REGULATIONS

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AIR LIQUIDE GROUP
2009 EMPLOYEE SHARE PURCHASE PLAN
REGULATIONS FOR U.S. EMPLOYEES
(Amended and Restated Effective as of January 1, 2010)

PREAMBLE

L'AIR LIQUIDE S.A. (the "Company") adopted the Group Share Purchase Plan France and the International Group Share Purchase Plan (the "Employee Share Purchase Plans") pursuant to resolutions adopted by its shareholders. The Company's Employee Share Purchase Plans are intended to enable employees of the Company and its French and foreign subsidiaries, including Designated U.S. Subsidiaries, to subscribe to shares of the Company. These Regulations for U.S. Employees are established under the International Group Share Purchase Plan and are intended to set forth the terms and conditions pursuant to which employees of Designated U.S. Subsidiaries may participate in stock issuances under the Company's Employee Share Purchase Plans (the "U.S. Plan").

The U.S. Plan is hereby amended effective as of January 1, 2010 to conform to final regulations promulgated under Section 423 of the U.S. Internal Revenue Code ("Code") and to incorporate other changes.

ARTICLE I – PURPOSE AND LEGAL FRAMEWORK

1.1 Purpose

The purpose of the U.S. Plan is to further the development of employee stockholding by offering employees of Designated U.S. Subsidiaries of the Company the possibility of becoming stockholders of the Company. The U.S. Plan has been established to implement the Company's Employee Share Purchase Plans approved by the Board of Directors of the Company ("Board"). The Board shall establish the terms and conditions of any stock offerings from time to time. Except as provided in the U.S. Plan, it is the intention of the Company to have the U.S. Plan, established under the Company's Employee Share Purchase Plans, qualify as an "employee stock purchase plan" under Section 423 of the Code. The provisions of the U.S. Plan shall be in accordance with the Company's Employee Share Purchase Plans and the terms and conditions of offerings thereunder, and shall be construed so as to extend and limit participation in a manner consistent with the requirements of Section 423 of the Code, except as otherwise provided herein. Notwithstanding the foregoing, the Board may authorize one or more offerings under the U.S. Plan from time to time that are not intended to qualify under Section 423 of the Code. Such offerings shall be designated as being part of the portion of the U.S. Plan that is not intended to comply with Section 423 of the Code (the "non-Section 423 component").

1.2 Applicability

Any Designated U.S. Subsidiary of the Company may participate in the U.S. Plan.

ARTICLE II – DEFINITIONS

2.1 "Committee" shall mean the American Air Liquide Holdings, Inc. Employee Benefits Committee as appointed by the board of directors of American Air Liquide Holdings, Inc. to administer the terms and conditions of the U.S. Plan for the Designated U.S. Subsidiaries.

2.2 "Common Stock" shall mean the Common Stock of the Company.

2.3 "Designated U.S. Subsidiary" shall mean American Air Liquide Holdings, Inc. and any other U.S. Subsidiary of the Company which has been designated by the Committee as eligible to participate in the U.S. Plan from time to time and have joined or will join the
U.S. Plan by signing an adhesion form. Notwithstanding the foregoing, in an offering under the non-Section 423 component of the U.S. Plan, the term "Designated U.S. Subsidiary" shall mean any corporate or non-corporate entity designated by the Committee in accordance with the Company's Employee Share Purchase Plans in which the Company owns a minimum equity interest specified by the Board and which entity has joined or will join the U.S. Plan by signing an adhesion agreement.

2.4 "Employee" shall mean any individual who is an employee of a Designated U.S. Subsidiary for federal income tax purposes and who is customarily employed on a full-time or part-time basis by the Designated U.S. Subsidiary. For purposes of the U.S. Plan, the employment relationship shall be treated as continuing intact while the individual is on sick leave or other leave of absence approved by the Designated U.S. Subsidiary. Except as otherwise provided in the U.S. Plan, where the period of leave exceeds ninety (90) days and the individual's right to reemployment is not guaranteed either by statute or by contract, the employment relationship shall be deemed to have terminated on the ninety-first (91st) day of such leave.

2.5 "Fair Market Value" shall mean the average of the opening quotation for Common Stock of the Company on the Euronext Paris stock exchange during the twenty (20) trading sessions preceding the date of the decision of the Board or its delegee determining the Subscription Period. Notwithstanding the preceding sentence, for federal, state, and local income tax reporting purposes, fair market value shall be determined by the Committee in accordance with uniform and nondiscriminatory standards adopted by it from time to time.

2.6 "Subscription Period" shall mean the period of time, as designated by the Committee, in accordance with the decision of the Board or its delegee, during which Subscription Rights granted pursuant to the U.S. Plan may be exercised during an offering. In no event may the Subscription Period with respect to an offering intended to comply with Section 423 of the Code exceed twenty- seven (27) months.

2.7 "Subscription Rights" shall mean rights awarded to eligible U.S. employees to purchase shares of Common Stock of the Company under the U.S. Plan.

2.8 "Subsidiary" shall mean a corporation, domestic or foreign, of which more than 50 percent of the voting shares are held by the Company or a Subsidiary, whether or not such corporation now exists or is hereafter organized or acquired by the Company or a Subsidiary. The term "Subsidiary" shall be construed to have the same meaning as "subsidiary corporation" as defined in Section 424(f) of the Code using the attribution of stock ownership rules in Section 424(d) of the Code, except that the requisite ownership percentage shall be more than 50 percent of the voting shares.

ARTICLE III – ELIGIBILITY AND PARTICIPATION

3.1 Eligibility

Options to purchase the Company's Common Stock shall be granted to all eligible Employees of each Designated U.S. Subsidiary who shall have completed at least three (3) months of employment as of the end of the Subscription Period.

The Committee may, in accordance with the terms of any stock offering, exclude Employees who are citizens or residents of a non-U.S. jurisdiction if the grant of an option under the offering to such individual is prohibited under the laws of such jurisdictions or compliance with the laws of such foreign jurisdiction would cause the U.S. Plan or offering to violate the requirements of Section 423 of the Code. With respect to an offering intended to meet the requirements of Section 423 of the Code, the eligibility requirements shall satisfy the provisions of Section 423 of the Code and the regulations promulgated thereunder and the minimum period of service shall not exceed two (2) years.

The exercise of Subscription Rights under the U.S. Plan is optional.

3.2 Restrictions on Participation

Notwithstanding any provisions of the U.S. Plan to the contrary, no Employee shall be granted Subscription Rights to acquire shares of Common Stock in an offering intended to meet the requirements of Section 423 of the Code:

(a) if, immediately after the grant, such Employee would own stock and/or hold outstanding options to purchase stock, possessing 5 percent or more of the total combined voting power or value of all classes of stock of the Company or of its Subsidiaries (for purposes of this paragraph, the attribution rules of Section 424(d) of the Code shall apply in determining stock ownership of any Employee); or

(b) which permits an Employee the right to purchase stock under all employee stock purchase plans of the Company or of its Subsidiaries intended to qualify under Section 423 of the Code to accrue at a rate which exceeds $25,000 in Fair Market Value of the stock (determined at the time such option is granted) for each calendar year in which such option is outstanding at any time.

3.3 Commencement of Participation

An eligible Employee may elect to exercise Subscription Rights under the U.S. Plan by completing a subscription form with respect to the acquisition of shares of Common Stock during the Subscription Period (wherein the Employee must also select a method of payment for the subscribed shares). The Employee may not exercise Subscription Rights until after the receipt of all subscription materials in respect of the U.S. Plan, and must complete and return the subscription form or execute a subscription form electronically as instructed by the Company before the end of the Subscription Period. The Employee must submit the subscription form, and the payment agreement, if applicable, with the person designated on such forms or subscribe electronically in accordance with the instructions thereon, on or before the date set therefore by the Committee, which date shall be the last day of the Subscription Period.

An eligible Employee may cancel his or her exercise of Subscription Rights under the U.S. Plan by completing and returning a notice of withdrawal or completing a form electronically as instructed by the Committee with the person designated to receive such notice on or before the last day of the Subscription Period as instructed by the Committee.

ARTICLE IV – FUNDING

4.1 Contributions to U.S. Plan

This U.S. Plan is funded solely by voluntary payments by the participating Employees.

ARTICLE V – GRANT OF SUBSCRIPTION RIGHTS

5.1 Number of Shares Subject to Subscription Rights

Subject to the limitations of Section 3.2(b) of the Plan, on the date that the Board or its delegee determines the Fair Market Value of each share of Common Stock that may be purchased during a Subscription Period under Section 2.5, each eligible Employee shall be deemed to have been granted Subscription Rights to purchase that number of shares of Common Stock equal to twenty- five (25) percent of an Eligible Employee's annual gross base pay as determined by the Committee. The Subscription Rights may be exercised beginning on the first day of the Subscription Period and shall expire on the last day of the Subscription Period if not sooner exercised.

5.2 Purchase Price Per Share

The price of each share of Common Stock purchased during a Subscription Period shall be not less than 85 percent of the Fair Market Value of a share of Common Stock on the date set forth in Section 2.5.

ARTICLE VI – VOLUNTARY PAYMENTS BY EMPLOYEES

6.1 Amount of Voluntary Payments

Eligible Employees shall be informed of the minimum amount, the terms and conditions and the dates of Employees' voluntary payments prior to the end of the Subscription Period. The total amount of voluntary payments to the U.S. Plan and to the Company's Employee Share Purchase Plans cannot exceed one fourth (1/4) of the Employee's annual gross base pay as may be determined by the Committee.

6.2 Tax Withholding

To the extent required by law, at the time the Subscription Rights are exercised, in whole or in part, or at the time some or all of the Company's Common Stock issued under the U.S. Plan is disposed of, the participant shall make adequate provision for federal, state, or other tax withholding obligations, if any, which arise upon the exercise of the Subscription Rights or the disposition of the Common Stock as determined by the Committee. At any time where withholding is required, a Designated U.S. Subsidiary may withhold from the participant's compensation the amount necessary for the Designated U.S. Subsidiary to meet applicable minimum withholding obligations, including any withholding required to make available to the Designated U.S. Subsidiary any tax deductions or benefits attributable to the sale or early disposition of Common Stock by the Employee.

ARTICLE VII – USE OF SUMS PAID

7.1 Payment of Stock

An Employee shall select the method of payment for the shares at the time he or she files his or her subscription form, which shall include payment in full at the expiration of the Subscription Period or payment in installments over a period and under procedures to be determined by the Board or its delegee with respect to each offering in accordance with the provisions of the Company's Employee Share Purchase Plans. The sums paid by the participating Employees shall be immediately and entirely used for the payment of Common Stock subscribed during the Subscription Period.

7.2 Registration of Ownership of Stock

Once the final list of subscribers and the number of shares subscribed by each subscriber at the time of the capital increase has been established, the stock of the Company will be registered in an account opened in the Employee subscriber's name in the Company's records on a date to be determined by the Company's Shareholder's Department for each offering. Each Employee subscriber will receive an account registration certificate indicating the number of registered shares thus recorded in his or her account.

ARTICLE VIII – HOLDING PERIOD

8.1 Holding Period

The Company stock registered in the names of the participating Employees will be held in the account established for each Employee and shall not be available for transfer or other disposition by such Employee until the end of a five (5) year holding period unless otherwise required by applicable law or such other holding period as the Board shall establish for an offering. The holding period will begin on the date the Common Stock is registered in the Employee's account.

8.2 Expiration of Holding Period

During the holding period, the Common Stock will remain registered by name in the Employee's account and may not be transferred in any manner whatsoever.

8.3 Exceptions to Holding Period

Employees may request the early release of their shares before the expiration of the holding period, provided such shares have been fully paid for, under the following conditions, as determined by the Committee in its sole discretion:

(1) death of the Employee;

(2) termination of employment for any reason;

(3) acquisition or substantial improvement of an Employee's principal residence; or

(4) serious financial hardship of the Employee.

ARTICLE IX – TERMINATION OF EMPLOYMENT BEFORE FULL PAYMENT OF SUBSCRIBED STOCK

9.1 Termination of Employment

Upon a participant's termination of employment for any reason (other than transfer to another Company Subsidiary) before the stock an Employee has subscribed to has been fully paid, the Employee (or his or her assigns in the event of death) shall immediately pay any unpaid balance then owing under his or her payment agreement.

ARTICLE X – FAILURE TO PAY FOR SUBSCRIBED STOCK

10.1 Non-Payment of Subscribed Stock

If, for any reason whatsoever, the Employee (or his or her assigns in the event of death) does not fulfill his or her obligations to pay for subscribed stock at the scheduled dates, the Employee will be deemed to have defaulted as a shareholder. In such event, following a notice period, the Employee's Designated U.S. Subsidiary employer may sell the stock subscribed for by the Employee and use the proceeds to reduce the balance owed by the Employee under the payment agreement. If the proceeds of the sale exceed the amount owed by the Employee, the excess will be paid to Employee as soon as practicable, less applicable tax and payroll withholdings. If the proceeds are less than the amount owed by the Employee, the Employee will continue to be personally responsible for the payment of the insufficiency.

ARTICLE XI – DURATION OF THE EMPLOYEE STOCK PURCHASE PLAN

11.1 Term of U.S. Plan

This U.S. Plan shall be in force through December 31, 2009 subject to automatic renewal for periods of one year at the end of the initial and any subsequent expiration date, unless notice of termination is given in accordance with Section 11 .2.

11.2 Amendment or Termination of U.S. Plan

The Committee may at any time terminate or amend the U.S. Plan at the direction of the Board or its delegee. The termination of the U.S. Plan, however, shall have no effect on shares already subscribed to by participating Employees. No amendment may make any change in any Subscription Rights theretofore granted which adversely affects the rights of any Employee. Notice of termination shall be given by the Company to each Designated U.S. Subsidiary at least ninety days prior to any expiration date. In the event notice of termination is given, this U.S. Plan will continue to remain in effect until the expiration of the holding period of the last stock subscribed for by the Employees under the International Group Share Purchase Plan as provided in Article VIII of the Plan.

11.3 Change in Air Liquide Group

Employees of any Designated U.S. Subsidiary which ceases to be a member of the Air Liquide Group will no longer be able to make contributions of any kind whatsoever, but they will retain their holdings in the U.S. Plan according to the terms and conditions of the U.S. Plan, provided that the Designated U.S. Subsidiary's departure from the Air Liquide Group shall not constitute an exception to the Holding Period as provided in Section 8.3 of the U.S. Plan.

ARTICLE XII – SHARES OF COMMON STOCK

12.1 Shares Subject to the U.S. Plan

The maximum number of shares of the Company's Common Stock which shall be issued under the Employee Share Purchase Plans, including the U.S. Plan, shall be 5,500,000 shares. The Board shall establish the maximum number of shares which may be issued for each offering. If the total number of shares with respect to which Subscription Rights are to be exercised exceeds the number of shares then available under the offering, the Committee, as directed by the Board, shall reduce the number of shares subscribed for by those Employees who have subscribed for the greatest number of shares until the number of shares subscribed for no longer exceeds the number of shares available for issuance.

12.2 Employee's Interest in Stock Subject to Subscription Rights

An Employee shall have no interest or voting rights in shares covered by Subscription Rights until such Subscription Rights have been exercised. Each share of Common Stock issued under the U.S. Plan shall have the same voting rights as all other shares of common stock (or similar equity shares) of the Company.

12.3 Restrictions on Exercise

The Committee may, in its discretion, require as conditions to the exercise of any Subscription Rights that the shares reserved for issuance upon the exercise of the Subscription Rights shall have been duly listed, upon official notice of issuance, upon a stock exchange, and that a Registration Statement under the Securities Act of 1933, as amended, with respect to said shares shall be effective or an exemption from such registration be applicable.

ARTICLE XIII – ADMINISTRATION

13.1 Appointment and Authority of Committee

The board of directors of American Air Liquide Holdings, Inc. shall designate the Committee to administer the U.S. Plan for all Designated U.S. Subsidiaries. The Committee shall act in accordance with the guidelines and policies adopted by the Board or its delegee with respect to the Company's Employee Share Purchase Plans. Subject to such guidelines and policies, the Committee shall have full and exclusive discretionary authority to interpret and construe any and all provisions of the U.S. Plan, to adopt, amend and rescind rules and regulations for administering the U.S. Plan, and to make all other determinations deemed necessary or advisable for administering the U.S. Plan, including, without limitation, all questions concerning eligibility to participate in and Subscription Rights to be received under the U.S. Plan. Every finding, decision and determination made by the Committee shall, to the full extent permitted by law, be final and binding upon all parties.

With respect to each offering, the Committee shall adopt such terms and conditions specified by the Board or its delegee to implement the International Group Share Purchase Plan, these U.S. Regulations and the Board decisions. The Committee may adopt special guidelines and provisions for any offering at the direction of the Board or its delegee, provided that the terms of participation shall be applied on a uniform and consistent basis to all Employees within each separate offering that is intended to qualify under Section 423 of the Code so that such employees who are granted Subscription Rights have the same rights and privileges with respect to such Subscription Rights, except that an offering may provide that the amount of stock which may be purchased by any Employee may bear a uniform relationship to the total compensation or the basic or regular rate of compensation of Employees and the offering may provide for a maximum amount of stock that may be purchased. The Committee may, at the direction of the Board or its delegee, also adopt special guidelines and provisions for persons who are residing in, or subject to the laws of, foreign jurisdictions to comply with applicable tax and securities laws. The Committee may designate any offering as being part of the non-Section 423 component of the Plan. An offering that is not designated by the Committee in writing as being part of the non-Section 423 component of the Plan shall be intended to comply with the requirements of Section 423 of the Code.

ARTICLE XIV – MISCELLANEOUS

14.1 Designation of Beneficiary

In the event of an Employee's death prior to delivery to such Employee of shares, the Company shall deliver such shares held by it to the executor or administrator of the estate of the Employee.

14.2 Transferability

An Employee's rights with regard to the exercise of Subscription Rights or to receive shares under the U.S. Plan may not be assigned, transferred, pledged or otherwise disposed of in any way (other than by will or the laws of descent and distribution) by the Employee, and such rights are exercisable only by the Employee during his or her lifetime. Any such attempt at assignment, transfer, pledge or other disposition shall be without effect.

14.3 Applicable Law

The U.S. Plan shall be governed by, and construed in accordance with, the laws of the State of Delaware.

14.4 No Employment Rights

The U.S. Plan does not, directly or indirectly, create any right for the benefit of any Employee to purchase any Common Stock under the U.S. Plan, or create in any Employee or class of Employees, any right with respect to continuation of employment by the Designated U.S. Subsidiary employer or its affiliates, and it shall not be deemed to interfere in any way with the Designated U.S. Subsidiary's or any other affiliate's right to terminate, or otherwise modify, an Employee's employment at any time.

14.5 Notices

All notices or other communications by an Employee to the Committee under or in connection with the U.S. Plan shall be deemed to have been duly given when received by the Chairman of the Committee at: General Counsel, American Air Liquide Holdings, Inc., 9811 Katy Freeway, Suite 100, Houston, TX 77024. Any notices or communications by the Committee to an Employee shall be deemed given when mailed by regular United States mail, first-class and prepaid to the Employee's last known address or sent electronically to the Employee's last known email address.

14.6 Shareholder Authorization

The Company's Employee Share Purchase Plans have been adopted by the Board and authorized by the shareholders of the Company.

14.7 Financial Statements to Employees

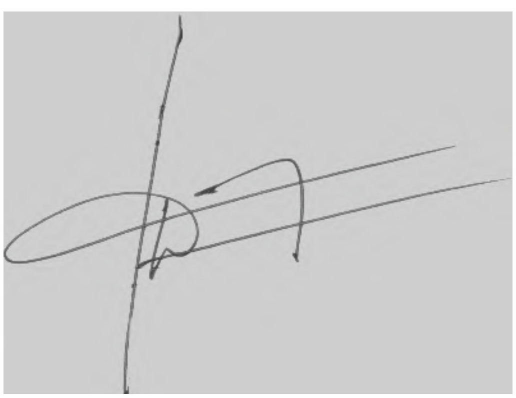
The Designated U.S. Subsidiary shall provide its Employees who participate in the U.S. Plan at least annually with financial statements of the Company.

