Risk Factors

We are subject to various risks mainly resulting from changing economic, environmental, political, industry, business, regulatory, financial and climate conditions, as well as risks related to ongoing legal proceedings and investigations. The following risk factors are not the only risks we face, and any of the risk factors described below could significantly and adversely affect our business, liquidity, results of operations or financial condition, as well as, in certain instances, our reputation.

Risk Factor Summary

Risks Relating to Ownership of Our Securities

- Non-Mexicans may not hold CEMEX, S.A.B. de C.V.'s Series A shares directly and must have them held in a trust at all times.
- ADS holders may only vote the Series B shares represented by the CPOs deposited with the ADS depositary through the ADS depositary and are not entitled to vote the Series A shares represented by the CPOs deposited with the ADS depositary or to attend shareholders' meetings.
- Corporate rights may not be available to any person that acquires 2% or more of CEMEX, S.A.B. de C.V.'s voting shares without the approval of its board of directors.
- Preemptive rights generally available under Mexican law may be unavailable to ADS holders.
- The protections afforded to shareholders in Mexico are different from those in other countries and may be more difficult to enforce.

Risk Relating to Our Business and Operations

- The COVID-19 pandemic could materially adversely affect our financial condition and results of operations.
- Economic conditions in countries where we operate and in other regions or countries may adversely affect our business, financial condition, liquidity and results of operations.
- The war between Russia and Ukraine may have a material adverse effect on our business, financial condition, liquidity and results of operation.
- High energy and fuel costs may have a material adverse effect on our operating results.
- We are subject to restrictions and reputational risks resulting from non-controlling interests held by third parties in our consolidated subsidiaries. We control four publicly listed companies, where this risk is heightened.
- Our use of derivative financial instruments has negatively affected, and any new derivative financial instruments could negatively affect our operations, especially in volatile and uncertain markets.
- Political, social and geopolitical events, possible changes in public policies and other risks in some of the countries where we operate, which are inherent to the operations of an international company, could have a material adverse effect on our business, financial condition, liquidity and results of operations.
- We are increasingly dependent on information technology and our systems and infrastructure, as well as those provided by third-party service providers, face certain risks, including cyber-security risks.
- We may fail to secure certain materials required to run our business.
- We may not be able to realize the expected benefits from any acquisitions or joint ventures, some of which may have a material impact on our business, financial condition, liquidity and results of operations. Any failure to realize expected benefits from the bolt-on acquisitions of our "Operation Resilience" strategy heightens this risk.

- We operate in highly competitive markets with numerous players employing different competitive strategies and if we do not compete effectively, our revenues, market share and results of operations may be affected.

Risk Relating to Our Indebtedness and Certain Other Obligations

- The 2021 Credit Agreement, the indentures governing our outstanding Notes and our other debt agreements and/or instruments contain several restrictions and covenants. Our failure to comply with such restrictions and covenants or any inability to capitalize on business opportunities or refinance our debt resulting from them could have a material adverse effect on our business and financial conditions.
- The elimination of the London Inter-Bank Offered Rate ("LIBOR") after June 2023 may affect our financial results.
- We have a substantial amount of debt and other financial obligations. If we are unable to secure refinancing on favorable terms or at all, we may not be able to comply with our payment obligations upon their maturity. Our ability to comply with our principal maturities and financial covenants may depend on us implementing certain initiatives, including, but not limited to, "Operation Resilience," 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 may not be able to generate sufficient cash to service our indebtedness or satisfy our short-term liquidity needs, and we may be forced to take other actions to do so, which may not be successful.
- CEMEX, S.A.B. de C.V.'s ability to repay debt and pay dividends is highly dependent on our subsidiaries' ability to transfer income and dividends to us. We control four publicly-listed companies, where this risk is heightened.
- We have to service part of our debt and other financial obligations denominated in Dollars and Euros with revenues generated in Mexican Pesos or other currencies, as we do not generate sufficient revenue in Dollars and Euros from our operations to service all our debt and other financial obligations denominated in Dollars and Euros. 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 Dollar and Euro. In addition, our consolidated reported results and outstanding indebtedness are significantly affected by fluctuations in exchange rates between the Dollar (our reporting currency) vis-à-vis the Mexican Peso and other significant currencies within our operations.

Risk Relating to Regulatory and Legal Matters

- We are subject to the laws and regulations of the countries where we operate and do business and non-compliance, any material changes in such laws and regulations and/or any significant delays in assessing the impact and/or adapting to such changes may have an adverse effect on our business, financial condition, liquidity and results of operations.
- We or our third-party providers may fail to maintain, obtain or renew or may experience material delays in obtaining requisite governmental or other approvals, licenses and permits for the conduct of our business.
- We are subject to litigation proceedings, including government investigations relating to corruption and antitrust proceedings, that could harm our business and our reputation.
- We are subject to anti-corruption, anti-bribery, anti-money laundering and antitrust laws and regulations in the countries in which we operate, some of which are considered high-risk countries. Any violation of any such laws or regulations could have a material adverse impact on our reputation, results of operations and financial condition.

- Our operations are subject to environmental laws and regulations that are increasingly stringent.
- It may be difficult to enforce civil liabilities against us or the members of CEMEX, S.A.B. de C.V.'s board of directors, our senior management and controlling persons.

Risks Relating to Ownership of Our Securities

Non-Mexicans may not hold CEMEX, S.A.B. de C.V.'s Series A shares directly and must have them held in a trust at all times.

Non-Mexican investors and Mexican companies without a foreign investment-exclusion clause in their bylaws may not directly hold the Series A shares underlying CEMEX, S.A.B. de C.V.'s CPOs or ADSs, but may hold them indirectly through CEMEX, S.A.B. de C.V.'s CPO trust. Upon the early termination or expiration of the term of CEMEX, S.A.B. de C.V.'s CPO trust on September 6, 2029, the Series A shares underlying the CPOs held by non-Mexican investors or by Mexican companies without a foreign investment-exclusion clause in their bylaws must be placed into a new trust similar to the current CPO trust. We cannot guarantee that a trust similar to the CPO trust will exist or that the relevant authorization for the transfer of our Series A shares to such a trust will be obtained. In that event, such investors might be required to sell their Series A shares to a Mexican individual or corporation that has a foreign investment-exclusion clause in its bylaws, which could expose shareholders to a loss in the sale of the corresponding Series A shares and may cause the price of our CPOs and ADSs to decrease.

ADS holders may only vote the Series B shares represented by the CPOs deposited with the ADS depositary through the ADS depositary and are not entitled to vote the Series A shares represented by the CPOs deposited with the ADS depositary or to attend shareholders' meetings.

Any person acquiring ADSs should be aware of the terms of the ADSs, the corresponding deposit agreement pursuant to which the ADSs are issued (the "Deposit Agreement"), the CPO Trust (as defined in the Deposit Agreement) and CEMEX, S.A.B. de C.V.'s by-laws. Under such terms, a holder of an ADS has the right to instruct the ADS depositary to exercise voting rights only with respect to Series B shares represented by the CPOs deposited with the depositary, but not with respect to the Series A shares represented by the CPOs deposited with the depositary. ADS holders will not be able to directly exercise their right to vote unless they withdraw the CPOs underlying their ADSs (and, in the case of non-Mexican holders, even if they do so, they may not vote the Series A shares represented by the CPOs) and may not receive voting materials in time to ensure that they are able to instruct the depositary to vote the CPOs underlying their ADSs or receive sufficient notice of a shareholders' meeting to permit them to withdraw their CPOs to allow them to cast their vote with respect to any specific matter. Holders of ADSs will not have the right to instruct the ADS depositary as to the exercise of voting rights in respect of Series A shares underlying CPOs held in the CPO Trust. Under the terms of the CPO Trust, Series A shares underlying CPOs held by non-Mexican nationals, including all Series A shares underlying CPOs represented by ADSs, will be voted by the Trustee (as defined in the Deposit Agreement), according to the majority of all Series A shares held by Mexican nationals and Series B shares voted at the meeting. In addition, the depositary and its agents may not be able to send out voting instructions on time or carry them out in the manner an ADS holder has instructed. As a result, ADS holders may not be able to exercise their right to vote and they may lack recourse if the CPOs underlying their ADSs are not voted as they requested. In addition, ADS holders are not entitled to attend shareholders' meetings. ADS holders will also not be permitted to vote the CPOs underlying the ADSs directly at a shareholders' meeting or to appoint a proxy to do so without withdrawing the CPOs. If the ADS depositary does not receive voting instructions from a holder of ADSs in a timely manner such holder will nevertheless be treated as having instructed the ADS depositary to give a proxy to a person we designate, or at our request, the corresponding CPO trust's technical committee designates, to vote the Series B shares underlying the CPOs represented by the ADSs in his/her discretion. The ADS depositary or the custodian for the CPOs on deposit may represent the CPOs at any meeting of holders of CPOs even if no voting instructions have been received. The CPO trustee may represent the Series A shares and the Series B shares represented by the CPOs at any meeting of holders of Series A shares or Series B shares even if no voting instructions have been received. By so attending, the ADS depositary, the custodian or the CPO trustee, as applicable, may contribute to the establishment of a quorum at a meeting of holders of CPOs, Series A shares or Series B shares, as appropriate.

Corporate rights may not be available to any person that acquires 2% or more of CEMEX, S.A.B. de C.V.'s voting shares without the approval of its board of directors.

CEMEX, S.A.B. de C.V.'s by-laws provide that its board of directors must authorize in advance any transfer of voting shares of its capital stock that would result in any persons, or groups acting in concert, becoming a holder of 2% or more of CEMEX, S.A.B. de C.V.'s voting shares. In the event this requirement is not met, the persons acquiring such shares will not be entitled to any corporate rights with respect to such shares, such shares will not be taken into account for purposes of determining a quorum for shareholders' meetings, CEMEX, S.A.B. de C.V. will not record such persons as holders of such shares in its share registry and the registry undertaken by Indeval (as defined below) shall not have any effect.

Preemptive rights generally available under Mexican Law may be unavailable to ADS holders.

ADS holders may be unable to exercise preemptive rights granted to CEMEX, S.A.B. de C.V.'s shareholders, in which case ADS holders could be diluted following equity or equity-linked offerings. Under Mexican law, if CEMEX, S.A.B. de C.V. issues new shares, CEMEX, S.A.B. de C.V. would be generally required to grant preemptive rights to its shareholders, except in certain situations, including if such shares are issued in the context of a public offering or if such shares underlie convertible securities issued by CEMEX, S.A.B. de C.V. However, ADS holders may not be able to exercise these preemptive rights to acquire new shares unless (i) CEMEX, S.A.B. de C.V. files a registration statement with the SEC with respect to such shares or (ii) the offering of the shares qualifies for an exemption from registration under the U.S. Securities Act of 1933 (the "Securities Act"), as amended. We cannot assure you that CEMEX, S.A.B. de C.V. would file a registration statement in the United States that would allow holders of ADSs to participate in any preemptive rights offering. Under Mexican law, preemptive rights cannot be waived in advance or be assigned or be represented by an instrument that is negotiable separately from the corresponding shares. As a result of applicable United States securities laws, holders of ADSs may be restricted in their ability to exercise preemptive rights as provided in the Deposit Agreement with the ADSs depositary, as amended. Shares subject to a preemptive rights offering, with respect to which preemptive rights have not been exercised, may be sold by CEMEX, S.A.B. de C.V. to third parties on the terms and conditions previously approved by CEMEX, S.A.B. de C.V.'s shareholders or its Board of Directors. See "Item 10—Additional Information—Articles of Association and By-laws."

The protections afforded to shareholders in Mexico are different from those in other countries and may be more difficult to enforce.

Under Mexican law, the protections afforded to shareholders are different from those in the United States and countries in continental Europe. In particular, the legal framework and case law pertaining to directors' duties and disputes between shareholders and us, the members of CEMEX, S.A.B. de C.V.'s board of directors or our officers are less protective of shareholders under Mexican law than under U.S. and continental European law. Mexican law only permits shareholder derivative suits (i.e., suits for our benefit as opposed to the direct benefit of our shareholders) and there are procedural requirements for bringing shareholder derivative lawsuits, such as minimum holdings, which differ from those in effect in other jurisdictions. There is also a substantially less active plaintiffs' bar dedicated to the enforcement of shareholders' rights in Mexico than in the United States or Europe. As a result, in practice it may be more difficult for our shareholders to initiate an action against us or our directors or obtain direct remedies than it would be for shareholders of a U.S. or European company.

