

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

The estimated fair value of CEMEX's long-term debt is 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 the derivative 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 and 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 attributable 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 on the basis of the notional amounts and other terms included in the derivative instruments.

As of December 31, 2018 and 2017, the carrying amounts of financial assets and liabilities and their respective fair values were as follows:

	2018		2017	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Derivative instruments (notes 13.2 and 16.4)	\$ 297	297	\$ 794	794
Other investments and non-current accounts receivable (note 13.2)	4,974	4,974	4,964	4,964
	\$ 5,271	5,271	\$ 5,758	5,758
Financial liabilities				
Long-term debt (note 16.1)	\$ 182,074	179,740	\$ 177,022	184,220
Other financial obligations (note 16.2)	12,028	11,924	12,859	13,381
Derivative instruments (notes 16.4 and 17)	406	406	402	402
	\$ 194,508	192,070	\$ 190,283	198,003

Fair Value Hierarchy

As of December 31, 2018 and 2017, assets and liabilities carried at fair value in the consolidated statements of financial position are included in the following fair value hierarchy categories:

	2018			
	Level 1	Level 2	Level 3	Total
Assets measured at fair value				
Derivative instruments (notes 13.2 and 16.4)	\$ -	297	-	297
Investments in strategic equity securities (note 13.2)	217	-	-	217
Other investments at fair value through earnings (note 13.2)	-	428	-	428
	\$ 217	725	-	942
Liabilities measured at fair value				
Derivative instruments (notes 16.4 and 17)	\$ -	406	-	406
2017				
Assets measured at fair value				
Derivative instruments (notes 13.2 and 16.4)	\$ -	794	-	794
Investments in strategic equity securities (note 13.2)	275	-	-	275
Other investments at fair value through earnings (note 13.2)	-	441	-	441
	\$ 275	1,235	-	1,510
Liabilities measured at fair value				
Derivative instruments (notes 16.4 and 17)	\$ -	402	-	402

16.4) 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 16.5), CEMEX held derivative instruments, with the objectives of, as the case may be of: a) changing the risk profile or fixed the price of fuels and electric energy; b) foreign exchange hedging; c) hedge of forecasted transactions; and d) other corporate purposes.

As of December 31, 2018 and 2017, the notional amounts and fair values of CEMEX's derivative instruments were as follows:

	2018		2017	
	Notional amount	Fair value	Notional amount	Fair value
I. Net investment hedge	US\$ 1,249	2	1,160	47
II. Foreign exchange forwards related to forecasted transactions	-	-	381	3
III. Equity forwards on third party shares	111	2	168	7
IV. Interest rate swaps	1,126	(8)	137	16
V. Fuel price hedging	122	(14)	72	20
VI. 2019 Mandatorily Convertible Securities	-	(1)	-	(20)
	US\$ 2,608	(19)	1,918	73

The caption "Financial income and other items, net" includes gains and losses related to the recognition of changes in fair values of the derivative instruments during the applicable period and that represented net gains of US\$38 (\$692) in 2018, net gains of US\$9 (\$161) in 2017 and net gains of US\$17 (\$317) in 2016.

I. Net investment hedge

As of December 31, 2018 and 2017, there are US\$/MXP foreign exchange forward contracts under a program planned to be up to US\$1,250, with monthly revolving settlement dates from 1 to 24 months. The average life of these contracts is approximately one year. For accounting purposes under IFRS, 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 2018 and 2017, these contracts generated losses of US\$59 (\$157) and gains of US\$6 (\$110), respectively.

II. Foreign exchange forwards related to forecasted transactions

As of December 31, 2017, CEMEX held US\$/Euro foreign exchange forward contracts maturing on January 10, 2018, negotiated to maintain the euro value of a portion of proceeds from debt issuances maintained in U.S. dollars that were used to repurchase debt denominated in euros (note 16.1). In addition, in February 2017 CEMEX settled US\$/MXP foreign exchange forward contracts negotiated to hedge the U.S. dollar value of the proceeds from the expected sale of pumping assets in Mexico (note 4.3). For the years 2018, 2017 and 2016, the aggregate results of these instruments, including the effects resulting from positions entered and settled during the year, generated losses of US\$1 (\$21) in 2018, losses of US\$17 (\$337) in 2017 and gains of US\$10 (\$186) in 2016, recognized within "Financial income and other items, net" in the income statement.

III. Equity forwards on third party shares

As of December 31, 2018 and 2017, CEMEX maintained equity forward contracts with cash settlement in March 2020 and March 2019, respectively, over the price of 20.9 million shares of GCC in 2018 and 31.5 million in 2017, in connection with the sale of CEMEX's remaining GCC shares in September 2017 (note 13.1). During 2018, CEMEX early settled a portion of these contracts for 10.6 million shares. Changes in the fair value of these instruments and early settlement effects generated gains of US\$25 (\$436) in 2018 and losses of US\$24 (\$463) in 2017 recognized within "Financial income and other items, net" in the income statement.

In addition, until October 2016, CEMEX maintained a forward contract over the price of 59.5 million CPOs of Axtel in connection with the Company's investment at fair value through the income statement (note 13.2). Changes in the fair value of this instrument generated a loss of US\$2 (\$30) in 2016 recognized within "Financial income and other items, net" in the income statement.

IV. Interest rate swap contracts

As of December 31, 2018, CEMEX held interest rate swaps for a notional amount of US\$1,000 the fair value of which represented a liability of US\$19 (\$373), negotiated in June 2018 to fix interest payments of existing bank loans bearing floating rates. The contracts mature in June 2023. 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 recycled through financial expense as interest expense on the related bank loans is accrued. For the year 2018, changes in fair value of these contracts generated losses of US\$19 (\$364) in the income statement.

As of December 31, 2018 and 2017, CEMEX had an interest rate swap for a notional amount of US\$126 and US\$137, respectively, maturing in September 2022 associated with an agreement entered by CEMEX for the acquisition of electric energy in Mexico, the fair value of which represented assets of US\$11 (\$216) and US\$16 (\$314), respectively. Pursuant to this instrument, during the tenure of the swap and based on its notional amount, CEMEX receives fixed rate of 5.4% and pays LIBOR. Changes in the fair value of this interest rate swap generated losses of US\$6 (\$114) in 2018, US\$6 (\$114) in 2017 and US\$6 (\$112) in 2016, recognized in the income statement for each period.

V. Fuel price hedging

As of December 31, 2018 and 2017, CEMEX maintained forward contracts negotiated to hedge the price of certain fuels, including diesel, gas and coal, as solid fuel, in several operations for aggregate notional amounts of US\$122 (\$2,398) and US\$72 (\$1,415), respectively, with an estimated aggregate fair value representing liabilities of US\$14 (\$275) in 2018 and assets of US\$20 (\$394) in 2017. By means of these contracts, for its own consumption only, CEMEX fixed the price of 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, gas or coal 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 2018, 2017 and 2016, changes in fair value of these contracts recognized in other comprehensive income represented losses of US\$35 (\$697), gains of US\$4 (\$76) and gains of US\$15 (\$311), respectively.

VI. 2019 Mandatorily Convertible Securities and options on the Parent Company's own shares

In connection with the 2019 Mandatorily Convertible Securities (note 16.2); considering that the securities are denominated in pesos and the functional currency of the Parent Company's division that issued the securities is the dollar (note 2.4), CEMEX separated the conversion option embedded in such instruments and recognized it at fair value through the income statement, which as of December 31, 2018 and 2017, resulted in a liability of US\$1 (\$20) and US\$20 (\$393), respectively. Changes in fair value generated a gain of US\$20 (\$391) in 2018, a gain of US\$19 (\$359) in 2017 and a loss of US\$29 (\$545) in 2016.

In addition, on March 15, 2011, the Parent Company entered into a capped calls, considering antidilution adjustments, over 80 million CEMEX's ADSs maturing in March 2018 in connection with the 2018 Convertible Notes, by means of which, at maturity of the notes, originally CEMEX would receive in cash the excess between the market price and the strike price of approximately 8.57 dollars per ADS, with a maximum appreciation per ADS of 5.27 dollars. CEMEX paid aggregate premiums of US\$104. During August 2016, CEMEX amended 58.3% of the total notional amount of the capped calls to lower the exercise price in exchange for reducing the number of underlying options. As a result, CEMEX retained capped calls over 71 million ADSs. Changes in the fair value of these instruments generated gains of US\$37 (\$725) in 2017 and gains of US\$44 (\$818) in 2016, recognized within "Financial income and other items, net" in the income statement. During 2017, CEMEX unwound and settled all its capped calls receiving in exchange US\$103 in cash.

16.5) 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, merchandising, leasing or selling 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, 2018 and 2017, these strategies are sometimes complemented with the use of derivative financial instruments as mentioned in note 16.4, such as the commodity forward contracts on fuels negotiated to fix the price of these underlying commodities.

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, 2018 and 2017, 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 with regard to 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, 2018, considering CEMEX's best estimate of potential expected losses based on the ECL model developed by CEMEX (note 9), the allowance for expected credit losses was \$2,336.

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. In addition, when the interest rate of a debt instrument has turned relatively high as compared to current market rates, CEMEX intends to renegotiate the conditions or repurchase the debt, to the extent the net present value of the expected future benefits from the interest rate reduction would exceed the cost and commissions that would have to be paid in such renegotiation or repurchase of debt.

As of December 31, 2018 and 2017, approximately 37% and 31%, respectively, of CEMEX's long-term debt was denominated in floating rates at a weighted-average interest rate of LIBOR plus 241 basis points in 2018 and 268 basis points in 2017. As of December 31, 2018 and 2017, if interest rates at that date had been 0.5% higher, with all other variables held constant, CEMEX's net income for 2018 and 2017 would have reduced by US\$19 (\$366) and US\$18 (\$353), respectively, as a result of higher interest expense on variable rate denominated debt. This analysis does not include the effect of interest rate swaps held by CEMEX during 2018 and 2017.

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, 2018, approximately 22% of CEMEX's net sales, before eliminations resulting from consolidation, were generated in Mexico, 26% in the United States, 8% in the United Kingdom, 6% in France, 4% in Germany, 2% in Spain, 2% in Poland, 2% in the Rest of Europe region, 4% in Colombia, 2% in Panama, 1% in Costa Rica, 1% Caribbean TCL, 2% in the Rest of South, Central America and the Caribbean region, 2% in Philippines, 1% in Egypt, 1% in the Rest of Asia, Middle East and Africa and 7% in CEMEX's other operations.

Foreign exchange gains and losses occur through monetary assets or liabilities in a currency different from its functional currency, and are recorded in the consolidated income statements, except for 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, which are reported in the statement of other comprehensive income. As of December 31, 2018 and 2017, excluding from the sensitivity analysis the impact of translating the net assets of foreign operations into CEMEX's reporting currency, considering a hypothetical 10% strengthening of the dollar against the Mexican peso, with all other variables held constant, CEMEX's net income for 2018 and 2017 would have decreased by US\$63 (\$1,240) and US\$119 (\$2,343), respectively, 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 hypothetical 10% weakening of the U.S. dollar against the Mexican peso would have the opposite effect.

As of December 31, 2018, approximately 63% of CEMEX's financial debt was Dollar-denominated, 29% was Euro-denominated, 5% was Pound-denominated and 3% was Philippine peso-denominated. Therefore, CEMEX had a foreign currency exposure arising mainly from the Dollar-denominated and Euro-denominated financial debt versus the several currencies in which CEMEX's revenues are settled in most countries in which it operates. The amounts of Pound-denominated financial debt and Philippine peso-denominated financial debt outstanding as of December 31, 2018, are closely related to the amount of revenues generated in such currencies and/or, in the case of the Euro-denominated financial debt, the amount of CEMEX's net assets denominated in such currencies; therefore, CEMEX considers that the foreign currency risk related to these amounts of debt is low. Nonetheless, CEMEX cannot guarantee that it will generate sufficient revenues in Dollars, Euros, Pounds and Philippine pesos from its operations to service these obligations. As of December 31, 2018 and 2017, CEMEX had not implemented any derivative financing hedging strategy to address this foreign currency risk. Nonetheless, CEMEX may enter into 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, 2018 and 2017, CEMEX's consolidated net monetary assets (liabilities) by currency are as follows:

	2018						
	Mexico	United States	Europe	South, Central America and the Caribbean	Asia, Middle East and Africa	Others ¹	Total
Monetary assets	\$ 8,400	9,961	13,163	6,046	10,216	2,997	50,783
Monetary liabilities	19,798	33,464	40,153	10,841	12,223	200,731	317,210
Net monetary assets (liabilities) ²	\$ (11,398)	(23,503)	(26,990)	(4,795)	(2,007)	(197,734)	(266,427)
Out of which:							
Dollars	\$ (560)	(23,507)	153	(947)	22	(117,677)	(142,516)
Pesos	(10,838)	4	-	(6)	-	(5,469)	(16,309)
Euros	-	-	(10,571)	13	40	(52,942)	(63,460)
Pounds	-	-	(18,241)	-	-	(8,609)	(26,850)
Other currencies	-	-	1,669	(3,855)	(2,069)	(13,037)	(17,292)
	\$ (11,398)	(23,503)	(26,990)	(4,795)	(2,007)	(197,734)	(266,427)
	2017						
	Mexico	United States	Europe	South, Central America and the Caribbean	Asia, Middle East and Africa	Others ¹	Total
Monetary assets	\$ 11,798	9,453	14,182	7,347	9,780	5,163	57,723
Monetary liabilities	17,505	32,158	45,675	12,016	11,522	221,579	340,455
Net monetary assets (liabilities) ²	\$ (5,707)	(22,705)	(31,493)	(4,669)	(1,742)	(216,416)	(282,732)
Out of which:							
Dollars	\$ (1,097)	(22,710)	39	(126)	221	(133,530)	(157,203)
Pesos	(4,610)	4	24	-	-	(7,745)	(12,327)
Euros	-	-	(10,155)	2	-	(58,452)	(68,605)
Pounds	-	-	(19,358)	-	-	(9,119)	(28,477)
Other currencies	-	1	(2,043)	(4,545)	(1,963)	(7,570)	(16,120)
	\$ (5,707)	(22,705)	(31,493)	(4,669)	(1,742)	(216,416)	(282,732)

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

² Includes assets held for sale and liabilities directly related with these assets considering that such items will be realized in the short term.

In addition, 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 2.4), there is foreign currency risk associated with the translation of subsidiaries' net assets denominated in different currencies (peso, euro, pounds and other currencies) into dollars. When the dollar appreciates, the value of CEMEX's 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 CEMEX's net assets denominated in other currencies would increase in terms of dollars generating the opposite effect. As mentioned in note 16.4, CEMEX has implemented a long-term program for up to US\$1,250 to hedge foreign currency translation in connection with its net assets denominated in pesos.

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 16.4, considering specific objectives, CEMEX has entered into equity forward contracts on third-party shares, as well as capped calls based on the price of CEMEX, S.A.B. de C.V.'s own ADSs. 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 2017, all outstanding capped calls based on the price of CEMEX, S.A.B. de C.V.'s own ADSs were early settled.

As of December 31, 2018 and 2017, the potential change in the fair value of CEMEX's forward contracts in GCC shares that would result from a hypothetical, instantaneous decrease of 10% in the market price of GCC shares in dollars, with all other variables held constant, CEMEX's net income would have reduced by US\$11 (\$210) in 2018 and US\$14 (\$283) in 2017, as a result of additional negative changes in fair value associated with these forward contracts. A 10% hypothetical increase in the price of GCC shares would have generated approximately the opposite effect.

In addition, even though the changes in fair value of CEMEX's embedded conversion option in the Mandatorily Convertible Notes 2019 denominated in a currency other than the functional issuer's currency affect the income statement, this does not imply any risk or variability in cash flows, considering that through their exercise, CEMEX will settle a fixed amount of debt with a fixed number of shares. As of December 31, 2018 and 2017, the potential change in the fair value of the embedded conversion options in the Mandatorily Convertible Notes 2019 that would result from a hypothetical, instantaneous increase of 10% in the market price of CEMEX's CPOs, with all other variables held constant, would have decreased CEMEX's net income by US\$1 (\$16) in 2018 and decreased by US\$9 (\$180) in 2017 as a result of additional negative changes in fair value associated with this option. A 10% hypothetical decrease in the CEMEX CPO price would generate approximately the opposite effect.

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, in order 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 23.5.

As of December 31, 2018, current liabilities, which included \$13,622 of current maturities of debt and other financial obligations, exceed current assets by \$22,891. For the year ended December 31, 2018, CEMEX generated net cash flows provided by operating activities from continuing operations of \$26,545, after payments of interest and income taxes. The Company's management considers that CEMEX will generate sufficient cash flows from operations. In addition, as of December 31, 2018, CEMEX has committed available lines of credit under its 2017 Credit Agreement, which includes the revolving credit facility and an undrawn tranche for a combined amount of \$16,211 (US\$825), as well as CEMEX's proven capacity to continually refinance and replace its short-term obligations, will enable CEMEX to meet any liquidity risk in the short term.

As of December 31, 2018 and 2017, the potential requirement for additional margin calls under our different commitments is not significant.

