## 3D. Risk Factors

#### Risks Relating to Embraer

The outbreak of communicable diseases around the world, including COVID-19, may lead to higher volatility in the global capital markets and recessionary pressure on the global economy, which could adversely and materially affect us.

The outbreak of communicable diseases on a global scale has affected investment sentiment and resulted in sporadic volatility in global capital markets and may have a recessionary effect on the global economy, including in Brazil.

The outbreak of the novel coronavirus, known as COVID-19, was first identified in December 2019 in Wuhan, China, and has since spread globally. The COVID-19 outbreak has compelled governments around the world to adopt measures to contain the spread of COVID-19 by means such as lockdowns of cities, restrictions on travel and public transportation, business and store closures, and emergency quarantines, among others. Other measures were taken by companies and individuals to reduce the risk of exposure to infection, including reduced travel, cancellation of meetings and events, and implementation of work-at-home policies, among others, which has caused significant disruptions to the global economy and normal business operations across a growing list of sectors and countries. The COVID-19 pandemic adversely affected business confidence and consumer sentiment, and has been, and may continue to be, accompanied by significant volatility in financial and commodity markets. The spread of COVID-19, especially if the measures to curb the spread of the virus last for longer than expected, may have broader macro-economic implications, including reduced levels of economic growth and possibly a global recession, the effects of which could be felt well beyond the time the spread of infection is contained.

According to the International Air Transport Association ("IATA"), global commercial airline traffic volume in 2020 decreased by approximately 66%. IATA expects that traffic volume in 2021 will be 38% lower as compared to traffic volume in 2020. As of December 2020, 18% of the fleet with up to 100 seats and 36% of the fleet with 100-150 seats was in storage. As a result, we expect that traffic disruption and decreased demand affecting will continue to affect customers demand globally and may continue to materially and adversely affect our deliveries in 2021.

The reduction in the demand for travel combined with government-imposed travel restrictions is materially and adversely affecting the aerospace industry, causing some airlines to suspend, cancel or reduce flights. As a consequence, demand for new aircraft has declined as airlines are wary of the COVID-19 air travel restrictions and its consequences.

We have been monitoring the impacts of the COVID-19 pandemic not only on the global economy but also on our workforce, operations, as well as on the supply and demand mechanics for our products and services. Since the beginning of the pandemic, we have adopted several initiatives focused on health and safety of our employees. Our operations were interrupted for a few days to adjust our facilities and implement health and safety measures, including social distancing measures, remote work for some employees, reduction of working hours and wages, collective vacations and paid leaves.

Additionally, as a result of the COVID-19 pandemic, on March 17, 2020, our Brazilian corporate employees responsible for critical functions started to work from home and, on March 22, 2020, we decided to put our Brazilian employees that could not work remotely on paid leave until March 31, 2020. Until March 31, 2020, we were only carrying out essential activities at our facilities, including customer support, aircraft maintenance and manufacturing. On March 30, 2020, we further decided to put our Brazilian employees responsible for non-critical functions on collective vacation from April 1 to April 9, 2020. During this temporary shutdown of our facilities, we implemented safety measures to adapt our facilities to the World Health Organization ("WHO") guidelines. On April 10, 2020, we implemented a job preservation plan that included temporary furloughs, reduction in working hours and pay cuts to certain of our employees, as a means of guaranteeing their employment upon completion of the plan. On April 13, 2020, all of our Brazilian employees that could not work remotely and were not included in the job preservation plan returned to work at our adapted facilities.

In 2020, we have also implemented three voluntary dismissal programs for specific groups of employees in Brazil, with the participation of approximately 1,600 employees. On September 3, 2020, we announced a reduction in our workforce, dismissing approximately 900 employees. Considering both participation in the voluntary dismissal programs and non-voluntary dismissals, our workforce was reduced by approximately 2,500 employees in Brazil (approximately 12.5% of our total global workforce). The aggregate expenses in connection with this workforce reduction were approximately US\$69.2 million in the year ended December 31, 2020. Our or other companies' operations may be suspended again or remain suspended for a longer time. On March 26, 2020, due to the uncertainty related to the spread of COVID-19, we have also suspended the projections relating to our expected results for 2020, last updated on November 12, 2019.

We also adopted certain measures to preserve our cash flow, including reduction in working hours and pay cuts, extension of suppliers payment terms, extension of tax payment deadlines, negotiation of new bank credit facilities, and adjustments to the production chain.

As of the date of this annual report, only one of our executive jets customer cancelled its As of the date of this annual report, only one of our executive jets customer cancelled its firm order as a result of the COVID-19 pandemic. Most of the delivery postponements attributed to the effects of the pandemic were already delivered in 2020. With respect to our Commercial Aviation business unit, some of our customers rescheduled aircraft deliveries for 2021, but no cancellation has occurred as of the date of this annual report. We have also granted interim financing for certain deliveries of commercial jets held during the third and fourth quarters of 2020.

The reduction in our workforce, as a result of the COVID-19 pandemic, along with the absence of easing of scope clauses negotiated between the pilots unions and the airlines, has slowed down the pace of certification activities for the E175-E2 aircraft. For additional information on the impacts of COVID-19, see "Item 5. Operating and Financial Review and Prospects—5A. Operating Results—Current Conditions and Trends in our Industry—COVID-19."

With pending uncertainties regarding global vaccination and other virus variants, we cannot yet determine the full impact that COVID-19 pandemic will have on our business and results of operation in the short-to-medium term. Customers may continue to postpone their scheduled aircraft deliveries and may cancel some of their orders. In addition, delays in payment cycles by significant customers may have an impact on our cash position and working capital.

To date, no fully effective vaccines or treatments have been developed and effective vaccines or treatments may not be discovered in time to protect against a further spread of the virus. The effects of the COVID-19 pandemic on our business will depend on, among other factors, the ultimate geographic spread of the virus, the duration of the outbreak and the extent and overall economic effects of the governmental response to the pandemic. In addition, the effects of the COVID-19 pandemic may exacerbate the effects of the other risk factors disclosed in this section of the annual report.