Risks Relating to Our Business and Operations

The COVID-19 pandemic could materially adversely affect our financial condition and results of operations.

The COVID-19 pandemic and new variants of the coronavirus have impacted the world, including the United States, Mexico, EMEAA and SCA&C. If there is any considerable growth in coronavirus cases, or if cases spread across different geographies or increase in severity, governments and health authorities around the world may continue to re-implement measures attempting to contain and mitigate the spread and effects of the virus. These measures, and the effects of the COVID-19 pandemic, have resulted, and may continue to result, in: (i) restrictions on, or suspended access to, or shutdown, or suspension or the halt of, our facilities, including our cement plants and grinding mills; (ii) staffing shortages, production slowdowns or stoppages and disruptions in our delivery systems; (iii) disruptions or delays in our supply chains, including shortages of materials, products and services on which we and our businesses depend; (iv) reduced availability of land and sea transport, including labor shortages, logistics constraints and increased border controls or closures; (v) increased cost of materials, products and services on which we and our businesses depend; (vi) reduced investor confidence and consumer spending in the regions where we operate and globally; (vii) a slowdown in economic activity, including in the construction industry, and a decrease in demand for our products and services and industry demand generally; (viii) constraints on the availability of financing, if available at all, including on access to credit lines and working capital facilities; (ix) inability to satisfy liquidity needs if our operating cash flow and funds received under receivables and inventory financing facilities decrease or if we are not able to obtain borrowings under credit facilities, proceeds of debt and equity offerings and/or proceeds from asset sales; (x) our inability to refinance our indebtedness on desired terms, if at all; or (xi) our inability to comply with, or receive waivers with respect to, restrictions and covenants under the agreements governing our indebtedness and financial obligations, including, but not limited to, maintenance covenants under our 2021 Credit Agreement. We consider that, as the effects and duration of the COVID-19 pandemic extend, there could be significant adverse effects in the future mainly in connection with: (i) impairment of long-lived assets including goodwill; (ii) foreign exchange losses related to our obligations denominated in foreign currency; (iii) increases in estimated credit losses on trade accounts receivable; and (iv) further disruption in supply chains.

As of the date of this annual report, China has reported a surge in COVID-19 cases. Over 19,000 COVID-19 cases were reported on April 15, 2022, which accounts for the highest number of cases reported in a single day in over two years. As a result of this surge in cases, government officials have imposed lockdowns in major cities, where non-essential activities have been limited, and mandatory quarantines have been imposed for individuals who are believed to have come into close contact with COVID-19 patients. These newly imposed restrictions could result in supply chain disruptions. During the COVID-19 pandemic, surges in COVID-19 cases in East Asia have gradually progressed to the Western hemisphere, and, if this trend continues, it is possible that this or other new surges in COVID-19 cases could reach the countries where we have our most significant operations, including, but not limited to, Mexico and the United States, and the adverse effects experienced in previous surges in COVID-19 cases could reoccur.

The weakness of the global economic environment and its adverse effects on our operating results may negatively affect our credit rating and the market value of our and our subsidiaries’ securities. If economic pressures continue or worsen, we may need to issue equity as a source to repay our existing or future indebtedness. Although we have been able to raise debt, equity and equity-linked capital in the past, conditions in the capital markets could be such that sources of capital may not be available to us on reasonable terms or at all. As a result, we cannot assure you that we will be able to raise debt and/or equity capital on terms favorable to us or at all.

Economic conditions in countries where we operate and in other regions or countries may adversely affect our business, financial condition, liquidity and results of operations.

The economic conditions in some of the countries where we operate have had and may continue to have a material adverse effect on our business, financial condition, liquidity and results of operations worldwide. Our results of operations are highly dependent on the results of our operating subsidiaries worldwide, including those in the United States, Mexico, EMEAA and SCA&C (as described in “Item 4—Information on the Company—Business Overview”).

For a geographic breakdown of our revenues for the year ended December 31, 2021, see “Item 4—Information on the Company—Geographic Breakdown of Revenues by Reporting Segment for the Year Ended December 31, 2021.”

As of the date of this annual report, we believe that the main risk factors for the global economy and the countries where we operate include, but are not limited to, the following: (i) emergence of further COVID-19 variants before widespread vaccination is reached or against which vaccination has limited effectiveness or is ineffective; (ii) continuation of persistent supply-demand mismatches, increasing inflation and a faster-than-anticipated monetary policy normalization cycle, and its impact on the global economy, emerging markets, risk aversion, foreign exchange markets, debt, and financial market volatility; (iii) escalation of social unrest; (iv) more adverse climate shocks; (v) an escalation of trade and technology tensions, notably between the United States and China, could weigh on investment and productivity growth, raising additional roadblocks in the recovery path; (vi) rapid growth of cryptocurrencies without clear regulation that could lead to financial instability with negative effects for the global economy; (vii) an increase in the spread and destructiveness of cyberattacks involving critical infrastructure could act as further drags on the recovery, particularly as telework and automation increase; and (viii) other geopolitical risks.

Since the beginning of 2021, inflation, as measured by the consumer price index has increased in advanced and emerging market economies, reaching record highs in Europe and breaking a 40-year record high in the United States, driven mainly by supply chain issues (including input shortages, labor constrains, and rising commodity prices), excess demand for goods and services, and significant increases in energy prices.

This combination of factors in addition to the risk that novel and more severe strains of the coronavirus may emerge, which could potentially intensify the existing supply issues, has raised concerns about the possibility of persistently high inflation and/or de-anchored inflation expectations, which could lead to higher, more persistent and volatile price increases. Inflation can deteriorate economic conditions in the countries where we operate and has caused and may continue to cause a rise in the costs of manufacturing our products, as well as an increase in related expenses, such as freight related expenses. Furthermore, our operations, mainly those in the United States and Europe, have historically not experienced inflationary pressures, and thus there is no assurance that they will be well-prepared to cope with them. Inflation and its related effects could have a material adverse effect on our business, financial condition, liquidity, and results of operations. See “Item 3—Key Information—Risk Factors—Risks Relating to Our Business and Operations—High energy and fuel costs may have a material adverse effect on our operating results” for information on how energy and fuel costs affect the costs of manufacturing our products and related expenses.

In this environment, central banks could adopt stricter monetary policies, not continuing the easing monetary policy adopted during the pandemic. This process could lead to a tightening of global financial conditions that could affect both advanced and emerging economies disrupting financial markets, which could result in economic recessions in the countries in which we operate and/or limit our ability to access capital on reasonable terms or at all, and thus have a material adverse effect on our business, financial condition, liquidity, and results of operations. However, there is a risk that these efforts could not be sufficient to contain inflation and thus the European Central Bank could start raising interest rates earlier than expected. Higher interest rates could impact the indebtedness of the European countries and their economic performance.

Emerging markets and developing economies with significant foreign currency denominated-debt and financing needs could be particularly exposed and affected from the resulting effects of a raise in interest rates through capital outflows, exchange rate depreciations, shifts in investor sentiment and increasing borrowing costs, leading to adverse growth outcomes. Similarly, large-scale corporate debt defaults or restructuring could reverberate widely. A substantial portion of our operations are located in developing countries which have shown been negatively affected by capital outflows in the past and have volatile currency values. In the event that one or more of these risks materialize, demand for our products and services could decrease significantly due to general economic conditions in these countries and/or our revenues and available resources in local currencies could depreciate significantly, which could limit our ability to satisfy our indebtedness and other obligations and/or incur expenditures and make investments in hard currency necessary to conduct our business, all of which could have a material adverse effect on our business, financial condition, liquidity, and results of operations. See "Item 4—Information on the Company—Geographic Breakdown of Revenues by Reporting Segment for the Year Ended December 31, 2021" and "Item 5—Operating and Financial Review and Prospects—Liquidity and Capital Resources—Our Indebtedness."

Instances of social unrest had declined during the early phases of the pandemic but rose in the second half of 2020 and at the beginning of 2021. The causes of such social unrest vary across countries, including frustration with the government responses to the pandemic, increases in food prices, slow employment growth, fiscal deficits, geopolitical tensions, political stability concerns, and long-standing erosion of trust in government institutions. A further intensification could damage sentiment and weigh on the economic recovery from the COVID-19 pandemic.

Climate change, one of the main causes of the more frequent and intense weather-related disasters, already has had visible immediate impacts, with effects beyond the regions where the disasters strike. Cross-border migration pressures, financial stresses (including among creditors and insurers in countries not directly impacted by a given event), and health care burdens may rise, with implications that persist long after the event itself. Disasters caused by climate change may pose further challenges to the global recovery.

Mexico's economic recovery from the effects of the COVID-19 pandemic started relatively quickly in 2021 due to strong U.S. import demand and the remarkable remittance inflows, both driven by the fiscal stimulus adopted by the U.S. government. Nonetheless, economic activity in Mexico was not as strong during the third quarter of 2021 due to supply chain issues, the fragility of Mexico's service sector and uncertainty surrounding the evolution of the COVID-19 pandemic. Economic recovery is expected to continue at a more moderate pace. As of the date of this annual report, apart from the risks mentioned above, the Mexican economy faces other risks in the short-term including, but not limited to: (i) decreases in U.S. economic activity; (ii) the effects of a possible downgrade of Petróleos Mexicanos' ("PEMEX") debt rating or further capital requirements to restructure PEMEX, which could undermine fiscal stability and Mexico's sovereign debt rating; and (iii) the negative effects derived from uncertainty about institutional frameworks changes. Together or alone, these uncertainties and risks could have a material adverse impact on our financial condition, business and results of operations, particularly in Mexico.

In general, demand for our products and services is strongly related to construction levels and depends, in large part, on construction activity, as well as private and public infrastructure spending in the countries where we operate. Declines in the construction industry are usually correlated with declines in general economic conditions. As a result, deterioration of economic conditions in the countries where we operate, could have a material adverse effect on our business, financial condition, liquidity and results of operations. There is no assurance that growth in gross domestic product ("GDP") of the countries where we operate will translate into an increase in demand for our products. We are subject to the effects of general global economic and market conditions beyond our control. If these conditions are challenging or deteriorate, our business, financial condition, liquidity and results of operations could be adversely affected.

The war between Russia and Ukraine may have a material adverse effect on our business, financial condition, liquidity and results of operation.

Global markets are experiencing volatility and disruption following the escalation of geopolitical tensions and the start of the war between Russia and Ukraine. In February 2022, Russia launched a full-scale military invasion of Ukraine. Although the length and impact of the ongoing military conflict is unpredictable, the conflict in Ukraine has created and could lead to further market disruptions, including significant volatility in commodity prices, credit and capital markets. The war between Russia and Ukraine has led to sanctions and other penalties being levied by the United States, European Union and other countries mainly against Russia, including agreement to remove certain Russian financial institutions from the Society for Worldwide Interbank Financial Telecommunication ("SWIFT") payment system. Additional potential sanctions and penalties have also been proposed and/or threatened. The war is expected to have further global economic consequences, including but not limited to the possibility of severely diminished liquidity and credit availability, declines in consumer confidence, scarcity in certain raw materials and products, declines in economic growth, increases in inflation rates and uncertainty about economic and political stability. In addition, there is a risk that Russia and other countries supporting Russia in this conflict may launch cyberattacks against the United States and its allies and other countries, their governments and businesses, including the infrastructure in such countries. Any of the foregoing consequences, including those we cannot yet predict, may have a material adverse effect on our business, financial condition, liquidity and results of operations.

High energy and fuel costs may have a material adverse effect on our operating results.