17) OTHER CURRENT AND NON-CURRENT LIABILITIES

As of December 31, 2018 and 2017, consolidated other current liabilities were as follows:

	2018	2017
Provisions ¹	\$ 10,509	12,121
Interest payable	1,856	2,496
Advances from customers	3,838	3,886
Other accounts payable and accrued expenses ²	5,222	5,123
Contract liabilities with customers (note 3)	775	770
	\$ 22,200	24,396

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 In 2017, includes an account payable in Colombian pesos equivalent to \$491 (US\$25) settled on January 5, 2018 related to a penalty imposed by the Commerce and Industry Superintendence in Colombia in connection with a market investigation (note 24.2).

As of December 31, 2018 and 2017, consolidated other non-current liabilities were as follows:

	2018	2017
Asset retirement obligations ¹	\$ 8,013	7,906
Accruals for legal assessments and other responsibilities ²	879	1,599
Non-current liabilities for valuation of derivative instruments	406	402
Environmental liabilities ³	573	991
Other non-current liabilities and provisions ⁴	5,134	4,751
	\$ 15,005	15,649

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.

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, 2018 and 2017, includes \$981 and \$1,498, respectively, of the non-current portion of taxes payable in Mexico recognized in connection with the termination of the tax consolidation regime in 2014. As of December 31, 2018 and 2017, \$590 and \$958, respectively, were included within current taxes payable.

Changes in consolidated other current and non-current liabilities for the years ended December 31, 2018 and 2017, were as follows:

	2018					Total	2017
	Asset retirement obligations	Environmental liabilities	Accruals for legal proceedings	Valuation of derivative instruments	Other liabilities and provisions		
Balance at beginning of period	\$ 7,906	991	1,599	421	17,623	28,540	28,937
Business combinations	-	-	-	-	-	-	345
Additions or increase in estimates	1,355	11	136	275	25,379	27,156	41,137
Releases or decrease in estimates	(916)	(4)	(807)	-	(26,841)	(28,568)	(41,700)
Reclassifications	(22)	(384)	-	(96)	124	(378)	(1,148)
Accretion expense	(186)	-	-	-	(902)	(1,088)	(1,021)
Foreign currency translation	(124)	(41)	(49)	78	763	627	1,990
Balance at end of period	\$ 8,013	573	879	678	16,146	26,289	28,540
Out of which:							
Current provisions	\$ 297	-	-	272	10,715	11,284	12,891

18) PENSIONS AND POST-EMPLOYMENT BENEFITS

Defined contribution pension plans

The consolidated costs of defined contribution plans for the years ended December 31, 2018, 2017 and 2016 were \$863, \$922 and \$865, 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-retirement 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, 2018, 2017 and 2016, the effects of pension plans and other post-employment benefits are summarized as follows:

Net period cost (income):	Pensions			Other benefits			Total		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Recorded in operating costs and expenses									
Service cost	\$ 193	221	151	35	33	25	228	254	176
Past service cost	168	(55)	8	-	-	-	168	(55)	8
	361	166	159	35	33	25	396	199	184
Recorded in other financial expenses									
Net interest cost	691	693	711	84	74	57	775	767	768
Recorded in other comprehensive income									
Actuarial (gains) losses for the period	(3,415)	20	3,985	11	(23)	34	(3,404)	(3)	4,019
	\$ (2,363)	879	4,855	130	84	116	(2,233)	963	4,971

For the years 2018, 2017 and 2016, actuarial (gains) losses for the period were generated by the following main factors as follows:

	2018	2017	2016
Actuarial (gains) losses due to experience	\$ (1,110)	121	(511)
Actuarial (gains) losses due to demographic assumptions	(1,104)	(46)	(231)
Actuarial (gains) losses due financial assumptions	(1,190)	(78)	4,761
	\$ (3,404)	(3)	4,019

In 2018, net actuarial gains due to financial assumptions were mainly generated by a general increase in the discounts rates applied for the calculation of the pension benefit obligations in the United Kingdom, Germany, United States and Mexico, among others, resulting from the increase in market interest rates after several years in which such rates reached historically low levels. In 2017, net actuarial gains due to financial assumptions were mainly driven by an increase in the discount rates applicable to the benefits' obligations in Germany and Mexico and by actual returns higher than estimated in the United States, partially offset by a decrease in the discount rate in the United Kingdom. Net actuarial losses due to financial assumptions during 2016 were mainly generated by a significant reduction in the discount rates applicable to the benefit obligations in the United Kingdom, Germany and other European countries, considering macroeconomic and political uncertainty prevailing at that time, partially offset by an increase in the discount rate in Mexico. These actuarial losses originated by the reduction in the discount rates in 2016 were also partially offset by actual returns higher than estimated in some of the plan assets related to CEMEX's defined benefit plans.

As of December 31, 2018 and 2017, the reconciliation of the actuarial benefits' obligations and pension plan assets, are presented as follows:

	Pensions		Other benefits		Total	
	2018	2017	2018	2017	2018	2017
Change in benefits obligation:						
Projected benefit obligation at beginning of the period	\$ 54,910	51,055	1,436	1,164	56,346	52,219
Service cost	193	221	35	33	228	254
Interest cost	1,608	1,625	87	76	1,695	1,701
Actuarial (gains) losses	(5,126)	727	8	(24)	(5,118)	703
Additions through business combinations	-	2,801	111	271	111	3,072
Reduction from disposal of assets	(9)	-	-	-	(9)	-
Plan amendments	168	(55)	-	-	168	(55)
Benefits paid	(2,807)	(2,920)	(102)	(81)	(2,909)	(3,001)
Foreign currency translation	(2,226)	1,456	(30)	(3)	(2,256)	1,453
Projected benefit obligation at end of the period	46,711	54,910	1,545	1,436	48,256	56,346
Change in plan assets:						
Fair value of plan assets at beginning of the period	32,665	28,828	28	26	32,693	28,854
Return on plan assets	917	932	3	2	920	934
Actuarial (gains) losses	(1,711)	707	(3)	(1)	(1,714)	706
Employer contributions	1,562	1,494	102	81	1,664	1,575
Additions through business combinations	-	2,841	-	-	-	2,841
Reduction for disposal of assets	-	(4)	-	-	-	(4)
Benefits paid	(2,807)	(2,920)	(102)	(81)	(2,909)	(3,001)
Foreign currency translation	(1,335)	787	-	1	(1,335)	788
Fair value of plan assets at end of the period	29,291	32,665	28	28	29,319	32,693
Net projected liability in the statement of financial position	\$ 17,420	22,245	1,517	1,408	18,937	23,653

As of December 31, 2018 and 2017, based on the hierarchy of fair values, plan assets are detailed as follows:

	2018				2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash	\$ 701	-	-	701	\$ 579	-	-	579
Investments in corporate bonds	131	6,720	-	6,851	144	6,067	1	6,212
Investments in government bonds	1,649	6,786	-	8,435	1,701	9,407	-	11,108
Total fixed-income securities	2,481	13,506	-	15,987	2,424	15,474	1	17,899
Investment in marketable securities	5,089	1,557	-	6,646	6,212	1,735	-	7,947
Other investments and private funds	973	4,172	1,541	6,686	991	3,279	2,577	6,847
Total variable-income securities	6,062	5,729	1,541	13,332	7,203	5,014	2,577	14,794
Total plan assets	\$ 8,543	19,235	1,541	29,319	\$ 9,627	20,488	2,578	32,693

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

	2018				2017			
	Mexico	United States	United Kingdom	Range of rates in other countries	Mexico	United States	United Kingdom	Rates ranges in other countries
Discount rates	10.8%	4.5%	2.9%	1.3% - 7.5%	9.3%	3.9%	2.4%	1.3% - 6.3%
Rate of return on plan assets	10.8%	4.5%	2.9%	1.3% - 7.5%	9.3%	3.9%	2.4%	1.3% - 6.3%
Rate of salary increases	4.0%	-	3.3%	2.3% - 6.0%	4.0%	-	3.2%	1.5% - 6.0%

As of December 31, 2018, estimated payments for pensions and other post-employment benefits over the next 10 years were as follows:

	2018
2019	\$ 2,904
2020	2,663
2021	2,641
2022	2,662
2023 - 2028	15,714

As of December 31, 2018 and 2017, the aggregate projected benefit obligation ("PBO") for pension plans and other post-employment benefits and the plan assets by country were as follows:

	2018			2017		
	PBO	Assets	Deficit	PBO	Assets	Deficit
Mexico	\$ 3,300	582	2,718	\$ 3,213	840	2,373
United States	5,619	3,428	2,191	6,378	4,031	2,347
United Kingdom ¹	28,771	20,775	7,996	35,602	23,145	12,457
Germany	3,973	195	3,778	4,362	213	4,149
Other countries	6,593	4,339	2,254	6,791	4,464	2,327
	\$ 48,256	29,319	18,937	\$ 56,346	32,693	23,653

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 receives annual dividends of approximately US\$20, increasing at a 5% rate per year, from a limited partnership (the "Partnership"), whose assets transferred by CEMEX UK of an approximate value of US\$553, are leased back to CEMEX UK. The Partnership is owned, controlled and consolidated by CEMEX UK. 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, 2018 and 2017, the projected benefits obligation related to these benefits was \$1,133 and \$1,080, respectively. The medical inflation rates used to determine the projected benefits obligation of these benefits in 2018 and 2017 for Mexico were 7.0% in both years, for Puerto Rico 6.2% and 6.9%, respectively, and for the United Kingdom were 6.8% and 6.7%, respectively. In connection with the acquisition of TCL (note 4), CEMEX integrated TCL's consolidated health care benefits into its operations. For 2018 and 2017, the medical inflation rate used to determine the projected benefits obligation was 5.0% in both years.

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

During 2017, CEMEX in Spain removed certain increases in pension benefits which resulted in an adjustment to past service cost generating gains of \$99 (US\$5) in 2017, recognized in the income statement for the year. In addition, due to the acquisition of TCL (note 4), CEMEX integrated its consolidated pensions plans, which were fully funded, as well as TCL's consolidated health care benefits which represented an increase in the net projected liability of \$271 (US\$14) in 2017 and \$111 (US\$6) in 2018 upon conclusion of the purchase price allocation.

Sensitivity analysis of pension and other post-employment benefits

For the year ended December 31, 2018, 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, 2018 are shown below:

Assumptions:	Pensions		Other benefits		Total	
	+50 bps	-50 bps	+50 bps	-50 bps	+50 bps	-50 bps
Discount Rate Sensitivity	\$ (3,074)	3,303	(71)	83	(3,145)	3,386
Salary Increase Rate Sensitivity	205	(177)	46	(37)	251	(214)
Pension Increase Rate Sensitivity	1,902	(1,698)	-	-	1,902	(1,698)

19) INCOME TAXES

19.1) Income taxes for the period

The amounts of income tax expense in the statements of operations for 2018, 2017 and 2016 are summarized as follows:

	2018	2017	2016
Current income taxes	\$ (1,898)	(3,458)	(3,456)
Deferred income tax revenue (expense)	(2,569)	2,938	331
	\$ (4,467)	(520)	(3,125)

19.2) Deferred income taxes

As of December 31, 2018 and 2017, the main temporary differences that generated the consolidated deferred income tax assets and liabilities are presented below:

	2018	2017
Deferred tax assets:		
Tax loss carryforwards and other tax credits	\$ 13,796	15,900
Accounts payable and accrued expenses	6,638	7,083
Intangible assets and deferred charges, net	2,794	4,175
Total deferred tax assets, gross	23,228	27,158
Presentation offset regarding same legal entity	(11,661)	(12,341)
Total deferred tax assets, net in the statement of financial position	11,567	14,817
Deferred tax liabilities:		
Property, machinery and equipment	(25,972)	(27,268)
Investments and other assets	(589)	(874)
Total deferred tax liabilities, gross	(26,561)	(28,142)
Presentation offset regarding same legal entity	11,661	12,341
Total deferred tax liabilities, net in the statement of financial position	(14,900)	(15,801)
Net deferred tax liabilities	\$ (3,333)	(984)
Out of which:		
Net deferred tax liability in Mexican entities ¹	\$ (4,414)	(3,978)
Net deferred tax asset in Foreign entities ²	1,081	2,994
Net deferred tax liabilities	\$ (3,333)	(984)

¹ Net deferred tax liabilities in Mexico mainly refer to a temporary difference resulting when comparing at the reporting date the carrying amount of property, machinery and equipment, as per IFRS, and 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 over 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 are mainly related to tax loss carryforwards recognized in recent years, mainly in the United States, that are expected to be recovered in the future against taxable income.

As of December 31, 2018 and 2017, balances of the deferred tax assets and liabilities included in the statement of financial position are located in the following entities:

	2018			2017		
	Asset	Liability	Net	Asset	Liability	Net
Mexican entities	\$ 3,079	(7,493)	(4,414)	\$ 3,212	(7,190)	(3,978)
Foreign entities	8,488	(7,407)	1,081	11,605	(8,611)	2,994
	\$ 11,567	(14,900)	(3,333)	\$ 14,817	(15,801)	(984)

The breakdown of changes in consolidated deferred income taxes during 2018, 2017 and 2016 was as follows:

	2018	2017	2016
Deferred income tax (charged) credited to the income statement ¹	\$ (2,569)	2,938	331
Deferred income tax (charged) credited to stockholders' equity ²	193	200	514
Reclassification to other captions in the statement of financial position and in the income statement ³	27	(560)	531
Change in deferred income tax during the period	\$ (2,349)	2,578	1,376

¹ In 2017, includes net income tax revenue related to the recognition of deferred income tax assets in CEMEX's operations in the United States (note 19.4).

² In 2018, includes a deferred income tax revenue of \$154 in connection with the adoption of IFRS 9 on January 1, 2018.

³ In 2018, 2017 and 2016, includes the effects of business combinations (note 4.2).

Current and/or deferred income tax relative to items of other comprehensive income during 2018, 2017 and 2016 were as follows:

	2018	2017	2016
Tax effects relative to foreign exchange fluctuations from debt (note 20.2)	\$ -	-	(410)
Tax effects relative to foreign exchange fluctuations from intercompany balances (note 20.2)	29	32	(12)
Tax effects relative to actuarial (gains) and losses (note 20.2)	(530)	(1)	788
Foreign currency translation and other effects	723	201	(274)
	\$ 222	232	92

As of December 31, 2018, consolidated tax loss and tax credits carryforwards expire as follows:

	Amount of carryforwards	Amount of unrecognized carryforwards	Amount of recognized carryforwards
2019	\$ 1,809	1,636	173
2020	8,749	8,483	266
2021	3,984	3,170	814
2022	6,576	6,389	187
2023 and thereafter	276,089	222,179	53,910
	\$ 297,207	241,857	55,350

As of December 31, 2018, in connection with CEMEX's deferred tax loss carryforwards presented in the table above, in order to realize the benefits associated with such deferred tax assets that have not been reserved, before their expiration, CEMEX would need to generate \$55,350 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 be reversed in the foreseeable future.

19.3) Reconciliation of effective income tax rate

For the years ended December 31, 2018, 2017 and 2016, the effective consolidated income tax rates were as follows:

	2018	2017	2016
Income before income tax	\$ 15,511	13,700	17,616
Income tax expense	(4,467)	(520)	(3,125)
Effective consolidated income tax rate ¹	(28.8)%	(3.8)%	(17.7)%

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.

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 2018, 2017 and 2016 were as follows:

	2018		2017		2016	
	%	\$	%	\$	%	\$
Mexican statutory tax rate	(30.0)	(4,853)	(30.0)	(4,110)	(30.0)	(5,285)
Non-taxable dividend income	0.8	124	0.1	14	0.2	32
Difference between accounting and tax expenses, net	(15.4)	(2,394)	(20.8)	(2,855)	82.3	14,507
Unrecognized effects during the year related to applicable tax consolidation regimes	(0.7)	(109)	0.9	123	(3.6)	(632)
Non-taxable sale of equity securities and fixed assets	4.6	713	15.0	2,049	3.7	650
Difference between book and tax inflation	(19.5)	(3,024)	(31.1)	(4,261)	(11.0)	(1,932)
Differences in the income tax rates in the countries where CEMEX operates ¹	16.0	2,482	21.8	2,991	11.0	1,932
Changes in deferred tax assets ²	14.7	2,286	39.6	5,433	(69.9)	(12,320)
Changes in provisions for uncertain tax positions	1.8	279	(0.4)	(55)	0.7	123
Others	(1.1)	(171)	1.1	151	(1.1)	(200)
Effective consolidated tax rate	(28.8)	(4,467)	(3.8)	(520)	(17.7)	(3,125)

¹ 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. In 2018 and 2017, includes the effect related to the change in statutory tax rate in Colombia and the United States, respectively (note 19.4).