#### A downturn in our key markets may reduce our sales and revenue, and, consequently, our profitability.

We expect that a substantial portion of our results will be affected, directly or indirectly, from sales of aircraft, which have historically been cyclical due to a variety of factors that are both external and internal to the air travel industry, including general economic conditions, and, most recently and importantly, the effects of COVID 19 on our operations and financial condition, which we cannot fully foresee as of the date of this Annual Report. For additional information on the impacts of COVID-19, see "Item 3. Key Information—3D. Risk Factors—Risks Relating to Embraer—The outbreak of communicable diseases around the world, including COVID-19, may lead to higher volatility in the global capital markets and recessionary pressure on the global economy, which could adversely and materially affect us."

Economic downturns in our industry, such as the one caused by the COVID-19 pandemic, may reduce air travel demand and corporate and personal spending, which may negatively impact our Commercial Aviation, Executive Aviation, Defense and Security and Services and Support business units. These downturns have led in the past and may also lead in the future, to a decrease in the volume of financing available to our customers for aircraft purchases, particularly in the aforementioned business units. A continued downturn in general economic conditions could result in further reductions in air travel and decreased orders for our aircraft. Our customers could also continue to defer or to cancel their purchases of our aircraft. We cannot predict the magnitude or duration of the impact that the aforementioned events could not only have on the air transport industry as a whole, but also on our business in particular.

## We depend on key customers.

In our Commercial Aviation business unit, as of December 31, 2020, over 90% of our firm orders in backlog for the current EMBRAER 170/190 jet family were from Republic Airlines and SkyWest. Our E-Jets E2 family backlog mainly comprises orders from the companies Azul, AerCap, AirCastle and AirPeace, which represent approximately 83% of our E-Jets E2 family orders. We believe we will continue to depend on a select number of key customers, and the loss of or difficulty in maintaining the relationship with any one of them would significantly reduce our sales and market share.

In the Executive Aviation business unit, we have been increasingly relying on individual orders as the share of fleet orders in the backlog has been diminishing. Despite the fact that we sold Praetors and Phenoms to a large fractional operator in 2019, and which corresponding deliveries will continue to occur in the short-term we believe that fleet renewal demand will occur at a more moderate rate over a longer period as the current operator's fleet ages.

In our Defense and Security business unit, the Brazilian government is our largest customer of defense aircraft products. Revenue from sales to the Brazilian government accounted for 44.5% of the business unit revenue for the year ended December 31, 2020. A decrease in defense investments by the Brazilian government due to budgetary constraints or other factors that are out of our control could decrease our Defense and Security revenue. We cannot assure you that the Brazilian government will continue to acquire defense products and services from us in the future at the same rate or at the same level.

Our aircraft sales are subject to cancellation and rescheduled delivery provisions that may reduce our future income, profitability, backlog and cash flow.

A portion of our aircraft firm orders is subject to significant contingencies before delivery. Prior to delivery, some of our purchase contracts may be terminated, or all or a portion of a particular firm order may be canceled, for different reasons, including (i) extended delays in delivering aircraft or failure to obtain certification of the aircraft or otherwise meet performance milestones and other requirements, (ii) the failure of a customer to honor its aircraft purchases or (iii) production rate shortfalls.

Our customers may also reschedule deliveries or cancel orders, particularly during an economic downturn. In 2020, we had income of US\$15.1 million related to contractual fines paid by customers due to contract cancellations compared to contractual fine income of US\$31.0 million in 2019 and US\$35.4 million in 2018. Material cancellations, delays or decreases in the number of aircraft delivered in any year would reduce our sales and revenue, and, consequently, our profitability, cash flow and backlog.

Legal proceedings pertaining to the now terminated strategic partnership with Boeing, including arbitration proceedings related to Boeing's termination of and failure to close the MTA and/or the Contribution Agreement, may adversely impact our business, financial condition and results of operations.

We have incurred and continue to incur additional costs in connection with the prosecution, defense or settlement of the currently pending and any future legal proceedings relating to the Boeing Transaction and/or Boeing's termination of and failure to close the Boeing Transaction. Such legal proceedings include, among other matters, the ongoing arbitration proceedings between Embraer and Boeing that have commenced

in connection with the wrongful termination of the MTA and/or the Contribution Agreement by Boeing. Both Embraer and Boeing have commenced arbitrations in connection with the termination. Such legal proceedings may also include litigation brought by our stockholders and holders of our ADRs related to the Boeing Transaction and/or Boeing's termination of, and failure to consummate the transactions contemplated by, the MTA and the Contribution Agreement. We continue to strongly believe that Boeing wrongfully terminated the MTA and the Contribution Agreement, that Boeing was under an obligation to continue to comply with the terms of the MTA and the Contribution Agreement, that Embraer was in full compliance with its obligations under the MTA and the Contribution Agreement and that our pending arbitration proceedings against Boeing and its affiliates are a valid enforcement of our rights under the MTA and the Contribution Agreement. We cannot predict the outcome of any such legal proceedings. Such legal proceedings may also create a distraction for our management team and board of directors and require time and attention. In the case of an adverse determination in the arbitration proceedings, we may not recover any damages from Boeing and we may be required to pay significant monetary damages to Boeing. In addition, even if we ultimately succeed in such legal proceedings, there may be negative publicity attached to such legal proceedings which may materially and adversely affect our reputation and brand names. As a result, any legal proceedings relating to the Boeing Transaction or Boeing's termination of and failure to close the Boeing Transaction could, among other things, adversely affect our business, financial condition and results of operations.

# We may face a number of challenges resulting from the development of new products and the possible pursuit of strategic opportunities and transactions.

We cannot assure you that our products will be accepted by our customers and the market, and if any of our new products do not meet customer expectations or market demand, our business would be adversely affected. In addition, as we continue to develop new products, we may need to reallocate existing resources and coordinate with new suppliers and risk-sharing partners. Finally, cost overruns and delays in the development and delivery of new products would adversely affect us.

We may pursue strategic opportunities and transactions, just as we have in the past, including joint ventures, partnerships, acquisitions or divestitures. We may face a number of challenges, including difficulties in identifying appropriate partners, assimilating with or adjusting to our partners' or targets' operations and personnel, maintaining internal standards and controls, as well as the diversion of our management's focus from our ongoing business. We cannot assure you that we will be able to meet these challenges and that our business or the trading price of our common shares or ADSs will not face disruptions as a result of such opportunities or transactions or the markets' perception thereof

## We may be required to refund cash contributions in connection with the production or development of our aircraft if certain milestones for our aircraft are not reached.