Energy and fuel costs represent an important part of our cost structure. The price and availability of energy and fuel are generally subject to market volatility and may have an adverse impact on our costs and operating results. If third-party suppliers fail to provide to us the required amounts of energy or fuel under existing agreements, we may need to acquire energy or fuel at an increased cost from other suppliers to fulfill contractual commitments with third parties or for use in our operations. Governments in several countries in which we operate are working to reduce energy subsidies, introduce or tighten clean energy obligations or impose excise taxes and carbon emission caps, which could increase energy costs and have a material adverse effect on our business, financial condition, liquidity and results of operations.

Our commitment to transition to and increase the use of alternative energy sources and fuels may limit our flexibility to use energy sources and fuels that may be more cost-effective and require us to incur more in capital expenditures and investments than we currently have planned. However, if our efforts to increase our use of alternative fuels are unsuccessful, due to their limited availability, price volatility or otherwise, we would be required to use traditional fuels, which may be more expensive at any given time and increase our energy and fuel costs. Also, any such failure may cause us not to achieve the targets under our *Future in Action* climate action program and certain key performance indicators provided for in our sustainability-linked financing arrangements, which, among other adverse effects, would damage our reputation and give rise to an increase in our cost of capital. Any of this could have a material adverse effect on our business, financial condition, liquidity and results of operations. See “Item 4—Information on the Company—Regulatory Matters and Legal Proceedings—Environmental Matters—Mexico” and “Item 5—Operating and Financial Review and Prospects—Recent Developments—Recent Developments Relating to Our Regulatory Matters and Legal Proceedings—Environmental Matters—Mexico” for a description of certain changes in the laws and regulations governing the energy, electricity and hydrocarbons sectors which have been enacted or are undergoing constitutional challenges or approval procedures, and which may result in increased costs for our business, which may in turn have a material adverse effect on our business, financial condition, liquidity and results of operations. See “Item 3—Key Information—COVID-19 Pandemic” for more information on the impact of COVID-19 on energy and fuel costs and “Item 3—Key Information—Risk Factors—Risks Relating to Our Business and Operations—Economic conditions in countries where we operate and in other regions or countries may adversely affect our business, financial condition, liquidity and results of operations” for more information on the current inflationary environment.

We are subject to restrictions and reputational risks resulting from non-controlling interests held by third parties in our consolidated subsidiaries. We control four publicly listed companies, where this risk is heightened.

We conduct our business mostly through subsidiaries. In some cases, third-party shareholders hold non-controlling interests in these subsidiaries. Our most important subsidiaries in which third-party shareholders held non-controlling interests as of December 31, 2021 are CLH, CHP, Trinidad Cement Limited (“TCL”) and Caribbean Cement Company Limited (“CCCL”), all of which are publicly listed companies. Various disadvantages may result from the participation of non-controlling shareholders whose interests may not be aligned with ours. Some of these disadvantages may, among other things, result in our inability to implement organizational efficiencies, divest or acquire assets and transfer cash and assets from one subsidiary to another in order to allocate assets most effectively. In addition, we are also exposed to third-party shareholders initiating different actions or proceedings against us as controlling shareholders on corporate and corporate governance related matters, which could also harm our reputation and have an adverse effect on our business, liquidity, financial condition and results of operations.

Our use of derivative financial instruments has negatively affected, and any new derivative financial instruments could negatively affect our operations, especially in volatile and uncertain markets.

We have used, and may continue to use, derivative financial instruments to manage the risk profile associated with interest rates and currency exposure of our debt, to reduce our financing costs, to access alternative sources of financing and to hedge our net assets in certain currencies, as well as some of our financial and operating risks. However, we cannot assure you that our use of such instruments will allow us to achieve these objectives due to the inherent risks in any derivatives transaction or the risk that we will not continue to have access to such instruments at reasonable costs, or at all.

As of December 31, 2021, our derivative financial instruments consisted of Dollar/Mexican Peso foreign exchange forward contracts and Dollar/Euro cross-currency swap contracts, both designated as a net investment hedge of CEMEX’s net investment in Mexican Pesos and Euros, respectively. It also included interest rate swap instruments related to bank loans, Dollar/Mexican Peso call spread option contracts negotiated to maintain the value in Dollars over revenues generated in Mexican Pesos, as well as fuel price hedging derivatives, which had an impact on our financial position. Changes in the fair value of our derivative financial instruments, not specifically designated as hedges, are reflected in our statement of operations, which could introduce volatility in our controlling interest net income and other related ratios. As of December 31, 2020 and 2021, the aggregate notional amount under our outstanding derivative financial instruments was $2,230 million ($741 million of net investment hedge, $1,334 million of interest rate swaps, $27 million of equity forwards on third-party shares and $128 million of fuel price hedging) and $2,911 million ($1,511 million of net investment hedge, $1,005 million of interest rate swaps, $145 million of fuel price hedging and $250 million of foreign exchange options), respectively, with a mark-to-market valuation representing net liabilities of $81 million as of December 31, 2020 and net assets of $21 million as of December 31, 2021. See note 18.4 to our 2021 audited consolidated financial statements included elsewhere in this annual report for a detailed description of our derivative financial instruments. Since 2008, CEMEX has significantly decreased its use of derivative financial instruments, thereby reducing the risk of cash margin calls. With respect to our existing financial derivatives, we may incur net losses and be subject to margin calls that do not require a substantial amount of cash to be covered. However, if we enter into new derivative financial instruments, we may incur net losses and be subject to margin calls requiring a substantial amount of cash to be covered and may reduce the funds available to us for our operations or other capital needs. In addition, as with any derivative position, we assume the creditworthiness risk of the counterparty, including the risk that the counterparty may not honor its obligations to us. In addition, entering into new derivative financial instruments incurs costs, and we cannot assure you that any new derivative financial instrument that we enter into will be done so at reasonable costs or will be available to us at all.

Political, social and geopolitical events, possible changes in public policies and other risks in some of the countries where we operate, which are inherent to the operations of an international company, could have a material adverse effect on our business, financial condition, liquidity and results of operations.

As of December 31, 2021, our operations were mostly in Mexico, the United States, certain countries in the EMEAA region and the SCA&C region (as described in “Item 4—Information on the Company—Business Overview”). For a geographic breakdown of our revenues for the year ended December 31, 2021, see “Item 4—Information on the Company—Geographic Breakdown of Revenues by Reporting Segment for the Year Ended December 31, 2021.”

We are exposed to the circumstances prevalent in the countries in which we market our products and services. Like other companies with international operations, political, economic, geopolitical or social developments in the countries where we operate or elsewhere, such as elections, new governments, changes in public policy, economic circumstances, laws and/or regulations, trade policies, political agreements or disagreements, civil disturbances and a rise in violence or the perception of violence, could have a material adverse effect in the countries where we operate or on the global financial markets, and in turn on our business, financial condition, liquidity and results of operations.

Presidential, legislative, state and local elections took place in 2021 in several of the countries where we operate, including Mexico, El Salvador, Israel, Peru, Germany, Czech Republic and Nicaragua. In 2022, elections have been held or are scheduled to be held in Mexico, Barbados, Costa Rica, Colombia, France, the Philippines, as well as midterm elections in the United States. In addition, future snap elections cannot be discarded. A change in federal or national government and the political party in control of the legislature in any of these countries could result in changes to the countries' economic, political or social conditions, and in changes to laws, regulations and public policies, which may contribute to economic uncertainty or adverse business conditions and could also materially impact our business, financial condition, liquidity and results of operations. Similarly, if no political party wins a clear majority in the legislative bodies of these countries, legislative gridlock and political and economic uncertainty may continue or result.

Political events and social unrest have impacted the business and economic environment in the United States and beyond. The upcoming 2022 U.S. midterm elections may result in changes to the controlling political party in the U.S. Congress and, in turn, result in potential changes to, and delays in, the U.S. federal government's policy priorities and legislative endeavors. The new Congress could impose regulations and/or taxes reaching further than those currently in effect. We are not certain if any such regulations and/or taxes will be imposed or not; and, in the event they are imposed, if costs and expenses which may be incurred in order to comply with such regulations and/or taxes would have a material adverse effect on our business, financial condition, liquidity and results of operations.

In Mexico, several laws, policies and regulations issued since the beginning of the current administration, as well as certain legislative proposals, differ substantially from those in effect in previous administrations. Additionally, emission caps per industrial sector in line with Mexico's greenhouse gas emissions reduction targets are expected to come into effect in 2023. See "Item 4—Information on the Company—Regulatory Matters and Legal Proceedings—Environmental Matters—Mexico" and "Item 5—Operating and Financial Review and Prospects—Recent Developments—Recent Developments Relating to Our Regulatory Matters and Legal Proceedings—Environmental Matters—Mexico" for a description of such changes in the laws and regulations governing the energy, electricity and hydrocarbons sectors which have been enacted or are undergoing constitutional challenges, as well as a description of potential emission caps regulations in Mexico. We are not certain if such laws and regulations undergoing constitutional challenges will prevail. Additionally, an increase of "green" taxes in states where we operate is also expected. These and any other policies, laws and regulations which are further adopted could result in a deterioration of investment sentiment, political and economic uncertainty, and increased costs for our business, which may in turn have a material adverse effect on our business, financial condition, liquidity and results of operations.

In Europe, though Brexit has already materialized, there continues to be uncertainty regarding the United Kingdom's future relationship with the EU and other key partners around the world. This uncertainty could still have a material adverse effect on our business, financial condition, liquidity and results of operations, particularly in the United Kingdom. To mitigate any such risk, a "Brexit taskforce" has been implemented and continues to operate with the following objectives: (i) monitoring and sharing relevant public information, (ii) identifying ongoing and evolving risks and opportunities, (iii) assessing potential impacts and action plan to minimize them, (iv) following-up with affected areas, and (v) preparing an effective communication for different audiences. As of the date of this annual report, the Brexit taskforce has been working, aligned with United Kingdom government guidelines, on critical issues to potentially anticipate and avoid a business disruption resulting from Brexit. These issues include: (i) the new chemical regulations and the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") registry requirements for imported products, (ii) identifying commercial products being placed on the market in Great Britain with the previously used "CE" (*conformité européenne*) marking that will require U.K. Conformity Assessed ("UKCA") marking in 2022, (iii) complying with the specific tariffs on imported goods through a new Economic Operators' Registration and Identification ("EORI") number applicable to all of our operation sites in the United Kingdom, and (iv) supporting our employees living in the United Kingdom which do not have citizenship status with the preparation and filing of their settlement scheme application.

Our operations in Egypt, the UAE and Israel have experienced disruption as a result of, among other things, political instability, civil unrest, terrorism, extremism, deterioration of general diplomatic relations and changes in the geopolitical dynamics in the region. There can be no assurances that political turbulence in Israel, Egypt, Iran, Iraq, Syria, Libya, Yemen and other countries in Africa, the Middle East and Asia will abate in the future or that neighboring countries (*e.g.*, the United Arab Emirates) will not be drawn further into conflict or experience instability. In addition, some of our operations are or may be subject to political risks, such as confiscation, expropriation and/or nationalization, as for example was the case of our past operations in Venezuela and is currently the case in Egypt. See “Item 4—Information on the Company—Regulatory Matters and Legal Proceedings—Other Legal Proceedings—Egypt Share Purchase Agreement.”

Our operations are also exposed to the Israeli-Palestinian conflict. Confrontations between the Israeli Defense Force and Palestinians in the Gaza Strip have continued generating events of violence in the region. Progress on peace remains stalled, despite efforts from third parties to reach an agreement. As of the date of this annual report, the parties continued to portray opposite views over the contested territory and neither side is expected to make concessions in the near future. If the conflict escalates, it could have a negative impact on the geopolitics and economy of the region, which in turn could adversely affect our operations, financial condition, liquidity and results of operations. In March 2021, Israel held its fourth general election in two years. The election and successive negotiations resulted in the formation of a coalition government in June 2021. Political instability related to the governmental transition and disputes within the governing coalition could have an adverse effect on our business, financial condition, liquidity, and results of operations in Israel. Increased tensions in the Middle East could pose the risk of full military action and could have a material adverse effect on our business, financial condition, liquidity and results of operations, most importantly in Israel and the UAE.