² 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, 2018 and 2017:

	2018		2017	
	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	\$ -	2,676	-	6,092
Derecognition related to tax loss carryforwards recognized in prior years	(1,770)	(56)	(5,221)	(5,221)
Recognition related to unrecognized tax loss carryforwards	98	98	9,694	9,694
Foreign currency translation and other effects	(432)	(432)	(6,087)	(5,132)
Changes in deferred tax assets	\$ (2,104)	2,286	(1,614)	5,433

19.4) Uncertain tax positions and significant tax proceedings

Uncertain tax positions

As of December 31, 2018 and 2017, as part of short-term and long-term provisions and other liabilities (note 17), 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, 2018, 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, 2018, 2017 and 2016, excluding interest and penalties, is as follows:

	2018	2017	2016
Balance of tax positions at beginning of the period	\$ 1,571	1,132	1,190
Additions for tax positions of prior periods	119	663	200
Additions for tax positions of current period	15	16	90
Reductions for tax positions related to prior periods and other items	(44)	(32)	(131)
Settlements and reclassifications	(129)	(119)	(163)
Expiration of the statute of limitations	(624)	(138)	(126)
Foreign currency translation effects	(49)	49	72
Balance of tax positions at end of the period	\$ 859	1,571	1,132

During 2017, considering recoverability analyses and cash flow projections, CEMEX recognized deferred income tax assets related to its operations in the United States for US\$700 considering the then applicable income tax rate of 35%. However, regarding the Tax Cuts and Jobs Act (the "Act") enacted on December 22, 2017, the U.S. statutory federal tax rate was reduced from 35% to 21%. For this reason, CEMEX reduced its net deferred tax assets by US\$124. The reduction in the U.S. statutory federal tax rate is expected to positively impact CEMEX's future after-tax earnings in the United States.

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, 2018, the Company's most significant tax proceedings are as follows:

- As part of an audit process, the tax authorities in Spain have challenged part of the tax loss carryforwards reported by CEMEX España covering the tax years from and including 2006 to 2009. During 2014, the tax authorities in Spain notified CEMEX España of fines in the aggregate amount of US\$547 (\$10,755). CEMEX España filed appeals against such resolution. On September 20, 2017, CEMEX España was notified about an adverse resolution to such appeals. CEMEX España challenged this decision and applied for the suspension of the payment before the National Court (Audiencia Nacional) until the case is finally resolved. On November 6, 2018 CEMEX España obtained a favorable resolution to this request from the National Court through the pledge of certain fixed assets. As of December 31, 2018, CEMEX believes an adverse resolution in this proceeding is not probable and no accruals have been created in connection with this proceeding. Nonetheless, as of December 31, 2018, 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, this proceeding 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 approximately US\$38 (\$747) of income tax and US\$38 (\$747) 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 will file a reconsideration request within the next two months. If the proceeding would be 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, 2018, in this stage of the proceeding, CEMEX believes 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; but if adversely resolved, CEMEX believes this proceeding should not have a material adverse impact on the operating results, liquidity or financial position of CEMEX.
- 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 requirement in which the Tax Authority rejects 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 approximately US\$26 (\$511) of income tax and US\$26 (\$511) of penalty. CEMEX Colombia filed a response to the special requirement on November 30, 2018. If the proceeding would be 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, 2018, in this stage of the proceeding, CEMEX believes 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; but if adversely resolved, CEMEX believes this proceeding should not have a material adverse impact on the operating results, liquidity or financial position of CEMEX.

In April 2011, the Tax Authority notified CEMEX Colombia of a special proceeding rejecting certain deductions taken by CEMEX Colombia in its 2009 tax return considering they are not linked to direct revenues recorded in the same fiscal year, and assessed an increase in taxes to be paid by CEMEX Colombia and imposed a penalty for amounts in Colombian pesos equivalent to US\$28 (\$550) of income tax and US\$28 (\$550) of penalty, considering changes in law that reduced the original penalty. After several appeals of CEMEX Colombia to the Colombian Tax Authority's special proceeding in the applicable courts in which CEMEX Colombia obtained negative resolutions in each case over the years, in July 2014, CEMEX Colombia filed an appeal against this resolution before the Colombian State Council (*Consejo de Estado*). If the proceeding would be 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, 2018, in this stage of the proceeding, CEMEX believes 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; but if adversely resolved, CEMEX believes this proceeding should not have a material adverse impact on the operating results, liquidity or financial position of CEMEX.

20) STOCKHOLDERS' EQUITY

As of December 31, 2018 and 2017, stockholders' equity excludes investments in CPOs of the Parent Company held by subsidiaries of \$194 (20,541,277 CPOs) and \$301 (20,541,277 CPOs), respectively, which were eliminated within "Other equity reserves."

20.1) Common stock and additional paid-in capital

As of December 31, 2018 and 2017, the breakdown of common stock and additional paid-in capital was as follows:

	2018	2017
Common stock	\$ 4,171	4,171
Additional paid-in capital	141,151	140,483
	\$ 145,322	144,654

As of December 31, 2018 and 2017, the common stock of CEMEX, S.A.B. de C.V. was presented as follows:

Shares ¹	2018		2017	
	Series A ²	Series B ²	Series A ²	Series B ²
Subscribed and paid shares	30,002,628,318	15,001,314,159	30,214,469,912	15,107,234,956
Unissued shares authorized for executives' stock compensation programs	936,375,524	468,187,762	531,739,616	265,869,808
Repurchased shares ³	307,207,506	153,603,753	-	-
Shares that guarantee the issuance of convertible securities ⁴	4,529,603,200	2,264,801,600	4,529,605,020	2,264,802,510
Shares authorized for the issuance of stock or convertible securities ⁵	302,144,720	151,072,360	-	-
	36,077,959,268	18,038,979,634	35,275,814,548	17,637,907,274

¹ As of December 31, 2018 and 2017, 13,068,000,000 shares correspond to the fixed portion, and 41,048,938,902 shares in 2018 and 39,845,721,822 shares in 2017, correspond to the variable portion.

² Series "A" or Mexican shares must represent at least 64% of CEMEX's capital stock; meanwhile, 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 20.2).

⁴ Refers to those shares that guarantee the conversion of both the outstanding voluntary and mandatorily convertible securities and new securities issues (note 16.2).

⁵ Shares authorized for issuance in a public offer or private placement and/or by issuance of new convertible securities.

On April 5, 2018, stockholders at the annual ordinary shareholders' meeting approved: (i) a resolution to increase the variable common stock by issuing up to 750 million shares (250 million CPOs), which will be kept in the Parent Company's treasury and used to be subscribed and paid pursuant to the terms and conditions of CEMEX's long-term compensation stock program, and (ii) the amount of a reserve of up to US\$500 or its equivalent in pesos for the year ending December 31, 2018 and until the next ordinary shareholders meeting to be held in 2019 for purposes of a Parent Company's share repurchase program. On April 5, 2018, stockholders at the extraordinary shareholders' meeting approved a resolution to increase the variable common stock by issuing up to 453 million shares (151 million CPOs), which will be kept in the Parent Company's treasury for their subscription by means of issuance in a public offer or private placement and/or by issuance of new convertible securities. This authorization expires on April 4, 2023.

On March 30, 2017, stockholders at the annual ordinary shareholders' meeting approved resolutions to: (i) increase the variable common stock through the capitalization of retained earnings by issuing up to 1,687 million shares (562 million CPOs), which shares were issued, representing an increase in common stock of \$5, considering a nominal value of \$0.00833 per CPO, and additional paid-in capital of \$9,459; and (ii) increase the variable common stock by issuing up to 258 million shares (86 million CPOs), which will be kept in the Parent Company's treasury to be used to preserve the anti-dilutive rights of note holders pursuant CEMEX's convertible securities (note 16.2).

On March 31, 2016, stockholders at the annual ordinary shareholders' meeting approved resolutions to: (i) increase the variable common stock through the capitalization of retained earnings by issuing up to 1,616 million shares (539 million CPOs), which shares were issued, representing an increase in common stock of \$4, considering a nominal value of \$0.00833 per CPO, and additional paid-in capital of \$6,966; and (ii) increase the variable common stock by issuing up to 297 million shares (99 million CPOs), which will be kept in the Parent Company's treasury to be used to preserve the anti-dilutive rights of note holders pursuant CEMEX's convertible securities (note 16.2).

In connection with the long-term executive share-based compensation programs (note 21), in 2018, 2017 and 2016, CEMEX issued approximately 49.3 million CPOs, 53.2 million CPOs and 53.9 million CPOs, respectively, generating an additional paid-in capital of \$706 in 2018, \$817 in 2017 and \$742 in 2016 associated with the fair value of the compensation received by executives.

20.2) Other equity reserves

As of December 31, 2018 and 2017, other equity reserves are summarized as follows:

	2018	2017
Cumulative translation effect, net of effects from perpetual debentures and deferred income taxes recognized directly in equity (notes 19.2 and 20.4)	\$ 17,683	21,288
Cumulative actuarial losses	(7,527)	(10,931)
Treasury shares repurchased under share repurchase program (note 20.1)	(1,520)	-
Effects associated with the Parent Company's convertible securities ¹	3,427	3,427
Treasury shares held by subsidiaries	(194)	(301)
	\$ 11,869	13,483

¹ Represents the equity component upon the issuance of CEMEX, S.A.B. de C.V.'s convertible securities described in note 16.2, as well as the effects associated with such securities in connection with the change in the Parent Company's functional currency (note 2.4). Upon conversion of these securities, the balances have been correspondingly reclassified to common stock and/or additional paid-in capital (note 16.1).

For the years ended December 31, 2018, 2017 and 2016, the translation effects of foreign subsidiaries included in the statements of comprehensive income were as follows:

	2018	2017	2016
Foreign currency translation result ¹	\$ (3,713)	(3,116)	20,648
Foreign exchange fluctuations from debt ²	2,438	(4,160)	1,367
Foreign exchange fluctuations from intercompany balances ³	(425)	(2,243)	(10,385)
	\$ (1,700)	(9,519)	11,630

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 16.4).

² Generated by foreign exchange fluctuations over a notional amount of debt in CEMEX, S.A.B. de CV, associated with the acquisition of foreign subsidiaries and designated as a hedge of the net investment in foreign subsidiaries (note 2.4).

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.

20.3) 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, 2018, the legal reserve amounted to \$1,804.

20.4) 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, 2018 and 2017, non-controlling interest in equity amounted to \$22,154 and \$22,095, respectively. In addition, in 2018, 2017 and 2016, non-controlling interests in consolidated net income were \$789, \$1,417 and \$1,073, respectively. These non-controlling interests arise mainly from the following CEMEX's subsidiaries:

- In February 2017, as described in note 4.1, CEMEX acquired a controlling interest in TCL, whose shares trade in the Trinidad and Tobago Stock Exchange. As of December 31, 2018 and 2017, there is a non-controlling interest in TCL of approximately 30.2% of its common shares (see note 4.4 for certain relevant condensed financial information).
- In July 2016, CHP, an indirect wholly-owned subsidiary of CEMEX España, S.A., closed its initial offering of 2,337,927,954 new common shares, or 45% of CHP's common shares, at a price of 10.75 Philippine pesos per common share. The net proceeds from the offering of US\$507 (considering an exchange rate of 46.932 Philippine pesos per U.S. dollar on June 30, 2016), after deducting commissions and other offering expenses, were used by CEMEX for general corporate purposes, including the repayment of existing debt. CHP's assets consist primarily of CEMEX's cement manufacturing assets in the Philippines. As of December 31, 2018 and 2017, there is a non-controlling interest in CHP of approximately 45% of its common shares in both years (see note 4.4 for certain relevant condensed financial information).
- In November 2012, pursuant to a public offering in Colombia and an international private placement, CLH, a direct subsidiary of CEMEX España, S.A., concluded its initial offering of common shares. CLH's assets include substantially all of CEMEX's assets in Colombia, Panama, Costa Rica, Brazil, Guatemala and El Salvador. The Brazilian Operations were sold in 2018. As of December 31, 2018 and 2017, there is a non-controlling interest in CLH of approximately 26.75% and 26.72%, respectively, of CLH's outstanding common shares, excluding shares held in treasury (see note 4.4 for certain relevant condensed financial information).

Perpetual debentures

As of December 31, 2018 and 2017, the balances of the non-controlling interest included US\$444 (\$8,729) and US\$447 (\$8,784), respectively, representing the notional amounts of perpetual debentures, which exclude any perpetual debentures held by subsidiaries.

Interest expense on the perpetual debentures, was included within "Other equity reserves" and amounted to \$553 in 2018, \$482 in 2017 and \$507 in 2016, excluding in all the periods the amount of interest accrued by perpetual debentures held by subsidiaries.

CEMEX's perpetual debentures have no fixed maturity date and there are 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 entirely by Special Purpose Vehicles ("SPVs"), qualify as equity instruments and are classified within non-controlling interest, as they were issued by consolidated entities. In addition, subject to certain conditions, CEMEX has the unilateral right to defer indefinitely the payment of interest due on the debentures. The classification of the debentures as equity instruments was made under applicable IFRS. The different SPVs were established solely for purposes of issuing the perpetual debentures and were included in CEMEX's consolidated financial statements.

As of December 31, 2018 and 2017, the detail of CEMEX's perpetual debentures, excluding the perpetual debentures held by subsidiaries, was as follows:

Issuer	Issuance date	2018		2017		Repurchase option	Interest rate
		Nominal amount	Nominal amount	Nominal amount	Nominal amount		
C10-EUR Capital (SPV) Ltd	May 2007	€ 64	€ 64	Tenth anniversary	EURIBOR+4.79%		
C8 Capital (SPV) Ltd	February 2007	US\$135	US\$135	Eighth anniversary	LIBOR+4.40%		
C5 Capital (SPV) Ltd ¹	December 2006	US\$61	US\$61	Fifth anniversary	LIBOR+4.277%		
C10 Capital (SPV) Ltd	December 2006	US\$175	US\$175	Tenth anniversary	LIBOR+4.71%		

¹ Under the 2017 Credit Agreement, and previously under the 2014 Credit Agreement, CEMEX is not permitted to call these debentures.

21) EXECUTIVE SHARE-BASED COMPENSATION

CEMEX has long-term restricted share-based compensation programs providing for the grant of the Parent Company's CPOs to a group of eligible executives, pursuant to which, new CPOs are issued 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. Under the ordinary programs, the Parent Company issued new shares for approximately 49.3 million CPOs in 2018, 53.2 million CPOs in 2017 and 53.9 million CPOs in 2016, that were subscribed and pending for payment in the Parent Company's treasury. As of December 31, 2018, there are approximately 69.5 million CPOs associated with these annual programs that are potentially expected to be issued in the following years as the executives render services.

Beginning in 2017, with the approval of the Parent Company's Board of Directors, 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"). During 2018 and 2017, no CPOs of the Parent Company were issued under the key executives' program.

Beginning January 1, 2013, 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, sharing significantly the same conditions of CEMEX's plan also over a service period of four years. During 2018, 2017 and 2016, CLH physically delivered 258,511 shares, 172,981 shares and 271,461 shares, respectively, corresponding to the vested portion of prior years' grants, which were subscribed and held in CLH's treasury. As of December 31, 2018, there are 1,162,186 shares of CLH associated with these annual programs that are expected to be delivered in the following years as the executives render services.

In addition, 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, sharing significantly the same conditions of CEMEX's plan. During 2018, CHP did not issue shares in connection with this program, for this year, CHP purchased 871,189 of its own shares in the market on behalf of 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 2018, 2017 and 2016, was recognized in the operating results against "Other equity reserves" and amounted to \$706, \$817 and \$742, respectively, including in 2018 the cost of the CHP's shares acquired in the market. The weighted-average price per Parent Company CPO granted during the period was approximately 13.61 pesos in 2018, 14.28 pesos in 2017 and 13.79 pesos in 2016. Moreover, the weighted-average price per CLH share granted during the period was 12,347 Colombian pesos in 2018, 13,077 Colombian pesos in 2017 and 13,423 Colombian pesos in 2016. As of December 31, 2018 and 2017, 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 or CLH's shares.

22) EARNINGS PER SHARE

Basic earnings 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 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 per share in 2018, 2017 and 2016, were as follows:

	2018	2017	2016
Denominator (thousands of shares)			
Weighted-average number of shares outstanding ¹	45,569,180	43,107,457	42,211,409
Capitalization of retained earnings ²	-	1,687,295	1,687,295
Effect of dilutive instruments - mandatorily convertible securities (note 16.2) ³	708,153	708,153	708,153
Weighted-average number of shares - basic	46,277,333	45,502,905	44,606,857
Effect of dilutive instruments - share-based compensation (note 21) ⁴	316,970	237,102	226,972
Effect of potentially dilutive instruments - optionally convertible securities (note 16.2) ⁵	1,420,437	2,698,600	3,834,458
Weighted-average number of shares - diluted	48,014,740	48,438,607	48,668,287
Numerator			
Net income from continuing operations	\$ 11,044	13,180	14,491
Less: non-controlling interest net income	789	1,417	1,173
Controlling interest net income from continuing operations	10,255	11,763	13,318
Plus: after tax interest expense on mandatorily convertible securities	61	91	119
Controlling interest net income from continuing operations - for basic earnings per share calculations	10,316	11,854	13,437
Plus: after tax interest expense on optionally convertible securities	436	903	1,079
Controlling interest net income from continuing operations - for diluted earnings per share calculations	\$ 10,752	12,757	14,516
Net income from discontinued operations	\$ 212	3,461	713

	2018	2017	2016
Basic earnings per share			
Controlling interest basic earnings per share	\$ 0.22	0.34	0.32
Controlling interest basic earnings per share from continuing operations	0.22	0.26	0.30
Controlling interest basic earnings per share from discontinued operations	0.00	0.08	0.02
Diluted earnings per share ¹			
Controlling interest diluted earnings per share	\$ 0.22	0.34	0.32
Controlling interest diluted earnings per share from continuing operations	0.22	0.26	0.30
Controlling interest diluted earnings per share from discontinued operations	0.00	0.08	0.02

¹ The weighted-average number of shares outstanding in 2017 and 2016 reflects the shares issued as a result of the capitalization of retained earnings declared in March 2017 and March 2016, as applicable (note 20).