14.8 U.S. Plan Implementation Costs

Each Designated U.S. Subsidiary agrees to bear the costs of implementation of the U.S. Plan incurred in relation to its employees.

Pursuant to the authority granted to him by the Chairman and Chief Executive Officer of the Company, the undersigned hereby adopts, on behalf of L'Air Liquide S.A., the Air Liquide Group 2009 Employee Share Purchase Plan Regulations for U.S. Employees, as amended re-established under the L'Air Liquide S.A. International Group Share Purchase Plan. This adoption is made this October 11, 2010 with effect from January 1, 2010.

Made in Paris,
On October 11, 2010



Jean-Pierre Duprieu
Senior Vice-President

MATERIAL TERMS

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DESCRIPTION OF MATERIAL TERMS OF THE AIR LIQUIDE GROUP EMPLOYEE SHARE PURCHASE PLAN 2021 OFFERING

2009 REGULATIONS FOR U.S. EMPLOYEES
(Amended And Restated Effective January 1, 2010)

Offer of shares of stock to employees

To facilitate the worldwide employees of the Air Liquide Group becoming shareholders of L'Air Liquide S.A. (the "Company"), the Company's Board of Directors ("Board") has adopted the Air Liquide Group Employee Share Purchase Plan France and the International Group Share Purchase Plan. These plans authorize offerings of shares of the Company for sale at a discounted price exclusively to Air Liquide Group employees.

The Company has adopted the 2009 Regulations for U.S. Employees (as Amended and Restated Effective January 1, 2010) (the "U.S. Plan") to allow employees of the Company's designated U.S. subsidiaries to participate in the stock offerings. The U.S. Plan is established under the provisions of the Company's International Group Employee Share Purchase Plan and, except as provided in the U.S. Plan, is subject to the same terms and conditions of the Company's International Group Employee Share Purchase Plan. Under the U.S. Plan, employees of the Company's U.S. subsidiaries will be offered the opportunity to purchase Company shares at a 15% discounted purchase price. The U.S. Plan is intended to qualify as an "employee stock purchase plan" under Section 423 of the U.S. Internal Revenue Code of 1986, as amended (the "Code").

Exercise price

The purchase price per share of the shares is the amount listed in the Appendix, which represents a 15% discount from the average of the opening quotations of the Company's shares on the Euronext Paris stock exchange during the twenty trading sessions preceding the date of the decision of the Board or its delegee setting the commencement date of the subscription period. Although shares of the Company are traded in Euros on the Euronext Paris Stock Exchange, for purposes of the U.S. offering, the discounted purchase price has been converted into U.S. dollars based on the Euro-Dollar exchange rate on the date listed in the Appendix and will not fluctuate during the offer period based on future changes in the Euro-Dollar conversion rates. See Exhibit B hereto for an illustration of the possible effect of changes in the Euro-Dollar exchange rates on the potential for gains and losses under the U.S. Plan.

Expected size of offering

The number of Company shares offered for sale to employees worldwide during the 2021 subscription period shall be 1,100,000 shares.

Provisions in the event that the offering is oversubscribed

In the event that the offering is oversubscribed, subscriptions for those employees who subscribed for the greatest number of shares will be reduced until the number of shares subscribed for no longer exceeds the number of shares available for purchase. In the event the offering continues to be oversubscribed after such reduction, subscriptions will be reduced pro-rata.

Subscription Period

The subscription period will begin and end on the dates listed in the Appendix (the "Subscription Period"). In order to participate in the U.S. Plan, employees must electronically complete an individual subscription form on-line by the date listed in the Appendix, the end of the Subscription Period. An employee will not be eligible to participate in the U.S. Plan if he or she does not electronically enroll on- line during the Subscription Period. No employee may elect to participate in the U.S. Plan prior to receipt of all subscription materials in respect of the U.S. Plan.

An employee may cancel his or her participation in the U.S. Plan and his or her election to purchase shares of the Company if the employee files a notice of withdrawal with the person designated to receive such notice on or before the last day of the Subscription Period.

- **Payment terms for the shares**

  Employees may pay for the shares they purchase in one of two ways: (1) by approximately equal payments deducted from each paycheck over a 12 month period starting on the date listed in the Appendix or (2) by ACH direct debit for the total amount of the purchase price at the time of subscribing. The maximum subscription price that may be paid by payroll deductions is $9,500.

- **Payment default**

  Purchases of stock made by employees will become irrevocable as of the date listed in the Appendix, the last day of the Subscription Period. Should an employee (or his or her heir or assignee) default in his or her obligation to pay for the shares purchased for any reason whatsoever, the employee will be deemed to be a shareholder in default and shall no longer be eligible to participate in the U.S. Plan.

  In the event an employee becomes a shareholder in default, following a notice period, his or her employer will have the right to sell the employee's shares on the open market and use the proceeds to reduce any outstanding balance then owed by the employee. If the sale proceeds are less than the outstanding balance owed, the employee will be personally liable for any remaining amount owed. If the sales proceeds exceed the outstanding balance, the employee will receive the excess amount, less applicable withholding taxes, as soon as practicable.

- **Registration of shares**

  Once the final list of subscribers and the number of shares subscribed for by each subscriber has been finalized, the Company will register the shares in an account opened in the name of each employee subscriber in the Company's records in the custody of the Company's Shareholders Department in Paris, France, or in the records of the Company's authorized agent.

  All employees purchasing shares shall be supplied with a statement attesting to the registered shares in their respective accounts.

Persons Entitled To Buy Shares

- **Eligible employees**
  - Eligible employees must have been employed by an Air Liquide Group company that is a member of the French Share Purchase Plan (FSPP) or the International Group Share Purchase Plan (IGSPP) for at least three months during the period between January 1, 2020 and November 18, 2021. The three months do not need to be consecutive as long as they are in that time period.
  - An employee's participation in the U.S. Plan is entirely voluntary. There can be no guarantee that the Company shares purchased through the U.S. Plan will increase in value.

Terms and Conditions of Application

- **Number of shares for which employees are entitled to subscribe**

  The maximum value of shares (equivalent to U.S. dollars of the subscription price in Euros) that an employee may subscribe for during the Subscription Period may not exceed the lower of $25,000 or 25% of an employee's gross annual base pay (see above, however, "Provisions in the event of the offering being oversubscribed").

- **Assignment restrictions**

  Employees cannot transfer or pledge their right to purchase Company shares to another individual.

- **Holding period for shares**

  Shares purchased may not be sold for 5 years from the date the shares are registered in an account for each employee in the Company's Shareholders Department. During the holding period, the shares will remain in the registered account of the employee and may not be assigned or transferred in any manner whatsoever.

  However, an employee may sell the shares (provided such shares have been fully paid for) prior to the end of the holding period under the following circumstances as determined by the committee that administers the U.S. Plan in its sole discretion:
  - in the event of the death of the employee;
  - if the employee ceases to be employed by the Company or any affiliate of the Company for any reason;
  - if the employee acquires a new primary residence or substantially improves his or her primary residence; or
  - if the employee experiences a serious financial hardship.

- **Taxation/Foreign Exchange Rate**

  See Exhibit A, "U.S. Federal Income Tax Consequences," attached. Exhibit B attached illustrates the possible effect of changes in the Euro-Dollar exchange rates on the potential for gains and losses under the Plan.

Information Material

A copy of the U.S. Plan is included in your offering package.
Employees who become shareholders of the Company by virtue of participation in the U.S. Plan will receive all the documents normally forwarded annually to registered shareholders in compliance with legal requirements.

EXHIBIT A
U.S. FEDERAL INCOME TAX CONSEQUENCES

U.S. Tax overview

The U.S. Plan is intended to comply with the provisions of Section 423 of the Internal Revenue Code (the "Code").

Special Note: As described in the U.S. Plan and the Description of Material Terms, shares purchased under the U.S. Plan must generally be held for at least five (5) years. This is a requirement of the Air Liquide Plan. Under certain exceptions (such as death, cessation of employment, purchase of or substantial improvement to a primary residence, financial hardship), the shares may be sold earlier than five years. However, even if you qualify for one of such exceptions, in order to receive the maximum tax benefits of the U.S. Plan, you would need to hold shares purchased under the U.S. Plan for at least two (2) years from the date of purchase.

- **Time of Purchase**

  Amounts deducted from your paycheck in order to purchase shares of common stock of the Company under the U.S. Plan are taxable as part of your compensation. You are using after-tax dollars to purchase these shares. However, under Section 421(a) of the Code, the purchase of shares under the U.S. Plan is not itself a taxable event even though the purchase price for the shares may be less than market price for the shares on the date of purchase. That is, the difference between the market price on the date of purchase and the purchase price — the 15% discount and any "additional discount" (described below) — is not taxable at the time of purchase.

Sales at Market Price of Shares Purchased Under the U.S. Plan

- **Shares held for two (2) years or more**

  If you sell shares that were purchased under the U.S. Plan which you have held for two (2) years or more after the date of purchase:

  - Any profit up to the amount of the 15% discount (or, if lower, the excess of the fair market value of the shares on the date of sale over the purchase price) will be taxable as ordinary income, and any additional profit over the amount of the 15% discount will be taxable as a long-term capital gain;
  - Any loss will be treated as a long-term capital loss.

  Example — This example illustrates the tax consequences in U.S. dollars. Since you are purchasing shares which trade in Euros, the illustrations assume that the value of shares purchased and sold under the U.S. Plan has been converted to U.S. dollars. The possible effect of changes in the Euro-Dollar exchange rates on the potential for gains and losses under the U.S. Plan is attached as Exhibit B.

  For purposes of this example, a participating employee purchases a share for $110.50 when the market price is $130.00 (i.e., the 15% discount is equal to $19.50) and the market value of the stock at the end of the subscription period is $135.00. The shares are sold after the requisite two-year holding period has expired.

	Same	**Higher**	**Lower**	**Lower**
Sales Price	$130.00	$140.00	$120.00	$100.00
Purchase Price (Discounted Subscription Price)	$110.50	$110.50	$110.50	$110.50
Total gain (loss)	$19.50	$29.50	$9.50	$(10.50)
Ordinary income	$19.50	$19.50	$9.50	$ -
Long-term capital gain (loss)	$ -	$10.00	$ -	$(10.50)

- **Shares held for less than two (2) years**

  If you sell shares that were purchased under the U.S. Plan that you have held for less than two (2) years after the date of purchase:

  - The full amount of the 15% discount and any "additional discount" (i.e., any increase in the fair market value of the stock from the beginning of the subscription period through the end of the subscription period) will be taxable as ordinary income in the year of sale (regardless of the market price of the shares at the time of sale). Any appreciation after the end of the subscription period will be taxable as a capital gain (short-term or long-term depending on how long you have held the stock);
  - Any loss, after including the amount of the 15% discount and any additional discount as ordinary income, will be treated as a capital loss.

– **Example —** As noted above, these illustrations assume that share prices are converted from Euros to dollars.

For purposes of this example, a participating employee purchases a share for $110.50 when the market price is $130.00 (i.e., the 15% discount is equal to $19.50) and the market value of the stock at the end of the subscription period is $135.00. Accordingly, the "additional discount" is equal to $5.00, which is the difference between the fair market value at the end of the subscription period and the fair market value at the beginning of the subscription period. The share is sold before the requisite holding periods have expired.

	Same	**Higher**	**Lower**	**Lower**
Sales Price	$130.00	$140.00	$120.00	$100.00
Total gain (loss)	$19.50	$29.50	$9.50	$(10.50)
Ordinary Income				
15% Discount	$19.50	$19.50	$19.50	$19.50
Add'l. Discount	$5.00	$5.00	$5.00	$5.00
Capital gain (loss)	$(5.00)	$5.00	$(15.00)	$(35.00)
Net Tax Impact	$19.50	$29.50	$9.50	$(10.50)

Shares of stock must have been held for more than one year in order for the capital gain portion to qualify for favorable long-term capital gain treatment. The capital gain portion for shares held for one year or less will be taxed at short-term capital gain or loss rates upon disposition of the shares.

- **Disposition Other Than by Sale**
  If you make a gift of or otherwise dispose of your shares within two (2) years of purchase under the U.S. Plan, the full amount of the 15% discount and any "additional discount" will be taxed as ordinary income to you in the year of disposition under the rules noted above for shares held less than two years. A disposition two (2) years or more after purchase may also result in tax but the amount of the discount that is taxed as ordinary income will be limited to the lesser of the 15% discount or the amount by which the fair market value at the time of disposition exceeds the purchase price.

- **Death of an Employee**
  Upon the death of an employee prior to disposing of shares purchased under the U.S. Plan, the tax return for the year of death must include as ordinary income the lesser of the amount of the full 15% discount or the amount by which the market value at death exceeds the purchase price. If such an amount is required to be included in the tax return in the year of death, an estate tax deduction may be available to the estate of the deceased employee.

- **Dividends**
  "Qualified dividend income" received by an individual shareholder from either a domestic corporation or a "qualified foreign corporation" is subject to tax at the reduced rates applicable to certain capital gains, provided that certain holding period requirements are satisfied and none of certain exceptions apply. Air Liquide S.A. should constitute a qualified foreign corporation and accordingly dividends paid by Air Liquide S.A. should be eligible for the reduced tax rates imposed on dividends provided that you meet the holding period requirements.

- **Tax Rate Increases**
  Federal tax rates in effect on the date that you sell shares may be substantially higher than on the date you purchase shares. State and local tax rates may also increase.

- **FATCA & Bank Secrecy Act**
  An employee holding shares of the Company, whether acquired under the U.S. Plan or otherwise, may be required to file a report of Specified Foreign Financial Assets on IRS Form 8938 as part of the employee's annual U.S. tax return listing certain non-U.S. assets owned by the employee that exceed certain reporting thresholds. The report is required under the Foreign Account Tax Compliance Act known as "FATCA." Shares of the Company are included among the non-U.S. assets that may need to be reported. There are substantial penalties for failure to file a timely Form 8938.]

  In addition, the Bank Secrecy Act requires U.S. persons who own a foreign bank account, brokerage account, mutual fund, unit trust, or other financial account to file a FinCEN Form 114, Report of Foreign Bank and Financial Accounts (FBAR) annually with the Department of Treasury, if: (1) the person has a financial interest in, signature authority over, or other authority over one or more accounts in a foreign country, and (2) the aggregate value of all foreign financial accounts exceeds $10,000 at any time during the calendar year.

Foreign securities held in accounts maintained by U.S. financial institutions generally do not need to be counted against the filing thresholds for Form 8938 and FBAR. Depending on the custody arrangements that the Company establishes for shares purchased in the offering, you may be required to take account of the value of your purchased shares in determining whether you are required to file Form 8938, FinCEN Form 114 or both. You should consult your tax advisor to make any determinations with respect to these filing obligations.

French Tax overview

- **Dividends**
  Under new French tax rules (in force since January 1st, 2018), dividends paid by the Company to non-residents of France are generally subject to French withholding tax, which rate is generally 12.8%. This withholding tax is withheld by the company paying dividends.

- **Sale or Exchange**
  Under the treaty, a U.S. resident will generally not be subject to French tax on any capital gain from the redemption or sale or exchange of shares of the Company. Special rules apply to individuals who are residents of more than one country.

The preceding discussion is only a general summary of certain U.S. and French income tax consequences arising from the purchase and disposition of Company common stock pursuant to the U.S. Plan by employees who participate in the U.S. Plan. It is suggested that you obtain competent professional advice regarding the application of tax laws to your particular situation, particularly French tax law. Moreover, the above summary relates primarily to United States income taxation. Employees subject to state or local income taxation or to taxation in foreign jurisdictions may have different tax consequences, either more or less favorable from those described above. Such employees should seek competent professional advice regarding the applicability of state, local or foreign tax laws.

EXHIBIT B

EXAMPLES OF THE EFFECT OF CHANGES IN THE EURO-U.S. DOLLAR EXCHANGE RATES UPON THE SALE OF ONE SHARE

	Subscription Purchase Price								
Market Share Price in Euros	€100	Sales Price							
Less: 15% discount	15	Example A	Example B	Example C	Example D	Example E	Example F	Example G	Example H
Subscription Price in Euros	€85	€85	€85	€100	€100	€100	€70	€70	€70
Change in Share Price, Gain or (Loss) in Euros		No Change	No Change	€15	€15	€15	-€15	-€15	-€15
One Euro = U.S. Dollars	$1.10	$1.00	$1.32	$1.10	$0.94	$0.90	$1.10	$1.34	$1.40
Change in Exchange Rate		Euro Weakens	Euro Strengthens	No change	Euro Weakens	Euro Weakens	No change	Euro Strengthens	Euro Strengthens
Share Price in U.S. Dollars	$93.50	$85.00	$112.20	$110.00	$93.50	$90.00	$77.00	$93.50	$98.00
U.S. Dollar Gain or (Loss) before taxes		($8.50)	$18.70	$16.50	$0.00	($3.50)	($16.50)	$0.00	$4.50

€ = Euros
$ = U.S. Dollars
* Purchase Price includes 15 percent discount

Example A
Should the share price in Euros remains unchanged and the Euro weakens against the U.S. Dollar during the holding period, there may be a gross loss in U.S. Dollars.

Example B
Should the share price in Euros remains unchanged but the Euro strengthens against the U.S. Dollar during the holding period, there may be a gross gain during the holding period.

Example C
Should the share price increase in Euros and the exchange rate of Euro against U.S. dollar remains the same during the holding period, there may be a gross gain in U.S. Dollars.

Example D
Should the share price increase in Euros and the Euro weakens against the U.S. Dollar during the holding period, there may no gross loss or gain in U.S. Dollars.

Example E
Should the share price increase in Euros and the Euro weakens against the U.S. Dollar even more than in Example D during the holding period, there may be a gross loss in U.S. Dollars.

Example F
Should the share price decrease in Euros and the exchange rate between the Euro and the U.S. Dollar remains unchanged during the holding period, there may be a gross loss in U.S. Dollars during the holding period.

Example G
Should the share price decrease in Euros but the Euro strengthens against the U.S. Dollar, there may be no gross gain or loss.

Example H
Should the share price decrease in Euros but the Euro strengthens against the U.S. Dollar even more than in example G, there may be a gross gain in U.S. Dollars.

APPENDIX to Description of MATERIAL TERMS of the Air Liquide Group Employee Share Purchase Plan 2009 Regulations for U.S. Employees

2021 Subscription Price

The purchase price per share will be the average of the opening of the Company's shares in the Euronext Paris Stock exchange during the twenty trading sessions preceding the date on which the subscription price will be set, which is expected to occur on October 30, 2021, minus 15%. The purchase price will be converted into U.S. dollars based on the Euro–Dollar exchange rate prior to the subscription period.

2021 Subscription Period

The subscription period will begin on November 8, 2021 and will end on November 18, 2021, at 12:00 PM (Paris Time)/ 6:00 AM ET / 5:00 AM (Houston Time). If you choose to subscribe, do so online at myalmyshare2021.airliquide.com/usa using the personal login and password supplied in the packet sent via email or mailed to your home. If you need your username and password sent to you again, please send an email to us-espp@airliquide.com.

Note that subscription is only possible online. Your HR representative is available to assist you in making the online subscription.

A Notice of Withdrawal form must be submitted on the subscription site or emailed to us at us-espp@airliquide.com by November 18, 2021 noon Paris Time, in order for an employee to cancel his or her participation in the U.S. Plan and his or her election to purchase shares of the Company.

Payment Terms for Shares

Payroll deductions in equal installments will begin in January 2022, and will end on or about December 31, 2022, dependent upon the frequency at which the individual employee is paid. Shares paid for by payroll deductions must be fully paid no later than December 31, 2022.

Payment Default

Purchases of stock will become irrevocable on November 18, 2021, the last day of the 2021 Subscription Period, at 12:00 PM (Paris Time) / 6:00 AM ET / 5:00 AM (Houston Time).

Eligible Employees

Eligible employees must have been employed by an Air Liquide Group company that is a member of the French Share Purchase Plan (FSPP) or the International Group Share Purchase Plan (IGSPP) for at least three months during the period between January 1, 2020 and November 18, 2021. The three months do not need to be consecutive as long as they are in that time period.