In Asia, pro-democracy protests and demands, mainly in Hong Kong, ongoing disputes between North and South Korea, as well as territorial disputes among several Southeast Asian countries and China in the South China Sea continue to be a cause for social, economic and political uncertainty and instability in the region. A major outbreak of hostilities or political upheaval in China, Hong Kong, Taiwan, North Korea, South Korea or any other Asian nation could adversely affect the global economy, which could have a material adverse effect on our business, financial condition, liquidity or results of operations.

In Latin America, discontent with politicians, corruption, poverty, and inequality have been cause for numerous protests and general social unrest. Despite COVID-19 pandemic lockdowns, protests have sparked throughout the region in countries such as Haiti, Colombia, Guatemala, Costa Rica, Peru and others. Furthermore, the region continues to be affected by Venezuela’s economic and political crisis, which has had a major impact on the regional economy and poses an important economic, social and security risk.

Further geopolitical challenges, such as the conflict between the United States and China, could cause important disruptions in the global economic, financial markets and trade dynamics which could impact the markets in which we operate and materially and adversely affect our business, financial condition, liquidity and results of operations.

There have been terrorist attacks and ongoing threats of future terrorist attacks in countries in which we operate. We cannot assure you that there will not be new attacks or threats that will cause any damage to our operating units and facilities or locations, or harm any of our employees, including members of CEMEX, S.A.B. de C.V.’s board of directors or senior management, or lead to an economic contraction, financial markets volatility or erection of material barriers to trade in any of our markets. An economic contraction in any of the markets where we operate could affect domestic demand for our products, which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

As part of our risk governance approach, from time to time we evaluate the need to address the financial consequences of political or social risk through the purchase of insurance. As a result, we purchase certain types of political risk insurance policies for selected countries where we operate, and which are exposed to political turmoil, geopolitical issues or political uncertainty. These insurance policies are designed to offer some assistance to our financial flexibility to the extent that the specifics of a political incident could give rise to a financial liability. However, we cannot assure you that a given social or political event and possible changes in government policies will be covered by the political risk insurance policies we have in place, or that the amount of such insurance will be sufficient to offset the liability arising from such applicable events. Any such liability could have a material adverse effect on our business, financial condition, liquidity and results of operations.

These and other political, economic, social and geopolitical issues have the potential to materially and adversely impact the global economy, financial markets and the overall stability of the countries and regions in which we operate and, in turn, our business, financial condition, liquidity and results of operations.

Complications in relationships with local communities may adversely affect our business continuity, reputation, liquidity, and results of operations.

We make significant efforts to maintain good long-term relationships and continuous communication with local and neighboring communities where we operate; however, there can be no assurance that such communities will not have or will not develop interests or objectives which are different from, or even in conflict with, our objectives, which could result in legal or administrative proceedings, civil unrest, protests, negative media coverage, direct action or campaigns, including, but not limited to, requests for the government to revoke or deny our concessions, licenses or other permits to operate. Any such events could cause delays or disruptions in our operations, result in operational restrictions or higher costs, or cause reputational damage, which could materially and adversely affect our business, reputation, liquidity and results of operations. See “Item 4—Information on the Company—Regulatory Matters and Legal Proceedings—Environmental Matters—Philippines Environmental Class Action.”

We are increasingly dependent on information technology and our systems and infrastructure, as well as those provided by third-party service providers, face certain risks, including cyber-security risks.

We increasingly rely on a variety of information technology and cloud services, on a fully digital customer integration platform, such as CEMEX Go, and on automated operating systems to manage and support our operations, as well as to offer our products to our customers. The proper functioning of this technology and these systems is critical to the efficient operation and management of our business, as well as for the sales generated by our business. Our systems and technologies may require modifications or upgrades as a result of technological changes, growth in our business and to enhance our business security. These changes may be costly and disruptive to our operations and could impose substantial demands on our systems and increase system outage time. Our systems and technology, as well as those provided by our third-party service providers, such as International Business Machines Corporation (“IBM”), Microsoft and HCL Technologies, among others, 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, security breaches, computer viruses and cyber-attacks, including malicious codes, worms, ransomware, phishing, denial of service attacks and unauthorized access. For example, our digital solutions to improve sales, customer experience, enhance our operations and increase our business efficiencies could be impeded by such damages, disruptions or intrusions. Furthermore, while we expect to further integrate digital technologies into our operations as part of our Working Smarter digital transformation initiative and believe this is likely to assist us in fulfilling our strategic priorities, these integration efforts and the engagement of additional technology service providers and systems in our operations as part of Working Smarter could increase our exposure to these risks. See “Item 4—Information on the Company—Our Strategic Priorities—Operational Improvements” and “Item 5—Operating and Financial Review and Prospects—Recent Developments—Recent Developments Relating to Our Business and Operations—Execution of Agreements relating to our Working Smarter Initiative” for more information on Working Smarter and the related technologies, service providers and systems engaged as part of this digital transformation initiative. To try to minimize such risks, we safeguard our systems and electronic information through a set of cyber-security controls, processes and a proactive monitoring service to attend to potential breaches. In addition, we also have disaster recovery plans in case of incidents that could cause major disruptions to our business. However, these measures may not be sufficient, and our systems have in the past been subject to certain minor intrusions that did not result in a material breach or material impact to the Company, including distributed denial of service (“DDoS”) attacks, unauthorized access attempts, brute force attacks and phishing. Although we are certified under and compliant with International Organization for Standardization (“ISO”) 27001:2013 standards for information security management systems to preserve the confidentiality, integrity and availability of data and also are certified on the Payment Card Industry (“PCI”) security standard which provides a trustful e-commerce mechanism for customers, and that some of our cement plants received the ISO 27001 certification, we cannot assure that we will always be able to retain or renew this certification or that our systems will not be subject to certain intrusions. In a global business environment that relies on complex digital networks, cybercriminals are often outpacing a company’s ability to prevent and manage cyberthreats. The digitalization of global supply chains creates new risks as they increasingly rely on technology and other third parties.

During 2021, there was a global trend of an increase in security threats, including, but not limited to, phishing and malware/ransomware campaigns, exploitation of video collaboration vulnerabilities, among other things. Furthermore, the increase in employees working from home in response to the COVID-19 pandemic increased cyber risk due to inadequate security configurations of domestic (home) networks and use of non-corporate devices. As of the date of this annual report, we have implemented additional cybersecurity controls designed to reduce such risks and mitigate the impact of such risks, but these may also not be sufficient, and we cannot assure you that intrusions will not occur.

In relation to our overall operations, particularly due to our digital transformation efforts and the implementation of CEMEX Go, our audit committee is informed of the cyber-security threats we face and is involved in approving general steps to try to mitigate any such cyber-security threats. As of December 31, 2021, CEMEX Go has more than 49,000 users across the countries in which we do business, and through CEMEX Go we receive approximately 51% of our main product orders and process 61% of our total global sales. As of December 31, 2021, we have not detected, and our third-party service providers have not informed us of, any relevant event that has materially damaged, disrupted or resulted in an intrusion of our systems. Any significant information leakages or theft of information, or any unlawful processing of personal data, could affect our compliance with data privacy laws and make us subject to regulatory action, including substantial fines and private litigation with potentially large costs, and could damage our relationship with our employees, customers and suppliers, which could have a material adverse impact on our business, financial condition, liquidity, results of operations and prospects.

Furthermore, in June 2021, our insurance program was renewed for 12 additional months. This program includes insurance coverage that, subject to its terms and conditions, is intended to address certain costs associated with cyber incidents, network failures and data privacy-related concerns. Nevertheless, this insurance coverage may not, depending on the specific facts and circumstances surrounding an incident, cover all losses or types of claims that may arise from an incident or the damage to our reputation or brands that may result from an incident. However, any significant disruption to our systems could have a material adverse effect on our business, financial condition, liquidity and results of operations, and could also harm our reputation.

We may fail to secure certain materials required to run our business.

We increasingly use in most of our business certain by-products of industrial processes produced by third parties, such as pet coke, fly ash, slag and synthetic gypsum, among others, as well as natural resources such as water. While we are not dependent on any particular suppliers, we try to secure the supply of the required materials, products or resources through long-term renewable contracts and framework agreements, which allow us to better manage supplies. Short-term contracts are entered into in certain countries where we operate. Should existing suppliers cease operations or reduce or eliminate production of these by-products, or should for any reason any suppliers not be able to deliver to us the contractual quantities, or should laws and/or regulations in any region or country limit the access to these materials, products, reserves or resources, sourcing costs for these materials could increase significantly or require us to find alternative sources for these materials, which could have a material adverse effect on our business, financial condition, liquidity, results of operations and prospects. In particular, scarcity and quality of natural resources (such as water and aggregates reserves) in some of the countries where we operate could have a material adverse effect on our operations, costs and results of operations. See “Item 3—Key Information—COVID-19 Pandemic” for more information on the impact of COVID-19 on supply chains.

We may not be able to realize the expected benefits from any acquisitions or joint ventures, some of which may have a material impact on our business, financial condition, liquidity and results of operations. Any failure to realize expected benefits from the bolt-on acquisitions of our “Operation Resilience” strategy heightens this risk.

Our ability to realize the expected benefits from any acquisitions, joint ventures, investments or partnerships depends, in large part, on our ability to integrate acquired operations with our existing operations in a timely and effective manner or on our ability to impact financial results or operations of or properly manage, together with any partners, any joint venture business, partnership or other business where we hold an investment. These efforts may not be successful. Although we have disposed of assets in the past and may continue to do so to reduce our overall leverage and rebalance our portfolio, certain of our debt instruments restrict our ability to acquire assets and enter into joint ventures. We may in the future acquire new operations or enter into joint ventures or investments and integrate such operations or assets into our existing operations, and some of such acquisitions, joint ventures or investments may have a material impact on our business, financial condition, liquidity and results of operations. We cannot assure you that we will be successful in identifying or acquiring suitable assets in the future, or that the terms under which we may acquire any assets or enter into joint ventures in the future would be favorable to us or that we will be able to find suitable partners for our joint ventures at all. We may also fail to achieve any anticipated cost savings from any acquisitions, joint ventures or investments. We have announced that the portfolio optimization efforts to grow Operating EBITDA that are a part of our “Operation Resilience” strategy are expected to include a variety of bolt-on investments, which included acquisitions in different geographies like France, Spain and Texas in 2021 and are expected to continue in 2022. See “Item 3—Key Information—Our General Evolution—Operation Resilience.” Failure to realize the expected benefits from these acquisitions, if at all made, would cause us to not achieve certain of our “Operation Resilience” goals and, in turn, our business, financial condition, liquidity and results of operations could be materially and adversely affected.

The introduction of or failure to introduce substitutes or alternative forms of cement, ready-mix concrete or aggregates into the market and the development of or failure to develop new construction techniques and technologies could have a material adverse effect on our business, financial condition, liquidity and results of operations.

Materials such as plastic, aluminum, ceramics, glass, wood and steel can be used in construction as a substitute for cement, ready-mix concrete or aggregates. In addition, other construction techniques, such as the use of dry wall, and the integration of new technologies in the construction industry, such as 3-D printing, mini-mills and mobile plants, and changes in housing preferences could adversely impact the demand and price for our cement, ready-mix concrete and/or aggregates. Furthermore, research aimed at developing new construction techniques and modern materials and digitalizing the construction industry may introduce new products and technologies in the future that could reduce the demand for and prices of our products. Our efforts to introduce new products or products with non-traditional compositions (such as our *Vertua* brand and those with reduced cement or clinker content) or to develop and market new construction techniques and technologies (such as those that are part of our Urbanization Solutions) are not only aimed at increasing our operating results, but are also relevant to achieve the targets of our *Future in Action* climate action program and certain key performance indicators provided for in our sustainability-linked financing arrangements. Therefore, if our efforts to introduce these products and construction techniques and technologies are unsuccessful or unprofitable, among other adverse effects, this would damage our operating results, reputation and give rise to an increase in our cost of capital. Any of this, individually or in the aggregate, could have a material adverse effect on our business, financial condition, liquidity and results of operations.

We operate in highly competitive markets with numerous players employing different competitive strategies and if we do not compete effectively, our revenues, market share and results of operations may be affected.