² According to resolution of the Parent Company's shareholders' meeting on April 5, 2018, there was no capitalization of retained earnings in 2018.

³ The number of Parent Company's CPOs to be issued under the executive share-based compensation programs, as well as the total amount of Parent Company's 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 option programs is determined under the inverse treasury method.

⁴ For 2018, 2017 and 2016, 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.

23) COMMITMENTS

23.1) Guarantees

As of December 31, 2018 and 2017, CEMEX, S.A.B. de C.V. had guaranteed loans of certain subsidiaries for US\$1,493 (\$29,331) and US\$1,506 (\$29,601), respectively.

23.2) Pledged assets

CEMEX transferred to a guarantee trust the shares of its main subsidiaries, including, among others, CEMEX México, S.A. de C.V., New Sunward Holding B.V. and CEMEX España, S.A., and entered into pledge agreements in order to secure payment obligations under the 2017 Credit Agreement (formerly under the 2014 Credit Agreement and the Facilities Agreement) and other debt instruments entered into prior and after the date of these agreements (note 16.1).

As of December 31, 2018 and 2017, there are no liabilities secured by property, machinery and equipment.

23.3) Other commitments

As of December 31, 2018 and 2017, 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 23.5. 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 US\$25 (unaudited) assuming that 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 US\$71 (unaudited) assuming that 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 US\$132 (unaudited) assuming that 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 aforementioned volume of fuel from sources in the international markets and Mexico.
- CEMEX OstZement GmbH ("COZ"), CEMEX's subsidiary in Germany, held a long-term energy supply contract until 2023 with STEAG - Industriekraftwerk Rüdersdorf GmbH ("SIKW") in connection with the overall electricity needs of CEMEX's Rüdersdorf plant. Based on the contract, each year COZ 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 approximately US\$15 (unaudited) assuming that CEMEX receives all its energy allocation.

23.4) 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, 2018, 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 400 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 expended through self-insured health care benefits was US\$62 in 2018, US\$64 in 2017 and US\$69 in 2016.

23.5) Contractual obligations

As of December 31, 2018 and 2017, CEMEX had the following contractual obligations:

Obligations	2018				2017	
	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total	Total
Long-term debt	US\$ 7	1,788	2,347	5,197	9,339	9,892
Finance lease obligations ¹	36	87	19	1	143	175
Convertible notes ²	19	514	-	-	533	906
Total debt and other financial obligations ³	62	2,389	2,366	5,198	10,015	10,973
Operating leases ⁴	186	351	231	439	1,207	494
Interest payments on debt ⁵	508	960	777	535	2,780	3,073
Pension plans and other benefits ⁶	148	270	270	664	1,352	1,587
Acquisition of property, plant and equipment ⁷	87	43	-	-	130	-
Purchases of raw materials, fuel and energy ⁸	702	955	1,230	2,270	5,157	4,326
Total contractual obligations	US\$ 1,693	4,968	4,874	9,106	20,641	20,453
	\$ 33,267	97,621	95,774	178,933	405,595	401,901

- ¹ Represent nominal cash flows. As of December 31, 2018, the NPV of future payments under such leases was US\$122 (\$2,396), of which, US\$74 (\$1,450) refers to payments from 1 to 3 years and US\$48 (\$276) refer to payments from 3 to 5 years. Beginning January 1, 2019, IFRS 16 eliminates the classifications of finance and operating leases. This elimination has no effect in the reported amounts of cash flows considering the contracts outstanding as of December 31, 2018 (note 2.20).
- ² Refers to the components of liability of the convertible notes described in note 16.2 and assumes repayment at maturity and no conversion of the notes.
- ³ 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.
- ⁴ The amounts represent nominal cash flows. CEMEX has operating leases, primarily for operating facilities, cement storage and distribution facilities and certain transportation and other equipment, under which annual rental payments are required plus the payment of certain operating expenses. Rental expense was US\$185 (\$3,493) in 2018, US\$115 (\$2,252) in 2017 and US\$121 (\$2,507) in 2016. Beginning January 1, 2019, IFRS 16 eliminates the classifications of finance and operating leases. This elimination has no effect in the reported amounts of cash flows considering the contracts outstanding as of December 31, 2018 (note 2.20).
- ⁵ Estimated cash flows on floating rate denominated debt were determined using the floating interest rates in effect as of December 31, 2018 and 2017.
- ⁶ Represents estimated annual payments under these benefits for the next 10 years (note 18), including the estimate of new retirees during such future years.
- ⁷ Refers mainly to the expansion of a cement production line in the Philippines.
- ⁸ Future payments for the purchase of raw materials are presented on the basis of contractual nominal cash flows. Future nominal payments for energy were estimated for all contractual commitments on the basis of 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.

24) LEGAL PROCEEDINGS

24.1) Provisions resulting from legal proceedings

CEMEX is involved in various significant legal proceedings, the 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 or losses have been recognized in the financial statements, representing the best estimate of the amounts payable or the amount of impaired assets. Therefore, CEMEX believes that it will not make significant expenditure or incur significant losses in excess of the amounts recorded. As of December 31, 2018, the details of the most significant events giving effect to provisions or losses are as follows:

- In connection with the construction of the cement plant in the municipality of Maceo in Colombia (note 14), in August 2012, CEMEX Colombia signed a memorandum of understanding ("MOU") with the representative of Ci Calizas y Minerales, S.A. ("Ci Calizas"), for the acquisition of assets consisting of land, the mining concession and environmental permit, the shares of Zona Franca Especial Cementera del Magdalena Medio, S.A.S. ("Zomam") (holder of the free trade zone concession) and the rights to develop the cement plant. After the signing of the MOU, 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 Colombia's Attorney General (the "Attorney General"). Amongst other measures, the Attorney General ordered the seizure and consequent suspension of the right to dispose 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 and fully cooperates with the Attorney General. As of December 31, 2018, it is estimated that it may take between five and ten years for a final resolution to be issued on the aforementioned process, which is in the investigatory stage, waiting for the legal counsels of the defendants appointed by the Attorney General to assume functions, which opens the evidentiary stage.

In July 2013, CEMEX Colombia signed with the provisional depository appointed by the Drugs National Department (Dirección Nacional de Estupefacientes or the "DNE") (then depository of the affected assets), which functions after its liquidation were assumed by the Administration 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 to CEMEX Colombia for the same purposes.

On July 15, 2018, the initial term of the Lease Contract signed by CEMEX Colombia with the DNE expired. Notwithstanding the expiry, CEMEX Colombia is entitled to continue to build and use the plant pursuant to the terms of an accompanying mandate until the conclusion of the expiration of property proceeding. As of December 31, 2018, CEMEX Colombia maintains negotiations with the SAE in order to enter into a new long term lease contract that would replace precedent agreements and would allow CEMEX Colombia to continue the construction and operation of the plant during a term of 21 years from the signing date with a potential extension of 10 additional years.

In addition, in 2012, CEMEX Colombia also engaged the same representative of CI Calzas to represent in the name and on behalf of CEMEX Colombia in the acquisition of land adjacent to the plant, signing a new memorandum of understanding (the "Land MOU").

During 2016, through an investigation and internal audit in accordance with the corporate governance policies and code of ethics of CEMEX and CLH considering reports of deficiencies in the purchasing process received in CEMEX's anonymous reporting line, and after confirming the irregularities, in September 2016, CLH and CEMEX Colombia terminated the employment relationship with the Vice President of Planning of CLH and CEMEX Colombia; with the Vice President of Legal Counsel of CLH and CEMEX Colombia; and accepted the resignation of the Chief Executive Officer of CLH and President of CEMEX Colombia. In order to strengthen the levels of leadership, management and best practices of corporate governance, in October 2016, the Parent Company's Board of Directors separated the roles of Chairman of the Board of Directors, Chief Executive Officer of CLH and President of CEMEX Colombia, and made the corresponding appointments. Moreover, the Parent Company's Audit Committee and CLH's Audit Commission performed an independent investigation of the Maceo project through experts in forensic audit. Additionally, the management of CEMEX Colombia and CLH engaged legal advisors for the required collaboration with the Attorney General and other purposes.

The investigation and internal audit initiated during 2016 found that under the MOU and the Land MOU, CEMEX Colombia made deposits in the representative's bank account for advances and paid interests, settled in kind following its instructions, for amounts in Colombian pesos equivalent to approximately US\$13.4 and US\$1.2, respectively, considering the exchange rate as of December 31, 2016. These payments were made in breach of CEMEX's and CLH's policies. As a result, both, CLH and CEMEX Colombia reported these facts to the Attorney General, providing the findings on hand. In December 2016, CEMEX Colombia filed a claim in the civil courts aiming that all property rights of the land acquired under the Land MOU, some of which were assigned to the representative, would be transferred to CEMEX Colombia. As of December 31, 2018, due to the process of expiration of property of the assets under the MOU and the deficient formalization of the acquisitions under the Land MOU, CEMEX Colombia is not the rightful owner of the aforementioned assets.

As a result, considering the legal opinions available and low probability of recovering such advances, in December 2016, the Company reduced investments in process for a net amount in Colombian pesos equivalent to approximately US\$141 (\$264), which included: a) a reduction of US\$14.3 (\$295) for impairment of assets against "Other expenses, net," including approximately US\$2.3 (\$43) of impairment losses not related with the MOU or the Land MOU; b) a reduction of US\$91 (\$188) against "Other accounts payable" for the cancellation of the remaining account payable to CI Calzas under the MOU; and c) an increase in investments in process for US\$9.2 (\$191) recognized against VAT accounts payable related with certain purchases of equipment installed outside the polygon of the free zone that were not exempted from this tax. All these amounts considering the exchange rate as of December 31, 2016. During 2017, CEMEX Colombia further determined an adjustment and payment of additional VAT in the free zone for approximately US\$5.

Moreover, there is an ongoing criminal investigation by the Attorney General which is in its second investigatory stage. The hearing for indictments was held between June 12 and 29, 2018, whereas charges were brought against two of the former executives of CEMEX Colombia and the representative of CI Calzas, and pretrial detention of the defendants was determined. CEMEX cannot predict the actions that the General Attorney could implement or the possibility and degree in which any of these actions could have a material adverse effect on CEMEX's results of operation, liquidity or financial position. Under the presumption that CEMEX Colombia acted in good faith, CEMEX considers that it will retain ownership of the plant (note 14) 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 paying 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 the project in Maceo. At this respect, in the event that the expiration of property over the assets subject to the MOU is ordered in favor of the State, the SAE may decide not to sell the assets to CEMEX Colombia, or, the SAE may elect to maintain ownership of the assets and not extend the Lease Contract. In both cases, under Colombian law, CEMEX Colombia would be entitled to an indemnity for the amount of its incurred investments. Nonetheless, although as of December 31, 2018, CEMEX Latam cannot estimate if the expiration of property of the assets subject to the MOU would be declared in favor of the State, or as the case may be, if the SAE would determine to sell or not those assets to CEMEX Colombia or if a new Lease Contract would be negotiated or not, CEMEX Colombia does not consider probable that any of these adverse results may occur, but would any of these adverse results occur upon which an adverse resolution is received, such adverse resolution could have a material adverse effect on CEMEX's results of operations, liquidity or financial condition.

As of December 31, 2018, the start-up of the Maceo plant and the construction of the access road remain suspended, mainly considering certain permits required to finalize the access road, as well as ongoing requests and procedures with the relevant authorities oriented to: a) resolve any overlap of the project with an Integrated Management District ("IMD"), b) modify the land use where the project is located to harmonize it with industrial and mining use, c) modify the environmental license to increase the permitted production up to 950 thousand tons per year, d) obtain the extension of the free zone to cover the entire plant, and e) resolve the ownership of the environmental license and the mining title which transfer to a subsidiary of CEMEX Colombia was revoked by the regional environmental authority; until progress is achieved in these processes. CEMEX Colombia continues working to address these issues as soon as possible. In October 2017, CEMEX Colombia presented the initial request for the partial subtraction of the Maceo project from the IMD to test the feasibility of achieving the proposed expansion of the activity in the project and comments were received in May 2018. In this regard, on October 11, 2018, CEMEX Colombia submitted a response to the latest request for information in connection with such subtraction process. This process of partial subtraction of the Maceo project, would allow the removal of the cement operation productive area from the IMD. This request requires evidence of the viability to develop the proposed activity of the cement project in said area. Meanwhile, CEMEX Colombia will limit its activities to those on which it has the relevant authorizations.

- On December 11, 2017, in the context of a market investigation opened in 2013 against five cement companies and 14 executives of those companies, including two former executives of CEMEX Colombia for purported practices that limited free competition, and after several processes over the years, the Colombian Superintendencia de Industria y Comercio (Superintendencia de Industria y Comercio or the "SIC") imposed a final fine to CEMEX Colombia for an amount equivalent to US\$25 (\$491). As a result, CEMEX Colombia recognized a provision for this amount against "Other expenses, net" in 2017. This fine was paid on January 5, 2018. On June 7, 2018, CEMEX Colombia filed an annulment and reestablishment of right claim before the Administrative Court seeking for the annulment of the charges brought forth by the SIC and the restitution of the fine paid, with any adjustments provided by Colombian Law. This claim could take up to six years to be resolved. As of December 31, 2018, CEMEX is not able to assess the likelihood for the recovery of the fine imposed by the SIC.
- In January 2007, the Polish Competition and Consumers Protection Office (the "Protection Office") initiated an antitrust proceeding against all cement producers in the country, including CEMEX Polska Sp. Z o.o. ("CEMEX Polska") and another subsidiary in Poland, arguing that there was an agreement between all cement producers in Poland regarding prices, market quotas and other sales conditions; and that the producers exchanged information, all of which limited competition in the Polish cement market. In December 2009, the Protection Office issued a resolution imposing fines on a number of Polish cement producers, including CEMEX Polska for the period of 1998 to 2006. The original fine imposed on CEMEX Polska was for an amount in Polish Zloty equivalent to US\$31 (\$609). After a resolution of December 2013 to an appeal filed against the Protection Office's fine before the Polish Court of Competition and Consumer Protection (the "First Instance Court") that reduced the fine and a resolution of March 2018 to an appeal of CEMEX Polska filed before the Appeals Courts in Warsaw against the resolution of the First Instance Court, the fine was further reduced to a final amount in Polish Zloty equivalent to US\$18 (\$354). This final amount was paid in 2018. On November 19, 2018, CEMEX Polska filed before the Polish Supreme Court an appeal against the Appeal Court's judgment seeking the reduction of the imposed fine. As of December 31, 2018, CEMEX Polska expects that, during the first half of 2019, the Polish Supreme Court will issue a decision regarding acceptance of the cassation appeal for its study.
- As of December 31, 2018, CEMEX had accrued environmental remediation liabilities 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 US\$167 (\$3,282). Expenditure was assessed and quantified over the period in which the sites have the potential to cause environmental harm, which was accepted 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, 2018, CEMEX had accrued environmental remediation liabilities in the United States for US\$33 (\$648), 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.

24.2) Other 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 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 cannot assure the achievement of a final favorable resolution. As of December 31, 2018, the most significant events with a quantification of the potential loss, when it is determinable and would not impair the outcome of the relevant proceeding, were as follows:

- 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, CHP and APO were served summons concerning an environmental class action lawsuit filed by 40 individuals and one legal entity (on behalf of 8,000 individuals allegedly affected by the Landslide) at the Regional Trial 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. In the complaint, among other allegations, plaintiffs claim that: (i) the Landslide occurred as a result of the defendants' gross negligence; and (ii) seek, among other relief, (a) monetary damages for an amount in Philippine Pesos equivalent to US\$82 (\$1,611), (b) the establishment of a rehabilitation fund for an amount in Philippine Pesos equivalent to US\$10 (\$197), 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. As of December 31, 2018, CHP, APO and ALQC (collectively, the "Private Defendants") hold and will defend its position that the Landslide occurred due to natural causes and deny any liability. In the event a final adverse resolution is issued in this matter, plaintiffs will have the option to proceed against any one of ALQC, APO or CHP for satisfaction of the entirety of the potential judgement award, without the need to proceed against any other Private Defendant beforehand. Thus, ALQC's, APO's or CHP's assets alone could be exposed to execution proceedings. As of December 31, 2018, CEMEX is not able to assess the likelihood of an adverse result to this lawsuit; and, because of its current status and its preliminary nature, 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.