Should you have any questions, please contact the resources below:

Air Liquide Resources:	**Airgas Resources:**
• Air Liquide Benefits Line: 1-800-964-8826 • Email us-espp@airliquide.com • Your HR representative • myalmyshare2021.airliquide.com/usa	• Your local HR representative • Email us-espp@airliquide.com • myalmyshare2021.airliquide.com/usa

RISK FACTORS

3

RISK FACTORS

As part of its risk management approach, the Group is committed to regularly assessing the risks and to reducing the likelihood that they will occur or their potential impact by implementing internal control and risk management procedures, as well as formalized and specific action plans. These procedures, as well as the Group's codes and policies, are included in a global reference manual, called the BlueBook, which is the cornerstone of the Group's internal control system.

The risks presented below, at the date of this Universal Registration Document, are the risks that the Group considers may have a significant negative impact on its business, results, outlook, or reputation, should they occur. The list of these risks is, however, not exhaustive and other risks, unknown at the date of this document, could occur and have a negative effect on the Group's business.

Risk factors are presented below as net risks (taking into account management measures already implemented) and divided into a limited number of categories according to their nature. In each category, the most significant risk factors are presented first (in bold).

Although the risk categories have not been classed in order of size, the two most significant specific risks for the Air Liquide Group are both related to its business. These are industrial risks and industrial investment-related risks.

IMPACTS RELATED TO THE COVID-19 PANDEMIC

The current public health crisis related to the global spread of COVID-19, which is not specific to the Group, increases some of these risk factors. As a result, the Group has applied adapted management measures in each country and each business.

As of the beginning of 2020, the Group moved quickly to implement crisis management that was both global (travel restrictions, ban on gatherings, digital protection, remote working related rules, etc.) and local (contact with authorities to ensure that the Group's business was classed as essential to enable its operating continuity) while also encouraging the transfer of expertise between regions according to the way in which the pandemic developed.

As part of the Group's crisis management system, the operational business continuity plans were therefore activated, and remote working for teams implemented.

Nevertheless, the Group believes that the uncertainty surrounding the duration, scale and future development of the pandemic (including the additional waves of infection and potential mutations in the virus) coupled with the pace at which vaccines are administered across the world, make it difficult to predict the global impact on the economies of the Group's main markets and, as a result, on its financial situation.

The impact of the crisis has affected the following risk factors and has led to the reinforcement of current management measures and, in certain cases, to specific management measures:

- Human resources management risks: an immediate effect of lockdown measures introduced in various countries in which the Group is present was the large-scale introduction of homeworking, the reorganization of production facilities and the increased use of digital tools to ensure business continuity. This adjustment, and the associated risk management, were facilitated by the existence of a digital and collaborative environment that had already been rolled out within the Group several years ago, as well as the stepping up of virtual training courses covering remote working and team management. In the workplace, employees and external service providers received specific protocols aimed at the application of health measures required by the governments in order to prevent the risk of contagion. External telephone support helplines have also been introduced to help protect the mental health of employees.

- Industrial risks: due to modification of the Company's organization as a result of public health measures and fewer employees physically present at production facilities at times, the Group adapted its processes to maintain the safety of employees and facilities, in addition to specific awareness-raising actions.

- Digital risks: the COVID-19 pandemic is a prime time for cyber-attacks due to the climate of general uncertainty and worry and the increased use of digital solutions, in particular for homeworking. Against this backdrop, the Group stepped up its awareness-raising action vis-à-vis its teams regarding issues such as fraud and the theft of personal and confidential data. It was also necessary to adjust its user capacities and safety parameters to accommodate for greater levels of homeworking, while maintaining the efficiency of its major incident detection and processing system.

- Customer risks and industrial investment-related risks: the pandemic, and its impact on the global economy, has increased the risk of the temporary or permanent interruption to the business of certain customers which could lead to payment defaults and/or late payments in the short term and to a permanent decline in revenue in the longer term. The same applies to industrial investment projects, the execution of which could be delayed for reasons related to the customer or the supply chain. The diversity of the Group's sites, as well as the industries and sectors in which it works, notably those where demand has increased significantly (healthcare, pharmaceuticals) or which have demonstrated their resilience (food and electronics), help reduce, but not neutralize, its exposure to this risk.

- Supply-related risks: the temporary shutdown of certain industries and the closure of some borders during lockdowns may have created tension in the supply of particular products or molecules, with the need to implement alternative supply arrangements to continue to meet customers' needs.

- Counterparty and liquidity risks: various prudential measures were taken to strengthen the Group's short- and medium-term liquidity and thus contribute to its resilience, with in particular a 1 billion-euro bond issue in March 2020 and the introduction of an additional cost reduction and control plan.

- Regulatory and legal risks: in response to the pandemic, some states have modified, using special purpose mechanisms (laws or ordinances), several regulatory and legal provisions governing the manner in which professional activities should be conducted. The Group monitored these changes and, where necessary, integrated them to its processes. Moreover, the pandemic, with the urgent demand for medical supplies, the simplification of rules governing procurement, and the closure of certain borders, may have exposed the Group in certain regions to an increased risk of corruption. Since the beginning of the crisis, the Group has strengthened awareness raising of its anti-corruption framework.

Although this crisis increases the probability and/or the impact of the above-mentioned risk factors, it is not of a nature to call into question the scope and classification of these Group-specific risks as presented in this Universal Registration Document.

1. Business-related risks

The industrial gas business is characterized by a significant technology content (both in the design phase and the construction of production units), local production units, high capital intensity, and substantial energy requirements.

Various risks are associated with these characteristics. They are mitigated by various factors which include primarily the diversity of industries and customers served by the Group, the multiple gas applications that it offers them, as well as the large number of geographical locations in which it operates. In addition, a significant share of business is subject to contracts, a strict investment project authorization and management process, and a tailored energy policy.

1.1. Industrial risks

Identification and description of risks

Industrial risks are linked to the various industrial products, processes and distribution methods implemented by the Group. They are distributed over a large number of local production sites.

Over and above the usual risks inherent in all industrial activities, Air Liquide's businesses entail more specific risks relating to:

- products: the intrinsic properties of industrial gases manufactured, transformed or packaged by the Group classifies them in the dangerous materials category;
- processes and their operation: cryogenics is used to separate gases by distillation, store them and transport them. This very low temperature technique requires specific means of control and protection to avoid in particular:
  - cryogenic burns associated with liquefied gases,
  - anoxia, associated with inert gases,
  - over-oxygenation or fires, associated with oxygen and oxygen mixtures.

  The same applies for high temperature techniques, used in particular in the production of hydrogen, which are particularly exposed to risks of fire or explosions.
  In addition, pressure is central to the Group's processes. Pressurized equipment must be designed with safety devices which limit the risk of accidents caused by an uncontrolled increase of pressure;
- logistics and transportation: each year, delivery vehicles, sales staff and technicians travel hundreds of millions of kilometers. Non-compliance with the Highway Code or the lack of regular maintenance of vehicles would expose drivers and third parties to increased risks of accidents. In addition, industrial sites use a lot of motorized lifting gear which present specific risks (collision, falling packaging, etc.). Training and authorization are thus required to operate them;
- engineering and construction: industrial risks are factored in and must commence at the design phase of future installations. During the construction phase, the lack of a strict accident prevention framework would affect the coordination among the various stakeholders and expose teams to risks of accidents;
- delivery reliability: the Group is exposed to the risk of faults in the systems supplying gas to customers, which could lead to a disruption to supply, in terms of quality or volumes;
- specific standards and regulations, in particular in Healthcare, with the risk of non-compliance of products and services provided to patients.

1.2. Industrial investment-related risks

Identification and description of risks

The Group may be exposed to certain risks specific to its industrial investments. Each investment project may be affected, particularly in its profitability, by different factors linked primarily to project location, customer quality, good project management by the customer, and particularly the respect of implementation schedules, the competitiveness of the site, the environmental footprint or societal impact of the project, as well as to design, cost estimates, quality, and meeting construction deadlines and budgets for gas production units, including for suppliers.

Moreover, in new emerging markets such as those related to energy transition, the Group may be exposed, in addition to the above-mentioned risks, to risks related to the degree of maturity of some of these market segments or in certain regions.

1.3. Sourcing-related risks

Identification and description of risks

Electricity and natural gas are the main raw materials used by production units. Their availability is thus essential to the Group. Where the local market permits, Group subsidiaries secure the energy sourcing through medium to long-term supply commitments and competitive bidding scenarios with local suppliers with the objective of achieving the most reliable and competitive energy costs, with a low-carbon footprint, available on the market.

Risks to which the Group are exposed when sourcing raw materials relate to:

- energy supply (access and reliability, in particular counterparty risk, etc.);
- volumes (non-compliance with obligations and commitments on volumes, etc.);
- prices (volatility, competitiveness, etc.);
- compliance with current regulations (market transparency rules, Sapin 2 Law, etc.);
- changes in local regulations on energy and its deregulation;
- their carbon footprint.

Financial risk relating to raw materials is described in note 25.1 to the consolidated financial statements on page 79.

Moreover, and in addition to energy, the Group may be temporarily exposed to supply shortages for certain molecules which are only produced at a limited number of sites, in particular with worldwide reach, such as helium and rare gases.

1.4. Risks relating to the design and construction of production units

Identification and description of risks

Air Liquide’s engineering team designs and builds production units worldwide which are primarily intended for Group investments, but also for third-party customers.

As these projects generally extend over several years, they are exposed, at their various stages, to risks relating to design, purchasing, transport or construction and more generally the overall quality, schedule and costs. Risks relating to these projects are often greater during the construction phase, in particular for turnkey projects:

- the quality and delivery times for critical equipment, on the one hand, and on-site construction costs and deadlines on the other may give rise to project start-up setbacks and impact project profitability;
- unexpected technical problems may also arise, in particular when a new innovative process is implemented;
- certain projects are located in regions of the world that may be a source of specific political or economic risks.

1.5. Innovation-related risks

Identification and description of risks

The Group operates in an environment where change is picking up pace, with the arrival of new products, new players, new business models and new technologies. The Group may not correctly predict the impact of technological changes on its main markets, relating for example to connected objects, hydrogen energy or artificial intelligence. Its growth capacity may thus be reduced.

In terms of digital technologies, the Group may not drive its transformation at an adequate pace and to a sufficient level to meet the challenges faced, with a possible impact on its business model, its organization and, ultimately, its competitiveness. The risk to which the Group is exposed is notably related to the rapid increase in the nature, volume and availability of data, regardless of whether or not this is a result of connected customers and patients, big data, the blockchain or artificial intelligence.

The Group’s innovation policy requires significant investments, in particular in research and development for which the expected benefits cannot be guaranteed.

1.6. Human resources management related risks

Identification and description of risks

The long-term performance of the Air Liquide Group is driven, in particular, by the quality of its employees, their skills and their commitment.

In its businesses, the Group is therefore exposed to the risk of not being able to:

- attract and maintain the required skills at the right time and in the right place, in particular in emerging countries where the Group is
expanding its activities, or in regions where the employment market is strained;
- develop these skills, in particular with the digitization of certain businesses.

These risks would result, in particular, in shortcomings in:

- the level or quality of training,
- the management of careers and opportunities, and
- the recognition of performances and contributions, in particular in certain areas of expertise.

In addition to risks relating to skills management, psycho-social risks may also affect the health and level of commitment of Group employees, in particular in the recent context where homeworking has been rapidly implemented during periods of lockdown.

1.7. Customer risks

Identification and description of risks

The primary customer risk is the risk of bankruptcy or closure of a customer's production site.

More generally, the business of some of the Group's customers may be interrupted following natural or man-made disasters, including those resulting from changes in weather conditions, pandemics, climate change, or following major political events.

The amount of operating receivables as well as provisions for doubtful receivables are shown in note 17 "Trade receivables" to the consolidated financial statements on page 62.

2. Financial risks

The Group's financial policy sets out the management principles for the financial risks to which its business is exposed. In this context, the Group has defined and regularly reviews the terms of the financial procedures which forbid speculative transactions notably on financial instruments.

Financial decision-making governance is the responsibility of the two Finance Committees (Strategic Finance Committee and Operational Finance Committee), with the former considering issues relating to the financing strategy and the latter dealing with the practical methods of its implementation.

2.1. Counterparty and liquidity risks

Identification and description of risks

Counterparty risk primarily relates to trade receivables, outstanding amounts on short-term investments and derivative instruments for hedging, and to credit facilities contracted with each bank.

Trade receivables risks relate to receivables on the balance sheet that may remain unpaid in the long term, in particular in the event of the financial hardship of a customer.

Investment risk is mainly related to short-term deposits in the event that one of the Group's key banks default and, to a lesser extent, an impairment loss due to use of SICAVs (open-ended investment companies) for a portion of the portfolio.

Hedging derivative risk relates to the positive market value of transactions which would be lost in the event of the default of one or more counterparties, and the need to substitute new hedges under potentially less favorable conditions.

Finally, the main risk related to credit facilities is that the facility is unavailable in the case of a drawdown.

Note 25.1 to the consolidated financial statements describes counterparty and liquidity risk for the year ended December 31, 2020.

Notes 17.1 and 17.2 to the consolidated financial statements provide a breakdown of trade and other operating receivables and allowances for doubtful receivables.

2.2. Foreign exchange risks

Identification and description of risks

The Group, due to its international presence, is naturally exposed to foreign currency fluctuations with, on one hand, a transaction risk and, on the other hand, a risk relating to the translation of its financial statements into euros (the Group's reporting currency).

Foreign exchange transaction risk relates, on one hand, to the foreign currency commercial cash flows of operating entities and, on the other hand, cash flows arising from royalties, technical support and dividends.

Translation risk relates to the publication of the Group's financial statements in euros from the entities' financial statements in local currencies, without an impact on the profitability of the Group's businesses.

Following the acquisition of Airgas in the United States, the exposure of the Group's revenue and assets to the US dollar has increased, as has the Group's US dollar-denominated debt, with a risk linked to the translation of the financial statements:

- large fluctuations in the value of the euro against the US dollar have a more significant impact on the Group's published results than before the acquisition;
- these foreign exchange variations have an impact on the figures presented in the Group's balance sheet, particularly concerning the debt.

Note 24.3 to the consolidated financial statements presents net debt by currency and note 25.1 to the consolidated financial statements describes the foreign exchange risk management process, as well as the derivative instruments used and sensitivity to foreign currency exchange rates.

2.3. Interest rate risks

Identification and description of risks

The interest rate risk is mainly linked to the fluctuation of future cash flows on debt when the rate is variable.

In case of a significant increase in interest rates upon future renewals of bonds, the Group may find itself obliged to devote a more significant portion of cash flows from its operational activities to service its debt.

Note 24.4 to the consolidated financial statements presents the fixed-rate portion of debt and note 25.1 to the consolidated financial statements describes the sensitivity of the Group's financial expenses to interest rate fluctuations and the interest rate repricing schedule for fixed-rate debt and interest rate risk hedging instruments.

2.4. Risks involving credit ratings

Identification and description of risks

To gain access to capital markets, Air Liquide relies on the short-term and long-term financial credit ratings of Standard & Poor's and Moody's.

Like all groups that are subject to ratings, Air Liquide could suffer a negative impact on its ability to finance its continuing operations and to refinance its debt should a rating agency significantly downgrade its rating below its current level, due to a higher level of debt than expected or for other credit-related reasons.

2.5. Tax risks

Identification and description of risks

The Group is exposed to tax risk in certain countries, due to changes in applicable regulations, which may have an impact on its activities or its results. This risk may arise from:

- challenges in the application of current regulations or standards;
- errors when completing tax returns;
- regular audits by tax authorities which could lead to disagreements over the interpretation of facts.

3. Digital risks

3.1. Digital risks

Identification and description of risks

The Group's activities, expertise and, more generally, its relations with all the stakeholders (suppliers, customers, banks, communities of experts, etc.) depend on increasingly dematerialized and digitized operations. These operations rely on interdependent information systems and communication networks both in functional, technical, as well as human level terms.

The Group's pursuit of this digital transformation increases its exposure to risks relating to data integrity, availability and confidentiality as well as the availability of IT systems and applications. For data confidentiality, the increase in expectations and requirements for protection also adds the risk of regulatory non-compliance.

These risks, which impact all economic and political players, are increasing in intensity due to the severity and frequency of digital attacks and to their changing nature (historically, cyber risks constituted industrial espionage or data hacking and have come to involve the risks of cyber criminality, malware and ransomware, where the user often plays a decisive role). These attacks, which spread at high velocity, have the potential to affect all of the Group's regions and businesses, with significant impacts on its industrial processes (disturbance of production or distribution activities), its capacity for communication, notably internal, and its image (digital identity theft, dissemination of false information, etc.).

The rise in homeworking also contributes to the Group's greater dependency on information systems and therefore to the increased consequences of a potential cyber attack.

4. Environmental and societal risks

4.1. Climate risks (greenhouse gas emissions)

Identification and description of risks

Almost 85% of Air Liquide's large production units are Air Separation Units which do not use any combustion processes and consume almost exclusively electrical energy. Electricity used by the Group to power these units generate CO_2 emissions at electricity suppliers which are known as indirect emissions.

The Group's other two main energy consuming activities are hydrogen production and cogeneration. These account for nearly 15% of large production units and use combustion processes emitting CO_2 (direct emissions).

Air Liquide's business model is based on the outsourcing of the industrial gases needs of its customers who often emit large quantities of greenhouse gases, in particular in the metals, chemicals and refining industries. This outsourcing is justified by Air Liquide's expertise which allows them to optimize the energy consumption of production tools and favor low-carbon energy procurement. However, it leads to the transfer of the customer's greenhouse gas emissions to the Group.

In this respect, the climate risk (greenhouse gas emissions) is closely linked to the access to renewable power sources and implementation by public authorities of greenhouse gas emission reduction policies such as, for example, the introduction of a carbon price or more stringent product regulations, that may impact either the Group's plants (direct impact on the operational scope), or those of its suppliers and customers (indirect impact on the value chain).

Air Liquide is present in regions across the globe that have implemented, or are in the process of implementing, greenhouse gas emissions trading schemes. In the event that the share of emissions covered by free allowances decreases, the Group may be required to introduce compensatory measures.

4.2. Climate risks (physical impact on operations)

Identification and description of risks

Air Liquide does business in certain regions that are exposed to exceptional weather-related phenomena and/or climate change that may slow or interrupt activities or make them more expensive. The same applies to its suppliers and customers. These can be broken down into:

- acute risks triggered by events such as natural disasters, the frequency and severity of which are increasing: storms, hurricanes, flooding, etc. These risks may relate to Air Liquide sites located near the coast for example, or in regions affected by hurricanes (the Gulf Coast, South Asia, etc.);
- chronic risks related to more long-term changes in climate models and rising temperatures: rising sea levels, chronic heat waves in certain regions, changes in rainfall patterns and an increase in their variability, the disappearance of certain resources, etc.

4.3. Discrimination-related risks

Identification and description of risks

Air Liquide operates businesses in a large number of countries with different cultures. It is therefore naturally exposed to discrimination risks relating in particular to gender mix (gender disparity, particularly in technical and expert professions), diversity and disability.

5. Geopolitical, regulatory and legal risks

5.1. Geopolitical risks

Identification and description of risks

Considering the changing international climate, including increasing tensions between or in some countries and the terrorist threat, the Group may be exposed in certain countries to economic or financial risks, as well as to risks affecting the security of its facilities or safety of employees, either on-site or during business travel.

5.2. Regulatory and legal risks

Identification and description of risks

In the large number of countries where the Group operates, its entities are exposed to the risk of non-compliance with local laws and regulations. In an increasingly complex context due to a continuously rising number of standards, they must monitor changes to the legal and regulatory framework notably in terms of the specificities of the businesses that they conduct.

The Healthcare business line, in particular, is subject to specific regulations for the products that it sells (medical devices, drugs), the research activities that it carries out, and the processing of patients' personal data.

The Group is faced, in all regions in which it operates, with risks of non-compliance with competition law, provisions aimed at combating corruption, as well as regulations restricting the export of certain products.

Group entities are also exposed to the risk of non-compliance with contractual obligations (of their own or those of their contractual counterparties).

Liabilities and contingent liabilities related to disputes are described in notes 22 and 30 to the consolidated financial statements.