The markets in which we operate are highly competitive and are served by a variety of established companies with recognized brand names, as well as new market entrants and increasing imports. Companies in these markets compete based on a variety of factors, often employing aggressive pricing strategies to gain market share. For example, in the relatively consolidated cement and ready-mix concrete industries, we generally compete based on quality, client segmentation, value proposition, and superior customer experience. In the more fragmented market for aggregates, we generally compete based on capacity, price for our products and our customer centric culture. In certain areas of the markets in which we compete, some of our competitors may be more established, benefit from greater brand recognition or have greater manufacturing and distribution channels and other resources than we do. In addition, if our competitors were to combine, they may be able to compete more effectively with us, and they may also dispose of assets, which could lead to new market entrants, increasing competition in our markets. Mergers and acquisitions transactions have played an important role in the last year in the United States. For example, in 2021, HeidelbergCement sold its Western United States business, including its California, Arizona, Oregon and Nevada operations, to Martin Marietta. We have substantial operations in California, Arizona and Nevada and it is unclear how competitive dynamics will change in these or other states following this transaction. Even though we have generally been able to compete effectively in the United States, these shifts in market participants in our largest market in terms of revenues could be detrimental to our position. In Mexico, one of our key markets and second largest market in terms of revenue, competitors have focused mainly on organic growth. For example, in 2021, Holcim inaugurated its new cement grinding plant in Yucatan with a capacity of 650,000 tons of cement per year, which enables Holcim to offer products and services mainly in Latin America. Also in 2021, Elementia announced a spinoff resulting in the formation of Fortaleza Materiales and Elementia Materiales. We believe that Elementia Materiales and Holcim, which have operations in Mexico, the United States and Latin America, offer products and services that could increase competition with our Urbanization Solutions business in those markets. In addition, if any of our major competitors divest assets in different parts of the world, this may lead to increased competition in the markets in which we operate. It is unclear how competitors that could potentially acquire those assets will compete in the markets in which we operate. Some may use aggressive competitive strategies based on imports and pricing that could be damaging to our industry’s profitability and, as a consequence, our results of operations. In addition, asset optimization by buyers of the disposed assets could result in an operational cost advantage. As a result, if we are not able to compete effectively, we may lose market share, potentially substantially, in the countries in which we operate, and our revenues could decline or grow at a slower rate and our business and results of operations would be harmed, which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

A substantial amount of our total assets consists of intangible assets, including goodwill. We have recognized charges for goodwill impairment in the past and in 2021, and if market or industry conditions deteriorate further, additional impairment charges may be recognized.

Our 2021 audited consolidated financial statements, included elsewhere in this annual report, have been prepared in accordance with IFRS as issued by the IASB, under which goodwill is not amortized and is tested for impairment. Tests for impairment are carried out when indicators exist or at least once a year during the fourth quarter of each year and are performed by determining the recoverable amount of the groups of cash-generating units (“CGUs”) to which goodwill balances have been allocated. The recoverable amount of CGUs consist of the higher of such groups of cash-generating units’ fair value, less cost to sell, and their corresponding value in use, represented by the discounted amount of estimated future cash flows expected to be generated by such groups of CGUs to which goodwill has been allocated. An impairment loss is recognized under IFRS if the recoverable amount is lower than the net book value of the groups of CGUs to which goodwill has been allocated within other expenses, net. We determine the discounted amount of estimated future cash flows over periods of five years. If the value in use of a group of CGUs to which goodwill has been allocated is lower than its corresponding carrying amount, we determine its corresponding fair value using methodologies generally accepted in the markets to determine the value of entities, such as multiples of Operating EBITDA and/or by reference to market transactions.

Impairment tests are significantly sensitive to, among other factors, the estimation of future prices of our products, in 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, we use, 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. We use specific pre-tax discount rates for each group of CGUs to which goodwill is allocated, which are applied to pre-tax cash flows. The amounts of estimated undiscounted cash flows are significantly sensitive to the growth rates in perpetuity applied. The higher the growth rate in perpetuity applied, the higher the amount of undiscounted future cash flows by group of CGUs obtained. Moreover, the amounts of discounted future cash flows are significantly sensitive to the weighted average cost of capital (discount rate) applied. The higher the discount rate applied, the lower the amount of discounted estimated future cash flows by group of CGUs obtained. During the third quarter of 2021, expected increasing input cost inflation, higher freight and supply chain disruptions led to a confirmation of impairment indicators in Spain, the UAE and other businesses. As a result, we recognized a non-cash aggregate goodwill impairment charge of $440 million comprised, of $317 million related to our business in Spain, $96 million related to our business in UAE, and $27 million related to our IT business segment due to reorganization. The impairment of goodwill in Spain and the UAE in 2021 resulted from an excess of the net book value of such businesses versus the discounted cash flow projections as of September 30, 2021 related to these reporting segments. Also, during the third quarter of 2021, we recognized non-cash impairment charges of intangible assets due to a technological revamp of certain internal use software of $49 million. See notes 8, 17.1 and 17.2 to our 2021 audited consolidated financial statements included elsewhere in this annual report. Considering the important role that economic factors play in testing goodwill for impairment, we cannot assure that any downturn in the economies where we operate will not necessitate further impairment tests and a possible downward readjustment of our goodwill for impairment under IFRS. Such an impairment test could result in impairment charges which could be material to our financial statements, which could have a material adverse effect on our financial condition.

Activities in our business can be hazardous and can cause injury to people or damage to property in certain circumstances.

Most of our production facilities and units, as well as mineral extraction locations, require individuals to work with chemicals, equipment and other materials that have the potential to cause fatalities, harm and injury when used without due care. An accident or injury that occurs at our facilities could result in disruptions to our business and operations and could have legal and regulatory, as well as reputational, consequences. As a result, we may be required to compensate such individuals or incur other costs and liabilities, any and all of which could have a material adverse impact on our reputation, business, financial condition, liquidity, results of operations and prospects.

Additionally, cement production raises a number of health and safety issues. As is the case with other companies in our industry, some of our aggregate products contain varying amounts of crystalline silica, a common mineral. Also, some of our construction and material processing operations release, as dust, crystalline silica that is in the materials being handled. Excessive, prolonged inhalation of very small-sized particles of crystalline silica has allegedly been associated with respiratory disease (including silicosis). As part of our annual due diligence, we work with our stakeholders to verify that certain health and safety protocols are in place with regards to the management of silica and its health effects, as well as in relation to other substances and products. Nonetheless, any health issues related to cement and aggregates production can result in future claims related to exposure to these products or substances, which could have a material adverse impact on our reputation, business, financial condition, liquidity, results of operations and prospects.

Other health and safety issues related to our business include: burns arising from contact with hot cement kiln dust or dust on preheater systems; airborne hazards related to our aggregates mining activities; noise, including from chutes and hoppers, milling plants, exhaust fans and blowers; the potential for dioxin formation if chlorine-containing alternative fuels are introduced into kilns; plant cleaning and maintenance activities involving working at elevated heights or in confined or other awkward locations, and the storage and handling of coal, pet coke and certain alternative fuels, which, in their finely ground state, can pose a risk of fire or explosion; and health hazards associated with operating ready-mix concrete trucks. We may also be exposed to liability resulting from injuries or fatalities involving third-party service providers, such as drivers for our suppliers when delivering products or services to us. While we actively seek to minimize the risk posed by these issues, personal injury claims may be made, and substantial damages awarded, against us, which could have a material adverse impact on our reputation, business, financial condition, liquidity and results of operations. Additionally, we may also be required to change our operational practices, involving material capital expenditure.

Our operations and ability to source products and materials can be affected by adverse weather conditions and natural disasters.

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, or generally, in any rainy and snowy weather. Consequently, demand for our products is significantly lower during the winter or raining and snowing seasons in the countries in which we operate and do business. Generally, winter weather in our European and North American operations significantly reduces our first quarter sales volumes, and to a lesser extent our fourth quarter sales volumes. Sales volumes in these and similar markets generally increase during the second and third quarters because of normally better weather conditions. However, high levels of rainfall and/or snow can also adversely affect our operations during these periods, as well as our access to products and materials used in our operations (as was the case in 2018 with regard to our operations in the Philippines, which was exacerbated by a natural landslide that affected our operations in the country). Natural disasters such as the earthquake in Mexico in 2019 and super typhoons, such as Odette in the Philippines in 2021, have had and in the future could have a negative impact on our sales volumes, which could also have a material adverse effect on our results of operations. Our operations in Florida and Texas, the Caribbean and certain parts of the Gulf of Mexico are particularly exposed to hurricanes and similar weather events. This decrease in sales volumes is usually counterbalanced by the increase in the demand for our products during the reconstruction phase, unless any of our operating units or facilities are impacted by the natural disaster. Such adverse weather conditions and natural disasters can have a material adverse effect on our business, financial condition, liquidity and results of operations if they occur with unusual intensity, during abnormal periods, or last longer than usual in our major markets, or if they cause scarcity and increases in the cost of the products we need to run our business, especially during peak construction periods.

We could be adversely affected by any significant or prolonged disruption to our production facilities.

Any prolonged and/or significant disruption to our production facilities, whether due to repair, maintenance or servicing, governmental or administrative actions, regulatory issues, civil unrest, industrial accidents, unavailability or excessively high cost of raw materials such as energy to the point of making it inefficient to run our production facilities, mechanical equipment failure, human error, natural disaster, cyberattack to our systems, public health threat or otherwise, could disrupt and adversely affect our operations. Additionally, any major or sustained disruptions in the supply of utilities such as water, gas or electricity or any fire, flood, earthquake, hurricane, volcanic eruption, landslide, blizzard or other natural calamities or communal unrest or acts of terrorism may disrupt our operations or damage our production facilities or inventories and could have a material adverse effect on our business, financial condition, liquidity and results of operations. We typically shut down our facilities to undertake maintenance and repair work at scheduled intervals. Although we schedule shutdowns such that not all our facilities are shut down at the same time, the unexpected shutdown or closure of any facility may nevertheless materially affect our business, financial condition, liquidity and results of operations from one period to another. See “Item 3—Key Information—COVID-19 Pandemic” and “Item 5—Operating and Financial Review and Prospects—Recent Developments—Recent Developments Relating to Effects of COVID-19 on Our Business and Operations” for more information on government measures to temporarily suspend some of our operations to stop the spread of COVID-19.

Labor activism and unrest, or failure to maintain satisfactory labor relations, could adversely affect our results of operations.

Labor activism and unrest may adversely affect our operations and thereby adversely affect our business, financial condition, liquidity, results of operations and prospects. Although most of our significant operations have not been affected by any significant labor disputes in the past, we cannot assure you that we will not experience labor unrest, activism, disputes or actions in the future, including as a result of labor laws and regulations that have recently been enacted or that could come into effect in the future, some of which may be significant and could adversely affect our business, financial condition, liquidity, results of operations and prospects. For example, the activity of labor unions in Mexico is expected to increase, as a result of a law that permits unions to actively seek sponsorship of collective bargaining agreements. For a description of our most relevant collective bargaining agreements, see “Item 6—Directors, Senior Management and Employees—Employees.”

Our insurance coverage may not cover all the risks to which we may be exposed.

Among others, we face the risks of fatalities and injury of our employees and contractors, loss and damage to our products, property and machinery due to, among other things, public health threats, fire, theft and natural disasters such as floods, and also face risks related to cyber-security related matters. Such events may cause a disruption to, or cessation of, our operations and business. Our insurance coverage may not be sufficient to cover all of our potential losses and liabilities. In addition, our insurance coverage may not cover all the risks to which we may be exposed, such as all risks related to pandemics and/or epidemics (including COVID-19), and political risk. If our losses exceed our insurance coverage, or if we are not covered by the insurance policies we have taken up, we may be liable to cover any shortfall or losses. Our insurance premiums may also increase substantially because of such claims. Such circumstances could have a material adverse effect on our business, liquidity, financial condition and results of operations.

Our success depends on the leadership of CEMEX, S.A.B. de C.V.’s board of directors and on key members of our executive management team.