- On June 12, 2018, the Authority for Consumer Protection and Competition Defense of Panama (the "Panama Authority") carried out an administrative investigation against CEMEX and other competitors for the alleged commission of monopolistic practices in relation to the gray cement and the ready-mix concrete markets. From the administrative investigation, the Panama Authority considered there were elements that serve as a basis to consider the possible existence of monopolistic or anticompetitive practices consisting of: (i) price fixing and/or production restriction of gray cement sold to ready-mix concrete producers in Panama; and (ii) unilateral and/or joint predatory acts and/or cross subsidies in the ready-mix concrete market. On October 16, 2018, the Panama Authority notified CEMEX of a new information request in order to continue their investigation. The Panama Authority is gathering facts necessary to make an informed decision about whether violations of Panamanian law have occurred. CEMEX is cooperating with the Panama Authority. As of December 31, 2018, given the status of the investigation, CEMEX is not able to assess if this investigation will lead to any fines, penalties or remedies, or if such fines, penalties or remedies, if any, would have a material adverse effect on the Company's results of operations, liquidity or 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 has been cooperating with the DOJ and is complying with the subpoena. As of December 31, 2018, given the status of the investigation, CEMEX is not able to assess if this investigation will lead to any fines, penalties or remedies, or if such fines, penalties or remedies, if any, would have a material adverse effect on the Company's results of operations, liquidity or financial position.
- On March 16, 2018, a putative securities class action complaint was filed against CEMEX and one of its members of the board of directors (CEO) and certain of its officers (CEO and CFO) in the U.S. District Court for the Southern District of New York, on behalf of investors who purchased or otherwise acquired securities of CEMEX between August 14, 2014 to March 13, 2018, inclusive. The complaint alleges that CEMEX purportedly issued press releases and SEC filings that included materially false and misleading statements in connection with alleged misconduct relating to the Maceo Project and the potential regulatory or criminal actions that might arise as a result. On September 14, 2018, CEMEX filed a motion to dismiss this lawsuit. During the fourth quarter of 2018, plaintiffs filed an opposition brief to this motion to dismiss. CEMEX denies liability and intends to vigorously defend the case. As of December 31, 2018, given the status of the lawsuit, CEMEX is not able to assess the likelihood of an adverse result to this lawsuit, and for the same reasons, CEMEX is not 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.
- In December 2016, the Parent Company received subpoenas from the United States Securities and Exchange Commission ("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, 2018, 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 September 2016, CEMEX España Operaciones, S.L.U. ("CEMEX España Operaciones"), a subsidiary of CEMEX in Spain, in the context of a market investigation initiated in 2014 for alleged anticompetitive practices in 2009 for the cement market and the years 2008, 2009, 2012, 2013 and 2014 for the ready-mix market, was notified of a resolution by the National Markets and Competition Commission (Comisión Nacional de los Mercados y la Competencia or the "CNMC") requiring the payment of a fine for €6 (US\$7 or \$138). CEMEX España Operaciones appealed the fine and requested the suspension of payment before the National Court (Audiencia Nacional), which granted the requested suspension; subject to issuance of a bank guarantee for the principal amount of the sanction. The CNMC was notified. As of December 31, 2018, CEMEX does not expect that an adverse resolution to this matter would have a material adverse impact on our results of operations, liquidity and financial condition.
- 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 in amounts equivalent as of December 31, 2018 to US\$18 (\$35.4) for the period from May 5, 2008 to November 30, 2011. In March 2014, ACC appealed the levy and 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 aforementioned 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 to February 4, 2019 for submission of documents by the attorney for the State pertaining to this dispute. CEMEX does not expect that such referral will prejudice ACC's favorable legal position in this dispute. As of December 31, 2018, CEMEX does not expect a material adverse impact due to this matter in its results of operations, liquidity or financial position.
- 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 in order to nullify the Share Purchase Agreement (the "SPA") pursuant to which CEMEX acquired in 1999 a controlling interest in Assiut Cement Company ("ACC"). 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 in regard to 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, 2018, 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 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 Quinière ("SCI") pursuant to which CEMEX GRM has drilling rights in order 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 US\$77 (\$1513), 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 March 13, 2018, the court of appeals issued an enforceable resolution ordering the rescission of the Quarry Contract and designated a judicial expert to: a) determine the volume of both excavated and backfilling materials, and b) give his opinion on the potential damages suffered by SCI. CEMEX GRM appealed this resolution with the court of cassation, which will advance in parallel to the judicial expert's process. As of December 31, 2018, as the likelihood of an adverse final resolution cannot be assured with certainty, CEMEX believes that an adverse resolution upon conclusion of all defense instances is not probable. However, in case of an adverse resolution, CEMEX considers that it should not have a material adverse impact on CEMEX's results of operations, liquidity and financial condition.

- In June 2012, one of CEMEX's subsidiaries in Israel and three other companies were notified about a class action suit filed by a homeowner who built his house with concrete supplied by the defendants in October 2010. The class action argues that the concrete supplied to him did not meet with the Israeli ready-mix strength standard requirements and that as a result CEMEX acted unlawfully toward all of its customers who received concrete that did not comply with such standard requirements, causing financial and non-financial damages to those customers, including the plaintiff. CEMEX presumes that the class action would represent the claim of all the clients who purchased the alleged non-conforming concrete from its subsidiary in Israel during the past 7 years, the limitation period according to applicable laws in Israel. The damages that could be sought are equivalent to US\$74 (\$1,454). After several hearings to present evidence from all parties over the years and the resolution of the court to join together all claims against all four companies in order to simplify and shorten court proceedings. An abandonment of action has been submitted to the court with regards to two of the four defendant companies, but CEMEX's subsidiary and another company remain as defendants. All parties have finished presenting their positions. There are pending resolutions regarding the class action and the abandonment of action of the two defendants. As of December 31, 2018, CEMEX's subsidiary in Israel is not able to assess the likelihood of the class action application being approved or, if approved, of an adverse result, such as an award for damages in the full amount that could be sought, but if adversely resolved CEMEX considers that an adverse resolution on this matter would not have a material adverse impact on its results of operations, liquidity or financial condition.
- In June 2010, the District of Bogota's Environmental Secretary (the "District Secretary"), ordered the suspension of CEMEX Colombia's mining activities at El Tunjuelo quarry, located in Bogota, sealed off the mine to machinery and prohibited the removal of aggregates inventory, as well as those of other aggregates producers in the same area. The Environmental Secretary alleged that during the past 60 years at that time, CEMEX Colombia and the other companies illegally changed the course of the Tunjuelo River, have used the percolating waters without permission and improperly used the edge of the river for mining activities. CEMEX Colombia requested from the beginning the revocation of the order considering that its mining activities at El Tunjuelo quarry were supported by the authorizations required by the applicable environmental laws and that its environmental impact studies were reviewed and authorized by the Ministry of Environment and Sustainable Development. Since June 2010 the local authorities closed the quarry and prohibited the removal of aggregates inventory. On July 11, 2018, considering that CEMEX Colombia incurred in risk of having provoked affection or harm in the use of the underground waters in the Tunjuelo River's middle basin without the corresponding permit issued by the environmental authority, the District Secretary imposed a penalty for an amount in Colombian pesos equivalent to US\$0.4 as of August 1, 2018, the date it was settled. CEMEX Colombia was exonerated of incurring negligent or willful misconduct. With this penalty, all procedures and possible claims against CEMEX Colombia related to this matter were finalized.

In connection with the legal proceedings presented in notes 241 and 242, the exchange rates as of December 31, 2018 used by CEMEX to convert the amounts in local currency to their equivalents in dollars were the official closing exchange rates of 3.75 Polish zloty per dollar, 0.87 Euro per dollar, 0.78 British pounds sterling per dollar, 3,250 Colombian pesos per dollar and 3.75 Israeli shekel per dollar.

In addition to the legal proceedings described above in notes 241 and 242, as of December 31, 2018, 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.

25) 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, 2018, 2017 and 2016, 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 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, 2018, 2017 and 2016, 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 US\$38 (\$732), US\$47 (\$887) and US\$43 (\$802), respectively. Of these amounts, US\$29 (\$559) in 2018, US\$35 (\$661) in 2017, US\$32 (\$595) in 2016, was paid as base compensation plus performance bonuses, including pension and post-employment benefits. In addition, US\$9 (\$173) in 2018, US\$12 (\$227) in 2017 and US\$11 (\$207) in 2016 of the aggregate amounts in each year, corresponded to allocations of Parent Company CPDs under CEMEX's executive share-based compensation programs.

26) MAIN SUBSIDIARIES

As mentioned in note 4.4 and 20.4, as of December 31, 2018 and 2017, 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, 2018 and 2017, which ownership interest is presented according to the interest maintained by their direct holding company, were as follows:

Subsidiary	Country	% Interest	
		2018	2017
CEMEX México, S. A. de CV. ¹	Mexico	100.0	100.0
CEMEX España, S.A. ²	Spain	99.9	99.9
CEMEX, Inc.	United States of America	100.0	100.0
CEMEX Latam Holdings, S.A. ³	Spain	73.2	73.2
CEMEX (Costa Rica), S.A.	Costa Rica	99.1	99.1
CEMEX Nicaragua, S.A.	Nicaragua	100.0	100.0
Assiut Cement Company	Egypt	95.8	95.8
CEMEX Colombia, S.A. ⁴	Colombia	99.9	99.9
Cemento Bayano, S.A. ⁵	Panama	100.0	100.0
CEMEX Dominicana, S.A.	Dominican Republic	100.0	100.0
Trinidad Cement Limited	Trinidad and Tobago	69.8	69.8
Caribbean Cement Company Limited ⁶	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. ⁷	Philippines	55.0	55.0
Solid Cement Corporation ⁷	Philippines	100.0	100.0
APO Cement Corporation ⁷	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 SIA	Latvia	100.0	100.0
CEMEX Topmix LLC, CEMEX Supermix LLC and CEMEX Falcon LLC ⁸	United Arab Emirates	100.0	100.0
Neoris NV ⁹	The Netherlands	99.8	99.8
CEMEX International Trading LLC ¹⁰	United States of America	100.0	100.0
Transenergy, Inc. ¹¹	United States of America	100.0	100.0

¹ CEMEX México, S.A. de CV. is the indirect holding company of CEMEX España, S.A. and subsidiaries.
² CEMEX España, S.A. is the indirect holding company of most of CEMEX's international operations.
³ The interest reported excludes own shares held in CLH's treasury. CLH, entity 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, El Salvador and Brazil (note 20.4).
⁴ Represents our 99.7% and 98.9% interest in ordinary and preferred shares, respectively.
⁵ Includes a 0.515% interest held in Cemento Bayano's treasury.
⁶ The aggregate ownership interest of CEMEX in this entity of 79.04% includes TCL's direct and indirect 74.08% interest and the Parent Company's indirect 4.96% interest.
⁷ Represents CHP direct and indirect interest. CEMEX's operations in the Philippines are conducted through CHP, subsidiary incorporated in the Philippines which since July 2016 trades its ordinary shares on the Philippines Stock Exchange under the symbol CHP (note 20.4).
⁸ CEMEX owns a 49% equity interest in each of these entities and holds the remaining 51% of the economic benefits, through agreements with other shareholders.
⁹ Neoris NV is the holding company of the entities involved in the sale of information technology solutions and services.
¹⁰ CEMEX International Trading, LLC is involved in the international trading of CEMEX's products.
¹¹ Formerly named Gulf Coast Portland Cement Co., it is engaged in the procurement and trading of fuels, such as coal and petroleum coke, used in certain operations of CEMEX.



Independent Auditors' Report

To the Board of Directors and Stockholders

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

Opinion

We have audited the consolidated financial statements of CEMEX, S.A.B. de C.V. and subsidiaries ("the Group"), which comprise the consolidated statement of financial position as at December 31, 2018 and 2017, the consolidated statements of income, comprehensive income, changes in stockholders' equity and cash flows for the years ended December 31, 2018, 2017 and 2016, 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, 2018 and 2017, and of its consolidated financial performance and its consolidated cash flows for the years ended December 31, 2018, 2017 and 2016 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.



EVALUATION OF GOODWILL IMPAIRMENT

See Note 15.2 to the consolidated financial statements

The key audit matter

The Group's balance sheet includes a significant amount of goodwill arising mainly from historic acquisitions which requires conducting an annual evaluation of its recoverability.

We consider this a key audit matter because of the materiality of the goodwill balance and because it involves significant judgments by the Group regarding long-term sales growth rates, costs and projected operating margins in the different countries where the Group operates, discount rates used to discount future cash flows, as well as comparisons to publicly-available information such as multiples of EBITDA in recent market transactions.

How the matter was addressed in our audit

Our audit procedures included considering the consistency and appropriateness of the allocation of goodwill to groups of CGUs, as well as testing the Group's methodology and assumptions used in preparing discounted cash flow models through the involvement of our valuation specialists.

We compared the Group's assumptions to data obtained from external sources in relation to key inputs such as discount rates and projected economic growth and compared the latter with reference to historical forecasting accuracy, considering the potential risk of management bias.

We compared the sum of the discounted cash flows to the Group's market capitalization to assess the reasonableness of those cash flows. In addition we performed sensitivity analysis using multiples of EBITDA.

We challenged the overall results of the calculations and performed our own sensitivity analysis, including a reasonably probable reduction in assumed growth rates and cash flows.

We also assessed whether the Group's disclosures about the sensitivity of the outcome of the impairment assessment to changes in key assumptions such as discount rates and growth rates reflected the risks inherent in the valuation of goodwill.



RECOVERABILITY OF DEFERRED TAX ASSETS RELATED TO TAX LOSS CARRY FORWARDS

See Note 19.2 and 19.4 to the consolidated financial statements

The key audit matter

The Group has significant deferred tax assets in respect of tax losses mainly in Mexico.

There is inherent uncertainty involved in forecasting future taxable profits, which determines the extent to which deferred tax assets are or are not recognized.

The periods over which the deferred tax assets are expected to be recovered can be extensive.

As a result of the above, we consider this to be a key audit matter.

How the matter was addressed in our audit

Our audit procedures included considering historical levels of taxable profits and comparing the assumptions used in respect of future taxable profit forecasts to those used in the Group's long-term forecasts, such as the forecasts prepared in relation to goodwill impairment evaluations.

With the assistance of our tax specialists we evaluated the reasonableness of key tax assumptions, timing of reversal of temporary differences and expiration of tax loss carry forwards, as well as the reasonableness of any tax strategies proposed by the Group based on our knowledge of the tax, legal and operating environments in which the Group operates.

We also assessed the adequacy of the Group's disclosures setting out the basis of the deferred tax asset balances and the level of estimation involved.

TAX AND LEGAL CONTINGENCIES

See Notes 19.4 and 24 to the consolidated financial statements

The key audit matter

The Group is involved in certain significant tax and legal proceedings.

Compliance with tax regulations is a complex matter within the Group because of the different tax laws in the jurisdictions where the Group operates, the application of which requires the use of significant expertise and judgment, making this area a key audit matter. Also, because of the diversity and complexity of the different laws and regulations applicable to the Group's operations, exposure to legal claims, is a risk that requires management's attention.

Resolution of tax and legal proceedings may span multiple years, and may involve negotiation or litigation and therefore, making judgments of potential outcomes is a complex issue in the Group.

Management applies judgment in estimating the likelihood of the future outcome in each case and records a provision for uncertain tax positions or settlement of legal claims where applicable. We focused on this area due to the inherent complexity and judgment in estimating the amount of provision required.

How the matter was addressed in our audit

Our audit procedures included assessment of the adequacy of the level of provision established, or lack thereof, in relation to significant uncertain tax positions and legal contingencies, primarily in respect of cases in Mexico (Corporate), Spain, France, Egypt, and Colombia.

We discussed the status of each significant case with management, including in-house counsel, and critically assessed their responses. We read the latest correspondence between the Group and the various tax authorities or plaintiffs and attorneys where applicable. We also obtained written responses from the Group's legal advisors where those have been appointed, containing their views on material exposures and any related litigation.

In relation to tax matters, we also met with the Group's tax officers to assess their judgments on significant cases, their views and strategies, as well as the related technical grounds to their position based on applicable tax laws by involving our tax specialists.

We assessed whether the Group's disclosures about legal and tax contingencies provided sufficient information to readers of the financial statements in light of the significance of these cases.