Intellectual property-related risks

The external and global environment surrounding intellectual property points to a growth in patent activity as well as, in certain jurisdictions, greater attention to the protection of trade secrets. The Group's business is not dependent on technologies patented by third parties; it relies mainly on technologies, processes and designs developed internally by its innovation teams, Engineering & Construction, the World Business Lines and in the field. The resulting inventions are reviewed and systematically protected by patents, drawings and models, brands, or by other means. Innovation is increasingly achieved in partnership with third parties; in particular the Group develops innovative businesses through partnerships, buying shares in innovative entities, or acquisitions. In addition, third-party technologies can be incorporated in implementing its business.

This could lead to the risks of the infringement of the intellectual property rights of third parties (patents, utility models, copyright, design, etc.) – counterfeiting – in particular when several market players are working on similar technologies (especially in markets or technologies that are "new" in general or "new" for the Group). Risks may also arise from the processing of confidential third-party information as part of partnerships or during the development of digital solutions.

To the Group's knowledge, there are no governmental, legal or arbitration proceedings which would be current or looming, which may have or have had, in the past 12 months, significant impacts on the Group's financial situation or profitability.

SPECIAL RISKS FOR U.S. HOLDERS

Currency exchange rate fluctuations may negatively affect the dollar value of Air Liquide shares

The market price in dollars of Air Liquide common stock is subject to changes in the comparative value of the Euro and the dollar. Fluctuations in the value of the Euro (the currency in which Air Liquide common stock is traded in France on the Euronext Paris stock exchange) versus the United States dollar affect the price in United States dollars received by a shareholder in the United States upon the resale of Air Liquide common stock, as well as the value of dividends received by a shareholder in the United States which are converted from Euros to United States dollars. At times, the value of the Euro has fluctuated significantly against the United States dollar, and it is not possible to predict the future value of the Euro against the dollar. Please see Exhibit B of the Description of Material Terms of the Air Liquide Group Employee Share Purchase Plan 2021 Offering for more information on the effects of changes in the Euro-U.S. Dollar exchange rate.

Judgments of U.S. Courts May Not Be Enforceable Against Air Liquide

Judgments of U.S. courts, including those predicated on the civil liability provisions of the federal securities laws of the United States, may not be enforceable in French courts. As a result, shareholders who obtain a judgment against Air Liquide in the United States may not be able to enforce such judgment against Air Liquide in France. In addition, it may also be difficult for investors to serve process within the United States upon members of Air Liquide's Board of Directors, none of whom reside in the United States, or to enforce judgments in the United States against them or Air Liquide's assets, the majority of which are located outside the United States.

Restrictions on the Sale of Common Stock May Expose Employees to Significant Market Volatility and Foreign Exchange Currency Rate Risk

Employees should be prepared to hold common stock acquired under the plan for a period of at least five years. Under the provisions of the plan, employees may not generally sell or otherwise dispose of common stock acquired under the plan for five years. Earlier sale is permitted in limited circumstances set forth in the plan, including death, or termination of employment. The restrictions on the sale of common stock during the holding period may expose an employee to significant market volatility and foreign exchange currency rate risk. A default in payment for the purchase of shares under the U.S. Plan will also result in a sale of common stock prior to the expiration of the five-year holding period.

Rights of Shareholders Under French Law May Differ Materially From the Rights of Shareholders Under U.S. Law

Principles of law relating to matters such as the validity of corporate procedures, the fiduciary duties of Air Liquide management and directors and the rights of Air Liquide shareholders to bring claims against Air Liquide differ from those that would apply if Air Liquide were incorporated in a jurisdiction within the United States. As a result, the rights of Air Liquide shareholders may differ materially from those of a shareholder of a U.S. corporation.

Federal Income Tax Risk

The U.S. Plan is intended to qualify for special tax benefits under Section 423 of the Internal Revenue Code of 1986, as amended (the "Code"), and Air Liquide has consulted with its legal advisors with respect to such qualification. However, Air Liquide has not obtained a ruling from the U.S. Internal Revenue Service that the U.S. Plan meets the requirements of Section 423 of the Code. Whether the U.S. Plan meets the requirements of Section 423 of the Code depends on all of the facts and circumstances. There can be no assurances that the U.S. Internal Revenue Service will agree that the U.S. Plan meets the requirements of Section 423 of the Code, in which event participants in the U.S. Plan would be subject to income tax on the date shares are purchased under the U.S. Plan on the difference, if any, between the fair market value of a share of L'Air Liquide S.A. stock and the amount paid by a U.S. Employee for such shares.

Risk of Increase in Tax Rates

Federal tax rates in effect on the date that you sell shares may be substantially higher than on the date you purchase shares. State and local tax rates may also increase. Please see Exhibit A of the Description of Material Terms of the Air Liquide Group Employee Share Purchase Plan 2021 Offering for more information.

FATCA & FBAR Reporting

You may be required to file a report of Specified Foreign Financial Assets on IRS Form 8938 as part of your annual US tax return listing certain non-US assets owned by the employee that exceed certain reporting thresholds. The report is required under the Foreign Account Tax Compliance Act known as “FATCA”. Shares of the Company are included among the non-US assets that may need to be reported. There are substantial penalties for failure to file a timely Form 8938.

In addition, the Bank Secrecy Act requires U.S. persons who own a foreign bank account, brokerage account, mutual fund, unit trust, or other financial account to file a FinCEN Form 114, Report of Foreign Bank and Financial Accounts (FBAR) annually with the Department of Treasury, if: (1) the person has a financial interest in, signature authority over, or other authority over one or more accounts in a foreign country, and (2) the aggregate value of all foreign financial accounts exceeds $10,000 at any time during the calendar year.

Foreign securities held in accounts maintained by U.S. financial institutions generally do not need to be counted against the filing thresholds for Form 8938 and FBAR. Depending on the custody arrangements that the Company establishes for shares purchased in the offering, you may be required to take account of the value of your purchased shares in determining whether you are required to file Form 8938, FinCEN Form 114 or both. You should consult your tax advisor to make any determinations with respect to these obligations.

Please See Exhibit A of the Description of Material Terms of the Air Liquide Group Employee Share Purchase Plan 2021 Offering for more information on the FATCA and FBAR filing requirements.

Notice Concerning Forward Looking Statements

The materials being provided to you in connection with the U.S. Plan contain “forward-looking statements”. Words such as “anticipate”, “estimate”, “expects”, “projects”, “intends”, “plans”, “believes”, “will”, and words and terms of similar substance used in connection with any discussion of future operating or financial performance of Air Liquide, identify forward looking statements. All forward-looking statements are management’s present expectations of future events and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward- looking statements. The risks discussed above, among others, could cause actual results to differ materially from those described in, or otherwise projected or implied by, the forward-looking statements. You are cautioned not to place undue reliance on the forward looking statements, which speak only as of the date of the materials being provided to you in connection with the U.S. Plan. Air Liquide is not under any obligation, and expressly disclaims any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward- looking statements attributable to Air Liquide, or any person acting on its behalf, are expressly qualified in their entirety by the cautionary statements contained or referred to above.

FINANCIAL STATEMENTS

2020 Reference Document

4

Consolidated income statement

For the year ended December 31

(in millions of euros)	Notes	2019	2020
Revenue	(3)	21,920.1	20,485.2
Other income	(4)	200.9	216.1
Purchases	(4)	(8,153.9)	(7,197.7)
Personnel expenses	(4)	(4,410.9)	(4,239.8)
Other expenses	(4)	(3,624.7)	(3,336.3)
Operating income recurring before depreciation and amortization		5,931.5	5,927.5
Depreciation and amortization expense	(4)	(2,137.7)	(2,137.9)
Operating income recurring		3,793.8	3,789.6
Other non-recurring operating income	(5)	1.5	481.2
Other non-recurring operating expenses	(5)	(189.0)	(620.7)
Operating income		3,606.3	3,650.1
Net finance costs	(6)	(361.6)	(352.8)
Other financial income	(6)	8.4	6.9
Other financial expenses	(6)	(114.5)	(94.0)
Income taxes	(7)	(801.7)	(678.2)
Share of profit of associates	(14)	0.7	(4.0)
PROFIT FOR THE PERIOD		**2,337.6**	**2,528.0**
Minority interests		96.1	92.9
Net profit (Group share)		2,241.5	2,435.1
Basic earnings per share ***(in euros)***	(8)	4.76	5.16
Diluted earnings per share ***(in euros)***	(8)	4.73	5.14

Accounting principles and notes to the financial statements begin on page 35.

Statement of net income and gains and losses recognized directly in equity

For the year ended December 31

(in millions of euros)	2019	2020
Profit for the period	2,337.6	2,528.0
Items recognized in equity		
Change in fair value of financial instruments	(10.6)	(2.9)
Change in foreign currency translation reserve	315.8	(1,474.9)
Items that may be subsequently reclassified to profit	305.2	(1,477.8)
Actuarial gains / (losses)	(120.1)	(12.6)
Items that may not be subsequently reclassified to profit	(120.1)	(12.6)

(in millions of euros)	2019	2020
Items recognized in equity, net of taxes	185.1	(1,490.4)
Net income and gains and losses recognized directly in equity	2,522.7	1,037.6
Attributable to minority interests	105.7	66.8
Attributable to equity holders of the parent	2,417.0	970.8

Consolidated balance sheet

For the year ended December 31

ASSETS *(in millions of euros)*	Notes	2019	2020
Goodwill	(10)	13,943.0	13,087.4
Other intangible assets	(11)	1,555.0	1,397.8
Property, plant and equipment	(12)	21,117.8	20,002.9
Non-current assets		36,615.8	34,488.1
Non-current financial assets	(13)	646.0	602.5
Investments in associates	(14)	154.4	160.9
Deferred tax assets	(15)	256.6	268.4
Fair value of non-current derivatives (assets)	(25)	26.3	90.9
Other non-current assets		1,083.3	1,122.7
TOTAL NON-CURRENT ASSETS		**37,699.1**	**35,610.8**
Inventories and work-in-progress	(16)	1,531.5	1,405.9
Trade receivables	(17)	2,477.9	2,205.8
Other current assets	(19)	803.0	737.7
Current tax assets		98.0	90.4
Fair value of current derivatives (assets)	(25)	31.3	44.1
Cash and cash equivalents	(20)	1,025.7	1,791.4
TOTAL CURRENT ASSETS		**5,967.4**	**6,275.3**
ASSETS HELD FOR SALE		**-**	**91.0**
TOTAL ASSETS		**43,666.5**	**41,977.1**

EQUITY AND LIABILITIES *(in millions of euros)*	Notes	2019	2020
Share capital		2,602.1	2,605.1
Additional paid-in capital		2,572.9	2,608.1
Retained earnings		11,582.7	11,033.8
Treasury shares		(128.8)	(139.8)
Net profit (Group share)		2,241.5	2,435.1
Shareholders' equity		18,870.4	18,542.3
Minority interests		**454.0**	**462.3**

ASSETS *(in millions of euros)*	**Notes**	**2019**	**2020**
TOTAL EQUITY [a]	**(21)**	**19,324.4**	**19,004.6**
Provisions, pensions and other employee benefits	(22, 23)	2,521.2	2,418.3
Deferred tax liabilities	(15)	2,051.9	1,871.5
Non-current borrowings	(24)	11,567.2	10,220.2
Non-current lease liabilities	(12)	1,087.8	969.4
Other non-current liabilities	(26)	261.6	206.5
Fair value of non-current derivatives (liabilities)	(25)	45.8	11.5
TOTAL NON-CURRENT LIABILITIES		**17,535.5**	**15,697.4**
Provisions, pensions and other employee benefits	(22, 23)	268.4	316.1
Trade payables	(27)	2,566.6	2,437.9
Other current liabilities	(26)	1,629.0	1,809.2
Current tax payables		200.1	215.2
Current borrowings	(24)	1,831.8	2,180.5
Current lease liabilities	(12)	243.6	218.2
Fair value of current derivatives (liabilities)	(25)	67.1	59.0
TOTAL CURRENT LIABILITIES		**6,806.6**	**7,236.1**
LIABILITIES HELD FOR SALE		**-**	**39.0**
TOTAL EQUITY AND LIABILITIES		**43,666.5**	**41,977.1**

(a) *A breakdown of changes in shareholders' equity and minority interests is presented on page 34 and 35.*

Consolidated cash flow statement

For the year ended December 31

(in millions of euros)	**Notes**	**2019**	**2020**
Operating activities			
Net profit (Group share)		2,241.5	2,435.1
Minority interests		96.1	92.9
Adjustments:			
Depreciation and amortization	(4)	2,137.7	2,137.9
Changes in deferred taxes [a]		67.9	(68.4)
Changes in provisions		(106.0)	411.8
Share of profit of associates	(14)	(0.7)	4.0
Profit/loss on disposal of assets		35.1	(454.7)
Net finance costs		249.2	249.0
Other non cash items		138.6	124.8
Cash flows from operating activities before changes in net working capital [b]		4,859.4	4,932.4

(in millions of euros)	Notes	2019	2020
Changes in working capital	(18)	(36.7)	364.3
Other cash items		(110.5)	(91.0)
Net cash flows from operating activities		4,712.2	5,205.7
Investing activities			
Purchase of property, plant and equipment and intangible assets	(11, 12)	(2,636.4)	(2,630.2)
Acquisition of consolidated companies and financial assets		(536.9)	(129.1)
Proceeds from sale of property, plant and equipment and intangible assets ©		584.0	81.3
Proceeds from the sale of activities, net of net debt sold, and of financial assets ©		0.4	718.8
Dividends received from equity affiliates		4.1	4.6
Net cash flows used in investing activities		(2,584.8)	(1,954.6)
Financing activities			
Dividends paid [d]			
L'Air Liquide S.A.		(1,163.0)	(1,307.9)
Minority interests		(73.7)	(78.6)
Proceeds from issues of share capital [d]		39.2	43.7
Purchase of treasury shares [d]		(148.1)	(49.9)
Net financial interests paid		(225.4)	(255.1)
Increase (decrease) in borrowings		(891.0)	(482.0)
Lease liabilities repayments		(248.0)	(245.2)
Net interests paid on lease liabilities		(38.9)	(36.6)
Transactions with minority shareholders		(31.3)	(16.0)
Net cash flows from (used in) financing activities		(2,780.2)	(2,427.6)
Effect of exchange rate changes and change in scope of consolidation		0.7	(1.4)
Net increase (decrease) in net cash and cash equivalents		(652.1)	822.1
NET CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD		1,548.6	896.5
NET CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD		896.5	1,718.6

(a) Changes in deferred taxes reported in the consolidated cash flow statement do not include changes in deferred taxes relating to disposals of assets and capitalized finance costs.
(b) The cash flows from operating activities before changes in net working capital are presented before payment of interests on net debt and of interests paid on lease liabilities and after payment of income taxes.
© From the end of 2020 onwards, proceeds from activities are reported in the line proceeds from the sale of activities, net of net debt sold, and of financial assets while they were presented within the proceeds from sale of property, plant and equipment and intangible assets in 2019. These two lines would have respectively amounted to 46.8 million euros and 537.6 million euros if this adjustment had been applied as of December 31, 2019.
(d) A breakdown of dividends paid, share capital increases and treasury share purchases is provided on pages 33 and 34.

The analysis of net cash and cash equivalents at the end of the period is as follows:

(in millions of euros)	Notes	2019	2020
Cash and cash equivalents	(20)	1,025.7	1,791.4

(in millions of euros)	Notes	2019	2020
Bank overdrafts (included in current borrowings)		(129.2)	(72.8)
NET CASH AND CASH EQUIVALENTS		**896.5**	**1,718.6**

Consolidated statement of changes in equity

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1, 2020 TO DECEMBER 31, 2020

(in millions of euros)	Notes	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Equity and minority interests as of January 1, 2020		2,602.1	2,572.9	14,534.9	(269.1)	(441.6)	(128.8)	18,870.4	454.0	19,324.4
Profit for the period				2,435.1				2,435.1	92.9	2,528.0
Items recognized directly in equity				(12.2)	(2.9)	(1,449.2)		(1,464.3)	(26.1)	(1,490.4)
Net income and gains and losses recognized directly in equity [a]				2,422.9	(2.9)	(1,449.2)		970.8	66.8	1,037.6
Increase (decrease) in share capital		3.0	35.2					38.2	5.4	43.6
Distribution	(9)			(1,309.6)				(1,309.6)	(78.6)	(1,388.2)
Purchases/Disposals of treasury shares [©]							(49.9)	(49.9)		(49.9)
Share-based payments				(0.4)			38.9	38.5		38.5
Transactions with minority shareholders recognized directly in equity				(11.3)				(11.3)	(5.5)	(16.8)
Others [e]				7.4		(12.2)		(4.8)	20.2	15.4
EQUITY AND MINORITY INTERESTS AS OF DECEMBER 31, 2020		**2,605.1** [b]	**2,608.1** [d]	**15,643.9**	**(272.0)**	**(1,903.0)**	**(139.8)** [©]	**18,542.3**	**462.3**	**19,004.6**

(a) The statement of net income and gains and losses recognized directly in equity is presented on page 30.
(b) Share capital as of December 31, 2020 was made up of 473,660,724 shares at a par value of 5.50 euros. During the fiscal year, share capital was increased by the creation of 555,210 shares in cash with a par value of 5.50 euros resulting from the exercise of options.
© The number of treasury shares as of December 31, 2020 totaled 1,525,395 (including 1,289,830 held by L'Air Liquide S.A.). During the fiscal year, movements affecting treasury shares were mainly as follows:
- *acquisitions, net of disposals, of 371,000 shares;*
- *allocation of 461,272 shares as part of performance shares.*

(d) During the fiscal year, additional paid-in capital was increased by the amount of share premiums relating to the capital increases in the amount of 35.2 million euros.
(e) Including the effects of hyperinflation in Argentina.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1, 2019 TO DECEMBER 31, 2019

(in millions of euros)	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Equity and minority interests as of January 1, 2019	2,361.8	2,884.5	13,664.1	(258.5)	(747.8)	(121.0)	17,783.1	424.3	18,207.4
Profit for the period			2,241.5				2,241.5	96.1	2,337.6
Items recognized directly in equity			(120.1)	(10.6)	306.2		175.5	9.6	185.1

(in millions of euros)	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Net income and gains and losses recognized directly in equity [(a)]			2,121.4	(10.6)	306.2		2,417.0	105.7	2,522.7
Increase (decrease) in share capital	2.9	34.5					37.4	1.8	39.2
Free share attribution	242.6	(242.6)					-		-
Distribution			(1,163.8)				(1,163.8)	(73.7)	(1,237.5)
Cancelation of treasury share	(5.2)	(103.5)				108.7	-		-
Purchases/Disposals of treasury shares						(147.9)	(147.9)		(147.9)
Share-based payments			8.8			31.4	40.2		40.2
Transactions with minority shareholders recognized directly in equity			7.3				7.3	(4.0)	3.3
Others [(b)]			(102.9)				(102.9)	(0.1)	(103.0)
EQUITY AND MINORITY INTERESTS AS OF DECEMBER 31, 2019	**2,602.1**	**2,572.9**	**14,534.9**	**(269.1)**	**(441.6)**	**(128.8)**	**18,870.4**	**454.0**	**19,324.4**

(a) The statement of net income and gains and losses recognized directly in equity is presented on page 30.
(b) Including the effects of the 1st application of IFRIC23 and of hyperinflation in Argentina.

Accounting principles

BASIS FOR PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

Due to its listing on the Paris Stock Exchange and pursuant to EC Regulation No. 1606/2002 of July 19, 2002, the consolidated financial statements of the Air Liquide group for the year ended December 31, 2020 have been prepared in accordance with IFRS (International Financial Reporting Standards), as endorsed by the European Union as of December 31, 2020, and with IFRSs without use of the carve-out option, as published by the IASB (International Accounting Standards Board). The IFRS standards and interpretations as adopted by the European Union are available at the following website:

https://ec.europa.eu/info/law/international-accounting-standards-regulation-ec-no-1606-2002/amending-and-supplementary-acts/acts-adopted-basis-regulatory-procedure-scrutiny-rps_en

Except for amendments "Interest Rate Benchmark Reform – phase 2" (amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16), the Group has not anticipated any new standards, amendments to existing standards or new interpretations published by the IASB but not yet approved or not yet mandatory in the European Union, as of December 31, 2020.