Our success depends largely on strategic vision and actions of CEMEX, S.A.B. de C.V.’s board of directors and on key members of our executive management team. The loss of some or all of CEMEX, S.A.B. de C.V.’s directors or our senior management could have a material adverse effect on our business, financial condition, liquidity and results of operations, as well as on our reputation. Although we have appointed new members (including to replace outgoing directors) and removed members from the board of directors in recent years, we cannot assure you that this will continue to occur nor that the current composition of CEMEX, S.A.B. de C.V.’s board of directors will be maintained.

The execution of our business strategy also depends on our ongoing ability to attract and retain highly skilled employees. For a variety of reasons, particularly due to the competitive environment and the limited availability of skilled labor, we may not be successful in attracting and retaining the personnel we require. If we are unable to hire, train and retain qualified employees at a reasonable cost, we may be unable to successfully operate our business or capitalize on growth opportunities and, as a result, our business, financial condition, liquidity and results of operations could be materially and adversely affected.

Risks Relating to Our Indebtedness and Certain Other Obligations

The 2021 Credit Agreement, the indentures governing our outstanding Notes and our other debt agreements and/or instruments contain several restrictions and covenants. Our failure to comply with such restrictions and covenants or any inability to capitalize on business opportunities or refinance our debt resulting from them could have a material adverse effect on our business and financial conditions.

The 2021 Credit Agreement requires us to comply with several financial ratios and tests, including (i) a minimum Consolidated Coverage Ratio of Consolidated EBITDA to Consolidated Interest Expense and (ii) a maximum Consolidated Leverage Ratio of Consolidated Net Debt to consolidated EBITDA, in each case, as described in the 2021 Credit Agreement. The calculation and formulation of Consolidated EBITDA, Consolidated Interest Expense, Consolidated Net Debt, Consolidated Coverage Ratio and Consolidated Leverage Ratio are defined and set out in the 2021 Credit Agreement and may differ from the calculation and/or formulation of analogous terms in this annual report. Our ability to comply with these ratios may be affected by our results of operations, economic conditions and volatility in foreign exchange rates, by overall conditions in the financial and capital markets and the construction sector, and by any monetary penalties or fines we may have to pay as a result of any administrative or legal proceedings to which we may be exposed to. See “Item 4—Information on the Company—Regulatory Matters and Legal Proceedings” for more information. Additionally, the 2021 Credit Agreement requires us to comply with certain covenants and restrictions consistent with an investment grade capital structure. As of December 31, 2021, there were $4,902 million and €400 million aggregate principal amount of then-outstanding Notes under the indentures governing such notes. The indentures governing our Notes impose operating and financial restrictions on us, which are more stringent than those imposed by the 2021 Credit Agreement. These restrictions limit our ability, among other things, to: (i) incur debt, including restrictions on incurring debt at our subsidiaries, which are not parties to the indentures governing the Notes; (ii) pay dividends on stock; (iii) redeem stock or redeem subordinated debt; (iv) make investments; (v) guarantee indebtedness; and (vi) create or assume liens.

Most of the covenants and restrictions in the 2021 Credit Agreement and the indentures governing our Notes are subject to a number of exceptions and qualifications. Nevertheless, they still limit our ability to conduct business at our discretion and may, among other effects, potentially impede or restrict refinancing plans with respect to our debt limit, as well as our ability to seize opportunities for our business, particularly if we are unable to incur financing or make investments to take advantage of such opportunities. In addition, in connection with the entry into new financings or amendments to existing financing arrangements while our debt rating remains below investment grade, our financial and operational flexibility may be further reduced as a result of more restrictive covenants, requirements for security and other terms that are often imposed on sub-investment grade entities. The breach of any of these covenants could result in a default under the 2021 Credit Agreement and/or the indentures governing our outstanding Notes, as well as certain other existing debt obligations, as a result of cross-default provisions contained in the instruments governing such debt obligations. In the event of a default under any of the 2021 Credit Agreement and/or the indentures governing our outstanding Notes, Lenders under the 2021 Credit Agreement and holders of our outstanding Notes could seek to declare all amounts outstanding under the 2021 Credit Agreements and such Notes, together with accrued and unpaid interest, if any, to be immediately due and payable. If the indebtedness under the 2021 Credit Agreement, our outstanding Notes, or certain other existing debt obligations were to be accelerated, we cannot assure you that our assets would be sufficient to repay in full such accelerated indebtedness or our other indebtedness. We cannot guarantee that we will be able to comply with the covenants and limitations contained in the 2021 Credit Agreement or in the indentures governing our Notes, or that we will comply with other agreements which constitute financial indebtedness in excess of $50 million in which any non-compliance would trigger a cross-default. Our failure to comply with such covenants and limitations could result in an event of default, which could materially and adversely affect our business, financial condition, liquidity and results of operations.

We have historically, when needed, sought and obtained waivers and amendments to several of our debt instruments relating to a number of financial ratios, restrictions and covenants. Our ability to comply with these could be affected by global economic conditions, foreign exchange rates and the financial and capital markets, among other factors. We may need to seek waivers or amendments to debt agreements or debt instruments in the future. However, we cannot assure you that any such waivers or amendments will be obtained. If we are unable to comply with the provisions of our debt agreements or debt instruments, and are unable to obtain a waiver or amendment, the indebtedness outstanding under such debt agreements and/or instruments could be accelerated. Acceleration of these debt agreements and/or instruments would have a material adverse effect on our business, liquidity or financial condition.

The elimination of LIBOR after June 2023 may affect our financial results.

On March 5, 2021, the United Kingdom Financial Conduct Authority (the “FCA”), which regulates LIBOR, announced that all LIBOR tenors relevant to the Company will cease to be published or will no longer be representative after June 30, 2023. The FCA’s announcement coincided with the March 5, 2021 announcement of LIBOR’s administrator, the ICE Benchmark Administration Limited (the “IBA”), indicating that, as a result of not having access to input data necessary to calculate LIBOR tenors relevant to the Company on a representative basis after June 30, 2023, IBA would cease publication of such LIBOR tenors immediately after the last publication on June 30, 2023. These announcements mean that any of our LIBOR-based borrowings that extend beyond June 30, 2023 will need to be converted to a replacement rate. Upon the occurrence of a Benchmark Transition Event (as defined in the 2021 Credit Agreement) in relation to the corresponding currency in place of the LIBOR benchmark interest rate, a benchmark replacement will replace the then-current benchmark in accordance with the “hardwired” replacement provisions of the 2021 Credit Agreement.

In the United States, the Alternative Reference Rates Committee (the “ARRC”), a committee of private sector entities with ex-officio official sector members convened by the Federal Reserve Board and the Federal Reserve Bank of New York, has recommended the Secured Overnight Financing Rate (“SOFR”) plus a recommended spread adjustment as LIBOR’s replacement. There are significant differences between LIBOR and SOFR, such as LIBOR being an unsecured lending rate while SOFR is a secured lending rate, and SOFR is an overnight rate while LIBOR reflects term rates at different maturities. As of December 31, 2021, 10% of our foreign currency-denominated non-current total debt including subordinated notes and leases bears floating rates at a weighted average interest rate of LIBOR plus 150 basis points. Additionally, as of December 31, 2021, 20% of our foreign currency-denominated non-current debt with a maturity beyond December 31, 2021 is referenced to LIBOR. A transition away from and/or changes to the LIBOR benchmark interest rate could adversely affect our business, financial condition, liquidity and results of operations. If our LIBOR-based borrowings are converted to SOFR, the differences between LIBOR and SOFR, plus the recommended spread adjustment, could result in interest costs that are higher than if LIBOR remained available, which could have a material adverse effect on our operating results. Although SOFR is the ARRC’s recommended replacement rate, it is also possible that lenders may instead choose alternative replacement rates that may differ from LIBOR in ways similar to SOFR or in other ways that would result in higher interest costs for us. It is not yet possible to predict the magnitude of LIBOR’s end on our borrowing costs given the remaining uncertainty about which rates will replace LIBOR.

We have a substantial amount of debt and other financial obligations. If we are unable to secure refinancing on favorable terms or at all, we may not be able to comply with our payment obligations upon their maturity. Our ability to comply with our principal maturities and financial covenants may depend on us implementing certain initiatives, including, but not limited to, "Operation Resilience," 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.

As of December 31, 2021, our total debt plus other financial obligations was $9,157 million (principal amount $9,210 million, excluding deferred issuance costs). Of such total debt plus other financial obligations, $940 million (principal amount $940 million) matures during 2022; $437 million (principal amount $437 million) matures during 2023; $510 million (principal amount $515 million) matures during 2024; $953 million (principal amount $964 million) matures during 2025; and $6,317 million (principal amount $6,354 million) matures after 2025. If we are unable to comply with, or refinance or extend, maturities under certain of our indebtedness, substantially all of our debt could be accelerated. Acceleration of our debt would have a material adverse effect on our business, financial condition, liquidity and results of operations. As a result of the potential failure to achieve the targets under our "Operation Resilience," the restrictions under the 2021 Credit Agreement, the indentures that govern our outstanding Notes (as defined below) and other debt instruments, the current global economic environment, volatility in the credit and capital markets and uncertain market conditions, we may not be able to generate enough cash or, if needed to repay our indebtedness, raise debt, equity and/or equity-linked capital on favorable terms or at all. These circumstances could also prevent us from securing extensions from relevant creditors and undertaking alternative actions to refinance, such as the completion of asset sales on terms that are economically attractive or at all, and could significantly limit the availability of funds to potential acquiring parties. If we fail to secure funds to repay our indebtedness in these or any other manners and our cash flow or capital resources prove inadequate, we could face liquidity problems and may not be able to comply with financial covenants and payment obligations under our indebtedness, which would have a material adverse effect on our business, financial condition, liquidity and results of operations.

Also, there can be no assurance that we will be able to implement our business strategy and initiatives and improve our results and revenues, which could affect our ability to refinance and/or comply with our payment obligations under our debt agreements and instruments. See "Item 3—Key Information—COVID-19 Pandemic" for more information on the impact of COVID-19 on our debt and cash levels.

We may not be able to generate sufficient cash to service our indebtedness or satisfy our short-term liquidity needs, and we may be forced to take other actions to do so, which may not be successful.

Historically, we have addressed our liquidity needs, including funds required to make scheduled principal and interest payments, refinance debt, and fund working capital and planned capital expenditures, mostly with operating cash flow, borrowings under credit facilities and receivables and inventory financing facilities, proceeds of debt and equity offerings and proceeds from asset sales. As of December 31, 2021, we had $602 million funded under our securitization programs in Mexico, the United States, France and the United Kingdom. We cannot assure you that, going forward, we will be able to roll over or renew these programs or generate sufficient cash to service our indebtedness or satisfy our short-term liquidity needs through the means we have historically used. This could adversely affect our liquidity and force us to take other actions to service our indebtedness or satisfy our short-term liquidity needs, which may be unsuccessful.

Specifically, we have periodically resorted and may continue to resort to the capital markets to raise debt, equity and equity-linked capital as our principal alternative to the means to obtain liquidity described in the paragraph above. A wide variety of factors may have adverse effects on our operating results and negatively affect our credit rating and the market value of our CPOs and ADSs, or that of our publicly listed subsidiaries, mainly CEMEX Latam Holdings, S.A. ("CLH") and CEMEX Holdings Philippines, Inc. ("CHP"). In such event, securities issued by us could be deemed undesirable in the capital markets, which could make traditional sources of capital unavailable to us on reasonable terms or at all. If the global economic environment deteriorates and our operating results worsen, if we are unable to complete divestitures and/or debt or equity offerings on favorable terms or at all and/or our cash flow or capital resources prove inadequate, we could face liquidity problems and may not be able to comply with our principal payments under our indebtedness or refinance our indebtedness. See “Item 3—Key Information—COVID-19 Pandemic” for more information on the impact of COVID-19 on our liquidity.

CEMEX, S.A.B. de C.V.’s ability to repay debt and pay dividends is highly dependent on our subsidiaries’ ability to transfer income and dividends to us. We control four publicly-listed companies, where this risk is heightened.