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, 2018, 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 skepticism 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, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements 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.
January 30, 2019

Non-Financial Information

HEALTH AND SAFETY ¹	2016	2017	2018
Fatalities (No.)			
Employees	3	3	0
Contractors	10	7	5
Employee Fatality Rate (per 10,000 employees)	0.7	0.7	0.0
Lost Time Injuries (LTIs) (No.)			
Employees	60	51	49
Contractors	53	68	46
Lost Time Injury Frequency Rate (LTI FR) (per million hours worked)			
Employees	0.6	0.5	0.5
Contractors ²	0.9	0.7	0.6
Employee Lost Time Injury Severity Rate (LTI SR) (lost days per million hours worked) ²	66.4	47.9	56.5
Employee Total Recordable Injury Frequency Rate (TRI FR) (per million hours worked)	4.1	3.4	2.4
Lost Days from Employee Lost Time Injuries ² (No.)	953	1,203	1,241
Employee Sickness Absence Rate (%)	1.8	1.6	1.5
Employee Occupational Illness Frequency Rate (OIFR) (incidents per million hours worked) ²	0.2	0.2	0.2
Sites with a Health and Safety Management System implemented (%)	100	100	100
Sites certified with OHSAS 18001 (%) ²	65	69	64

OUR PEOPLE	2016	2017	2018
Workforce by region (No.)			
Mexico	9,858	9,285	9,697
United States	9,783	8,380	8,617
Europe	10,386	10,413	10,720
Asia, Middle East and Africa	3,243	3,084	3,047
South, Central America and the Caribbean	5,387	5,869	5,701
Others ³	3,196	3,847	4,242
Total	41,853	40,878	42,024
Workforce by type of employment contract (%)			
Permanent	93	94	98
Temporary	7	6	2
Workforce by employment type (%)			
Full-time	99	99	97
Part-time	1	1	3

OUR PEOPLE	2016	2017	2018
Workforce by position (%)			
Executive	5	7	13
Non-executive	31	38	29
Operational	64	55	58
Workforce by age (%)			
Under 30	15	18	17
31-40	35	31	30
41-50	26	27	27
51 and over	24	24	26
Workforce by gender (%)			
Male	88	86	86
Female	12	14	14
Female employees by position (%)			
Executive	13	21	20
Non-executive	30	31	33
Operational	3	2	3
Women to men remuneration ratio by region			
Mexico			1.51
United States			1.08
Europe			0.95
Asia, Middle East and Africa			1.47
South, Central America and the Caribbean			1.33
Others ³			0.32
Total			0.99
Women to men remuneration ratio by position			
Executive			0.84
Non-executive			0.98
Operational			0.87
Employee highest to median compensation ratio by region			
Mexico			65.2
United States			26.1
Europe			14.4
Asia, Middle East and Africa			20.8
South, Central America and the Caribbean			17.1
Others ³			90.4
Total			38.3

OUR PEOPLE	2016	2017	2018
CEMEX entry level vs. local minimum wage ratio by region			
Mexico	1.3	1.3	1.3
United States	1.4	1.5	1.6
Europe	1.3	1.1	1.1
Asia, Middle East and Africa	1.2	1.6	1.1
South, Central America and the Caribbean	1.1	1.2	2.7
Others ³	4.9	4.9	7.3
Total	2.1	1.4	2.1
Increase in annual compensation by region (%)			
Mexico	3.5	4.0	6.8
United States	3.0	3.0	3.0
Europe	2.0	2.0	2.9
Asia, Middle East and Africa	4.6	6.9	6.0
South, Central America and the Caribbean	6.2	5.2	4.8
Others ³	3.5	4.6	6.5
Total	5.2	3.7	4.5
Employee Turnover (%)			
Voluntary	9.4	12.5	11.5
Involuntary	10.5	14.0	8.3
Total	20.0	26.5	19.7
Employee Voluntary Turnover by gender (%)			
Male	8.9	13.0	11.4
Female	6.1	9.7	11.9
Employee Voluntary Turnover by age (%)			
Under 30	15.2	18.6	19.7
31-40	7.6	14.9	12.6
41-50	6.5	9.5	8.5
51 and over	7.7	8.4	7.9
Employee Involuntary Turnover by gender (%)			
Male	11.1	14.8	8.6
Female	6.4	9.2	6.5
Employee Involuntary Turnover by age (%)			
Under 30	14.8	15.4	11.7
31-40	9.4	14.8	8.9
41-50	10.0	12.8	7.2
51 and over	9.7	13.3	6.4

OUR PEOPLE	2016	2017	2018
Employees covered by a collective bargaining agreement by region (%)			
<i>Mexico</i>	66	60	58
<i>United States</i>	28	30	29
<i>Europe</i>	42	36	33
<i>Asia, Middle East and Africa</i>	15	38	36
<i>South, Central America and the Caribbean</i>	48	46	44
<i>Others</i> ²	0	0	0
Total	40	32	36
Notice to employees regarding operational changes (average days)	30	34	18
Countries with practices to promote local hiring (%)	73	78	74
Employee training by gender (average hours/year)			
<i>Male</i>	21	21	33
<i>Female</i>	19	17	28
Total	21	20	26
Employee training by position (average hours/year)			
<i>Executive positions</i>	25	26	19
<i>Non-executive</i>	16	19	31
<i>Operational</i>	20	22	21
Investment on Employee Training and Development (US million)	25.8	21.5	25.9
Employees that are engaged to the company [EEI - Employee Engagement Index] (%) ⁴	76	76	76
Employees that perceive they are enabled to perform their job effectively [PEI - Performance Enablement Index] (%) ⁴	76	77	77
Employees that would recommend CEMEX as a good place to work (%) ⁴		79	79

SUSTAINABLE CONSTRUCTION	2016	2017	2018
Affordable and/or resource-efficient buildings where CEMEX is involved (No.)	4,112	9,543	2,664
Affordable and/or resource-efficient buildings where CEMEX is involved (million m ²)	0.07	0.92	0.17
Installed concrete pavement area (million m ²)	5.39	8.78	3.95
Green building projects under certification where CEMEX is involved (No.)	1,282	1,024	1,048
Green building projects under certification where CEMEX is involved (million m ²)	9.73	8.67	5.83
Annual ready-mix sales derived from products with outstanding sustainable attributes (%)	34	32	30

SUSTAINABLE CONSTRUCTION	2016	2017	2018
Annual sales from cement and ready-mix concrete products with outstanding sustainable attributes (%) ¹	-	-	43
COMMUNITY ENGAGEMENT	2016	2017	2018
Families participating in Patrimonio Hoy (thousand) ²	572	587	602
Individuals positively impacted from Patrimonio Hoy (thousand) ²	2,756	2,824	2,899
Liveable space enabled by Patrimonio Hoy (thousand m ²) ²	4,347	4,498	4,636
Families participating in our social and inclusive businesses (thousand) ³	686	715	736
Individuals benefited from our social and inclusive businesses (thousand) ³	3,273	3,400	3,503
Community partners (i.e. individuals positively impacted from our social initiatives) (thousand) ³	12,604	14,108	16,133
Countries with volunteering programs (%)	75	71	84
Volunteering programs implemented (No.)	99	103	324
Individuals benefited from volunteering programs (thousand)	1,415	214	137
Employees participating in volunteering programs (No.)	5,200	9,050	4,642
Employee hours invested in volunteering programs (No.)	27,111	35,810	29,281
People with disabilities benefited from programs led by CEMEX (No.) ²	-	-	1,676
Priority sites from all businesses that have implemented Community Engagement Plans (%) ²	-	-	88
Cement sites that have implemented Community Engagement Plans (%) ²	-	-	95
Cement sites with Local Stakeholder Management (%) ²	-	-	94
Cement sites with Community Risks Mapping and Management (%) ²	-	-	90

CARBON STRATEGY AND ENERGY	2016	2017	2018
Absolute gross CO ₂ emissions (million ton) ^a	43.8	42.5	43.0
Absolute net CO ₂ emissions (million ton) ^a	41.4	39.7	40.0
Specific gross CO ₂ emissions (kg CO ₂ /ton of cementitious product) ^a	678	677	674
Specific net CO ₂ emissions (kg CO ₂ /ton of cementitious product) ^a	642	636	630
Reduction in CO ₂ emissions per ton of cementitious product from 1990 baseline (%)	201	207	216

CARBON STRATEGY AND ENERGY	2016	2017	2018
Scope 1 CO ₂ emissions (million ton)	44.2	42.9	43.4
Scope 2 CO ₂ emissions (million ton)	3.6	3.6	3.6
Clinker Factor (Cementitious) (%)	78.4	78.4	78.6
Alternative raw material rate (%)	6.1	6.6	7.4
Specific heat consumption (MJ/ton clinker)	3,905	3,913	3,987
Specific power consumption (kWh/ton cem)	120	120	121
Fuel Consumption (TJ)	206,343	201,681	200,054
Power Consumption (GWh)	7,779	7,542	7,761
Total Energy Consumption (GWh)	65,097	63,564	65,582
Fuel Mix (%)			
Primary Fuels	76.7	73.8	72.9
Petroleum coke	45.4	39.0	37.0
Coal	25.0	28.0	25.8
Fuel oil + Diesel	2.0	3.8	4.4
Natural gas	4.3	3.0	5.8
Alternative Fuels	23.3	26.2	27.1
Fossil-based waste	13.7	15.9	16.4
Biomass waste	9.6	10.3	10.7
Power consumption from renewable energy in cement (%) ¹	25	26	26

WASTE MANAGEMENT	2016	2017	2018
Hazardous waste sent for disposal (thousand ton)	95.1	95.3	106.4
Non-hazardous waste sent for disposal (thousand ton)	276.5	250.5	307.7
Total waste sent for disposal (thousand ton)	371.6	345.8	414.1
Total consumption of waste-derived sources from other industries (million ton) ²	-	12.5	13.2
Ratio of consumption from waste-derived sources from other industries vs. waste sent for disposal ²	-	36	32

ENVIRONMENTAL AND QUALITY MANAGEMENT	2016	2017	2018
Sites with CEMEX Environmental Management System (EMS) implemented (%)	88	88	89
Cement	98	98	97
Ready-mix	88	88	88
Aggregates	86	87	93
Sites with ISO 14001 Certification (%)	46	47	46
Cement	76	79	81
Ready-mix	43	44	43
Aggregates	53	55	54

ENVIRONMENTAL AND QUALITY MANAGEMENT	2016	2017	2018
Sites with ISO 9001 Certification (%)	45	46	47
Cement	79	82	84
Ready-mix	44	45	46
Aggregates	41	43	41
Environmental investment (US million)	80	83	83
Environmental incidents (No.)			
Category 1 (Major)	0	0	1
Category 2 (Moderate)	64	37	37
Category 3 (Minor)	224	216	238
Complaints	77	81	114
Social incidents (No.) ⁹	-	-	80
Environmental fines above US\$10,000 (No.)	1	2	2
Total Environmental fines (No.) ¹	51	56	37
Environmental fines above US\$10,000 (US million)	0.02	0.08	0.44
Total Environmental fines (US million)	0.15	0.39	0.58

AIR QUALITY MANAGEMENT	2016	2017	2018
Clinker produced with continuous monitoring of major emissions (dust, NO _x and SO _x) (%)	84	92	98
Clinker produced with monitoring of major and minor emissions (dust, NO _x , SO _x , Hg, Cd, Tl, VOC, PCDD/F) (%)	80	80	80
Absolute dust emissions (ton/year)	2,703	2,214	1,911
Specific dust emissions (g/ton clinker)	67	47	39
Absolute NO _x emissions (ton/year)	76,552	57,973	56,228
Specific NO _x emissions (g/ton clinker)	1,533	1,177	1,141
Absolute SO _x emissions (ton/year)	13,089	10,399	11,543
Specific SO _x emissions (g/ton clinker)	253	216	233
Annual reduction in dust emissions per ton of clinker from 2005 baseline (%)	78	84	87
Annual reduction in NO _x emissions per ton of clinker from 2005 baseline (%)	26	43	45
Annual reduction in SO _x emissions per ton of clinker from 2005 baseline (%)	61	67	64

WATER MANAGEMENT	2016	2017	2018
Total water withdrawals by source (million m ³)	62.1	61.4	65.6
Surface water	22.5	22.3	18.9
Ground water	24.3	24.7	30.6
Municipal water	11.5	10.4	12.0
Rain water	0.4	0.4	0.3
Sea water	0.0	0.0	0.0
Other	3.4	3.7	3.8

GRI 102-48, GRI 102-49

WATER MANAGEMENT	2016	2017	2018
Total water discharge by destination (million m ³)	18.6	22.6	24.7
Surface water	11.0	11.8	12.3
Ground water	6.8	10.2	11.1
Municipal water	0.8	0.5	1.0
Sea water	0.0	0.0	0.0
Other	0.0	0.2	0.2
Total water consumption (million m ³)	43.5	38.7	40.9
Cement	15.5	14.3	14.6
Ready-mix	11.5	11.2	13.6
Aggregates	16.5	13.2	12.7
Specific water consumption			
Cement (l/ton)	247	235	232
Ready-mix (l/m ³)	222	219	258
Aggregates (l/ton)	131	107	102
Sites with water recycling systems (%)	79	85	83

BIODIVERSITY MANAGEMENT	2016	2017	2018
Active sites with quarry rehabilitation plans (%)	94	97	96
Cement	90	94	92
Aggregates	96	98	97
Active quarries located within or adjacent to high biodiversity value areas (No.)	63	64	58
Cement	9	11	30
Aggregates	54	53	48
Active quarries located within or adjacent to high biodiversity value areas where Biodiversity Action Plans (BAPs) are implemented (%)			
Cement	89	73	90
Aggregates	59	68	92
Quarry rehabilitation plans, Biodiversity Action Plans (BAPs), and third party certification (% from target quarries) ²	-	-	65

CUSTOMERS AND SUPPLIERS	2016	2017	2018
Purchases sourced from locally-based suppliers (%)	95	89	90
Sustainability assessment executed by an independent party for our critical suppliers (% spend evaluated) ¹²	-	-	44
Countries that conduct regular customer satisfaction surveys (%)	100	100	100
Net Promoter Score (NPS) (%) ¹³	-	-	44

GRI 102-41, GRI 102-42, GRI 102-43, GRI 102-44, GRI 102-45, GRI 102-46, GRI 102-47, GRI 102-48, GRI 102-49, GRI 102-50, GRI 102-51, GRI 102-52, GRI 102-53, GRI 102-54, GRI 102-55, GRI 102-56, GRI 102-57, GRI 102-58, GRI 102-59, GRI 102-60, GRI 102-61, GRI 102-62, GRI 102-63, GRI 102-64, GRI 102-65, GRI 102-66, GRI 102-67, GRI 102-68, GRI 102-69, GRI 102-70, GRI 102-71, GRI 102-72, GRI 102-73, GRI 102-74, GRI 102-75, GRI 102-76, GRI 102-77, GRI 102-78, GRI 102-79, GRI 102-80, GRI 102-81, GRI 102-82, GRI 102-83, GRI 102-84, GRI 102-85, GRI 102-86, GRI 102-87, GRI 102-88, GRI 102-89, GRI 102-90, GRI 102-91, GRI 102-92, GRI 102-93, GRI 102-94, GRI 102-95, GRI 102-96, GRI 102-97, GRI 102-98, GRI 102-99, GRI 102-100, GRI 102-101, GRI 102-102, GRI 102-103, GRI 102-104, GRI 102-105, GRI 102-106, GRI 102-107, GRI 102-108, GRI 102-109, GRI 102-110, GRI 102-111, GRI 102-112, GRI 102-113, GRI 102-114, GRI 102-115, GRI 102-116, GRI 102-117, GRI 102-118, GRI 102-119, GRI 102-120, GRI 102-121, GRI 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Progress Against Our Sustainability 2020 Targets

	2018	2020 TARGET	ANNUAL TARGET
ECONOMIC			
Annual ready-mix sales derived from products with outstanding sustainable attributes (%)	30		≥ 25
ENVIRONMENTAL			
Alternative fuels rate (%)	27.1	35	
Reduction in CO ₂ emissions per ton of cementitious vs. 1990 baseline (%)	21.6	25	
Clinker produced with continuous monitoring of major emissions (CEMS) dust, NO _x , SO _x (%)	98	100	
Reduction in dust emissions per ton of clinker from 2005 baseline (%)	87		≥ 70
Reduction in NO _x emissions per ton of clinker from 2005 baseline (%)	45		≥ 40
Reduction in SO _x emissions per ton of clinker from 2005 baseline (%)	64		≥ 55
Quarries with high biodiversity value where Biodiversity Action Plans (BAPs) are implemented (%)	91	100	
SOCIAL			
Community partners (i.e., individuals positively impacted by our social initiatives) (million people since 1998)	16.1		≥ 15
GOVERNANCE			
Total fatalities (employees, contractors and third parties) (No.)	13	0	
Employee Lost Time Injury Frequency Rate (per million hours worked)	0.5	0.3	
Countries that conduct regular customer satisfaction surveys (%)	100		≥ 90
Global procurement spend assessed under the Supplier Sustainability Program (%)	37		≥ 55
Employees that perceive they are enabled to perform their job effectively [PEI - Performance Enablement Index] (%)	77 ⁽¹⁾	83	
Employees that are engaged with the company (EEI - Employee Engagement Index) (%)	76 ⁽²⁾	80	
Executives and employees actively aware of our Code of Ethics (%)	77 ⁽²⁾		≥ 90
Target countries that participated on Global Compliance Program covering antitrust, anti-bribery and insider trading (%)	100		≥ 90
Ethics and compliance cases reported in the year that were investigated and closed (%)	77		≥ 90

⁽¹⁾ Results from bi-annual survey. Last one applied in 2017

⁽²⁾ Results from survey performed every 3 years. Last one executed in 2016

Direct Economic Impacts

In millions of US dollars As of December 31, 2018	IFRS 2016	IFRS 2017	IFRS 2018
CUSTOMERS: Net sales ⁽¹⁾	13,327	13,635	14,375
SUPPLIERS: Cost of sales and operating expenses ⁽²⁾	8,558	8,971	9,566
EMPLOYEES AND THEIR FAMILIES: Wages and benefits ⁽³⁾	2,012	2,090	2,251
INVESTMENTS: CAPEX ⁽⁴⁾ plus working capital	99	308	809
CREDITORS: Net financial expense	985	821	651
GOVERNMENT: Taxes	299	249	227
COMMUNITIES: Donations as % of pre-tax income	0.38%	0.76%	0.69%
SHAREHOLDERS: Dividends ⁽⁶⁾	0	0	0
OTHERS	(1)	46	110
FREE CASH FLOW FROM DISCONTINUED OPERATIONS ⁽⁷⁾	(60)	(6)	(1)
CONSOLIDATED FREE CASH FLOW	1,431	1,151	756
NET INCOME (LOSS) before taxes & non controlling interest net income (loss)	941	726	805

(1) Excludes sales of assets

(2) Excludes depreciation and amortization

(3) Wages and benefits include non-operational and operational employees

(4) Capital expenditures for maintenance and expansion

(5) Donations as percentage of pre-tax income

(6) Dividends paid in cash

(7) Free Cash Flow from Pacific Northwest, Pipe and Brazil operations

Our Sustainability Credentials

MEMBER OF
**Dow Jones
 Sustainability Indices**
 In Collaboration with RobecoSAM

DOW JONES SUSTAINABILITY MILA PACIFIC ALLIANCE INDEX

CEMEX S.A.B. de C.V. was included in this new Index launched by S&P Dow Jones Indices (S&P DJI), International Finance Corporation (IFC), RobecoSAM and the Exchanges of the Mercado Integrado Latinoamericano (MILA).