The financial statements are presented in millions of euros. They were approved by the Board of Directors on February 9, 2021. They will be submitted for approval to the Shareholders' Meeting on May 4, 2021.

NEW IFRS AND INTERPRETATIONS

1. Standards, interpretations and amendments endorsed by the European Union whose application is mandatory as of January 1, 2020

The following texts have no material impact on the Group financial statements:

- amendments to IAS 1 and IAS 8 "Definition of Material", issued on October 31, 2018;
- amendments to References to the Conceptual Framework in IFRS Standards, issued on March 29, 2018;
- amendments to IFRS 3 "Business Combinations", issued on October 22, 2018.

2. Standards, interpretations and amendments endorsed by the European Union whose application is optional in 2020

The Group has opted for early application of amendments "Interest Rate Benchmark Reform – phase 2" (amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16), issued on August 27, 2020.

The Group did not apply the amendment to IFRS 16 "Covid-19 – Related Rent Concessions", issued on May 28, 2020 and of which the implementation is optional.

In addition, the following texts are not applicable to the Group:

- amendments to IFRS 4 "Insurance Contracts – deferral of IFRS 19", issued on June 25, 2020.

3. Standards, interpretations and amendments not yet endorsed by the European Union

The impacts on the financial statements of texts published by the IASB as of December 31, 2020 and not yet endorsed by the European Union are currently being analyzed. These texts are as follows:

- amendments to IAS 1 "Presentation of Financial Statements: Classification of Liabilities as Current or Non-current and Classification of Liabilities as Current or Non-current – Deferral of Effective Date", issued on January 23, 2020 and July 15, 2020 respectively;
- amendments to IFRS 3 "Business Combinations", to IAS 16 "Property, Plant and Equipment", to IAS 37 "Provisions, Contingent Liabilities and Contingent Assets", and the annual Improvements 2018-2020, issued on May 14, 2020.

  In addition, the following texts are not applicable to the Group:
- IFRS 17 "Insurance contracts", issued on May 18, 2017.

USE OF ESTIMATES AND ASSUMPTIONS

The preparation of the financial statements requires Group or subsidiary management to make estimates and use certain assumptions which have a significant impact on the carrying amounts of assets and liabilities recorded in the consolidated balance sheet, the notes related to these assets and liabilities, the profit and expense items in the income statement and the commitments relating to the period-end. Balance sheet, income statement and cash flow statement line items could differ should the subsequent actual results differ from the estimates. The most significant estimates and assumptions concern namely:

- the estimated useful life of property, plant and equipment used for calculation of depreciation and amortization: these estimates are described in section 5.e of the accounting policies;
- the assumptions used to determine provisions for employee retirement benefit obligations: the actuarial assumptions used (employee turnover, mortality, retirement age, salary increase, etc.), and the discount rates used to determine the present value of obligations, as described in section 11.b of the accounting policies and in note 23.3;
- the estimates and assumptions concerning assets' impairment tests, as described in section 5.f. of the accounting policies and in note 10.2;
- the methods used to recover deferred tax assets on the balance sheet;
- the risk assessment to determine the amount of provisions for contingencies and losses;
- the accounting methods for the margin of the Engineering & Construction contracts that are set out in section 3.b of the accounting policies.
- the assumptions retained to evaluate the lease liability (IFRS 16): lease term and discount rate. They are described in section 5.g of the accounting principles.

In addition, the Group considers that climate risks are material, even though their quantified impact on the consolidated financial statements of the Group is not material. The Group takes into account these risks in its closing assumptions and incorporates their potential impact in its financial statements. In particular, climate risks are taken into account when carrying out closing procedures, in particular the analysis of the useful lives of property, plant and equipment used for calculation of depreciation and amortization, the review of the estimates and assumptions concerning assets' impairment tests, and the risk assessment to determine the amount of provisions for contingencies and losses.

ACCOUNTING POLICIES

The consolidated financial statements were prepared under the historical cost convention, except for financial assets and liabilities measured at fair value through profit or loss or through other comprehensive income in accordance with IAS 32/IFRS 9. The carrying amount of other assets and liabilities hedged against fair value risk is adjusted to take into account the changes in fair value attributable to the hedged risks. In addition, the principles of fairness, going concern, and consistency were applied.

1. CONSOLIDATION METHODS

The consolidation methods used are:

- full consolidation method for subsidiaries;
- assets, liabilities, expenses and revenue of joint operations are recognized in relation to the Group's interest in these entities;
- equity method for joint ventures and associates.

a. Subsidiaries

All the subsidiaries or companies in which the Air Liquide Group exercises exclusive control are fully consolidated. Control exists when all the following conditions are met:

- the Group has existing rights that give it the current ability to direct the relevant activities;
- the Group is exposed, or has rights, to variable returns from its involvement with the entity;
- the Group has the ability to use its power over the entity so that it affects the amount of the returns.

Companies are fully consolidated from the date the Group obtains control and until the date on which control is transferred outside the Group.

b. Joint operations

Joint operations are joint arrangements whereby the Air Liquide Group has joint control with one or several parties through a contractual agreement, which gives it rights to the assets and obligations for the liabilities of the entity.

Assets, liabilities, expenses and revenue of joint operations are recognized in relation to the Group's interest in these entities. These amounts are recorded on each relevant line of the financial statements as for the consolidated entities.

c. Joint ventures

Joint ventures are joint arrangements whereby the Air Liquide Group has joint control with one or several parties through a contractual agreement, which gives it rights to the net assets of the entity.

Joint ventures are consolidated using the equity method. Under this one, the net assets and net profit of a company are recognized pro rata to the interest held by the Group in the share capital.

On acquisition of an investment in a joint venture, goodwill relating to the joint venture is included in the carrying amount of the investment.

d. Associates

Associates are investments over which the Air Liquide Group has significant influence (generally when the Group has more than a 20% interest), but no control.

Associates are consolidated using the equity method. Under this one, the net assets and net profit of a company are recognized pro rata to the interest held by the Group in the share capital.

On acquisition of an investment in an associate, the goodwill relating to the associate is included in the carrying amount of the investment.

The financial statements of subsidiaries, joint arrangements and associates are prepared as of December 31.

e. Inter-company transactions

All inter-company receivables and payables, income and expenses and profits or losses are eliminated.

2. TRANSLATION OF THE FINANCIAL STATEMENTS OF COMPANIES WHOSE FUNCTIONAL CURRENCY IS NOT THE EURO

The functional currency of an entity is the currency of the primary economic environment in which it carries out its operations. In the majority of cases, the functional currency corresponds to the local currency. However, a functional currency other than the local currency can be retained for certain entities, provided that it represents the currency of the main transactions carried out by the entity and that it ensures faithful representation of its economic environment.

At the balance sheet date, the financial statements of companies whose functional currency is not the euro are translated into euros as follows:

- balance sheet items, at the official year-end exchange rates;
- income statement and cash flow statement items, using the average exchange rate over the period for each currency.

Exchange differences are recognized under a separate item "Translation reserves" in gains and losses recognized directly in equity.

Cumulative foreign exchange gains and losses as of January 1, 2004 arising from the translation into euros of the financial statements of subsidiaries whose functional currency is not the euro have been maintained as a separate component of equity.

On removal from the scope of consolidation, the cumulative exchange differences of a company whose functional currency is not the euro are recognized in the income statement.

Since July 1, 2018, Argentina appears among hyperinflationary countries. The impacts of hyperinflation of this country for 2020 financial year are not significant for the Group.

3. REVENUE RECOGNITION

The analysis of revenue recognition is based on the Group's activities, as follow:

a. Gas & Services

The supply of gas involves local production in order to limit transport costs. Therefore, Air Liquide gas production units are located throughout the world and can supply several types of customers and industries, with the relevant volumes and services required:

LARGE INDUSTRY

This business is characterized by the supply of large quantities of gas contracted for a period of 15 years or longer with a limited number of customers. The Group guarantees a high level of reliability and availability of gas supply with continued service, over the long-term. In return, these contracts include guaranteed minimum volumes through firm purchase clauses (take-or-pay). Due to the volume of gas to be supplied, Air Liquide supplies its Large Industry customers directly by pipelines, from a dedicated plant or different plants connected by a network.

These plants represent significant investments that are generally made in a way to share the production assets with the other business lines of the Group, particularly the Industrial Merchant business, or intended to serve the customers in an industrial basin that is connected on a pipeline network. In these cases, the assets are not identified under the meaning of IFRS 16 «Leases» and no lease contract is contained in the contracts with customers. When the customer's gas supply comes from a dedicated plant, the Group may decide on the use of these plants under the meaning of IFRS 16 «Leases». Consequently, the gas supply contracts for the Large Industry business do not contain leases.

Customers of the Large Industry business simultaneously receive and consume the benefits granted by the gas supply service or its availability. As a result, the revenue recognition related to these contracts occurs when the gas is supplied or when the reserved capacity is made available.

INDUSTRIAL MERCHANT, HEALTHCARE AND ELECTRONICS

The Industrial Merchant business relies mainly on the gas production capacity of Large Industry and thereafter develops its own distribution logistics. This business is characterized by a wide range of customers and markets. The contract terms can be up to five years for cylinders and liquid gas supply and up to 15 years for small on-site gas generators.

Healthcare business supplies medical gases, hygiene products, services as well as medical devices to hospitals and patients in their homes. It also produces and distributes healthcare specialty ingredients for the cosmetics, pharmaceutical and vaccine markets.

The Electronics business supplies its customers with (i) carrier gases with a business model based on long-term contracts and on guaranteed minimum volumes with take-or-pay type clauses, (ii) electronics specialty materials in the form of pure or mixed gases, (iii) advanced materials, (iv) equipment and installations and (v) services notably on-site quality control and fluid management services.

For safety and quality reasons, Air Liquide supplies gas with its own equipment (small generators, storage tank, cylinders). Customers have no right of control on the identified assets under the meaning of IFRS 16 "Leases". Consequently, the gas supply contracts for these businesses do not contain leases and the revenue recognition occurs as follows:

- gas supply: the revenue recognition occurs when the gas is supplied or when the reserved capacity is made available;
- sale of standard equipment and materials: the revenue recognition occurs when the control of these equipment and materials is transferred, which generally takes place at their delivery;
- specific equipment and installations: the transfer of control occurs over the time, together with their construction. Consequently, the revenue recognition occurs based on the stage of completion of the contracts at the balance sheet date;
- service: the revenue recognition occurs when the service is provided.

b. Engineering & Construction

Air Liquide enters into contracts to design and build production units worldwide for the Group's own account and for third-party customers.

The control of installations is transferred progressively with their design / construction. Consequently, the revenue recognition is based on the stage of completion of the contracts at the balance sheet date. The costs associated are recognized as an expense in the period when incurred. The stage of completion is assessed by using the ratio of contract costs incurred at the balance sheet date versus total estimated contract costs.

The margin realized at the stage of completion is recognized only when it can be reliably measured. When it is probable that total contract costs will exceed total contract revenue, the expected loss is immediately recognized as a provision for onerous contracts.

c. Global Markets & Technologies

The Global Markets & Technologies business focuses on new markets requiring a global approach. This business is growing mainly within the following markets:

- new markets relating to the energy transition, as well as space, aerospace, and extreme cryogenics markets. As a consequence of its nature, the analysis of the revenue recognition on this market is done on a case-by-case basis depending on the nature of performance obligations;
- gas usages by the actors in the maritime sector, namely offshore oil and gas platforms, offshore wind turbines, or cryogenic transportation by sea. The analysis carried out for Industrial Merchant is applicable to this market.

4. TAXES

a. Income tax expense

The tax rate is calculated on the basis of the fiscal regulations enacted or substantively enacted at the fiscal year closing date in each of the countries where the Group's companies carry out their business.

The Group's applicable tax rate corresponds to the average of the theoretical tax rates in force in each of the countries, weighted according to profit obtained in each of these countries.

The average effective tax rate is calculated as follows: (current and deferred income tax expense) / (net profit before tax less share of profit of associates, dividends received and net profit from discontinued operations).

b. Deferred taxes

Deferred taxes are recognized for all temporary differences between the carrying amount of assets and liabilities and their tax base (excluding non-deductible goodwill and the other exceptions provided in IAS 12), the tax loss carryforwards and the unused tax credits. Deferred tax assets are recognized on all deductible temporary differences provided that it is highly probable that the tax benefits will be realized in future years.

Deferred taxes are calculated at the tax rate applicable when the temporary difference is reversed and allowed under local regulations at the period-end date. The liability method is applied and any changes to the tax rates are recognized in the income statement, except those related to items directly recognized in equity.

Deferred tax assets and liabilities are offset if the entities have a legally enforceable right to offset and if they relate to income tax levied by the same taxation authority. Deferred taxes are not discounted.

Deferred taxes are mainly due to temporary differences between the tax and economic depreciation of assets, the carryforward of tax losses and provisions not immediately deductible for tax purposes, such as employee benefit provisions.

When the Group decides not to distribute profits retained by the subsidiary within the foreseeable future, no deferred tax liability is recognized.

5. NON-CURRENT ASSETS

a. Goodwill and business combinations

BUSINESS COMBINATIONS AS OF JANUARY 1, 2010

The Group has prospectively applied IFRS 3 revised and IAS 27 revised since January 1, 2010.

When the Group obtains control of an acquiree, the business combination is accounted for by applying the acquisition method on the acquisition date, in accordance with IFRS 3 revised:

- the identifiable assets acquired and the liabilities and contingent liabilities assumed are measured at fair value;
- any minority interests in an acquiree are measured as the minority interest's proportionate share of the acquiree's net identifiable assets or at fair value. This option is applied on a case-by-case basis;
- the consideration transferred and any contingent consideration are measured at fair value;
- acquisition-related costs are recorded as expenses in the periods in which they are incurred.

For a business combination achieved in stages, any previously held equity interests in the acquiree are measured at the acquisition-date fair value. Any resulting gains or losses are recognized in profit or loss.

The measurement period of a business combination shall not exceed 12 months as of the acquisition date. Any adjustments, after the measurement period, of the consideration transferred and the fair values of acquired assets and assumed liabilities are recorded in the income statement.

On the acquisition date, goodwill is recognized in the consolidated balance sheet as the difference between:

- the consideration transferred plus the amount of minority interests in the acquiree and the fair value of the previously held equity interest; and,
- the fair value of the identifiable assets acquired and the liabilities and contingent liabilities assumed.

Negative goodwill is recognized immediately through profit or loss.

Goodwill is allocated to cash-generating units (CGUs) or groups of cash-generating units that benefit from business combination synergies. Subsequently, goodwill is not amortized but is tested for impairment annually or more frequently if there are any indications of impairment, in accordance with the method described in section 5.f.

BUSINESS COMBINATIONS PRIOR TO JANUARY 1, 2010

Business combinations achieved prior to January 1, 2010 have been accounted for in accordance with the former versions of IFRS 3 and IAS 27. These standards had already adopted the acquisition method in the version published by the IASB in March 2004. The main provisions that differed from the revised standards are as follows:

- minority interests were measured based on their share of the net identifiable assets of the acquiree and the fair value measurement option did not exist;
- earn-outs were included in the acquisition cost, without time limits, when the payment was deemed probable and the amount could be reliably measured;
- acquisition-related costs were recorded in the cost of the business combination.

For an acquisition achieved in stages, the fair value remeasurement of any previously held net asset was recognized in equity.

For an acquisition of minority interests in a previously held company, the difference between the acquisition cost and the net carrying amount of the minority interests was recorded in goodwill.

At the time of the transition to IFRS and in accordance with the exemption offered by IFRS 1, the Group decided not to apply IFRS 3 "Business combinations" retrospectively for acquisitions that took place prior to January 1, 2004.

b. Research and Development expenditures

Research and Development expenditures include all costs related to the scientific and technical activities, patent work, education and training necessary to ensure the development, manufacturing, start-up, and commercialization of new or improved products or processes.

According to IAS 38, development costs shall be capitalized if, and only if, the Group can meet all of the following criteria:

- the project is clearly identified and the related costs are itemized and reliably monitored;

- the technical and industrial feasibility of completing the project is demonstrated;
- there is a clear intention to complete the project and to use or sell the intangible asset arising from it;
- the Group has the ability to use or sell the intangible asset arising from the project;
- the Group can demonstrate how the intangible asset will generate probable future economic benefits;
- the Group has adequate technical, financial and other resources to complete the project and to use or sell the intangible asset.

When these conditions are not satisfied, development costs generated by the Group are recognized as an expense when incurred.

Research expenditure is recognized as an expense when incurred.

c. Internally generated intangible assets

Internally generated intangible assets primarily include the development costs of information management systems. These costs are capitalized only if they satisfy the criteria as defined by IAS 38 and described above.

Internal and external development costs on management information systems arising from the development phase are capitalized. Significant maintenance and improvement costs are added to the initial cost of assets if they specifically meet the capitalization criteria.

Internally generated intangible assets are amortized over their useful lives.

d. Other intangible assets

Other intangible assets include separately acquired intangible assets such as software, licenses, and intellectual property rights. They also include the technology, brands and customer contracts valued upon the acquisition of companies in accordance with IFRS 3 “Business Combinations”.

With the exception of certain brands, intangible assets are amortized using the straight-line method over their useful lives. Information management systems are generally amortized over a period comprised between five and eight years and customer contracts over a maximum period of 25 years, considering the probabilities of renewal.

e. Property, plant and equipment

Land, buildings and equipment are carried at their acquisition cost less any accumulated depreciation and impairment losses.

In the event of mandatory dismantling or asset removals, related costs are added to the initial cost of the relevant assets and provisions are recognized to cover these costs.

Interest costs on borrowings to finance the construction of property, plant, and equipment are capitalized during the period of construction when they relate to the financing of industrial projects over a twelve-month construction period, or longer.

Where parts of an item of property, plant and equipment have different useful lives, they are accounted separately and depreciated over their own useful lives.

Repair and maintenance costs are recognized as expenses when incurred. The costs of major inspections and overhauls are recognized as a separate component of the asset and are depreciated over the period between two major overhauls.

Depreciation is calculated according to the straight-line method over the estimated useful lives as follows:

- buildings: 20 to 30 years;
- cylinders: 10 to 40 years;
- production units: 15 to 20 years;
- pipelines: 15 to 35 years;
- other equipment: 5 to 30 years.

The estimated useful lives are reviewed regularly and changes in the estimates are recorded prospectively from the date of change.

Land is not depreciated.

f. Impairment of assets

The Group regularly assesses whether there are any indications of asset impairment. If such indications exist, an impairment test is performed to assess whether the carrying amount of the asset is greater than its recoverable amount, defined as the higher of the fair value less costs to sell (net fair value) and the value in use.

Impairment tests are performed systematically once a year for goodwill and intangible assets with indefinite useful lives.

Assets that do not generate largely independent cash flows are grouped according to the cash-generating units (CGUs) to which they belong. A cash-generating unit is an identifiable group of assets that generates cash inflows that are largely independent of the cash inflows of other assets or groups of assets. They are mainly determined on a geographical basis and by reference to the markets in which the Group operates.

In practice, the Group performs impairment tests at various levels pursuant to these principles:

- dedicated and on-site plants are tested individually;
- pipelines and plants that provide these pipelines are tested at the network level;
- liquid gas and hydrogen/CO plants are grouped together according to the plants' customer market;
- other assets are allocated to cash-generating units or groups of cash-generating units.

The cash-generating units of the Gas & Services activity are determined on a geographical basis. The other activities are managed at a worldwide level (Engineering & Construction and Global Markets & Technologies).

Goodwill is allocated to cash-generating units or groups of cash-generating units that benefit from business combination synergies and which represent the levels at which goodwill is monitored by the Group.

When performing impairment tests on cash-generating units or groups of cash-generating units comprising goodwill, the Group uses the market multiples approach to determine if the goodwill is subject to impairment. Insofar as the fair value is not significantly greater than the net carrying amount of the cash-generating unit or group of cash-generating units, the Group confirms the recoverable amount of the cash-generating unit or group of cash-generating units using the estimated cash flow approach (value in use).