We have arrangements with our risk-sharing partners, pursuant to which they have contributed to us, in cash over the years, a total of US\$1,369.5 million since the beginning of the development of the EMBRAER 170/190, Phenom 100/300, Legacy 450/500 jet families and the E2 jet family through December 31, 2020. Cash contributions would have to be refunded by us to the risk-sharing partners to the extent that we had failed to fulfill certain agreed-upon milestones. In 2020, we met all the required milestones, and as a result, the full amount of the cash contributions was nonrefundable.

Although, currently, no cash contributions from our risk-sharing partners are refundable, we may enter into similar arrangements, and if we are unable to meet certain milestones agreed upon with our risk-sharing partners, we may be required to refund cash contributions for which we have not established provisions.

## We face significant international competition, which may adversely affect us.

The worldwide commercial aircraft manufacturing industry is highly competitive. Along with the large international companies Boeing and Airbus, we are one of the world's leading manufacturers of commercial aircraft. Additionally, Chinese, Russian and Japanese companies are developing regional jets and already have firm orders in backlog. Although we have attained a significant market share for our commercial

aircraft products, we cannot assure you that we will be able to maintain it. In order to remain competitive in the commercial aircraft manufacturing market in the long-term, we must continue to make technological, efficiency and performance enhancements to our aircraft. The competitive landscape has become increasingly aggressive, for example, in light of deals such as the Airbus acquisition of a majority stake in Bombardier's C-Series Program, rebranded A220s in July 2018.

As a relatively new entrant to the executive jets market, we face significant competition from companies with longer operating histories and established reputations in the industry. Some of our competitors in the executive jets market have a longer track record and a more established customer base. In addition, the level of pre-owned aircraft for sale in the market may continue to pressure the demand for new aircraft. This may impact the value of the pre-owned aircraft in our portfolio, despite a recent decrease in the level of pre-owned aircraft for sale in the market. We cannot assure you that we will increase our market share in the executive jets market business unit, or that we will not experience a reduction in our current market share of this business unit, especially taking into account an unstable and contracting market demand scenario that we expect in 2021.

Protectionist measures adopted by the governments of specific countries could adversely affect us. Our production is spread globally, with parts manufactured in one or more countries and assembled in another, and as a result any limitations to trade, including quotas, tariffs, subsidies or local content requirements, may increase our production costs and affect our capacity to compete in equal terms in the market for our products.

#### We work with a limited number of key suppliers.

We do not manufacture all of the parts and components used in the production of our aircraft. Approximately 75.0% of our consolidated production costs in our Commercial Aviation, Executive Aviation and Defense and Security business units consist of materials and equipment purchased from our riskand Defense and Security business units consist of materials and equipment purchased from our risk-sharing partners and other major suppliers. Risk-sharing arrangements are those in which suppliers are responsible for the design, development and manufacture of major components or systems of our aircraft. In some cases, the aircraft are designed specifically to accommodate a particular component, which cannot be substituted by another manufacturer without significant delays and expense. In addition, there exist only a limited number of suppliers of certain key components of aircraft globally. We work closely with our main suppliers in order to mitigate any potential supply chain risk, but we cannot assure you that these risks, which could negatively and adversely affect our operating and financial performance, will not materialize will not materialize.

#### Intellectual property violations may adversely affect us.

Intellectual property violations may adversely arrect us.

We rely on patent, copyright, trademark and trade secret laws, and agreements with our employees, customers, suppliers and other parties, to establish and maintain our intellectual property rights in technology and products used in our operations. Despite these efforts to protect our intellectual property rights, any of our direct or indirect intellectual property rights could be challenged, invalidated or circumvented. In addition, although we believe that we lawfully comply with the intellectual property rights granted to others, we may be accused of infringement on occasion and could have claims asserted against us in the future. These claims could harm our reputation, lead to fines and penalties and prevent us from offering certain products or services. Any claims or litigation in this area, whether we ultimately win or lose, could be time-consuming and costly, hurt our reputation and/or require us to enter into licensing arrangements. We may not be able to enter into these licensing arrangements on acceptable terms. If any infringement brought against us is successful, an injunction may also be ordered against us to stop infringing the alleged rights, which could adversely affect us, our research and/or production. our research and/or production.

# Unauthorized access to, or release or violation of our, our customers' or our business partners' systems and data could materially and adversely affect our business and reputation.

We, like all business organizations in the digital world, are subject to a broad range of cyber threats, including attacks, with varying levels of sophistication. These cyber threats are related to the confidentiality, availability and integrity of our systems and data, including our customers' confidential, classified or personal information. In addition, because we have access to certain information technology systems of some of our customers, our systems may be subject to attacks aimed at accessing, tampering with or exposing our customers' systems and their data.

We maintain extensive technical security controls, policy enforcement mechanisms, monitoring systems and management oversight in order to address these threats. While these measures are designed to prevent, detect and respond to unauthorized activity in our systems, certain types of attacks, including cyber-attacks, could materially and adversely affect our business and reputation.

Furthermore, some of our business partners, such as our suppliers, have significant access to confidential and strategic information regarding our projects and engineering data. Many of these suppliers face similar security threats and any attacks on their systems could result in unauthorized access to our systems or data. Any unauthorized access to, or release or violation of our systems and data or those of our customers or business partners could materially and adversely affect our business and reputation.

On November 24, 2020, we suffered a cybersecurity incident in our IT systems, which was later identified as a ransomware attack. The attack resulted in the encryption of an environment of virtual servers hosted in Brazil, prevented access to certain files and resulted in the inadvertent disclosure of data, some of which were made available on the dark web. We have reported the incident to law enforcement authorities.

Immediately after the incident, we employed significant IT resources, took measures to protect and strengthen the security of our systems, isolated the affected environment and repaired our network. As part of our reaction, we hired Tempest Security Intelligence, a leading cybersecurity firm, to investigate the incident and supplement our remediation efforts.

Despite our extensive security controls and measures to prevent the violation of our systems and data storage, we cannot guarantee that other cyberattacks or similar breaches will not happen in the future.

#### We may suffer from a lack of qualified personnel.

From time to time, there is significant competition within the aviation industry for skilled personnel in general and engineers in particular. To the extent this competition re-emerges, we may be unable to recruit and retain the necessary number of highly skilled engineers and other personnel we require. Failure to coordinate our resources in a timely manner or to attract and retain skilled personnel could slow down our development efforts and cause delays in production and deliveries of our aircraft, which would adversely affect us.