FTSE4Good

FTSE4GOOD INDEX SERIES

CEMEX became a member of this Index created by the global index provider FTSE Russell to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices.



2017 Constituent
 MSCI ESG
 Leaders Indexes

MSCI EM LATIN AMERICA ESG LEADERS INDEX

CEMEX S.A.B. de C.V. was selected as member of the MSCI ESG Leaders Indexes constructed by applying a Best-in-Class selection process to companies in the regional indexes that make up MSCI ACWI.



CDP

In 2018, we received a B from CDP. This score puts us as one of the few building materials companies in CDP's Leadership group.



MEXICAN STOCK EXCHANGE SUSTAINABILITY INDEX

CEMEX remained in this index, as it has been since the Index inception in 2011, and received the highest Sustainability total score among all constituents.

KPMG Limited Security Assurance Report



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Limited Security Assurance Report on Key Indicators of Sustainability Performance (Non-Financial Information)

To the Board of Directors of CEMEX, S.A.B. de C.V.

We were hired by the Administration of CEMEX, S.A.B. de C.V. (hereinafter referred to "CEMEX") to report on the indicators prepared and presented by the Corporate Sustainability Division of CEMEX ("the Indicators") contained in the CEMEX 2018 Integrated Report, for the period from January 1st to December 31st, 2018 ("the Report"), as detailed in the following paragraph, in the form of a conclusion independent of limited security, as to whether, based on our work and the evidence obtained, nothing drew our attention, which led us to believe that the Indicators are not prepared in all material aspects, in accordance with the criteria established in the *Standard for Sustainability Assurance A11000IP* (Accountability Principle Standard, 2018), the standards of the Cement Sustainability Initiative ("CSI") of the World Business Council for Sustainable Development ("WBCSD") and with the internal procedure of CEMEX called *Environmental Incident Reporting Procedure*.

The indicators that are the object of the limited security work were the following:

Scope 1 and 2 of CO₂ emissions according to the *Cement CO₂ and Energy Protocol: CO₂ and Energy Accounting and Reporting Standard for the Cement Industry* (version 3.0) of the WBCSD-CSI, presenting:

- Absolute gross and net emissions of CO₂
- Specific gross and net emissions of CO₂
- Indirect emissions of CO₂

Our work consisted in visiting nine cement plants located across the regions where CEMEX operates. This accounted for 18.1% of the total CO₂ emissions of scope 1 and 2 of CEMEX and 19.4% of total dust, NO_x and SO_x emissions.

Health and safety indicators according to *Safety in the Cement Industry: Guidelines for measuring and reporting* (version 4.0) of the WBCSD-CSI, including:

- Number of fatalities for employees, contractors and third parties
- Fatality rate for employees
- Number of Lost Time Injuries for employees and contractors
- Lost Time Injury Rate for employees and contractors
- Lost Time Injury Severity Rate for employees

Indicators of other emissions according to the *Guidelines for Emission Monitoring and Reporting in the Cement Industry* (version 2.0) of the WBCSD-CSI, including:

- Overall coverage rate
- Coverage rate of continuous emissions monitoring
- Absolute and specific dust emissions
- Absolute and specific NO_x emissions
- Absolute and specific SO_x emissions

Water indicators, according to the *Protocol for Water reporting in the Cement Industry of the WBCSD-CSI*, including:

- Total water withdrawal by source GRI 303-1 for cement plant



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Number of Environmental Incidents Category 1 and 2 as defined in the internal procedure of CEMEX called *Environmental Incident Reporting Procedure*.

Responsibilities of the Administration

The Corporate Sustainability Department is responsible for preparing the information subject to our review, free of material deviations, in accordance with the criteria. It is also in charge of preventing and detecting fraud, as well as identifying and ensuring that CEMEX complies with the laws and regulations applicable to its activities. It is its duty to ensure that the personnel involved in the preparation of the Indicators is adequately trained, the information systems are duly updated and that any change in the presentation of data and / or in the form of reporting, includes all the units of significant reports.

Our responsibility

Our responsibility is to review the information concerning the Indicators contained in the Report and report on it in the form of an independent conclusion of limited security based on the evidence obtained. We perform our work based on the International Standard on Assurance Works (ISAE) 3000, *Assurance Works Other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform our procedures to obtain an adequate level of safety or limited reliability with respect to whether, based on our work and the evidence obtained, nothing caught our attention which led us to believe that the Indicators contained in the Report for the period from January 1st to December 31st, 2018, are not prepared in all material aspects, in accordance with the criteria established in the *Sustainability Assurance Standard, IA1000/UP (Accountability Principle Standard, 2018)*, the standards of the Initiative for Cement Sustainability ("CSI") of the World Business Council for Sustainable Development ("WBCSD") and with the internal procedure of CEMEX called *Environmental Incident Reporting Procedure*.

KPMG Cárdenas Dosal, S.C. (the Firm) applies the *International Standard on Quality Control 1 and*, therefore, maintains a comprehensive quality control system, including documented policies and procedures on compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have complied with the requirements of independence and other ethical requirements of the *Code of Ethics for Professional Accountants* issued by the Council of International Standards of Ethics for Accountants, which is based on the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The selected procedures depend on our understanding and experience in the Indicators presented in the Report and other circumstances of the work, and our consideration of the areas in which material errors are likely to arise.

By obtaining an understanding of the Indicators contained in the Report and other circumstances of the work, we have considered the process used to prepare the Indicators, with the purpose of designing assurance procedures that are adequate in the circumstances, but not with the purpose of expressing a conclusion as to the effectiveness of the internal control of CEMEX on the preparation of the Indicators presented in the Report.

Our work also includes the evaluation of the appropriateness of the main issue, the suitability of the criteria used by CEMEX in the preparation of the Indicators, assessing the appropriateness of the methods, policies and procedures, as well as models used.



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The procedures applied in a work of limited security differ in nature, opportunity and scope that in a work of reasonable security. Therefore, the level of assurance obtained in a limited security job is significantly less than the assurance that would have been obtained in the case of performing a reasonable security work.

Criteria

The criteria on which the preparation of the Indicators has been evaluated refer to the requirements established by the Cement Sustainability Initiative ("CSI") of the World Business Council for Sustainable Development ("WBCSD") and in accordance with the definition of the internal procedure of CEMEX called *Environmental Incident Reporting Procedure*.

Conclusion

Our conclusion is based on, and is subject to what is detailed in this report.

We believe that the evidence we have obtained provides a sufficient and adequate basis for our conclusion.

Based on our review and the evidence obtained, we were not aware of any situation that makes us think that the Indicators mentioned in the second paragraph of this report, prepared by the Corporate Sustainability Direction and contained in the CEMEX 2018 Integrated Report for the period from January 1st to December 31st, 2018, are not prepared in all material aspects, in accordance with the criteria established in the *Sustainability Assurance Standard, IA1000/UP (Accountability Principle Standard, 2018)*, the Cement Sustainability Initiative ("CSI") standards of the World Business Council for Sustainable Development ("WBCSD") and with the internal procedure of CEMEX called *Environment to the Incident Reporting Procedure*.

Restriction of use of our report

Our report should not be considered as suitable for use or considered by any of the parties wishing to acquire rights before us, other than the Sustainability Direction and the CEMEX Board of Directors, for any purpose or under any other context. Any party other than those mentioned above who obtains access to our report or a copy thereof and chooses to rely on our report (or any part of it) will do so at its own risk. To the extent permitted by law, we do not accept or assume any responsibility and deny any responsibility for our work to any party other than CEMEX for this independent limited security report or for the conclusions we have reached.

Our report is issued to CEMEX, S.A.B de C.V., on the understanding that this report should not be copied, referenced or disclosed in whole or in part without our prior written consent.

KPMG, Cárdenas Dosal S.C.

Alberto Dosal Montero
 Monterrey, Nuevo León, March, 25th, 2019.



About this Report

A **stronger** reporting to better inform on our progress

SINCE 2016

OUR INTEGRATED REPORTS aim to provide a holistic analysis of the company's strategic vision, performance, governance, and value creation

Scope and Boundaries

GENERAL CONSIDERATIONS

CEMEX, S.A.B. de C.V. is incorporated as a publicly traded variable stock corporation (sociedad anónima bursátil de capital variable) organized under the laws of Mexico. Except as the context otherwise may require, references in this integrated report to "CEMEX," "we," "us" or "our" refer to CEMEX, S.A.B. de C.V. and its consolidated entities.

REPORTING SCOPE

CEMEX began publishing Environmental, Health, and Safety (EHS) reports in 1996, and has annually published its Sustainable Development Reports since 2003, covering a broad range of issues related to economic, environmental, social, and governance performance.

Since 2016, our Integrated Reports are intended to provide a holistic analysis of the company's strategic vision, performance, governance, and value creation, while fostering a more in-depth understanding of the financial and non-financial key performance indicators that the company uses to manage its business over the short, medium, and long term.

BOUNDARY AND REPORTING PERIOD

In preparation of this report, we consolidated information from all of our countries and operations. It covers our global cement, ready-mix concrete, and aggregates business lines, presenting our financial and non-financial performance, progress, achievements, and challenges for the 2018 calendar

year, which is also the company's fiscal year. Our materiality analysis guided our reporting process, and the issues included in this report particularly match those that CEMEX management and our stakeholders found of highest importance for our operations, as reflected in our recently updated Materiality Matrix covering both financial and sustainability issues.

Unless otherwise indicated, the information provided in this report is for the company as a whole. We have included information for the operations in which we have financial and operative control. If a plant is sold, its information is no longer included in our data or considered in our targets. If we have restated certain data sets from previous years because of improvements to our data-collection systems or changes to our business, each case is clearly marked. Unless something else is explicitly indicated, all monetary amounts are reported in U.S. dollars. All references to "tons" are to metric tons.

The information in our 2018 Integrated Report came from several sources,

including internal management systems and performance databases, as well as annual surveys applied across all of our countries.

We continually aim to improve the transparency and completeness of each report that we produce, while streamlining our processes and the way in which we provide information. To this end, we include a limited assurance statement from KPMG, an independent organization that verified the data and calculation process for our annual indicators associated with CO₂ and other emissions, health and safety, environmental incidents, and water.

In addition, we continued the engagement with our External Advisory Panel, whose members provide very valuable and objective feedback on our reporting every year.

DATA MEASUREMENT TECHNIQUES

We employ the following protocols and techniques for measuring the sustainability key performance indicators (KPI) that we report:

CO₂ emissions: CEMEX reports absolute and specific CO₂ emissions following the latest version of the Cement Sustainability Initiative (CSI) Protocol, denominated: Cement CO₂ and Energy Protocol, version 3.0, published in May 2011. It considers direct emissions occurring from sources that are owned or controlled by the company, excluding those from the combustion of biomass that are reported separately (Scope 1) and indirect emissions from the generation of purchased electricity consumed in the company's owned or controlled equipment (Scope 2). Historical data shall remain unchanged given that the previous protocol is closely aligned with the simple methods for the reporting of CO₂ emissions from calcination. For countries covered by the European Union Emission Trading System (EU ETS), CO₂ data corresponds to the one validated by an independent verifier in accordance with the applicable Accreditation and Verification Regulation.

Dust, NO_x and SO_x emissions: Absolute and specific figures are calculated based on kiln measurements taken from Continuous Emissions Monitoring Systems (CEMs) (in those sites where kilns are equipped with such technology) or spot analysis. These methods fully comply with the CSI Guidelines for Emissions Monitoring and Reporting. All information is reported to CEMEX databases, processed, calculated, and validated to provide a final group value.

The values are calculated in Standard for 0°C, 1 atmosphere and 10% Oxygen (O₂) content at measuring point. Energy: Fuel consumption indicators are reported to internal CEMEX databases in which "conventional," "alternative," and "biomass fuels" are classified according to the CSI Cement CO₂ Protocol spreadsheet. Heat values are obtained from on-site analysis (where applicable), value provided by supplier or standards from the CSI Guidelines for the Selection and Use of Fuels and Raw Materials in the Cement Manufacturing Process.

Clinker factor and alternative fuels: All material consumption is reported to internal CEMEX databases in which "alternative materials" are defined following the standards from the CSI Guidelines for the Selection and Use of Fuels and Raw Materials in the Cement Manufacturing Process. The "clinker/cement factor" is calculated using the CSI procedures indicated in Cement CO₂ and Energy Protocol spreadsheet with information obtained from the databases.

Health and safety: SISTER, which is an internal database, collects all related health and safety information from each site and automatically provides the appropriate information to calculate the indicators. The database is configured using the CSI definitions. H&S indicators are calculated according to the Cement Sustainability Initiative (CSI) Safety in the Cement Industry: Guidelines for measuring and reporting v 4.0

ALIGNMENT WITH GLOBAL REPORTING INITIATIVE (GRI) REPORTING FRAMEWORK

In order to enhance our sustainability communication to our stakeholders and comply with internationally agreed disclosures and metrics, CEMEX uses the Global Reporting Initiative (GRI) guidelines to prepare its Sustainable Development Reports. From 2008 to 2013, we met an application level of A+ using GRI-G3. From 2014 to 2016 we applied the GRI-G4 Guidelines.

Starting in 2017, we have migrated to the GRI Standards. For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. Furthermore, our GRI Content Index is cross referenced to the UN Global Compact (UNGC) principles, as well as to the UN Sustainable Development Goals (SDGs). Furthermore, we have submitted the current report to the GRI requesting the Materiality Disclosures Service which is reflected in the corresponding GRI mark.

This report has been prepared in accordance with the GRI Standards: Comprehensive option. To access our 2018 GRI Content Index go to <https://www.cemex.com/sustainability/reports/global-reports>

UNITED NATIONS GLOBAL COMPACT - COMMUNICATION ON PROGRESS

This report also constitutes our Communication on Progress (CoP) toward the commitments of the UN Global Compact (UNGC). As a recently enrolled participant in the UNGC, we work to align our company's operations and strategies with its 10 principles. As demonstrated within the content of this report, we are also committed to helping the world meet the targets of the Kyoto Protocol and contribute to the achievement of the UN Sustainable Development Goals (SDGs).

External Advisory Panel Members and Statement

The Advisory Panel (henceforth referred to as “the Panel”) recognizes this Integrated Report as an effort to provide all stakeholders with a holistic overview of CEMEX’s strategic vision, drivers of value creation, operating performance, governance, and an understanding of the key financial and non-financial topics that shape the business today, and that are likely to shape the business in the future.

SCOPE OF OUR REVIEW

Similar to previous years, the Sustainability Reporting Advisory Panel reviewed an advanced draft of CEMEX 2018 Integrated Report: Building a stronger CEMEX. The Advisory Panel members first convened in February 2019 to discuss the evaluation and advisory process, before being submitted the report in March, having about two weeks to review the report and discuss their recommendations. The Panel members shared with management detailed comments and specific suggestions for improvement in reporting and activities in general. The comments of the report concern both current activities, recommendations, and strategic ideas worth exploring in the future.

REPORTING FRAMEWORK, STYLE AND IMPROVEMENTS

The Panel appreciates the improvements in the formatting of the report. The report is easy to read, the infographics are attractive and effectively transmit valuable information, and the structure of the chapters is intuitively organized. The format of the report works well to demonstrate remarkable progress (e.g. in the context of the SDGs), but it also clearly recognizes the risks the company faces in other areas and what the firm is doing to mitigate the impact of these risks (e.g. emissions, safety, etc.).

The Panel is also pleased with the continued commitment to more closely align the report with the Global Reporting Initiative (GRI) Standards, which

helps focus the analysis on the most material aspects in the business. This process also promotes integrated thinking and strategy across the organization, and underscores CEMEX’s clear commitment to executing a business strategy that includes social and environmental leadership in the sector.

GOVERNANCE AND DIVERSITY

The panel recognizes that the CEMEX Board currently has an independent majority (9, up from 7 last year), which enables it to more effectively fulfill its critical function of overseeing management on behalf of shareholders. We also note that the board Chairman is an Insider of the executive board. This practice raises the risk of an overly powerful management, along with the risk of board level conflicts of interest. As such, the Panel encourages CEMEX to explore the ways that would allow an even greater degree of independence on the board level.

The Panel recognizes the additional work present in this report with respect to risk management, which offers the reader a good overview of the primary risks the company faces. However, the



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MARGARETH FLÓREZ
Executive Director of RedAmérica



RAMÓN PÉREZ GIL
Ex-Global Counselor, International Union for the Conservation of Nature (IUCN)



MARTIN HOLLANDS
Senior Advisor on Business and Biodiversity with BirdLife International

To learn more about our Advisory Panel members visit: <https://www.cemex.com/sustainability/reports/external-advisory-panel>

Board of Directors does not exhibit any specialized competence in risk management. Moreover, the Board could consider implementing more comprehensive incentives that link pay to the achievement of sustainability goals. And finally, the Panel recommends improvements with respect to executive pay disclosures, which are common for most peers.