Aside from its operations in Mexico, CEMEX, S.A.B. de C.V. is a holding company that owns the stock of its direct subsidiaries and is the beneficial owner of the equity interests of its indirect subsidiaries and has holdings of cash and marketable securities. In general, CEMEX, S.A.B. de C.V.’s ability to repay debt and pay dividends, as well as to make other payments, depends on the continued transfer to it of dividends and other income and funds from its subsidiaries. The ability of CEMEX, S.A.B. de C.V.’s subsidiaries to pay dividends and make other transfers to CEMEX, S.A.B. de C.V. is subject to various regulatory, contractual and legal constraints of the countries in which we operate, as well as our continued compliance with terms under our debt agreements and instruments under which certain covenants have been partially suspended. See “Item 3—Key Information—COVID-19 Pandemic” and “Item 5—Operating and Financial Review and Prospects—Recent Developments—Recent Developments Relating to Effects of COVID-19 on Our Business and Operations” for more information on the impact of the COVID-19 pandemic on our business.

The ability of CEMEX, S.A.B. de C.V.’s subsidiaries to pay dividends and make loans and other transfers to it is generally subject to various regulatory, legal and economic limitations. Depending on the jurisdiction of organization of the relevant subsidiary, limitations may include solvency and legal reserve requirements, dividend payment restrictions based on interim financial results or minimum net worth and withholding taxes on loan interest payments. For example, our subsidiaries in Mexico may declare and pay dividends only out of the profits reflected in the year-end financial statements approved by its stockholders. In addition, such payment can be approved by stockholders only after the creation of a required legal reserve (equal to one fifth of the relevant company’s capital) and compensation or absorption of losses, if any, incurred by such corporation in previous fiscal years.

CEMEX, S.A.B. de C.V. may also be subject to exchange controls on remittances by its subsidiaries from time to time in a number of jurisdictions. In addition, CEMEX, S.A.B. de C.V.’s ability to receive funds from its subsidiaries may be restricted by the debt instruments and other contractual obligations of these entities. The jurisdictions of organization of CEMEX, S.A.B. de C.V.’s current or future subsidiaries may impose additional and more restrictive regulatory, legal and/or economic limitations. In addition, CEMEX, S.A.B. de C.V.’s subsidiaries may not be able to generate sufficient income to pay dividends or make loans or other transfers to it in the future, or may not have access to Dollars in their respective countries, which, as of the date of this annual report, would be the preferred currency to be received by CEMEX, S.A.B. de C.V. Also, any decision to have any of CEMEX, S.A.B. de C.V.’s not wholly-owned subsidiaries declare and pay dividends or make loans or other transfers to us is subject to any rights that non-controlling shareholders may have in the corresponding subsidiary. Additional or more restrictive limitations on our subsidiaries could adversely affect CEMEX, S.A.B. de C.V.’s ability to service our debt, meet its other cash obligations and pay dividends to its shareholders. See “Item 3—Key Information—COVID-19 Pandemic” for more information on the impact of COVID-19 on our operating subsidiaries and the possibility of less income being generated by our operating subsidiaries.

We have to service part of our debt and other financial obligations denominated in Dollars and Euros with revenues generated in Mexican Pesos or other currencies, as we do not generate sufficient revenue in Dollars and Euros from our operations to service all our debt and other financial obligations denominated in Dollars and Euros. 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 Dollar and Euro. In addition, our consolidated reported results and outstanding indebtedness are significantly affected by fluctuations in exchange rates between the Dollar (our reporting currency) vis-à-vis the Mexican Peso and other significant currencies within our operations.

A substantial portion of our total debt plus other financial obligations is denominated in Dollars and Euros. As of December 31, 2021, our debt plus other financial obligations denominated in Dollars and Euros represented 82% and 8% of our total debt plus other financial obligations, respectively. Our Dollar-denominated and Euro-denominated debt must be serviced with funds generated mostly by our direct and indirect subsidiaries' operations outside the United States and Europe. Although we have substantial operations in the United States and Europe, we continue to strongly rely on our non-U.S. assets and non-European assets to generate revenues to service our Dollar-denominated and Euro-denominated debt. Consequently, we have to use revenues generated in Mexican Pesos or other currencies to service our Dollar-denominated and Euro-denominated obligations. See "Item 5—Operating and Financial Review and Prospects—Quantitative and Qualitative Market Disclosure—Interest Rate Risk, Foreign Currency Risk and Equity Risk—Foreign Currency Risk." A devaluation or depreciation in the value of the Mexican Peso, Pound Sterling, Colombian Peso, Philippine Peso or any of the other currencies of the countries in which we operate, compared to the Dollar and Euro, could adversely affect our ability to service our Dollar-denominated and Euro-denominated debt. In 2021, our operations in Mexico, the United Kingdom, France, Germany, Poland, Spain, the Philippines, Israel, the Rest of EMEAA (as defined below) segment, Colombia, Caribbean TCL (as defined below), the Dominican Republic and the Rest of SCA&C (as defined below) segment, which are our main non-Dollar denominated operations, together generated 61% of our total revenues in Dollar terms (22%, 6%, 5%, 3%, 3%, 2%, 2%, 5%, 3%, 3%, 2%, 2% and 3%, respectively) before eliminations resulting from consolidation. In 2021, 27% of our revenues in Dollar terms were generated from our operations in the United States before eliminations resulting from consolidation.

During 2021, the Mexican Peso depreciated 3.1% against the Dollar, the Euro depreciated 7.4% against the Dollar and the Pound Sterling depreciated 1.1% against the Dollar. Currency hedges that we may be a party to or may enter into in the future may not be effective in covering all our currency-related risks. Our consolidated reported results for any period and our outstanding indebtedness as of any date are significantly affected by fluctuations in exchange rates between the Dollar and other currencies, as those fluctuations influence the amount of our non-Dollar indebtedness when translated into Dollars and also result in foreign exchange gains and losses as well as gains and losses on derivative contracts, including those entered into to hedge our exchange rate exposure. For a description of these impacts, see "Item 3—Key Information—Risk Factors—Risks Relating to Our Business and Operations—Our use of derivative financial instruments has negatively affected, and any new derivative financial instruments could negatively affect, our operations, especially in volatile and uncertain markets." See "Item 3—Key Information—COVID-19 Pandemic" for more information on the impact of COVID-19 on the value of the Mexican Peso against the Dollar.

Increases in liabilities related to our pension plans could adversely affect our results of operations.

We have obligations under defined benefit pension and other benefit plans in certain countries in which we operate, mainly in North America and Europe. Our actual funding obligations will depend on benefit plan changes, government regulations and other factors, including changes in longevity and mortality statistics. Despite the fact that we support our projections with studies by external actuaries, it is difficult to predict pension liabilities and funding requirements due to the large number of variables and assumptions involved, which are difficult to predict because they change continuously as demographics evolve. We have a net projected liability recognized in our statement of financial position as of December 31, 2021 of $999 million. The future cash funding requirements for our defined benefit pension plans and other post-employment benefit plans could significantly differ from the amounts estimated as of December 31, 2021. If so, these funding requirements, as well as our possible inability to properly fund, and/or provide sufficient guarantees for, such pension plans if we are unable to deliver the cash or equivalent funding requirements, could have a material adverse effect on our business, financial condition, liquidity, results of operations and prospects. See note 20 to our 2021 audited consolidated financial statements included elsewhere in this annual report for a detailed description of our pension obligations.

Risks Relating to Regulatory and Legal Matters

We are subject to the laws and regulations of the countries where we operate and do business and non-compliance, any material changes in such laws and regulations and/or any significant delays in assessing the impact and/or adapting to such changes may have an adverse effect on our business, financial condition, liquidity and results of operations.

Our operations are subject to the laws and regulations of the countries where we operate and do business, and such laws and regulations, and/or governmental interpretations of such laws and regulations, may change. Because CEMEX, S.A.B. de C.V. is organized under Mexican laws, and because of the considerable size of our operations in the United States and the fact that the ADSs trade on the New York Stock Exchange (the “NYSE”), we have to comply with the laws and regulations, and/or governmental interpretations of such laws and regulations, of Mexico and the United States, whether or not we operate and do business through a subsidiary located in Mexico or the United States.

Any change in such laws and regulations, and/or governmental interpretations of such laws and regulations, may have a material adverse effect on our business, financial condition, liquidity and results of operations. Furthermore, changes in laws and regulations, and/or governmental interpretations of such laws and regulations, may require us to devote a significant amount of time and resources to assess and, if required, to adjust our operations to any such changes, which could have a material adverse effect on our business, financial condition, liquidity and results of operations. In addition, any significant delays in assessing the impact and/or, if required, in adapting to changes in laws and regulations and/or governmental interpretations of such laws and regulations may also have a material adverse effect on our business, financial condition, liquidity, results of operations and prospects. For more information, see “Item 3—Key Information—Risk Factors—Risks Relating to Our Business and Operations—Economic conditions in countries where we operate and in other regions or countries may adversely affect our business, financial condition, liquidity and results of operations,” “Item 3—Key Information—Risk Factors—Risks Relating to Our Business and Operations—Political, social and geopolitical events, possible changes in public policies and other risks in some of the countries where we operate, which are inherent to the operations of an international company, could have a material adverse effect on our business, financial condition, liquidity and results of operations” and “Item 3—Key Information—Risk Factors—Risks Relating to Regulatory and Legal Matters—Our operations are subject to environmental laws and regulations that are increasingly stringent.”

We or our third-party providers may fail to maintain, obtain or renew or may experience material delays in obtaining requisite governmental or other approvals, licenses and permits for the conduct of our business.

We and our third-party providers of goods and services, as applicable, require various approvals, licenses, permits, concessions and certificates in the conduct of our business. We cannot assure you that we, or our third- party providers of goods and services, will not encounter significant problems in obtaining new or renewing existing approvals, licenses, permits, concessions and certificates required in the conduct of our business, or that we, or our third-party providers of good and services, will continue to satisfy the current or new conditions to such approvals, licenses, permits, concessions and certificates that we currently have or may be granted in the future. There may also be delays on the part of regulatory and administrative bodies in reviewing our applications and granting approvals, which have become increasingly common since the beginning of the COVID-19 pandemic due to closures and/or reduced operations of public offices. The implementation of new laws and regulations on environmental-related matters in the countries in which we operate or in the countries from which our third-party providers of goods and services source their deliverables to us, may create stricter requirements to comply with. This could delay our ability to obtain the related approvals, licenses, permits, concessions and certificates, or could result in us not being able to obtain them at all. If previously obtained approvals, licenses, permits and certificates are revoked and/or if we, or our third-party providers of goods and services, fail to obtain and/or maintain the necessary approvals, licenses, permits, concessions and certificates required for the conduct of our business, we may be required to incur substantial costs or temporarily suspend or alter the operation of one or more of our operating units, production facilities, mineral extraction locations or of any relevant component of them, which could affect the general production of these units, facilities or locations, which in turn could have a material adverse effect on our business, financial condition, liquidity, results of operations and prospects. See “Item 3—Key Information—COVID-19 Pandemic” and “Item 5—Operating and Financial Review and Prospects—Recent Developments—Recent Developments Relating to Effects of COVID-19 on Our Business and Operations” for more information on the impact of certain measures being taken by the governments of the countries in which we operate regarding temporary closures of our operating facilities to stop the spread of COVID-19.

We are subject to litigation proceedings, including government investigations relating to corruption and antitrust proceedings, that could harm our business and our reputation.