For other cash-generating units or groups of cash-generating units, and assets whose value is tested on an individual basis, the Group determines the recoverable amount using the estimated cash flow approach (value in use).

The market multiples used are determined based on the market value of the Air Liquide Group. The differences between the resulting multiples and those of comparable companies are not material.

The growth rates, taken into account with respect to the cash flow estimates for cash-generating units or groups of cash-generating units, are determined based on the activity and geographical location of the CGU considered.

In assessing value in use for property, plant and equipment, the estimated future cash flows are discounted to their present value. Cash flows are measured over the asset's estimated period of use, taking into account customer contract terms and technical obsolescence.

The discount rate depends on the nature, the location of the asset and the customer market. It is determined according to the minimum level of profitability expected from the investment considering industrial and commercial risks and credit terms.

When the recoverable amount of an asset, a cash-generating unit or a group of cash-generating units is lower than its carrying amount, an impairment loss is recognized immediately through profit and loss. An impairment loss of a cash-generating unit is first allocated to goodwill.

When the recoverable amount exceeds the carrying amount again, the previously recognized impairment loss is reversed to the income statement, with the exception of impairment losses on goodwill, which cannot be reversed.

g. Leases

In the course of its activity, the Group enters as a lessee in contracts mainly for the following types of assets:

- land, buildings and offices;
- transportation equipment, in particular for Industrial Merchant and Healthcare business lines;
- other equipment.

According to IFRS 16, any contract (apart from exceptions mentioned below) containing a lease leads to recognition on the lessee's balance sheet of a right-of-use of the leased asset and a lease liability related to the present value of the commitments for future lease payments (lease liability).

A contract is, or contains, a lease if it conveys to the Group the right to control the use of an identified asset for a period of time in exchange of consideration. In particular, the Group has concluded that transportation contracts which confer to the supplier the substantive right to substitute the vehicle throughout the period of use and/or the control on the choice of the route, the driver and maintenance policy, are service contracts and do not meet the definition of a lease under IFRS 16.

In addition, the Group has chosen not to apply IFRS 16:

- to the lease contracts having a lease terms of 12 months or less;
- to the lease contracts for which the underlying asset is of low value, in particular, office and telephony equipment, computers and small IT equipment. Lease contracts for data centers are analyzed on a case-by-case basis.

  The main assumptions used to measure the right-of-use and the lease liability are:

- lease term. It corresponds to the non-cancellable period for which a lessee has the right to use an underlying asset, together with periods covered by an option to extend or to terminate the lease if the Group is reasonably certain to exercise (for options to extend) or not to exercise (for options to terminate) such options. The probability to exercise or not an option is determined by type of contracts or on a case-by-case basis according to contractual terms, regulatory environment and the nature of the underlying asset (in particular, its technical specificity and strategic location);
- the discount rate used for evaluation of the lease liability. The discount rate retained is the lessee's incremental borrowing rate. Due to the centralized financing in the Group, it corresponds for each subsidiary to the interest rate for intragroup borrowings determined according to the currency of the lease contract, the country and the lease term taking into account the repayment profile (linear amortization of the lease liability).

6. FINANCIAL INSTRUMENTS

a. Non-current financial instruments

NON-CONSOLIDATED INVESTMENTS

Investments in non-consolidated companies that are not accounted for using the equity method are classified as assets measured at fair value. These investments are not held for trading, consequently, at initial recognition, the Group may make an irrevocable election to present in other comprehensive income subsequent changes in the fair value. In this case, changes in fair value are not reclassified to net result upon disposal of these investments.

Dividends from these investments are recognized in other financial income.

LOANS AND OTHER FINANCIAL ASSETS

Loans and other financial assets are initially recognized at their fair value and subsequently carried at amortized cost. Impairment tests are performed at each closing date. Any impairment losses are recognized immediately in the income statement.

b. Trade and other receivables

Trade and other receivables are measured at their transaction price upon initial recognition and then at amortized cost less any impairment losses based on expected credit losses model.

Expected credit losses are estimated on the basis of a matrix consisting in using historical loss rates adjusted depending on actual observable conditions. Expected credit losses are estimated at each closing date in the following manner:

- segregating trade receivables into appropriate groups, in particular depending on the activities of the Group, type and size of client and its market segment;
- within each group of trade receivables, determining of age-bands;
- for each age-band identification of losses realized in previous financial year;
- adjusting if necessary historical loss rate depending on actual observable conditions in order to take into account, in particular, current market conditions, type of client, credit management practices of the Group as well as specific information concerning individual customers;
- application of loss rates estimated in this way to each age-band of trade receivables.

For all construction contracts in progress at the year-end, the gross amounts payable by and to customers represent the sum of costs incurred plus profits recognized using the percentage of completion method, equivalent to total revenue recorded using the percentage of completion method, less the amount of advances received.

Amounts payable by customers are presented in trade receivables. Amounts due to customers are presented in other current liabilities.

ASSIGNMENTS OF TRADE RECEIVABLES

Assignments of trade receivables are derecognized in the balance sheet when:

- the Group transfers the contractual rights to receive the cash flows related to these receivables to the assignee; or
- the Group retains the contractual rights to receive the cash flows related to these receivables, but assumes a contractual obligation to pay the cash flows to the assignee in an arrangement that cumulatively meets the following three conditions:
  - the Group has no obligation to pay to the assignee unless it collects the equivalent amount,
  - the Group is prohibited from selling or pledging the receivables other than as security for the obligation to pay cash flows to the assignee,
  - the Group has an obligation to remit any cash flows it collects on behalf of the assignee without material delay;
- and the Group transfers substantially all the risks and awards of ownership of the receivables, in particular credit risk and risk of late payment.

c. Cash and cash equivalents

Cash and cash equivalents include cash balances, current bank accounts, and short-term highly liquid investments that are readily convertible into cash and do not present a material risk of a change in value.

Short-term investments include temporary cash investments maturing in less than three months (commercial paper, certificates of deposit and money market funds) whose minimum long-term rating is A (S&P) or A2 (Moody's).

As cash investments maturing in less than three months are exposed to a negligible risk of a change in value, they are recognized at historical cost (including accrued interest) which is considered to approximate fair value.

d. Trade payables

The Group sets up supplier paying services agreements with partner banks to facilitate the processing of supplier invoices payments. The Group analyzes the main contract features that enable to keep the trade payables qualification. In particular, the Group ensures that the following characteristics are met:

- no deviation of the payment terms of the underlying payable between the financing party and the original supplier. In other words, the Group must pay to the bank no later than the payment term of invoice;
- payment terms negotiations between Air Liquide and supplier must be conducted independently of any negotiation on paying service agreement. In particular, payment terms shall not be subject to the supplier's success in selling invoices to the bank;

- the terms of contract with the supplier shall not be explicitly linked to any payment term extension. Payment term with a particular supplier must be homogenous, independently of the participation of a particular invoice in the program or not;
- payment terms should stay within the ordinary industry/sector norms and local regulation, and should not be tied to the participation in the paying services agreement;
- program structures should avoid debt-like features such as interest and fees paid by Air Liquide to the bank or supplier;
- tri-party agreements between Air Liquide, the supplier and the bank that pre-arrange the financing of the invoices owed by Air Liquide to the supplier shall be avoided.

e. Current and non-current borrowings

Borrowings include bonds and other bank borrowings (including the put options granted to minority shareholders).

At inception, borrowings are recognized at fair value corresponding to the net proceeds collected. At each balance sheet date, except for put options granted to minority shareholders (see section 10 “Minority Interests”), they are measured at amortized cost using the effective interest rate (EIR) method. Under this method, the borrowing cost includes the redemption premiums and issuance costs initially deducted from the nominal amount of the borrowing in liabilities.

Borrowings maturing in less than one year are classified as current borrowings.

Borrowings hedged by interest rate swaps are recognized on a hedge accounting basis.

f. Derivative assets and liabilities

Derivative financial instruments are used to manage exposures to foreign exchange, interest rate and commodity risks relating to the Group’s financial and operating activities. For all these transactions, the Group applies hedge accounting and documents, at the inception of the transaction, the type of hedging relationship, the hedging instruments, and the nature and term of the hedged item.

Applying hedge accounting has the following consequences:

- fair value hedges for existing assets and liabilities: the hedged portion of the item is carried at fair value in the balance sheet. Any changes in fair value are recognized in the income statement, where they are offset by the corresponding changes in fair value of the hedging instruments (except for the impact of premiums/discounts);
- future cash flow hedges: the effective portion of the change in fair value of the hedging instrument is recorded directly in equity (items that may be subsequently reclassified to income statement), while the change in the fair value of the hedged item is not recognized in the balance sheet. The change in fair value of the ineffective portion is recognized in other financial income or expenses. When the hedged transactions occur and are recorded, amounts recorded in other comprehensive income are reclassified in the income statement;
- hedges of net investments in a foreign entity: the effective portion of the changes in fair value of the derivative instrument is recognized in gains and losses recognized directly in equity under “Translation reserves”. The ineffective portion of changes in fair value is recognized in “Other financial income and expenses”. Once the foreign entity subject to the net investment hedge is sold, the loss or profit initially recognized in translation reserves is recognized in profit or loss, within the gain or loss generated.

However, in limited circumstances, certain types of derivatives do not qualify for hedge accounting; they are carried at fair value through “Other financial income and expenses” with an offsetting entry in financial assets and financial liabilities.

The fair value of assets, liabilities and derivatives is based on the market price at the balance sheet date.

7. ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

a. Assets classified as held for sale

Non-current assets or disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This classification occurs when the Group takes the decision to sell them and that the sale is considered highly probable.

The assets and liabilities held for sale are presented on different lines of the balance sheet. They are measured at the lower of their carrying amount or fair value less costs to sell. Assets classified as held for sale are no longer depreciated (amortized) as of the date they are classified as assets or disposal groups held for sale.

When a sale involving the loss of control of the subsidiary is considered highly probable, all the assets and liabilities of this subsidiary are classified as being held for sale, independently of whether or not the Group retains a residual interest in the entity after its sale.

b. Discontinued operations

A discontinued operation is a clearly identifiable component that the Group either has abandoned or that is classified as held for sale:

- representing a separate major line of business or geographical area of operations;
- being part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations; or,
- being a subsidiary acquired exclusively with a view to resale.

Once the criteria are met, the profit and loss and the cash flow from discontinued operations are presented separately in the income statement and the consolidated cash flow statement for each period.

8. INVENTORIES AND WORK-IN-PROGRESS

Inventories are measured at the lower of cost or net realizable value. Cost includes raw materials, direct and indirect labor costs and other costs incurred in bringing the inventories to their present location and condition.

Net realizable value is the estimated selling price in the normal course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

9. SHARE CAPITAL, RESERVES AND TREASURY SHARES

Air Liquide's share capital is composed of ordinary shares. Retained earnings include the following items:

- translation reserves: exchange differences arising from the translation into euros of financial statements prepared by foreign subsidiaries whose functional currency is not the euro are recorded in translation reserves. Fair value changes in net investment hedges of these foreign subsidiaries are also recorded in this reserve;
- fair value of financial instruments: this item records accumulated fair value changes in the effective portion of cash flow hedge derivatives (transactions not yet recognized in the accounts);
- actuarial gains and losses: all actuarial gains and losses and adjustments arising from the asset ceiling, net of deferred taxes, are recognized in consolidated reserves in the period in which they occur.

When the Group buys back its own shares, they are classified as treasury shares at the purchase price and presented as a deduction from equity for the consideration paid. The profit or loss from the sale of treasury shares is recognized directly in equity, net of tax.

Furthermore, acquisitions or disposals of minority interests, without change in control, are considered as transactions with the Group's shareholders. Thus, the difference between the price paid to increase the percentage of interest in entities that are already controlled and the additional share of equity thus acquired is recognized in Shareholders' equity. Similarly, a decrease in the Group's percentage interest in a controlled entity is accounted for as an equity transaction with no impact on profit or loss.

Disposals of shares with loss of control give rise to the recognition in disposal gains or losses of the change in fair value calculated for the total investment at the date of disposal. Any investments retained, where applicable, will be measured at fair value at the date when control is lost.

10. MINORITY INTERESTS

Transactions with minority interests, without impact on the control, are considered as transactions with the Group's shareholders and are registered in shareholders' equity.

In accordance with IAS 32, put options granted to minority shareholders are recorded as borrowings at the option's estimated strike price.

The share in the net assets of subsidiaries is reclassified from "Minority interests" to "Borrowings".

Due to the absence of any specific IFRS guidance, the Group has elected to recognize the consideration for the difference between the strike price of the option granted and the value of the minority interests reclassified as borrowings in shareholders' equity – Group share.

Minority interests in profit and loss do not change and still reflect present ownership interests.

11. PROVISIONS

a. Provisions

Provisions are recognized when:

- the Group has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate can be made of the amount of the obligation.

Restructuring provisions include only the direct costs arising from the restructuring and are recognized in the period in which the Group has approved a detailed and formal restructuring plan and the restructuring has either begun or been announced. When these plans involve termination benefits, the resulting provisions are recognized at the earlier of the following dates:

- when the Group can no longer withdraw the offer of those benefits;
- when the provision of the related restructuring is recognized.

A provision for losses on contracts is recognized when the expected benefits from the contract are lower than the cost of satisfying the obligations under the contract.

b. Pensions and employee benefits

The Group provides its employees with various pension plans, termination benefits, jubilees and other post-employment benefits for both active and retired employees. The characteristics of each plan vary according to the laws and regulations applicable in each country as well as each subsidiary policy.

These benefits are covered by two types of plan:

- defined contribution plans;
- defined benefit plans.

The Group grants both defined benefit and defined contribution plans.

Defined contribution plans are plans under which the employer's sole obligation is to pay regular contributions. The employer's obligation is limited to payment of the planned contributions. The employer does not grant any guarantees on the future level of benefits paid to the employee or retiree (means-based obligation). The annual pension expense is equal to the contribution paid during the fiscal year which relieves the employer from any further obligation. It is recognized in "Personnel expenses".

Defined benefit plans are those by which the employer guarantees the future level of benefits defined in the agreement, most often depending on the employee's salary and seniority ("result-based obligation"). Defined benefit plans can be:

- either financed by contributions to a fund specialized in managing the amounts received;
- or managed internally.

In the case of defined benefit plans, retirement and similar obligations are measured by independent actuaries, according to the projected unit credit method. The actuarial calculations mainly take into account the following assumptions: salary increases, employee turnover, retirement date, life expectancy, inflation and appropriate discount rates for each country.

Defined benefit plans are covered by external pension funds in certain cases. The assets of these plans are mostly invested in bonds or equities carried at their fair value.

All actuarial gains and losses as well as any adjustment arising from the asset ceiling are recognized in the period in which they occur.

Actuarial assumptions used vary according to the demographic and economic conditions prevailing in each country where the Group has pension plans.

Discount rates used to measure the present value of the Company's obligations and the net interest cost are determined by reference to market yields on High-Quality corporate bonds. Where there is no deep market in such bonds, the market yields on government bonds with the same maturity at the valuation date shall be used. In the Euro zone, the United States, the United Kingdom and Canada, discount rates were determined using tools designed by independent actuaries. Their database uses several hundred different corporate bonds with a minimum AA-rating and maturities ranging from one to 30 years. Cash flows of expected benefits are subsequently discounted using rates associated to each maturity.

Valuations are carried out annually by independent actuaries for significant plans and every three years for other plans unless there are material changes in assumptions or major events that necessitate a new calculation.

Impacts related to defined benefit plans are registered as follows:

- the service cost, the gain relating to curtailments and settlements, and the actuarial gains and losses from other long-term benefits and recognized in "Personnel expenses";
- net interest cost for defined benefits is registered in "Other financial income and expenses";
- past service cost is recorded in profit or loss according to the nature of the change to the plan that generated it (i.e. either in "Personnel expenses" or in "Other financial income and expenses");
- actuarial gains and losses from defined benefit plans, retirement termination payments, and medical plans are recorded in "Gains and losses recognized directly in equity".

12. FOREIGN CURRENCY TRANSACTIONS AND BALANCES

Foreign currency transactions are recognized according to the following principles:

- foreign currency transactions are translated by each company into its functional currency at the exchange rate prevailing on the date of the transaction;
- at year-end, monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the closing exchange rate.

Exchange differences relating to commercial transactions are recognized in operating profit. For financial transactions, exchange differences are recognized in financial income and expenses except for differences resulting from the hedge of a net investment in a foreign entity that are directly recognized in equity until the net investment is removed from the consolidation scope.

13.CONTINGENT ASSETS AND LIABILITIES

Contingent assets and liabilities arise from past events, the outcome of which depends on future uncertain events.

Contingent liabilities represent:

- possible obligations arising from past events whose existence will be confirmed only by the occurrence of uncertain future events not wholly within the control of the entity; or,
- present obligations that arise from past events, but that are not recognized because it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or because the amount of the obligation cannot be measured with sufficient reliability.

Contingent assets and liabilities that are material are disclosed in the notes to the consolidated financial statements, except for contingent liabilities assumed in a business combination, which are recognized in accordance with IFRS 3 revised.

14. GOVERNMENT GRANTS

Government grants received are initially recognized in "Other non-current liabilities". They are then recognized as income in the income statement for the period:

- on the same basis as the subsidized assets are depreciated in the case of government grants related to assets;
- deducted from the costs intended to be compensated in the case of government grants other than those related to assets.

The Group analyzes the substance of government incentives delivered through the tax system and selects an accounting treatment coherent with such substance.

15. SHARE-BASED PAYMENTS

The Group grants stock options and performance shares to Executive Officers and some employees.

Stock options and performance shares are measured at fair value on the grant date. Their fair value is recognized as a "Personnel expense" in the income statement with a corresponding increase in equity, and amortized on a straight-line basis over the vesting period.

The valuation is performed by an independent expert, using mathematical models appropriate to the characteristics of each plan. It takes into account the market vesting conditions associated to each one. The fair value measured at the grant date is not subject to re-evaluation due to changes in market conditions.

Vesting conditions, other than market ones, have no impact on the fair value measurement of services received but adjust the expense that is recognized according to the number of equity instruments actually granted.

The dilution effect of non-vested stock option plans and performance share allocations is reflected in the calculation of diluted earnings per share.

For employee savings plans, the capital increases reserved for employees and performed under conditions that differ from market conditions result in the recognition of an expense. This expense corresponds to the contribution paid by the entity and the discount on the share price less the cost of non-transferability for the employees.

SHARE SUBSCRIPTION OPTION PLANS

Options are valued using the following main underlying assumptions:

- volatility: implicit;
- risk-free interest rate: zero-coupon benchmark rate at the plan issue date and matching the various maturities retained;
- dividend growth rate: based on the historical average annual growth rate;
- employee resignation rate: that of individuals belonging to the same age group as the plan beneficiaries. The resignation rate is used to extrapolate the number of options which will not be exercised due to the resignation of beneficiaries;
- the probability of achieving the market vesting conditions.

PERFORMANCE SHARES ALLOCATION PLANS

Performance shares are measured at fair value, taking into account a discount on non-transferable shares. The cost of non-transferability is measured as the cost of a two-step strategy consisting in the forward sale of shares being non-transferable for four years (or five years depending on the plan) and the purchase on the spot market of the same number of shares funded by an amortizable loan with an in fine capital repayment.

Valuation is based upon the following main underlying assumptions:

- risk-free interest rate: four-year zero-coupon benchmark rate (or five-year depending on the plan) at the plan issue date plus a credit margin that would be proposed to employees;
- dividend growth rate: based on the historical average annual growth rate;
- employee resignation rate: that of individuals belonging to the same age group as the plan beneficiaries. This resignation rate is used to extrapolate the shares which will not be allocated due to the resignation of beneficiaries;
- the probability of achieving the market vesting conditions.

16. GREENHOUSE GAS EMISSION QUOTAS

In certain countries, the Group is subject to greenhouse gas emission quota systems.

In the absence of any specific IFRS guidance, the Group has elected to apply the ANC Regulation No. 2012-03. The Group does not buy CO_2 quotas for the purpose of generating profits from fluctuations in price; therefore, at each closing date:

- a liability is recognized if the greenhouse gas emissions are higher than the CO_2 quotas held by the Group. It corresponds to the cost of CO_2 quotas in shortfall to cover the greenhouse gas already emitted; or,

- an asset is recognized if the greenhouse gas emissions are lower than the CO_2 quotas held by the entity. It corresponds to the CO_2 quotas available to cover the future greenhouse gas emissions, valued at historical cost.