The Panel also recognizes that the percentage of women in the work force has risen to around 15%. Still, this is low relative to peers, which are above 20% on average. On the board level, the Panel recognizes that all 15 board members are male. The panel recommends the consideration of qualified women for the next generation of board members, as this would demonstrate to the broader stakeholder community a commitment to board diversity. Several recent studies have shown that companies with too few female directors tend to be less effective and even underperform those whose boards are more diverse.

REPORTING AGAINST THE SUSTAINABLE DEVELOPMENT GOALS

The Panel commends the growing focus on the role CEMEX can play in terms aligning its business objectives with the Sustainable Development Goals (SDGs), with a particular focus on the direct contribution CEMEX makes to ten specific SDGs: Goal 1 No Poverty; Goal 3 Good Health and Well Being; Goal 4 Quality Education; Goal 5 Gender Equality; Goal 8 Decent Work and Economic Growth; Goal 9 Industry Innovation and Infrastructure; Goal 11 Sustainable Cities and Communities;

Goal 12 Responsible Consumption and Production; Goal 13 Climate Action; and Goal 15 Life on Land.

It is also in this context that the Panel recommends reporting on whether CEMEX is pivoting on any existing business strategies to maximize the impact the firm's operations have with respect to the SDGs. In other words, the Panel recommends reporting actively about how CEMEX is moving beyond simply mapping existing business activities into the SDG framework to actively adjusting legacy operations in efforts to optimize the firm's impact on the SDGs.

The Panel also recognizes that the CEMEX operations sometime work against the delivery of the SDGs (e.g. climate, biodiversity and water). As such, the report stresses the valuable work CEMEX leadership is undertaking to mitigate the impact of such operations. The risk here is that the mitigation of harmful impacts of business operations be conflated with initiatives that make an active, net-positive contribution to achieving the SDGs. Going forward, the Panel recommends making a clear distinction between reducing the impact of harmful operations and actively contributing to the SDGs.

CEMEX AND THE IMPORTANCE OF CLIMATE CHANGE

The Panel recognizes that CEMEX takes climate change very seriously. The Panel is encouraged to see the use of Science Based Targets, supportive of the Paris Agreement, and a clear framework for CEMEX targets in this context. Nonetheless, the Panel recommends broadening the discussion to include

some policy implications. And although there are clearly limits to what one company can do on this on its own, the Panel recommends CEMEX leadership to think boldly about potential solutions around carbon capture and to build new, effective alliances in this context.

MATERIALITY ASPECTS

The Panel recognizes the continued progress CEMEX has made with respect to building a Materiality Matrix in efforts to identify the issues most important to CEMEX and its stakeholders. The Materiality Matrix enables a more seamless identification of issues most relevant to stakeholders, including both risks and opportunities. The Panel is pleased with the construction of the framework being done in close alignment with the Global Reporting Initiative (GRI).

The Panel recommends considering the inclusion of the "Net Value" / True Cost calculations, which could be beneficial in terms of better understanding the materiality of sustainability issues, risks, and opportunities arising from environmental and social issues that are central to the business. Moreover, the Panel recommends introducing comments addressing the "internalization of externalities", which should help readers identify the key material environmental and social issues to the business.

Finally, the Panel encourages management to implement the Ruggie Principles, which should ideally include a plan of action to ensure their application. Moreover, the Panel recommends strengthening the scope and nuance of the key performance indicators with respect to social outcomes. The

Panel encourages a broader focus than merely measuring the "number of beneficiaries".

SAFETY

The panel is encouraged by the success of the Zero4Life goal – and particularly by the zero employee fatalities achieved in 2018. Still, with the majority of its operations focused on cement production, CEMEX employees and sub-contractors remain highly exposed to operational accidents, and thus carries risk to operational disruption and liability. The Panel commends the focus the CEMEX leadership has directed toward this important issue and is encouraged by the progress made over the last year. Still, given the importance of this section, the Panel recommends being as open and transparent as possible with respect to health and safety across the entire supply chain.

EMISSIONS AND OTHER ENVIRONMENTAL ISSUES

The Panel recognizes that CEMEX has exposure to the risk of increased costs linked to carbon regulations, based on its focus on cement production, which is clearly highly carbon-intensive. Adding to this risk, the Panel asserts that ca. 80% of the company's assets are located in locations with existing or impending carbon regulations. This reality elevates CEMEX's overall level of risk in this area relative to peers.

The company's carbon management strategy is vital to better manage the firm's business risks – i.e. focusing on alternative fuels utilization, low temperature clinkers, and improving thermal efficiency of clinker production.

This reflects an important potential to improve the firm's efficiency with respect to CO₂ emission per unit of cementitious products. Nonetheless, based on its current progress of 22% reduction in emission reduction per ton of cementitious products in 2018, CEMEX could very well still meet its reduction target of 25% by 2020.

In sum, the Panel recognizes that CEMEX commitment to reducing environmental impact is in line with industry standards. Going forward, the Panel recommends strengthening the execution of the company's current, already very strong policies on emissions.

SUPPLY CHAIN MANAGEMENT

The Panel acknowledges CEMEX's initiatives to support the use, expansion and monitoring of its suppliers with respect to best practice and code of conduct. Notwithstanding this holistic approach to supply chain responsibility, the Panel cautions that any excessive focus on "low cost sourcing" could also carry the risk that suppliers focus on cost reductions at the expense of environmental and social standards.

BIODIVERSITY

The panel is encouraged by the fact that 96% CEMEX's active quarries have framed a rehabilitation plan, and that the majority of those that operate within or adjacent to high biodiversity value areas have a biodiversity action plan in place. Indeed, the Panel recognizes that CEMEX has a good reputation for its commitments to address biodiversity issues through Biodiversity Action Plans (BAPs) in priority areas, the inclusion of biodiversity in rehabilitation planning,

and to 3rd party verification of its conservation efforts. Moreover, the CEMEX commitment to generate a net positive impact from their mining operations with respect to Biodiversity and Water is encouraging.

Nonetheless, the Panel notes that the firm's business activities involve substantial disturbance to land or habitat due to quarry exploitation. Additionally, the Panel notes that the company has substantial operations in regions with significant biodiversity or neighboring indigenous communities with traditional land use practices, so the topic of biodiversity and water is particularly relevant. Indeed, the material risk here is litigation, increased costs or even losing its license to operate.

With respect to the net positive impact, the Panel makes the following recommendations: 1) develop a clear definition and timeline of what would be needed at scale to realize this commitment, 2) include a clear framework of linking negative biodiversity impacts with their mitigation efforts, 3) development, testing and rollout of measurement metrics, 4) the development of a clear understanding of potential outcomes, 5) and explore avenues of 'net positive' certification for the USD18 million worth of biodiversity impacts.

ENERGY AND WATER CONSUMPTION

The Panel notes the company's still heavy reliance on fuel sources that cause high carbon emissions (in particular petroleum coke, from which the company sources nearly 40% of its energy). The Panel recommends taking

steps to communicate these challenges more transparently, and also to reduce this heavy reliance on high carbon emission fuel sources. At the same time, the Panel recognizes that the firm did achieve an alternative fuel substitution rate of 27% in the last year, so the framework for improvement seems to be in place. The Panel encourages further progress in this domain.

The Panel recognizes the strong CEMEX track record in water consumption. Indeed, water consumption is important to CEMEX, especially since the firm operates in water stressed regions in which pollution of this scarce resource and competition for use are potential risks. It is in this context that the Panel applauds the firm's efforts to reduce its water use over the last five years. In fact, CEMEX has increased its water efficiency significantly, mainly through its water re-use and conservation policy, which helped the company save one third of its water use over the last 5 years. Still, CEMEX has a USD 65 million water impact, so the initiatives are timely and topical.

HUMAN RIGHTS

The Panel commends the strong Human Rights Policy, which integrates sustainability requirements such as mandating suppliers to comply with this policy. In this way, CEMEX is able to exert more influence over its entire value chain via the "INTEGRATE Your Ideas" Innovation Program, its Workplace Diversity and Inclusion Policy, the renewed Human Rights Policy, and the new Code of Ethics and Business Conduct.

The Panel is also pleased to notice the progress being made with respect to ethics and internal human rights cases being brought to the fore. The fact that 630 incidents were reported to the Ethosline in 2018 (a 20% increase year-on-year) is disconcerting on the one hand, but also suggests a clear commitment to transparency and enforcing high ethical standards, on the other hand. This notion is also evidenced by the disciplinary actions that were instituted in 25% of the cases, resulting in 78 employee dismissals.

Looking ahead, a more detailed evolution of the trends and nature of the disciplinary actions taken for violation of the code of ethics would be helpful to the readers to assess the severity of the issues and progress made in its avoidance - and to also ascertain whether the violations could affect the reputational equity of the company in the broader stakeholder and community. Still, the Panel is encouraged by the strong internal processes that CEMEX has established with the Ethosline to collect information.

SOCIAL ISSUES

The Panel recognizes great progress and consistency in the incorporation of communities' sustainable development into the strategy and business model of CEMEX. Particularly, the Panel highlights the good result achieved by the implementation of the "Community Engagement Plans" in nearly 100% of cement operations. The creation of these spaces for dialogue will contribute to strengthening the relationship of the company with the communities, as well as the contributions to the development of sus-

tainable communities, both at the level of each territory and at a global level.

Moreover, the Panel acknowledges the excellent initiative "social innovation and environmental entrepreneurship" dedicated to conceiving disruptive ideas to create social, economic and environmental value. The Panel is of the opinion that such initiatives are set to find new opportunities to contribute to the creation of shared value, whether through products and services, operations with socio-environmental criteria, or the value networks and the promotion of sustainable communities.

Given such advances, the Panel encourages the CEMEX leadership to review the key performance indicators reported related to the social and community strategy such that the results can seamlessly be mapped against the objectives set. This measure should also allow an improved monitoring of the effectiveness of the initiatives (e.g. capacities built up, levels of inclusion, income, jobs, etc.), and the returns for the company.

Finally, as the dialogues with the communities spread throughout the CEMEX operations, it would be interesting and relevant to report the number of conflicts presented and handled. In this way, it will be possible to show the commitment of CEMEX to maintain a constructive and harmonious relationship with the environment. A good relationship is not free of conflicts and tensions, and that's why the Panel finds it important to preserve the participation of all the relevant actors and build up confidence among them.

CONCLUDING REMARKS

The Panel recognizes the company's goal of becoming a global leader in sustainable construction. To this end, the Panel also acknowledges the firm's proactive approach to integrating material environmental, social and governance considerations into the firm's operating strategy. Indeed, the report implies that sustainability performance provides the foundation for sustainable profits in the future.

This year's integrated report demonstrates that this journey already includes multiple broad-scale initiatives toward becoming a leader in sustainable construction. A key component of this journey will also certainly be a consistent commitment to keeping the firm's safety record intact - or even improving it. The Panel is convinced that further improvement in this area are possible and even likely, not least due to management's serious and public commitment to the Zero4Life goal.

We wish the company every success in the coming year, and remain grateful for the opportunity to offer our commentaries and recommendations in efforts to support CEMEX in its goal of becoming a global leader in sustainable construction.

Yours faithfully,

The CEMEX Advisory Panel on Sustainability

Terms We Use

FINANCIAL

bps (Basis Point) is a unit of percentage measure equal to 0.01%, used to measure the changes to interest rates, equity indices, and fixed-income securities.

Free cash flow CEMEX defines it as operating EBITDA minus net interest expense, maintenance capital expenditures, change in working capital, taxes paid, and other cash items (net other expenses less proceeds from the disposal of obsolete and/or substantially depleted operating fixed assets that are no longer in operation). Free cash flow is not a GAAP measure.

LIBOR (London Interbank Offered Rate) is a reference rate based on the interest rates at which banks borrow unsecured funds from other banks in London.

Maintenance capital expenditures CEMEX defines it as investments incurred with the purpose of ensuring the company's operational continuity. These include capital expenditures on projects required to replace obsolete assets or maintain current operational levels and mandatory capital expenditures, which are projects required to comply with governmental regulations or company policies. Maintenance capital expenditures are not a GAAP measure.

Net working capital CEMEX defines it as net trade accounts receivables plus inventories plus other accounts receivable including advanced payments minus trade payables minus operative taxes excluding income tax minus other accounts payable and accrued expenses. Working capital is not a GAAP measure.

Operating EBITDA CEMEX defines it as operating earnings before other expenses, net, plus depreciation and amortization. Operating EBITDA does not include revenues and expenses that are not directly related to CEMEX's main activity, or which are of an unusual or non-recurring nature under International Financial Reporting Standards (IFRS). Operating EBITDA is not a GAAP measure.

pp equals percentage points.

Strategic capital expenditures CEMEX defines it as investments incurred with the purpose of increasing the company's profitability. These include capital expenditures on projects designed to increase profitability by expanding capacity, and margin improvement capital expenditures, which are projects designed to increase profitability by reducing costs. Strategic capital expenditures are not a GAAP measure.

TIE (Tasa de Interés Interbancaria de Equilibrio) is a measure of the average cost of funds in pesos in the Mexican interbank money market.

Total debt CEMEX defines it as short-term and long-term debt plus convertible securities, liabilities secured with account receivables, and capital leases. Total debt is not a GAAP measure.

INDUSTRY

Aggregates are sand and gravel, which are mined from quarries. They give ready-mix concrete its necessary volume and add to its overall strength. Under normal circumstances, one cubic meter of fresh concrete contains two tons of gravel and sand.

Clinker is an intermediate cement product made by sintering limestone, clay, and iron oxide in a kiln at around 1,450 degrees Celsius. One ton of clinker is used to make approximately 1.1 tons of Gray Portland cement.

Fly ash is a combustion residue from coal-fired power plants that can be used as a non-clinker cementitious material.

Gray Portland cement is a hydraulic binding agent with a composition by weight of at least 95% clinker and 0-5% of a minor component (usually calcium sulfate). It can set and harden underwater and, when mixed with aggregates and water, produces concrete or mortar.

Metric ton is the equivalent of 1,102 short tons.

Petroleum coke (petcoke) is a by-product of the oil refining coking process.

Ready-mix concrete is a mixture of cement, aggregates, and water.

Slag is the by-product of smelting ore to purify metals.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of the U.S. federal securities laws. We intend these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements in the U.S. federal securities laws. In some cases, these statements can be identified by the use of forward-looking words such as "may," "assume," "might," "should," "could," "continue," "would," "can," "consider," "anticipate," "estimate," "expect," "plan," "believe," "foresee," "predict," "potential," "target," "strategy," "intend" or other similar words. These forward-looking statements reflect our current expectations and projections about future events based on our knowledge of present facts and circumstances and assumptions about future events. These statements necessarily involve risks and uncertainties that could cause actual results to differ materially from our expectations. Some of the risks, uncertainties and other important factors that could cause results to differ, or that otherwise could have an impact on us or our subsidiaries, include:

- › the cyclical activity of the construction sector;
- › our exposure to other sectors that impact our business, such as but not limited to the energy sector;
- › competition;
- › availability of raw materials and related fluctuating prices;
- › general political, social, economic and business conditions in the markets in which we operate or that affect our operations and any significant economic, political or social developments in those markets, as well as any inherent risks to international operations;
- › the regulatory environment, including environmental, tax, antitrust, and acquisition-related rules and regulations;
- › our ability to satisfy our obligations under our material debt agreements, the indentures that govern our senior secured notes and our other debt instruments;
- › the availability of short-term credit lines, assisting in connection with market cycles;
- › the impact of our below investment grade debt rating on our cost of capital;
- › loss of reputation of our brands;
- › our ability to consummate asset sales, fully integrate newly acquired businesses, achieve cost-savings from our cost-reduction initiatives and implement our global pricing initiatives for our products;
- › the increasing reliance on information technology infrastructure for our sales invoicing, procurement, financial statements and other processes that can adversely affect our sales and operations in the event that the infrastructure does not work as intended, experiences technical difficulties or is subjected to cyber-attacks;
- › changes in the economy that affect demand for consumer goods, consequently affecting demand for our products;
- › weather conditions, including disasters such as earthquakes and floods;
- › trade barriers, including tariffs or import taxes and changes in existing trade policies or changes to, or withdrawals from, free trade agreements, including the United States-Mexico-Canada Agreement (USMCA), if it comes into effect, and the North American Free Trade Agreement (NAFTA), both of which Mexico is a party to;
- › terrorist and organized criminal activities as well as geopolitical events;
- › declarations of insolvency or bankruptcy, or becoming subject to similar proceedings;
- › natural disasters and other unforeseen events; and
- › other risks and uncertainties described under "Item 3—Key Information—Risk Factors" of our 2017 annual report and under "Risk Factors" in this report. Readers are urged to read this report and carefully consider the risks, uncertainties and other factors that affect our business. The information contained in this report is subject to change without notice, and we are not obligated to publicly update or revise forward-looking statements after the date hereof or to reflect the occurrence of anticipated or unanticipated events or circumstances.

Investor, Media and Sustainability Information

EXCHANGE LISTINGS



BOLSA MEXICANA DE VALORES (BMV)
Mexico
Ticker symbol: **CEMEXCPO**
Share series: **CPO**
(representing two A shares and one B share)

CX
LISTED
NYSE

NEW YORK STOCK EXCHANGE (NYSE)
United States
Ticker symbol: **CX**
Share series: **ADS**
(representing 10 CPOs)

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FEEDBACK

We welcome your feedback on our reporting and performance.

Please send your comments and suggestions to:

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