#### We are subject to environmental, health and safety risks.

Our products, as well as our manufacturing and service activities, are subject to environmental laws and regulations in each of the jurisdictions in which we operate. These laws regulate product performance or content, energy use, greenhouse gas emissions, air quality, water and noise pollution, hazardous substance management, human health risks arising from the exposure to hazardous or toxic materials and the remediation of soil and groundwater contamination.

In addition, environmental regulations related to climate change, including CO2 emissions standards adopted by the International Civil Aviation Organization, or the ICAO, are one of the main drivers of global aerospace industry research and development investments since they may affect customer preferences. We may incur additional costs to improve or create new compliance programs to meet environmental regulatory requirements. We currently have several comprehensive programs in place to reduce the effects of our operations on the environment. For additional information, see "Item 4. Information on the Company—4D. Property, Plant and Equipment."

Moreover, our services and products must comply with health and safety laws and regulations, as well as substances and preparations. We strive to maintain the highest quality standards and closely follow potential and confirmed changes in laws and regulations to adapt, redesign, redevelop, recertify or eliminate our products to remain compliant with those claims. Seizures of non-compliant products may occur, and we may incur administrative, civil or criminal penalties. In the event of an accident or other serious incident involving a product, we may be required to conduct investigations and undertake remedial activities.

We benefit from certain tax and other government-granted benefits and the suspension, cancellation or non-renewal of those benefits would have a material adverse effect on us.

Similarly to other Brazilian companies across multiple industries, we receive certain tax and other government-granted benefits, including incentives related to our export and research and development activities. For additional information, see "Item 5. Operating and Financial Review and Prospects—5A. Operating Results—Tax Incentives."

We cannot assure you that these incentives will be maintained or renewed or that we will be able to obtain new incentives. We could be materially adversely affected in the event our existing benefits are canceled or not renewed.

Scope clause restrictions in airline pilot contracts may limit demand for commercial aircraft in the U.S. market.

A key limiting factor in demand for regional jets is the existence of scope clauses contained in airline pilot contracts. These scope clauses, which are more prevalent in North America, but also exist in other important regions, including Europe, are negotiated between the airlines and the pilot unions, usually every three years, for purposes of imposing restrictions relating to the (i) number of aircraft that a regional carrier may operate; (ii) number of seats in an aircraft that a regional carrier may operate; and (iii) the weight of the aircraft that a particular regional carrier may operate. A round of negotiations between the major airlines and the pilot unions started at the end of 2019 and, as of the date of this annual report, still ongoing. As a result, our opportunities for near-term growth in the U.S. regional jets market in the 76 seat jet category may be limited. The U.S. is the most important market for the E175 aircraft. We cannot assure that current restrictions will be reduced, or that they will not be expanded, including by amending these scope clauses to cover larger-sized commercial aircraft.

#### The supply of pilots to the airline industry may be limited.

U.S. Federal Aviation Administration, or FAA, regulations may negatively impact the supply of qualified pilot candidates eligible to be hired in the airline industry. A first officer in U.S. domestic operations must hold an airline transport pilot certificate and an aircraft type rating to fly the aircraft. An airline transport pilot certificate requires that a pilot be 23 years of age and have 1,500 hours total time as a pilot. Due to these requirements, there may be a growing scarcity of new entrant pilots who meet the experience qualifications, mainly affecting regional carriers which are the usual entry airlines for new pilots (major airlines are expected to hire many of their experienced pilots).

In order to mitigate this issue, certain airlines, for example American Airlines and Jet Blue especially in the United States, have adopted internal measures, including but not limited to creating professional pilot programs and providing financing alternatives. However, any inability to recruit, train and retain qualified pilots may materially affect our customers' operations.

As a result of the COVID-19 pandemic, many professional pilots were laid-off and may choose to pursue another career. Additionally, the uncertainty related to the future development of the aviation industry, may decrease newcomers' interest for the profession.

#### We are subject to stringent certification and regulatory requirements, which may adversely affect us.

Our civil aviation products are subject to regulation in Brazil and in each jurisdiction where our customers are located. The aviation authority in Brazil, known as the National Civil Aviation Agency (Agência Nacional de Aviação Civil - ANAC), or the Brazilian Aviation Authority, as well as authorities in other countries in which our customers are located, most notably the FAA and the European Aviation Safety Agency, or the EASA, must certify our civil aviation products before we can deliver them to our customers. We cannot assure you that we will be able to obtain certification of our aircraft on a timely basis or at all. In addition, complying with the requirements of regulatory authorities can be both expensive and time-consuming. If we fail to obtain a required certification from an aviation authority for any of our aircraft, that aviation authority can prohibit the registration of that aircraft within its jurisdiction until certification has been obtained. Changes in government regulations and certification procedures could also delay our start of production as well as entry of a new product into a new market. Despite our continuous efforts to strictly observe and comply with all aviation certification and other regulatory requirements, we cannot predict how future laws or changes in the interpretation, administration or enforcement of those laws will affect us. We may be required to incur significantly more costs to comply with these laws and/or to respond to these changes.

#### Any accidents or catastrophic events involving our aircraft could adversely affect us.

We believe that our reputation and the safety record of our aircraft are important selling points for our products. However, the safe operation of our aircraft depends to a significant degree on a number of factors largely outside our control, including our customers' proper maintenance and repair of our aircraft and pilot skill. The occurrence of one or more accidents or catastrophic events involving one of our aircraft could adversely affect our reputation and future sales, as well as the market price of our common shares and the ADSs.

# Some of our aircraft sales may be subject to financial and residual value guarantees and trade-in options that may require us to make significant cash disbursements.

For certain aircraft sales contracts, we guarantee a portion of the financial value and the residual value for aircraft that we have already delivered. Financial guarantees are provided to financing parties to support a portion of the payment obligations of purchasers of our aircraft under their financing arrangements to mitigate default-related losses. These guarantees are secured by the financed aircraft.