Basis for presentation of financial information

1. SEGMENT INFORMATION

The Group is structured according to the following activities: Gas & Services, Engineering & Construction and Global Markets & Technologies.

The Group's main operational decision-making body is the Executive Management assisted by the Executive Committee.

The Gas & Services activity is organized by geographical area, which is the responsible level for operations management and performance monitoring. These geographical areas are as follows:

- Europe;
- Americas;
- Asia Pacific;
- Middle East & Africa.

Within the Gas & Services segment, the geographical areas determine sales policies and development projects in liaison with the four business lines (Large Industries, Industrial Merchant, Healthcare and Electronics).

The Engineering & Construction segment is managed separately on a worldwide scale. The segment designs, develops and builds industrial gas production plants for the Group and third parties. It also designs and manufactures plants in the traditional, renewable and alternative energy sectors.

The Global Markets & Technologies segment is also managed separately on a worldwide scale. It focuses on new markets which require a global approach, drawing on science, technologies, development models, and usages related to digital transformation.

Research and Development and corporate activities do not meet the operating segments definition and are thus presented within reconciliation.

The information communicated in the tables covering segment information is presented according to the same accounting principles as those used for the Group consolidated financial statements.

Revenue is analyzed by geographical area of production (country of origin).

Inter-segment revenue between Gas & Services, Engineering & Construction and Global Markets & Technologies activities corresponds to the sales between these operating segments.

The Group operating performance is assessed on the basis of each segment's recurring operating income.

Segment assets include non-current assets, with the exception of "Deferred tax assets", "Investments in associates", "Fair value of non-current derivatives (assets)", as well as "Inventories and work-in-progress", "Trade receivables" and "Other current assets".

Segment liabilities correspond to "Provisions, pensions and other employee benefits", "Trade payables", "Other current liabilities" and "Other non-current liabilities".

Segment profits, assets and liabilities consist of amounts directly attributable to each segment, provided they can be allocated to the segment on a reasonable basis.

2. NET DEBT

The net debt includes:

- current and non-current borrowings, as defined in section 6.e of accounting policies, minus the fair value of hedging derivative assets to cover borrowings;

reduced by:

- cash and cash equivalents, as defined in section 6.c of accounting policies, minus the fair value of hedging derivative instruments recorded in liabilities to cover loans.

The net debt does not include the lease liabilities as defined in section 5.g of accounting policies.

3. INFORMATION ON INTERESTS IN JOINT ARRANGEMENTS OR ASSOCIATES

The materiality of the interests in joint arrangements or associates is assessed according to the following criteria:

- contribution of the entity to the Group's operating income recurring;
- share of these interests in the Group's net assets;
- dividends paid to these interests.

4. INFORMATION ON MINORITY INTERESTS

The materiality of the minority interests is assessed according to an analysis of:

- the minority interests' share in the Group's net assets;
- the contribution to the Group's operating income recurring of the subsidiary having minority interests;
- dividends paid to minority interests.

5. OPERATING INCOME RECURRING

The Group's operating performance is measured based on operating income or loss recurring determined in accordance with ANC recommendation No. 2020-01

6. OTHER NON-RECURRING OPERATING INCOME AND EXPENSES

Material non-recurring operations that could affect operating performance readability are classified under "Other non-recurring operating income" and "Other non-recurring operating expenses". They may include:

- gains or losses on the disposal of activities or groups of assets;
- acquisition-related and integration-related costs relating to business combinations;
- restructuring costs resulting from plans whose unusual and material nature distort the readability of the operating income recurring;
- significant provisions and impairment losses for property, plant and equipment and intangible assets;
- incurred or estimated costs relating to significant political risks or litigations.

7. NET EARNINGS PER SHARE

a. Basic earnings per share

Basic earnings per share is calculated by dividing net profit (Group share) attributable to ordinary shareholders of Air Liquide by the weighted average number of shares outstanding during the year, excluding ordinary shares purchased by Air Liquide and recognized in equity.

b. Diluted earnings per share

Diluted earnings per share take into account share subscription options and performance shares allocated to employees and Executive Officers if:

- the issue price, adjusted for unrecognized expenses at the year-end pursuant to IFRS 2, is lower than the Air Liquide annual average share price;
- the performance requirements meet the criteria set out in IAS 33 § 52.

Notes to the consolidated financial statements for the year ended December 31, 2020

Note 1 Impacts of health crisis on the financial statements

On January 30, 2020, the World Health Organization declared a worldwide health emergency due to the propagation of the Covid-19 virus and designated it as a pandemic on March 11, 2020. Consequently, governments from all over the world have been forced to adopt social and economic restrictive measures in order to limit the spread of the virus.

These measures have significantly affected the worldwide economy. In this context, Air Liquide Group has assessed the consequences of the pandemic in its financial statements and has reported the impact on the evolution of its activities (upwards or downwards) as well as inefficiencies caused by the health crisis in each line within operating income recurring.

Nevertheless, in order to ensure the continuity of its accounting methods and the presentation of its Consolidated Income Statement, Air Liquide has decided to report some expenses related to the Covid-19 outbreak in «Other non-recurring operating expenses». The criterias to be met are the following:

- direct or incremental expenses linked to the pandemic and pertaining to specific and limited natures of cost;
- expenses related to recurring activity and operations of the Group should remain within "Operating income recurring" even if they have been adversely impacted by the crisis.

The impact of these costs on the Group Financial Statements amounts to 65.2 million euros (before taxes) and is reported in «Other non-recurring operating expenses».

Given the current environment:

- Air Liquide has not identified any signs of impairment directly resulting from the current health crisis;
- in addition, as part of the preparation of its medium-term plan, the Group has carried out a strategic review of its activities and its assets portfolio, taking into account the impacts of the health crisis on specific markets. The impairment losses resulting from this strategic review have been taken into account in the financial statements as of December 31, 2020;
- Air Liquide has reviewed indicators of impairment of trade receivables and has not identified any item that could justify a significant increase in credit losses. The expected credit risk assessment has however been adjusted to reflect the increased risk of bankruptcies;
- Air Liquide has reviewed the impact of the pandemic on its cash position (presented in note 20) and has not identified any impact on the Group liquidity position.

Note 2 Segment information

2.1. INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2020

	Gas & Services								
(in millions of euros)	Europe	Americas	Asia Pacific	Middle East & Africa	Sub-total	Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
Revenue	6,825.8	7,798.9	4,467.4	563.4	19,655.5	250.3	579.4		20,485.2
Inter-segment revenue						*386.0*	*460.4*	*(846.4)*	
Operating income recurring	1,405.0	1,530.4	985.0	95.4	4,015.8	12.8	78.0	(317.0)	3,789.6
incl. depreciation and amortization	*(657.4)*	*(867.9)*	*(420.7)*	*(73.8)*	*(2,019.8)*	*(25.7)*	*(54.1)*	*(38.3)*	*(2,137.9)*
Other non-recurring operating income									481.2
Other non-recurring operating expenses									(620.7)
Net finance costs									(352.8)
Other financial income									6.9
Other financial expenses									(94.0)
Income taxes									(678.2)
Share of profit of associates									(4.0)

(in millions of euros)	Gas & Services Europe	Gas & Services Americas	Gas & Services Asia Pacific	Gas & Services Middle East & Africa	Gas & Services Sub-total	Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
Profit for the period									2,528.0
Purchase of intangible assets and property, plant and equipment	(875.9)	(935.2)	(581.9)	(54.5)	(2,447.5)	(10.1)	(191.6)	19.0	(2,630.2)

2.2. INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2019

(in millions of euros)	Gas & Services Europe	Gas & Services Americas	Gas & Services Asia Pacific	Gas & Services Middle East & Africa	Gas & Services Sub-total	Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
Revenue	7,172.3	8,460.5	4,793.7	613.5	21,040.0	328.1	552.0		21,920.1
Inter-segment revenue						*380.7*	*454.4*	*(835.6)*	
Operating income recurring	1,431.4	1,536.6	950.8	109.5	4,028.3	8.9	67.2	(310.6)	3,793.8
incl. depreciation and amortization	*(645.6)*	*(876.0)*	*(436.2)*	*(72.1)*	*(2,029.9)*	*(26.4)*	*(46.5)*	*(34.9)*	*(2,137.7)*
Other non-recurring operating income									1.5
Other non-recurring operating expenses									(189.0)
Net finance costs									(361.6)
Other financial income									8.4
Other financial expenses									(114.5)
Income taxes									(801.7)
Share of profit of associates									0.7
Profit for the period									2,337.6
Purchase of intangible assets and property, plant and equipment	(815.3)	(945.7)	(588.1)	(61.6)	(2,410.7)	(8.6)	(191.4)	(25.7)	(2,636.4)

2.3. BALANCE SHEET AS OF DECEMBER 31, 2020

(in millions of euros)	Gas & Services Europe	Gas & Services Americas	Gas & Services Asia Pacific	Gas & Services Middle East & Africa	Gas & Services Sub-total	Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
Segment assets	10,465.5	18,373.4	6,768.5	1,319.3	36,926.7	675.5	1,480.4	357.4	39,440.0
Goodwill	3,034.7	8,262.1	1,349.6	92.8	12,739.2	217.4	130.8		13,087.4
Intangible assets and property, plant and equipment, net	5,793.1	9,065.8	4,342.4	957.1	20,158.4	218.8	772.4	251.1	21,400.7
Other segment assets	1,637.5	1,045.6	1,076.5	269.5	4,029.1	239.3	577.2	106.3	4,951.9
Non-segment assets									2,446.1
Assets held for sale									91.0

(in millions of euros)	Gas & Services: Europe	Americas	Asia Pacific	Middle East & Africa	Sub-total	Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
Total assets									**41,977.1**
Segment liabilities	2,627.3	1,571.1	934.9	210.3	5,343.6	975.3	399.9	469.3	7,188.1
Non-segment liabilities									15,745.4
Equity including minority interests									19,004.6
Liabilities held for sale									39.0
Total equity and liabilities									**41,977.1**

2.4. BALANCE SHEET AS OF DECEMBER 31, 2019

(in millions of euros)	Gas & Services: Europe	Americas	Asia Pacific	Middle East & Africa	Sub-total	Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
Segment assets	10,614.7	20,327.7	6,963.1	1,607.7	39,513.2	697.8	1,479.7	383.5	42,074.2
Goodwill	3,087.1	8,993.3	1,397.3	101.7	13,579.4	237.0	126.6		13,943.0
Intangible assets and property, plant and equipment, net	5,788.8	10,036.6	4,408.9	1,174.4	21,408.7	258.1	748.2	257.8	22,672.8
Other segment assets	1,738.8	1,297.8	1,156.9	331.6	4,525.1	202.7	604.9	125.7	5,458.4
Non-segment assets									1,592.3
Total assets									**43,666.5**
Segment liabilities	2,432.1	1,631.1	995.0	221.3	5,279.5	759.3	373.4	834.5	7,246.7
Non-segment liabilities									17,095.4
Equity including minority interests									19,324.4
Total equity and liabilities									**43,666.5**

The Research and Development and Holdings activities (corporate) are presented in the “Reconciliation” column. Operating income recurring of the Engineering & Construction activity includes financial income generated from advances received from customers. It is included in net finance costs in the consolidated income statement. The adjustment arising from the presentation difference is included in the “Reconciliation” column.

2.5. OTHER INFORMATION ON GEOGRAPHICAL AREAS

2020 *(in millions of euros)*	France	Europe excl. France	United States	Americas excl. United States	Asia Pacific	Middle East & Africa	Total
Revenue	2,740.5	4,701.3	6,749.1	1,158.7	4,569.0	566.6	20,485.2
Non-current assets [(a)]	2,683.3	7,161.7	16,084.8	1,680.3	5,830.7	1,208.2	34,649.0
incl. Investments in associates	*2.3*	*27.6*	*5.2*	*-*	*29.9*	*95.9*	*160.9*

(a) Excluding non-current financial assets, deferred taxes and non-current derivative assets.

2019 *(in millions of euros)*	**France**	**Europe excl. France**	**United States**	**Americas excl. United States**	**Asia Pacific**	**Middle East and Africa**	**Total**
Revenue	2,734.8	5,048.6	7,287.0	1,284.3	4,948.1	617.3	21,920.1
Non-current assets [(a)]	2,725.6	7,197.0	17,460.6	1,994.7	5,937.1	1,455.2	36,770.2
incl. Investments in associates	*3.5*	*28.0*	*8.5*	-	*18.8*	*95.6*	*154.4*

(a) *Excluding non-current financial assets, deferred taxes and non-current derivative assets.*

Due to the substantial number of customers served by the Group (almost two million worldwide), to their significant diversity in multiple sectors and to their wide geographical dispersion, the Group's main customer represents only 1.4% of Air Liquide's revenue.

Note 3 Revenue

In 2020, consolidated revenue amounted to 20,485.2 million euros, down -6.5% compared to 2019. Revenue was down -4.5% after adjusting for the cumulative impact of foreign exchange fluctuations. The foreign exchange fluctuations essentially stemmed from the depreciation of the US dollar and to a lesser extent of the Brazilian real and Argentinian peso against the Euro.

3.1. REVENUE BY GEOGRAPHY AND BUSINESS LINE FOR THE YEAR ENDED DECEMBER 31, 2020

(in millions of euros)	**Europe**	**Americas**	**Asia Pacific**	**Middle East & Africa**	**Total**
Industrial Merchant	2,100.8	5,306.8	1,300.1	251.2	8,958.9
Large Industries	1,949.5	1,248.0	1,510.7	263.8	4,972.0
Healthcare	2,651.1	833.9	190.6	48.4	3,724.0
Electronics	124.4	410.2	1,466.0	-	2,000.6
Gas & Services Revenue	**6,825.8**	**7,798.9**	**4,467.4**	**563.4**	**19,655.5**
Engineering & Construction					250.3
Global Markets & Technologies					579.4
Total Revenue					**20,485.2**

3.2. REVENUE BY GEOGRAPHY AND BUSINESS LINE FOR THE YEAR ENDED DECEMBER 31, 2019

(in millions of euros)	**Europe**	**Americas**	**Asia Pacific**	**Middle East & Africa**	**Total**
Industrial Merchant	2,238.9	5,846.9	1,384.9	284.2	9,754.9
Large Industries	2,213.2	1,375.4	1,753.4	286.2	5,628.2
Healthcare	2,599.0	841.1	210.0	43.1	3,693.2
Electronics	121.2	397.1	1,445.4	-	1,963.7
Gas & Services Revenue	**7,172.3**	**8,460.5**	**4,793.7**	**613.5**	**21,040.0**
Engineering & Construction					328.1
Global Markets & Technologies					552.0
Total revenue					**21,920.1**

Note 4 Operating income recurring and expenses

Operating income recurring and expenses include purchases, personnel expenses, depreciation and amortization, other recurring income and other recurring expenses.

The Group purchases mainly consist of electricity, natural gas as well as industrial and medical products.

4.1. OTHER INCOME

Other income is primarily made up of net proceeds from the sale of property, plant, and equipment and intangible assets and various indemnities.

4.2. PERSONNEL EXPENSES

nillions of euros)	2019	2020
ıges and social security charges	(4,252.6)	(4,085.1)
fined contribution pension plans	(82.3)	(81.6)
fined benefit pension plans	(35.8)	(34.6)
are-based payments	(40.2)	(38.5)
TAL	**(4,410.9)**	**(4,239.8)**

Fully consolidated companies employed 64,445 individuals as of December 31, 2020 (67,200 individuals as of December 31, 2019).

4.3. OTHER OPERATING EXPENSES

Other operating expenses primarily include transport and distribution costs and sub-contracting costs.

The operating leases costs included in other operating expenses are not significant and correspond to the contracts that do not fall within the scope of IFRS 16 (cf. paragraph 5.g. of the Accounting principles).

4.4. RESEARCH AND DEVELOPMENT EXPENDITURES

In 2020, innovation costs amounted to 303.0 million euros (317.0 million euros in 2019) including Research and Development costs of 173.0 million euros (200.0 million euros in 2019).

4.5. DEPRECIATION AND AMORTIZATION EXPENSE

(in millions of euros)	2019	2020
Intangible assets	(172.2)	(173.2)
Property, plant and equipment (PP&E) [(a)]	(1,965.5)	(1,964.7)
TOTAL	**(2,137.7)**	**(2,137.9)**

(a) Including the depreciation expense after deduction of investment grants released to profit.

Note 5 Other non-recurring operating income and expenses

(in millions of euros)	2019	2020
Income		
Net gain on the disposals of activities or group of assets	1.5	481.2
TOTAL OTHER NON-RECURRING OPERATING INCOME	**1.5**	**481.2**
Expenses		
Reorganization, restructuring and realignment programs costs	(94.8)	(112.1)
Integration costs related to the acquisition of Airgas	(27.7)	(29.1)
Acquisition costs	(20.8)	(7.4)
Political risks and legal procedures	(6.4)	(8.1)
Net loss on the disposals of activities or group of assets and impairments of assets	(25.1)	(399.1)

(in millions of euros)	**2019**	**2020**
Purchases of protection equipments and sanitizing costs	-	(23.1)
Others	(14.2)	(41.8)
TOTAL OTHER NON-RECURRING OPERATING EXPENSES	**(189.0)**	**(620.7)**
TOTAL	**(187.5)**	**(139.5)**

In 2020, the Group recognized:

- capital gains on disposals amounting to 481.2 million euros, including in particular the disposal of Schülke & Mayr GmbH;
- costs corresponding to realignment programs primarily in Gas & Services;
- Airgas integration costs corresponding to long-term incentives specifically implemented as part of this operation;
- as mentioned in note 1, impairment of assets for 395.5 million euros following a strategic review of its activities and its portfolio of assets in connection with the new strategic plan of the Group;
- purchases of protection equipments for employees and sanitizing costs directly attributable to the consequences of the outbreak.

In 2019, the Group recognized:

- impairment of assets and results from disposals for 25.1 million euros, mainly related to operations in China (including Air Liquide Fuzhou Co. Ltd sale);
- costs resulting from realignment programs for 94.8 million euros, mainly relating to Gas & Services;
- Airgas integration costs mainly corresponding to long-term incentives specifically implemented as part of this operation;
- acquisition costs mainly related to the acquisition of Tech Air in the United States.

Note 6 Net finance costs and other financial income and expenses

6.1. NET FINANCE COSTS

(in millions of euros)	**2019**	**2020**
Net finance costs	(378.9)	(368.6)
Financial income from short-term investments and loans	17.3	15.8
TOTAL	**(361.6)**	**(352.8)**

The average net finance costs, excluding capitalized finance costs of +35.1 million euros (+45.7 million euros in 2019) and excluding the non-recurring cost of -40.4 million euros linked to the anticipated repayment of bonds issued by Airgas (described in note 24), stood at 2.8% in 2020. As a reminder, the average net finance costs stood at 3.0% in 2019.

6.2. OTHER FINANCIAL INCOME AND EXPENSES

(in millions of euros)	**2019**	**2020**
Other financial income	8.4	6.9
TOTAL OTHER FINANCIAL INCOME	**8.4**	**6.9**
Other financial expenses	(51.9)	(42.2)
Interest expense on the net defined benefit liability	(20.9)	(11.1)
Interest on lease liabilities	(41.7)	(40.7)
TOTAL OTHER FINANCIAL EXPENSES	**(114.5)**	**(94.0)**

Note 7 Income taxes

7.1. INCOME TAX EXPENSE

(in millions of euros)	**2019**	**2020**
Income tax expense payable	(722.1)	(737.4)

(in millions of euros)	**2019**	**2020**
TOTAL CURRENT TAX	**(722.1)**	**(737.4)**
Temporary differences	(79.7)	51.7
Impact of tax rate changes	0.1	7.5
TOTAL DEFERRED TAX	**(79.6)**	**59.2**
TOTAL	**(801.7)**	**(678.2)**

7.2. RECONCILIATION BETWEEN THE STANDARD TAX RATE AND THE GROUP EFFECTIVE TAX RATE

(in %)	**2019**	**2020**
Standard tax rate	26.5	26.6
Impact of transactions taxed at reduced rates	(3.0)	(6.7)
Impact of tax rate changes	-	(0.2)
Impact of tax exemptions and others	2.0	1.4
Average effective tax rate	25.5	21.1

The decrease in average effective tax rate compared to 2019 is due in particular to tax impact of Schülke & Mayr GmbH sale mentioned in note 5. This impact is included in the transactions taxed at reduced rates.