From time to time, we are and may become involved in litigation, investigations and other legal or administrative proceedings relating to claims arising from our operations, either in the normal course of business or not, or arising from violations or alleged violations of laws, regulations or acts. As described in, but not limited to, “Item 4—Information on the Company—Regulatory Matters and Legal Proceedings,” as of December 31, 2021, we were subject to a number of significant legal proceedings, including, but not limited to, an SEC investigation concerning a new cement plant being built by CEMEX Colombia S.A. (“CEMEX Colombia”) in the Municipality of Maceo in the department of Antioquia, Colombia (the “Maceo Plant”), as well as an investigation from the United States Department of Justice (the “DOJ”) mainly relating to our operations in Colombia and other jurisdictions, and antitrust investigations in countries in which we operate. In addition, our main operating subsidiary in Egypt, Assiut Cement Company (“ACC”), is involved in certain Egyptian legal proceedings relating to the acquisition of ACC. Investigations and litigation, and in general any legal or administrative proceedings, are subject to inherent uncertainties and unfavorable rulings may occur. We cannot assure you that these or any of our other regulatory matters and legal proceedings, including any that may arise in the future, will not harm our reputation or materially affect our ability to conduct our business in the manner that we expect or otherwise materially adversely affect us should an unfavorable ruling occur, which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

We are subject to anti-corruption, anti-bribery, anti-money laundering and antitrust laws and regulations in the countries in which we operate, some of which are considered high-risk countries. Any violation of any such laws or regulations could have a material adverse impact on our reputation, results of operations and financial condition.

We are subject to anti-corruption, anti-bribery, anti-money laundering, antitrust and other international laws and regulations and are required to comply with the applicable laws and regulations of the countries in which we operate, some of which, including Mexico, Jamaica, Trinidad and Tobago, Guyana, Barbados, Colombia, Panama, Egypt, the Philippines, the Dominican Republic, Guatemala, Nicaragua, Croatia, the Czech Republic and Haiti, are considered medium and high-risk countries with regard to corruption-related matters. In addition, we are subject to regulations on international trade that restrict dealings with certain sanctioned countries, individuals and entities, including regulations administered by the United States of America, the United Kingdom, and the European Union, and other international organizations and governments, including export control regulations, economic sanctions and trade embargoes. Given the large number of contracts that we are a party to around the world, the geographic distribution of our operations and the great variety of actors that we interact with in the course of business, we are subject to the risk that our affiliates, employees, directors, officers, partners, agents and service providers may misappropriate our assets, manipulate our assets or information, make improper payments or engage in corruption, bribery, money laundering or other illegal activity; and, as a consequence, we may be held liable for such misconduct, even if we do not engage in or authorize such activities.

Although we have implemented policies and procedures, which include training certain groups of our employees, seeking to ensure compliance with anti-corruption and related laws, there can be no assurance that our internal policies and procedures will be sufficient to prevent or detect all inappropriate practices, fraud or violations of law by our affiliates, employees, directors, officers, partners, agents and service providers or that any such persons will not take actions in violation of our policies and procedures. 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 investigate us and, if necessary, impose fines, penalties and remedies, which could cause us to lose clients, suppliers and access to debt and capital markets. Any violations by us, or the third parties we transact with, of anti-bribery, anti-corruption, anti-money laundering, antitrust and international trade laws or regulations could have a material adverse effect on our business, liquidity, reputation, results of operations and financial condition. For further information regarding our ongoing proceedings with respect to anti-corruption laws, see “Item 3—Key Information—Risk Factors—Risks Relating to Our Business and Operations—We are subject to litigation proceedings, including government investigations relating to corruption and antitrust proceedings, that could harm our business and our reputation” and “Item 4—Information on the Company—Regulatory Matters and Legal Proceedings.”

Certain tax matters may have a material adverse effect on our cash flow, financial condition and net income, as well as on our reputation.

We are subject to certain tax matters, mainly in Colombia and Spain, that, if adversely resolved, may have a material adverse effect on our operating results, liquidity and financial position, as well as on our reputation. See notes 3.14 and 21.4 to our 2021 audited consolidated financial statements included elsewhere in this annual report, “Item 4—Information on the Company—Regulatory Matters and Legal Proceedings—Tax Matters—Colombia,” and “Item 4—Information on the Company—Regulatory Matters and Legal Proceedings—Tax Matters—Spain” for a description of the legal proceedings regarding these Colombian and Spanish tax matters, all included elsewhere in this annual report.

Our operations are subject to environmental laws and regulations that are increasingly stringent.

Our operations are subject to a broad range of environmental laws and regulations in each of the jurisdictions in which we operate. These laws and regulations impose stringent environmental protection standards, which in recent years have and in the future are expected to continue becoming progressively stricter regarding, among other things, air emissions, land use and biodiversity, use of alternative fuels, water availability, wastewater discharges, the use and handling of hazardous waste or materials, waste management practices and the remediation of environmental impact of our operations. These laws and regulations expose us to the risk of substantial environmental costs and liabilities, including taxes, higher investment in equipment and technology, fines and other sanctions, the payment of compensation to third parties, remediation costs, business disruption and damage to reputation. Moreover, the enactment of stricter laws and regulations, stricter interpretation of existing laws or regulations or new enforcement initiatives, may impose new risks or costs on us or result in the need for additional investments, which could result in a material decline in our profitability. Such may be the case, for example, if policy derived from Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, signed by U.S. President Joe Biden on January 27, 2021, results in new regulatory or legislative initiatives relating to climate change, the application of regulatory criteria in relation to environmental matters stricter than that currently being applied, or in preferential treatment regarding pricing, contracting, the granting of operational permits or other economic activities being given to entities which may have environmental standards that are stricter than ours.

In late 2010, the United States Environmental Protection Agency ("EPA") issued the final Portland Cement National Emission Standard for Hazardous Air Pollutants ("Portland Cement NESHAP") under the federal Clean Air Act ("CAA"). This rule required portland cement plants to limit mercury emissions, total hydrocarbons, hydrochloric acid and particulate matter by September 2013. The rule was challenged in federal court, and in December 2011, the D.C. Circuit Court of Appeals remanded the Portland Cement NESHAP to EPA and directed the agency to recompute the standards. In February 2013, EPA issued a revised final Portland Cement NESHAP rule that relaxed emissions limits for particulate matter and moved the compliance deadline to September 2015. In April 2013, environmental groups again challenged the revised Portland Cement NESHAP rule in federal court. In April 2014, the D.C. Circuit issued a ruling upholding both the revised particulate matter emission limits and the September 2015 compliance deadline. While we expect to meet all emissions standards imposed by the Portland Cement NESHAP, we estimate that we will continue to incur operating costs at each plant to comply and could incur penalties if we fail to do comply.

In February 2013, EPA issued revised final emissions standards under the CAA for commercial and industrial solid waste incinerators (the "CISWI rule"). Under the CISWI rule, if a material being used in a cement kiln as an alternative fuel is classified as a solid waste, the plant must comply with CISWI standards. The CISWI rule covers nine pollutants and imposes potentially more stringent emissions limits on certain pollutants that also are regulated under the Portland Cement NESHAP. EPA received petitions to further reconsider certain provisions of the CISWI rule. EPA granted reconsideration on four specific issues and finalized the reconsideration of the CISWI rule in June 2016. The CISWI rule was also challenged by both industrial and environmental groups in federal court. In July 2016, the D.C. Circuit issued a ruling upholding most of the rule and remanding several portions to EPA for further consideration. EPA has not issued a revised final rule after remand, but the portions of the rule upheld on appeal are final and in effect. The final CISWI rule established a compliance date of February 2018, which was not impacted by the appeal. As of December 31, 2021, none of our kilns at CEMEX plants in the United States have been determined to be CISWI kilns; but, if they are determined to be CISWI kilns due to the use of certain alternative fuels, the emissions standards imposed by the CISWI rule could have a material impact on our business operations.

Under certain environmental laws and regulations, liability associated with investigation or remediation of hazardous substances can arise at a broad range of properties, including properties currently or formerly owned or operated by CEMEX, as well as facilities at which any hazardous substances or wastes generated by us were sent for treatment, storage or disposal, or any areas affected while any hazardous substances or wastes were transported. Such laws and regulations may apply without regard to causation or knowledge of contamination. We occasionally evaluate various alternatives with respect to our facilities, including possible dispositions or closures. Investigations undertaken in connection with these activities (or ongoing operational or construction activities) may lead to hazardous substance releases or discoveries of historical contamination that must be remediated, and closures of facilities may trigger compliance requirements that are not applicable to operating facilities. While compliance with these laws and regulations has not materially adversely affected our operations in the past, we cannot assure you that these requirements will not change, and that compliance will not adversely affect our operations in the future. Furthermore, we cannot assure you that existing or future circumstances or developments with respect to the impact of our operations will not require us to make significant remediation or restoration expenditures, which could have a material adverse effect on our business, financial condition, liquidity and results of operations.

The cement manufacturing process requires the combustion of large amounts of fuel and creates CO_2 as a by-product of the calcination process. Therefore, efforts to address climate change through federal, state, regional, EU and international laws and regulations requiring reductions in emissions of greenhouse gases ("GHGs") can create economic risks and uncertainties for our business. Such risks could include the cost of purchasing allowances or credits to meet GHG emission caps, the cost of paying higher energy costs or new CO_2-related taxes, the cost of installing equipment, adopting new technologies and employing non-clinker cementitious materials and other processes to reduce emissions to comply with GHG limits or required technological standards, decreased profits or losses arising from decreased demand for our goods and higher production costs resulting directly or indirectly from the imposition of legislative or regulatory controls. To the extent that financial markets view climate change and GHG emissions as a financial risk or that certain laws and regulations limit our access to the financial markets or financial products due to environmental considerations, this could have a material adverse effect on our cost of and access to capital. Given the uncertain nature of the actual or potential statutory and regulatory requirements for GHG emissions at the federal, state, regional, EU and international levels, we cannot predict the impact on our operations or financial condition or make a reasonable estimate of the potential costs to us that may result from such requirements. However, the impact of any such requirements, whether individually or cumulatively, could have a material economic impact on our operations in the United States, Europe, Mexico, United Kingdom and in other countries where we operate. In particular, rules and regulations that may come into effect to ensure the United States' achievement of its Nationally Determined Contribution (as defined below) following its reentering to the Paris Agreement, the potential approval of the European Commission's July 2021 proposal to implement measures to ensure the fulfillment of the goals contained in the EU's Green Deal (as defined below), the introduction in 2023 of GHG emission caps per industrial sector in Mexico and any further rules and regulations that may come into effect to complete the United Kingdom's implementation of the UK ETS (as defined below) may cause these risks to be realized. For more information on certain laws and regulations addressing climate change that we are, or could become, subject to, and the impacts to our operations arising therefrom, see "Item 4—Information on the Company—Regulatory Matters and Legal Proceedings—Environmental Matters."

As part of our insurance-risk governance approach, from time to time we evaluate the need to address the financial consequences of environmental laws and regulations through the purchase of insurance. As a result, we do arrange certain types of environmental impairment insurance policies for both site-specific, as well as multi-site locations. We also organize non-specific environmental impairment insurance as part of the provision of a broader corporate insurance strategy. These latter insurance policies are designed to offer some assistance to our financial flexibility to the extent that the specifics of an environmental incident could give rise to a financial liability. However, we cannot assure you that a given environmental incident will be covered by the environmental insurance we have in place, or that the amount of such insurance will be sufficient to offset the liability arising from the incident. Any such liability may be deemed to be material to us and could have a material adverse effect on our business, financial condition, liquidity, results of operations and reputation.

It may be difficult to enforce civil liabilities against us or the members of CEMEX, S.A.B. de C.V.'s board of directors, our senior management and controlling persons.

CEMEX, S.A.B. de C.V. is a publicly traded variable stock corporation (*sociedad anónima bursátil de capital variable*) organized under the laws of Mexico. Most of the members of CEMEX, S.A.B. de C.V.'s board of directors and of our senior management reside in Mexico, and all or a significant portion of the assets of those persons may be, and a substantial part of our assets are, located outside the United States. As a result, it may not be possible for you to effect service of process within the United States upon such persons or to enforce against them or against us in U.S. courts judgments predicated upon the civil liability provisions of the federal securities laws of the United States. We have been advised by our General Counsel, Roger Saldaña Madero, that there is doubt as to the enforceability in Mexico, either in original actions or in actions for enforcement of judgments of U.S. courts, of civil liabilities predicated on the U.S. federal securities laws.

Item 4 — Information on the Company

Unless otherwise indicated, references in this annual report to our sales and assets, including percentages, for a country or region are calculated before eliminations resulting from consolidation, and thus include intercompany balances between countries and regions. These intercompany balances are eliminated when calculated on a consolidated basis.