Residual value guarantees typically ensure that, at the exercise date (between six and 19 years after the aircraft delivery date), the relevant aircraft will have a residual market value equal to a percentage of the original sale price. Most of our residual value guarantees are subject to a limitation (a "cap") and, therefore, on average, our residual value guarantee exposure is limited to 11% of the original sale price. In the event of an exercise by a purchaser of its residual value guarantee, we will bear the difference, if any, between the guaranteed residual value and the market value of the aircraft at the time of exercise, limited to the cap.

Assuming all customers who are supported by off-balance sheet financial guarantees defaulted on their aircraft financing arrangements, and also assuming we were required to pay the full aggregate amount of outstanding financial and residual value guarantees and were unable to remarket any of the aircraft to offset our obligations, our maximum exposure would have been US\$183.3 million (or US\$92.7 million, net of provisions of residual value guarantee and financial guarantee already recorded in the amount of US\$90.6 million as reflected in Note 36.2 to our 2020 audited consolidated financial statements) under these guarantees as of December 31, 2020. As a result, we would be obligated to make substantial payments that may not be recoverable through proceeds from aircraft sales or leases, particularly if we are not able to remarket any of the aircraft to offset our obligations or financing defaults occur with respect to a significant portion of our aircraft. The value of the underlying aircraft are more likely to decrease and third parties are more likely to default during economic downturns. For additional discussion see our exposure to these guarantees in Note 36.2 to our 2020 audited consolidated financial statements and "Item 5. Operating and Financial Review and Prospects—5E. Off-Balance Sheet Agreements."

In addition, we sometimes provide trade-in options to our customers in purchase agreements for new aircraft. These options provide customers with the right to trade in aircraft upon the purchase and acceptance of a new aircraft. In 2020, we accepted seven aircraft, with a total invoiced value of US\$43.4 million, for trade-in pursuant to trade-in options, as compared to 17 aircraft, with a total invoiced value of US\$484.9 million, in 2019, and 11 aircraft, with a total invoiced value of US\$110.5 million, in 2018. The trade-in price is determined based on the new aircraft sold, as well as other factors, including a market value assessment performed by independent third-party appraisers. We may be required to accept trade-ins at prices that could result in financial loss for us when we receive the aircraft

We continuously re-evaluate our risk related to financial guarantees and trade-in obligations based on a number of factors, including the estimated future market value of our aircraft based on third-party appraisals, information on similar aircraft remarketing in the secondary market and the credit rating of the customers.

In 2020, 2019 and 2018, we maintained provisions and contract liabilities on financial guarantees and residual value guarantees of US\$125.2 million (including accounts payable of US\$34.6 million in relation to financial guarantees and residual value guarantees claimed by the counterparties in 2020), US\$140.3 million and US\$152.1 million (including provision for Chapter 11 filled by Republic Airways of US\$15.1 million in 2018), respectively, related to exposure from financial guarantees offered to the main financing agent of the ERJ 140/145 aircraft and Embraer 170/190 aircraft acquired by and delivered to this customer.

Any unexpected decrease in the market value of the aircraft covered by trade-in rights or financial guarantees would decrease our ability to recover the amounts payable to satisfy our obligations and cause us to incur additional charges to income. If we are required to pay amounts related to the guarantees, we may not have sufficient cash or other financial resources available to do so and may need to seek financing to fund these payments. We cannot assure you that the prevailing market conditions at the time would allow us to resell or lease the underlying aircraft at its anticipated fair value or in a timely manner. Consequently, honoring our financial guarantee or trade-in obligations could require us to make significant cash disbursements in a given year, which, in turn, would reduce our cash flow in that year.

Any decrease in Brazilian government-sponsored customer financing, or increases in government-sponsored financing that benefits our competitors, may decrease the competitiveness of our aircraft.

Traditionally, aircraft original equipment manufacturers, or OEMs, from time to time, have received support from governments through governmental export credit agencies, or ECAs, in order to offer competitive financing conditions to their customers, especially in periods of credit tightening from the traditional lending market.

Official government support may constitute unofficial subsidies causing market distortions, which may rise to disputes among governments at the World Trade Organization, or WTO. Since 2007, an agreement known as the Aircraft Sector Understanding, or ASU, developed by the Organization for Economic Co-operation and Development, or OECD, has provided guidelines for the predictable, consistent and transparent use of government-supported export financing for the sale or lease of civil aircraft, in order to establish a "level-playing field." ECAS from signatory countries are required to offer terms and conditions no more favorable than those contained in the ASU's base financial agreement when financing sales of aircraft that compete with those produced by the OEMs of their respective countries. The effect of the agreement is to encourage aircraft purchasers to focus on the price and quality of aircraft products offered by OEMs rather than on the financial packages offered by their respective governments.

The Brazilian ECA, Brazilian Social and Economic Development Bank (Banco Nacional de Desenvolvimento Econômico e Social), or BNDES, together with the Brazilian National Treasury Export Guarantee Fund, offer financing and export credit insurance to our customers under terms and conditions required by the ASU. Any reduction or restriction to the Brazilian export financing program, and any increase in our customers' financing costs for participation in this program, above those provided in the ASU's base financial agreement, may cause the cost-competitiveness of our aircraft to decline. Other external factors may also impact our competitiveness in the market, including, but not limited to, aircraft OEMs from countries which are not signatories to the ASU agreement offering attractive financing packages, or any new government subsidies supporting any of our major competitors.

From 2005, when we first delivered EMBRAER 170/190 jet family, through 2020, approximately 29% of our Commercial Aviation deliveries was subject to official export credits. In 2019 and 2020, approximately 16% and 80%, respectively, of our Commercial Aviation deliveries were supported by the Brazilian export financing program, and this significant increase was due to the COVID-19 pandemic in 2020. We cannot assure that the Brazilian government, for policy reasons or otherwise, will not reduce or discontinue this type of funding for the financing of our aircraft or that other sources of funding will be available to our customers. The loss or significant reduction of funds available to our customers, without an adequate substitute, could lead to a reduction in sales of our aircraft or to an increase of eventual aircraft financing arrangements.

#### Risks Relating to Brazil

Brazilian political and economic conditions have a direct impact on our business and the trading price of our common shares and ADSs.

The Brazilian government has frequently intervened in the Brazilian economy and occasionally has made drastic changes in policy and regulations. The Brazilian government's actions to control inflation and affect other policies and regulations have involved, among other measures, increases in interest rates, changes in tax policies, price controls, currency exchange and remittance controls, devaluations, capital controls and limits on imports. Our business, financial condition, results of operations and the trading price of the common shares and the ADSs may be adversely affected by changes in policy or regulations at the federal, state or municipal level involving or affecting factors, such as:

- · interest rates;
- currency fluctuations;
- monetary policies;
- inflation;
- liquidity of capital and lending markets;
- tax policies;
- · labor regulations;
- energy and water shortages and rationing; and
- · other political, social and economic developments in or affecting Brazil.

Uncertainty over whether the Brazilian government would implement changes in policy, regulation or legislation creates instability in the Brazilian economy, increasing the volatility of the Brazilian securities markets. These uncertainties and other future developments in the Brazilian economy may adversely affect our activities, and consequently our operating results, and may also adversely affect the trading price of our common shares and ADSs. We cannot predict which policies the Brazilian government will adopt or if these policies or changes in current policies may have an adverse effect on us or the Brazilian economy. These factors are compounded as Brazil emerges from a prolonged recession after a period of a slow recovery, with only meager GDP growth in 2019 and contraction again in 2020.

Since 2011, Brazil's economy has been weak. The Gross Domestic Product, or GDP, had a contraction rate of (4.1)% in 2020, driven by the COVID-19 pandemic, and growth rates of 1.1% in 2019, 1.3% in 2018, 1.3% in 2017, compared to contraction rates of 3.3% in 2016 and 3.5% in 2015, and GDP growth was 0.5% in 2014, 3.0% in 2013, 1.9% in 2012 and 4.0% in 2011, compared to a GDP growth of 7.5% in 2010. According to the Focus bulletin dated April 1, 2021, the consensus of Brazilian economists was for expectations of Brazilian GDP to increase 3.2% in 2021.

Our results of operations and financial condition have been, and will continue to be, affected by the growth rate of the Brazilian GDP. Developments in the Brazilian economy may affect Brazil's growth rates and, consequently, the use of our products and services.

## Political instability may adversely affect our business and results of operations, the price of our common shares and our debt instruments.

Brazil's political environment has historically influenced, and continues to influence, the performance of the country's economy. Political crises have affected, and continue to affect, the confidence of investors and that of the public in general, resulting in economic downturn and heightened volatility of securities issued by Brazilian companies.

Brazilian markets have experienced heightened volatility due to uncertainties derived from ongoing investigations on money laundering and corruption conducted by the Brazilian Federal Police and the Federal Prosecutor's Office, and the impact of these investigations on the Brazilian economy and political environment.

The ultimate outcome of these investigations is uncertain, but they had an adverse impact on the image and reputation of the implicated companies, and on the general market perception of the Brazilian economy. We cannot predict the effects of further political developments on the Brazilian economy, including the policies that the Brazilian government may adopt or the outcome and development of any of these investigations, which has affected and may continue to adversely affect the Brazilian economy and may adversely affect the trading price of our common shares and ADSs.

# Inflation and government efforts to combat inflation may contribute significantly to economic uncertainty in Brazil and to heightened volatility in the Brazilian securities markets and, consequently, may adversely affect the market value of our common shares.

Historically, Brazil has experienced high inflation rates. Inflation and certain actions taken by the Central Bank to curb it have had significant negative effects on the Brazilian economy. After the implementation of the Plano Real in 1994, the annual rate of inflation in Brazil decreased significantly, as measured by the National Broad Consumer Price Index (Indice Nacional de Preços ao Consumidor Amplo), or IPCA and Brazil's General Price Index (Indice Geral de Preços – Mercado), or IGP-M. Inflation measured by the IPCA index was 4.5%, 4.3% and 3.8% in 2020, 2019 and 2018, respectively. Inflation measured by IGP-M index was 23.1% in 2020, 7.3% in 2019 and 7.5% in 2018.

Inflation and the Brazilian government's measures to fight it, principally the Central Bank monetary policy, have had and may have significant effects on the Brazilian economy and us. Among the effects of such inflationary pressure is a rise in labor costs. Contracts in U.S. dollars, which represent the majority of our Executive Aviation and Services and Support business units, are adjusted for U.S. inflation, through the application of the U.S. Consumer Price Index for Urban Wage Earners and Clerical Workers index when delivery is not in the same year of the sale and depending upon the specific commercial terms negotiated in the contracts. While contracts in Brazilian real represent a small portion of the Executive Aviation business unit, the same price adjustment mechanism concept applies using national index, typically the IGP-M. Major contracts in our Defense and Security business unit are adjusted for Brazilian inflation. If Brazil experiences high inflation again, our operating expenses and borrowing costs may increase, our operating and net margins may decrease and, if investor confidence decreases, the price of our common shares and ADSs may fall.

Tight monetary policies with high interest rates have restricted and may restrict Brazil's growth and the availability of credit. Conversely, more lenient government and Central Bank policies and interest rate decreases have triggered and may trigger increases in inflation, and, consequently, growth volatility and the need for sudden and significant interest rate increases, which could adversely affect us. Increases in interest rates could adversely affect our ability to incur additional debt and increase the cost of service of debt, resulting in an increase in our financial costs, which may reduce our liquidity, thereby adversely affecting our ability to meet our financial obligations. As of December 31, 2020, approximately 2.9% of our consolidated cash and cash equivalents were indexed to the variation of the SELIC and CDI rates. Therefore, fluctuations in Brazilian interest rates and inflation may adversely affect us. On the other hand, a significant decrease in the CDI or inflation rates may adversely affect the revenue we receive from our financial investments.

#### Exchange rate volatility may adversely affect us.

The Brazilian currency has, during the last decades, experienced frequent and substantial variations in relation to the U.S. dollar and other foreign currencies. In 2018, the *real* depreciated against the U.S. dollar in comparison to December 31, 2017, reaching R\$3.8748 per US\$1.00 as of December 31, 2018. In 2019, the *real* depreciated against the U.S. dollar in comparison to December 31, 2018, reaching R\$4.0307 per US\$1.00 as of December 31, 2019. In 2020, the *real* depreciated against the U.S. dollar in comparison to December 31, 2019, reaching R\$5.1967 per US\$1.00 as of December 31, 2020. There can be no assurance that the *real* will not depreciate further against the U.S. dollar.

Depreciation of the *real* against the U.S. dollar creates inflationary pressures in Brazil and causes increases in interest rates, which negatively affects the growth of the Brazilian economy as a whole, curtails access to foreign financial markets and may prompt government intervention, including recessionary governmental policies. Depreciation of the *real* against the U.S. dollar has also, including in the context of an economic slowdown, led to decreased consumer spending, deflationary pressures and reduced growth of the economy as a whole. On the other hand, appreciation of the *real* relative to the U.S. dollar and other foreign currencies could lead to a deterioration of the Brazilian foreign exchange current accounts, as well as dampen export-driven growth. Depending on the circumstances, either depreciation or appreciation of the *real* may materially and adversely affect us.

Although most of our revenue and debt is U.S. dollar-denominated, the relationship of the *real* to the value of the U.S. dollar, and the rate of depreciation of the *real* relative to the prevailing rate of inflation, may adversely affect us, mainly due to the following factors:

- Approximately 28 2% of our total costs are incurred and denominated in reais.
- Because taxes on income are largely determined and paid in reais based on our Brazilian tax books, the income tax expense line item of our statements of income, which has the U.S. dollar as our functional currency, is significantly impacted by appreciation of the real relative to the U.S. dollar to the extent we must record deferred taxes resulting from exchange rate fluctuations on the reported basis of our nonmonetary assets (mainly property, plant and equipment and intangible assets). If the real had devalued or appreciated by 10% against the U.S. dollar in relation to the actual exchange rate as of December 31, 2020, the deferred income tax expense would have been higher or lower by approximately US\$70.3 million. For additional information on the effects of the variation of the real against the U.S. dollar, see Notes 23 and 27 to our 2020 audited consolidated financial statements
- Depreciation of the real against the U.S. dollar or other currencies would reduce our realdenominated revenues from our Defense and Security business unit, when converted to the U.S. dollar as our functional currency.
- Appreciation of the real against the U.S. dollar or other currencies increases the costs of our products when measured in U.S. dollars, and may result in a decrease in our margins.

Depreciations of the *real* relative to the U.S. dollar could also reduce the U.S. dollar value of distributions and dividends on our ADSs and may also reduce the market value of our common shares and ADSs. While our functional currency is the U.S. dollar our shareholders' equity is required under Brazilian Corporate Law to be accounted and maintained in Brazilian *reais*, including amounts to be distributed to shareholders (dividends and interest on own capital). In 2020, while we had retained earnings recorded in U.S. dollars, the foreign exchange losses absorbed these earnings in Brazilian *reais*, causing a loss, which restricted our ability to pay dividends. For more information, see "8A. Consolidated Statements and Other Financial Information—Dividends and Dividends Policy."

As a result, we may be materially and adversely affected by exchange rate variations.

Developments and the perception of risk in other countries, especially other emerging markets, may adversely affect the market price of Brazilian securities, including our ADSs, our common shares and our debt instruments.

The market value of securities of Brazilian issuers, including securities issued by us, may be affected by economic and market conditions in other countries, including the United States, European Union and Latin American countries and other emerging market countries. Although economic conditions in those countries may differ significantly from economic conditions in Brazil, investors' reactions to developments in other countries may have an adverse effect on the market value of securities of Brazilian issuers. Crises elsewhere may diminish investor interest in securities of Brazilian issuers, including ours. This could adversely affect the trading price of our securities and could also make it more difficult for us to access the capital markets and finance our operations in the future on acceptable terms, or at all.

Any further downgrading of Brazil's could adversely affect the market price of our common shares, ADSs and debt instruments.

Credit ratings affect investors' perceptions of risk and, as a result, the yields required on debt issuances in the financial markets. Rating agencies regularly evaluate Brazil and its sovereign ratings, taking into account a number of factors including macroeconomic trends, fiscal and budgetary conditions, indebtedness and the prospect of change in these factors.

In January 2018, Standard & Poor's downgraded Brazil's sovereign debt credit rating from BB to BB-minus with a stable outlook in light of doubts regarding the presidential election and social security reform efforts. In February 2019, Standard & Poor's affirmed Brazil's sovereign credit rating at BB-minus with a stable outlook. In December 2019, Standard & Poor's affirmed Brazil's sovereign credit rating at BB-minus with a positive outlook. In April 2020, Standard & Poor's maintained Brazil's sovereign credit rating at BB-minus and revised the outlook on this rating to stable.

In April 2018, Moody's maintained Brazil's sovereign debt credit rating at Ba2, but changed its prospect from negative to stable, maintaining it in September 2018, citing the expected new government spending cuts. In May 2019, Moody's affirmed Brazil's sovereign credit rating at Ba2 and changed the outlook to stable. In May 2020, Moody's reaffirmed Brazil's sovereign credit rating at Ba2 with a stable outlook.

In February 2018, Fitch downgraded Brazil's sovereign credit rating again to BB-negative, citing, among other reasons, fiscal deficits, the increasing burden of public debt and an inability to implement reforms that would structurally improve Brazil's public finances. In November 2019, Fitch maintained Brazil's sovereign credit rating at BB-minus, citing the risk of tax and economic reforms and political instability. In May 2020, Fitch reaffirmed Brazil's sovereign credit rating at BB- and revised the outlook on this rating to negative.

As of the date of this annual report, Brazil's credit rating was classified as BB-, Ba2 and BB-by Standard & Poor's, Moody's and Fitch, respectively. Any further downgrading in Brazil's sovereign credit ratings or our rating may increase the perception of risk of investors and, as a result, increase the future cost of debt issuances, adversely affecting us.

We cannot guarantee that the rating agencies will maintain these classifications in relation to Brazilian credit and any further downgrade in Brazil's sovereign credit ratings could materially adversely affect the trading price of our debt and equity securities.

#### Risks Relating to Our Common Shares and ADSs

If holders of our ADSs exchange the ADSs for common shares, they risk losing the ability to remit foreign currency abroad and Brazilian tax advantages.

The Brazilian custodian for the common shares has obtained an electronic certificate of registration from the Central Bank permitting it to remit foreign currency abroad for payments of dividends and other distributions relating to the common shares or upon the disposition of the common shares. These remittances under an ADR program are subject to a specific tax treatment in Brazil that may be more favorable to a foreign investor if compared to remitting gains originated from securities directly acquired by the investor in the Brazilian regulated stock markets. Therefore, an investor who opts to surrender ADSs in exchange for the underlying common share may be subject to less favorable tax treatment on gains with respect to these investments.

Pursuant to CMN Resolution No. 4,373, in order for the investor to surrender ADSs for the purpose of withdrawing the common shares represented thereby, the investor is required to appoint a Brazilian financial institution duly authorized by the Central Bank of Brazil and CVM to act as its legal representative, who shall be responsible, among other things, for keeping and updating the investors' certificates of registrations with the Central Bank of Brazil, which entitles registered foreign investors to buy and sell directly on the B3 – Brasil, Bolsa, Balcão, or B3. These arrangements may require additional expenses from the foreign investor. Moreover, if the representatives fail to obtain or update the relevant certificates of registration, investors may incur additional expenses or be subject to operational delays which could affect their ability to receive dividends or distributions relating to the common shares or the return of their capital in a timely manner.

The custodian's certificate of registration or any foreign capital registration directly obtained by the holders may be affected by future legislative or regulatory changes, and we cannot assure the holders that additional restrictions applicable to them, the disposition of the underlying common or preferred shares, or the repatriation of the proceeds from the process will not be imposed in the future.

The Brazilian government has veto power over the change in our corporate control, and of our name, trademark or corporate purpose and over the creation or alteration of our Defense and Security programs, and its interests could conflict with the interests of the holders of our common shares and ADSs.

The Brazilian government holds one share of a special class of our common stock called a "golden share," which carries veto power over our change of control, name, trademark or corporate purpose and over the creation or alteration of our Defense and Security programs (whether or not the Brazilian government participates in those programs). For example, in 2010, we changed our corporate name to Embraer S.A. and altered our bylaws to allow us to enter the defense and security market, which required the approval of the Brazilian government. The Brazilian government may veto transactions that may be in the interest of the holders of our common shares or ADSs. We cannot assure you that we will be able to obtain approvals from the Brazilian government in the future to effect important corporate changes or transactions, or other important corporate changes that may be required.

Our bylaws contain provisions that could discourage our acquisition or prevent or delay transactions that you may favor.

Our bylaws contain provisions that have the effect of avoiding the concentration of our common shares in the hands of a small group of investors to promote the dispersed ownership of those shares. These provisions require any shareholder or group of shareholders that acquires or becomes the holder of (i) 35% or more of the total shares issued by us or (ii) other rights over shares issued by us that represent more than 35% of our capital, to submit to the Brazilian government a request for making a public tender offer to purchase all of our shares on the terms specified in our bylaws. If the request is approved, the shareholder or group of shareholders must commence the public tender offer to purchase all of our shares within 60 days of the date of approval. If the request is refused, the shareholder or group of shareholders that exceed the 35% limit within 30 days, so that the holding of this shareholder or group of shareholders falls

below 35% of our capital stock. These provisions may have anti-takeover effects and may discourage, delay or prevent a merger or acquisition, including transactions in which our shareholders might otherwise receive a premium for their common shares and ADSs. These provisions can only be altered or overridden with the approval of our board of directors and our shareholders in a shareholders' meeting convened for this purpose and with the consent of the Brazilian government, as holder of the golden share.

# Our bylaws contain provisions that limit the voting rights of certain shareholders, including non-Brazilian shareholders.

Our bylaws contain provisions that limit the rights of a shareholder or group of shareholders, including brokers acting on behalf of one or more holders of ADSs, to exercise voting rights in respect of more than 5% of the outstanding shares of our capital stock at any general meeting of shareholders. See "Item 10. Additional Information—108. Memorandum and Articles of Association—Voting Rights of Shares—Limitations on the Voting Rights of Certain Holders of Common Shares."

Our bylaws also contain provisions that limit the right of non-Brazilian shareholders to exercise voting rights in respect of more than two-thirds of the voting rights that may be exercised by Brazilian shareholders present at any general meeting of shareholders. This limitation will effectively prevent our takeover by non-Brazilian shareholders and limit the ability of non-Brazilian shareholders to effect control over us. For additional information on our voting rights, see "Item 10. Additional Information—10B. Memorandum and Articles of Association—Voting Rights of Shares—Limitation on the Voting Rights of Non-Brazilian Shareholders."

# The absence of a single, controlling shareholder or group of controlling shareholders may render us susceptible to shareholder disputes or other unanticipated developments.

The absence of a single, controlling shareholder or group of controlling shareholders may create difficulties for our shareholders to approve certain transactions, because, among other things, the minimum quorum required by law for the approval of certain matters may not be reached. We and our shareholders may not be afforded the same protections provided by the Brazilian Corporate Law against abusive measures taken by other shareholders and, as a result, may not be compensated for any losses incurred. Any sudden and unexpected changes in our management, changes in our corporate policies or strategic direction, takeover attempts or any disputes among shareholders regarding their respective rights may adversely affect our business and results of operations.

#### Holders of ADSs may not be able to exercise their voting rights.

Holders of ADSs may only exercise their voting rights with respect to the underlying common shares in accordance with the provisions of the deposit agreement governing our ADSs. Under the deposit agreement, ADS holders must vote the common shares underlying their ADSs by giving voting instructions to the depositary. Upon receipt of the voting instructions from the ADS holder, the depositary will vote the underlying common shares in accordance with these instructions. Otherwise, ADS holders will not be able to exercise their voting right unless they surrender the ADS for cancellation in exchange for the common shares.

Pursuant to our bylaws, the first call for a shareholders' meeting must be published at least 30 days in advance of the meeting and the second call must be published at least 15 days in advance of the meeting. When a shareholders' meeting is convened, holders of ADSs may not receive sufficient advance notice to surrender the ADSs in exchange for the underlying common shares to allow them to vote with respect to any specific matter. In addition, the depositary has no obligation to notify ADS holders of an upcoming vote or distribute voting cards and related materials to ADS holders, unless we specifically instruct the depositary to do so. If we ask the depositary to seek voting instructions from ADS holders, the depositary will notify ADS holders of the upcoming vote and will arrange to deliver proxy cards to those holders. We cannot assure you that ADS holders will receive proxy cards in time to allow them to instruct the depositary to vote the shares underlying their ADSs. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for an untimely solicitation of voting instructions. As a result, holders of ADSs may not be able to fully exercise their voting rights.