In France, L'Air Liquide S.A. has elected to determine French income taxes on a consolidated basis. This scheme applies to all French subsidiaries complying with the legal requirements.

Foreign subsidiaries have elected to apply for similar rules wherever this is allowed under local regulations.

Note 8 Net earnings per share

8.1. BASIC EARNINGS PER SHARE

	2019	**2020**
Net profit (Group share) attributable to ordinary shareholders of the parent *(in millions of euros)*	2,241.5	2,435.1
Weighted average number of ordinary shares outstanding	471,214,966	471,603,408
Basic earnings per share ***(in euros)***	4.76	5.16

8.2. DILUTED EARNINGS PER SHARE

	2019	**2020**
Net profit used to calculate diluted earnings per share *(in millions of euros)*	**2,241.5**	**2,435.1**
Weighted average number of ordinary shares outstanding	471,214,966	471,603,408
Adjustment for dilutive impact of share subscription options	971,354	1,090,344
Adjustment for dilutive impact of performance shares	1,485,534	1,426,047
Adjusted weighted average number of shares outstanding used to calculate diluted earnings per share	**473,671,854**	**474,119,799**
Diluted earnings per share ***(in euros)***	4.73	5.14

Every instruments issued by the Group are included in the calculation of diluted earnings per share.

The Group has not issued any other financial instruments that may result in further dilution of net earnings per share.

Note 9 Dividend per share

The 2019 dividend on ordinary shares declared and paid on May 13, 2020 to the Group shareholders was 1,309.6 million euros (including fidelity premium) and amounted to 2.70 euros per share and a fidelity premium of 0.27 euro per share.

A dividend payment of 2.75 euros per ordinary share and a fidelity premium of 0.27 euros per share amounting to 1,336.6 million euros (estimated amount taking into account share buybacks and cancelations) will be proposed to the Annual General Meeting in respect of the financial year ended December 31, 2020.

Note 10 Goodwill

10.1. MOVEMENTS DURING THE PERIOD

(in millions of euros)	As of January 1	Goodwill recognized during the period	Goodwill removed during the period [a]	Foreign exchange differences	Other movements	As of December 31
2019	13,345.0	377.2	(2.9)	223.7	-	13,943.0
2020	13,943.0	68.7	(86.9)	(846.6)	9.1	13,087.4

(a) Goodwill removed during the period include the impact of the divestiture Schülke & Mayr GmbH.

10.2. SIGNIFICANT GOODWILL

	2019	2020		
(in millions of euros)	Net carrying amount	Gross carrying amount	Impairment losses	Net carrying amount
Gas & Services	13,579.4	12,739.3	(0.1)	12,739.2
Europe	*3,087.0*	*3,034.9*	*(0.1)*	*3,034.8*
Americas [a]	*8,993.3*	*8,262.1*	*-*	*8,262.1*
Asia Pacific	*1,397.4*	*1,349.6*	*-*	*1,349.6*
Middle East & Africa	*101.7*	*92.7*	*-*	*92.7*
Engineering & Construction	237.0	217.4	-	217.4
Global Markets & Technologies	126.6	132.2	(1.4)	130.8
TOTAL GOODWILL	**13,943.0**	**13,088.9**	**(1.5)**	**13,087.4**

(a) Goodwill recognized within Gas & Services Americas mainly comes from the United States contributing up to 8,088.1 million euros as of December 31, 2020.

In the last two fiscal years, the Group has not recorded any goodwill impairment losses.

Impairment tests were carried out using the methods detailed in note 5.f of the accounting policies. The key model assumptions used, such as market multiples and the discount rate, took into account the stock market and world economic context.

The market multiples used were determined using the Air Liquide Group market value as of December 31, 2020. Multiples obtained do not materially differ from those of companies whose activity is similar to that of the Group.

The growth rates used for estimating the cash flows of cash-generating units or groups of cash-generating units were significantly lower than the Group's historical average growth rates. Growth rates are comprised between 1% and 3% in mature markets, and up to 5.5% in emerging markets.

The weighted average cost of capital used was 4.4% as of December 31, 2020 (6.4% as of December 31, 2019). The weighted average cost of capital is adjusted for the activity and the geographical location of the cash-generating units being tested.

As of December 31, 2020 and December 31, 2019, the recoverable amounts of each cash-generating unit or groups of cash-generating units significantly exceeded their net carrying amounts.

Considering the activity of the Air Liquide Group, no reasonably possible change in key assumptions would result in an impairment. The Gas & Services activity favors synergies between the different business lines by pooling assets for a given geographical area. The geographical development of the activity is generally based on local industrial investments and external growth operations throughout the Large Industries business line. The supply of gas to clients of the Large Industries business is contracted for a minimum duration of 15 years. These customer contracts provide a good visibility and guarantee of future income.

Note 11 Other intangible assets

11.1. GROSS CARRYING AMOUNTS

2020 *(in millions of euros)*	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [a]	As of December 31
Internally generated intangible assets	655.7	34.4	(8.6)	(18.0)	-	14.0	677.5
Other intangible assets	2,464.6	69.4	(51.4)	(122.5)	4.1	(4.8)	2,359.4

2020 *(in millions of euros)*	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [(a)]	As of December 31
TOTAL GROSS INTANGIBLE ASSETS	**3,120.3**	**103.8**	**(60.0)**	**(140.5)**	**4.1**	**9.2**	**3,036.9**

(a) *Other movements primarily include account reclassifications and changes in the scope of consolidation.*

2019 *(in millions of euros)*	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [(a)]	As of December 31
Internally generated intangible assets	630.9	41.3	(47.9)	4.6	0.4	26.4	655.7
Other intangible assets	2,387.1	51.0	(22.2)	33.3	8.3	7.1	2,464.6
TOTAL GROSS INTANGIBLE ASSETS	**3,018.0**	**92.3**	**(70.1)**	**37.9**	**8.7**	**33.5**	**3,120.3**

(a) *Other movements primarily include account reclassifications and changes in the scope of consolidation.*

11.2. AMORTIZATION AND IMPAIRMENT LOSSES

2020 *(in millions of euros)*	As of January 1	Charge for the period	Impairment losses	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [(a)]	As of December 31
Internally generated intangible assets	(412.8)	(50.5)	(5.7)	5.3	8.8	-	(9.5)	(464.4)
Other intangible assets	(1,152.5)	(122.6)	(9.6)	44.7	42.9	-	22.4	(1,174.7)
TOTAL INTANGIBLE ASSET AMORTIZATION	**(1,565.3)**	**(173.1)**	**(15.3)**	**50.0**	**51.7**	**-**	**12.9**	**(1,639.1)**
TOTAL NET INTANGIBLE ASSETS [(b)]	**1,555.0**	**(69.3)** [©]	**(15.3)**	**(10.0)**	**(88.8)**	**4.1**	**22.1**	**1,397.8**

(a) *Other movements primarily include account reclassifications and changes in the scope of consolidation.*
(b) *Other intangible assets mainly include the Airgas trademark for 382.8 million euros as of December 31, 2020.*
© *This amount is the net of additions and charges for the period.*

2019 *(in millions of euros)*	As of January 1	Charge for the period	Impairment losses	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [(a)]	As of December 31
Internally generated intangible assets	(384.0)	(50.1)	14.3	9.9	(1.6)	-	(1.3)	(412.8)
Other intangible assets	(1,035.3)	(122.1)	(1.4)	11.5	(11.9)	-	6.7	(1,152.5)
TOTAL INTANGIBLE ASSET AMORTIZATION	**(1,419.3)**	**(172.2)**	**12.9**	**21.4**	**(13.5)**	**-**	**5.4**	**(1,565.3)**
TOTAL NET INTANGIBLE ASSETS [(b)]	**1,598.7**	**(79.9)** [©]	**12.9**	**(48.7)**	**24.4**	**8.7**	**38.9**	**1,555.0**

(a) *Other movements primarily include account reclassifications and changes in the scope of consolidation.*
(b) *Other intangible assets mainly include the Airgas trademark for 445.4 million euros as of December 31, 2019.*
© *This amount is the net of additions and charges for the period.*

As of December 31, 2020, the Group had no material commitment to acquire intangible assets and was not subject to any restrictions over the use of existing intangible assets.

Note 12 Property, plant and equipment

12.1. GROSS CARRYING AMOUNTS

2020 *(in millions d'euros)*	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [(a)]	As of December 31
Land	443.5	6.4	(3.3)	(26.9)	1.9	10.4	432.0
Buildings	2,166.2	6.8	(22.1)	(107.2)	(1.0)	85.1	2,127.8
Equipment, cylinders, installations	37,070.6	368.2	(527.4)	(1,928.1)	8.2	1,116.8	36,108.3
Rights of use	1,516.9	151.4	(5.2)	(98.0)	2.8	(2.7)	1,565.2
TOTAL PROPERTY, PLANT AND EQUIPMENT IN SERVICE	**41,197.2**	**532.8**	**(558.0)**	**(2,160.2)**	**11.9**	**1,209.6**	**40,233.3**
Construction in progress	2,559.2	2,178.6	-	(199.4)	-	(1,641.8)	2,896.6
TOTAL PROPERTY, PLANT AND EQUIPMENT	**43,756.4**	**2,711.4**	**(558.0)**	**(2,359.6)**	**11.9**	**(432.2)**	**43,129.9**

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

2019 *(in millions of euros)*	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [(a)]	As of December 31
Land	444.7	1.2	(10.7)	8.2	0.6	(0.5)	443.5
Buildings	2,090.4	15.3	(18.6)	30.8	6.2	42.1	2,166.2
Equipment, cylinders, installations	35,675.7	413.2	(432.8)	513.4	81.8	819.3	37,070.6
Rights of use	-	150.2	(20.1)	0.8	22.9	1,363.1	1,516.9
TOTAL PROPERTY, PLANT AND EQUIPMENT IN SERVICE	**38,210.8**	**579.9**	**(482.2)**	**553.2**	**111.5**	**2,224.0**	**41,197.2**
Construction in progress	1,852.9	2,143.8	-	14.2	-	(1,451.7)	2,559.2
TOTAL PROPERTY, PLANT AND EQUIPMENT	**40,063.7**	**2,723.7**	**(482.2)**	**567.4**	**111.5**	**772.3**	**43,756.4**

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

Purchases of property, plant and equipment and intangible assets presented in the consolidated statement of cash flows relate to the increase in property, plant and equipment and intangible assets adjusted for the change in the fixed asset suppliers' balance during the current year.

12.2. DEPRECIATION AND IMPAIRMENT LOSSES

2020 *(in millions of euros)*	As of January 1	Charge for the period	Impairment losses	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [(a)]	As of December 31
Buildings	(1,086.2)	(96.9)	-	18.3	46.2	-	24.6	(1,094.0)
Equipment, cylinders, installations	(21,298.0)	(1,631.9)	(286.1)	460.7	954.4	-	231.3	(21,569.6)
Rights of use	(254.4)	(242.4)	(17.6)	7.0	23.9	-	20.1	(463.4)
TOTAL PROPERTY, PLANT AND EQUIPMENT DEPRECIATION	**(22,638.6)**	**(1,971.2)**	**(303.7)**	**486.0**	**1,024.5**	**-**	**276.0**	**(23,127.0)**
TOTAL PROPERTY, PLANT AND EQUIPMENT, NET	**21,117.8**	**740.2** [(b)]	**(303.7)**	**(72.0)**	**(1,335.1)**	**11.9**	**(156.2)**	**20,002.9**

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.
(b) This amount is the net of additions and charges for the period.

2019 *(in millions of euros)*	As of January 1	Charge for the period	Impairment losses	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements [(a)]	As of December 31
Buildings	(993.1)	(96.1)	-	13.5	(14.3)	-	3.8	(1,086.2)
Equipment, cylinders, installations	(19,822.4)	(1,634.9)	2.6	367.3	(273.3)	-	62.7	(21,298.0)
Rights of use	-	(242.7)	(0.5)	5.4	(0.1)	-	(16.5)	(254.4)
TOTAL PROPERTY, PLANT AND EQUIPMENT DEPRECIATION	**(20,815.5)**	**(1,973.7)**	**2.1**	**386.2**	**(287.7)**	**-**	**50.0**	**(22,638.6)**
TOTAL PROPERTY, PLANT AND EQUIPMENT, NET	**19,248.2**	**750.0** [(b)]	**2.1**	**(95.9)**	**279.7**	**111.5**	**822.3**	**21,117.8**

(a) *Other movements primarily include account reclassifications and changes in the scope of consolidation.*
(b) *This amount is the net of additions and charges for the period.*

The charge for the period corresponds to the increase in depreciation, net of investment grants released to the income statement.

12.3. MATURITY OF LEASE LIABILITIES

The maturity of the lease liabilities related to rights-of-use is as follows:

		Maturity								
			≥ 1 year and ≤ 5 years				> 5 years			
2020 *(in millions of euros)*	Carrying amount	< 1 year	2022	2023	2024	2025	2026	2027	2028	> 2028
Non-current lease liabilities	969.4		194.4	155.5	119.5	96.7	74.1	57.7	47.9	223.6
Current lease liabilities	218.2	218.2								
TOTAL LEASE LIABILITIES	**1,187.6**	**218.2**	**194.4**	**155.5**	**119.5**	**96.7**	**74.1**	**57.7**	**47.9**	**223.6**

		Maturity								
			≥ 1 year and ≤ 5 years				> 5 years			
2019 *(in millions of euros)*	Carrying amount	< 1 year	2021	2022	2023	2024	2025	2026	2027	> 2027
Non-current lease liabilities	1,087.8		222.1	166.5	143.1	112.5	87.8	64.7	62.5	228.6
Current lease liabilities	243.6	243.6								
TOTAL LEASE LIABILITIES	**1,331.4**	**243.6**	**222.1**	**166.5**	**143.1**	**112.5**	**87.8**	**64.7**	**62.5**	**228.6**

Note 13 Non-current financial assets

(in millions of euros)	2019	2020
Non-consolidated investments	251.2	247.7
Loans	56.7	53.6
Other long-term receivables	318.0	286.3
Employee benefits	20.1	14.9
NON-CURRENT FINANCIAL ASSETS	**646.0**	**602.5**

As of December 31, 2020, Other long-term receivables contain the receivable related to the refund claim for the equalization charge paid for the period 2000 to 2004 in the amount of 16.1 million euros (compared to 70.6 million euros as of December 31, 2019). With regards to the litigation concerning the reimbursement of the receivable, the Administrative Court of Montreuil partially sided with Air Liquide on July 21, 2014. Following the court order, L'Air Liquide S.A. received 30.3 million euros in principal and 15.0 million euros in interest on arrears. The Group appealed the decision of the Administrative Court of Montreuil on September

19, 2014 for the recovery of the balance. On appeal, the Administrative Court of Versailles partially sided with Air Liquide on July 7, 2020. Following this decision, Air Liquide received 31.8 million of euros in principal and 23.1 million of euros in interest on arrears on July 27, 2020.

Following the decisions rendered by the Court of Appeal of Versailles and in order to challenge some of those decisions, Air Liquide and the tax administration have filed a plea before the Supreme Court («Conseil d'État»). On October 23, the Conseil d'État decided to refer a question to the Court of Justice of the European Union. The Air Liquide Group, being a party to this case, is entitled to send a statement to the Court of Justice of the European Union before the end of February 2022.

Note 14 Investments in associates

14.1. FINANCIAL INFORMATION RELATED TO JOINT VENTURES AND ASSOCIATES

Group share of associates and joint ventures as of December 31, 2020 *(in millions of euros)*	**Share of profit for the period**	**Share of equity [a]**	**Share of net income and gains and losses recognized directly in equity [b]**
Joint ventures	5.7	118.3	2.4
Associates	(9.7)	42.6	11.9
TOTAL	**(4.0)**	**160.9**	**14.3**

(a) Including goodwill relating to associates and joint ventures.
(b) The share of net income and gains and losses recognized directly in equity primarily comprises the translation reserves.

Group share of associates and joint ventures as of December 31, 2019 *(in millions of euros)*	**Share of profit for the period**	**Share of equity [a]**	**Share of net income and gains and losses recognized directly in equity [b]**
Joint ventures	12.4	115.6	11.6
Associates	(11.7)	38.8	13.9
TOTAL	**0.7**	**154.4**	**25.5**

(a) Including goodwill relating to associates and joint ventures.
(b The share of net income and gains and losses recognized directly in equity primarily comprises the translation reserves.

14.2. MOVEMENTS DURING THE YEAR

(in millions of euros)	**As of January 1**	**Share of profit for the period**	**Dividend distribution**	**Foreign exchange differences**	**Other movements**	**As of December 31**
2019	142.1	0.7	(7.3)	2.2	16.7	154.4
2020	**154.4**	**(4.0)**	**(4.6)**	**(11.2)**	**26.3**	**160.9**

None of the consolidated companies using the equity method of accounting is individually material.

Note 15 Deferred taxes

15.1. DEFERRED TAX ASSETS

The change in deferred tax assets over the fiscal year is as follows:

(in millions of euros)	**2019**	**2020**
AS OF JANUARY 1	**255.0**	**256.6**
Income (charge) to the income statement	(26.9)	6.3
Income (charge) to equity for the period [a]	32.4	1.5
Changes related to business combinations	0.3	2.7
Foreign exchange differences	3.7	(5.9)
Others [b]	(7.9)	7.2

(in millions of euros)	2019	2020
AS OF DECEMBER 31	**256.6**	**268.4**

(a) Relates to deferred taxes recognized in other items in the statement of net income and gains and losses recognized directly in equity: -5.1 million euros relate to changes in the fair value of derivatives and non-consolidated investments and +6.6 million euros relate to actuarial gains and losses. In 2019, the respective effects amounted to +12.5 million euros relating to changes in the fair value of derivatives and non-consolidated investments and +19.9 million euros relating to actuarial gains and losses.
(b) Other movements primarily include account reclassifications between accounts and changes in the scope of consolidation.

As of December 31, 2020, unrecognized deferred tax assets amounted to 132.5 million euros (155.4 million euros as of December 31, 2019).

15.2. DEFERRED TAX LIABILITIES

The change in deferred tax liabilities over the fiscal year is as follows:

(in millions of euros)	2019	2020
AS OF JANUARY 1	**2,037.7**	**2,051.9**
Charge (income) to the income statement	52.7	(52.9)
Charge (income) to equity for the period [(a)]	(27.6)	(16.6)
Changes related to business combinations	(19.5)	0.7
Foreign exchange differences	42.0	(140.4)
Others [(b)]	(33.4)	28.8
AS OF DECEMBER 31	**2,051.9**	**1,871.5**

(a) Relates to deferred taxes recognized in other items in the statement of net income and gains and losses recognized directly in equity: +0.9 million euros relate to changes in the fair value of derivatives and non-consolidated investments and -17.5 million euros relate to actuarial gains and losses. In 2019, the respective effects amounted to -0.3 million euros relating to changes in the fair value of derivatives and non-consolidated investments and -27.3 million euros relating to actuarial gains and losses.
(b) Other movements primarily include account reclassifications between accounts and changes in the scope of consolidation.

15.3. DEFERRED TAX BY NATURE

The net deferred taxes are broken down as follows:

(in millions of euros)	2019	2020
Amortization/depreciation	(2,250.0)	(2,099.9)
Provisions, pensions and other employee benefits	412.5	387.3
Other provisions	222.3	266.1
Tax loss carryforwards	106.2	85.7
Other	(286.4)	(242.3)
TOTAL	**(1,795.4)**	**(1,603.1)**

Note 16 Inventories and work-in-progress

(in millions of euros)	2019	2020
Raw materials and supplies	385.5	362.7
Finished and semi-finished goods	1,044.5	960.4
Work-in-progress	101.5	82.8
NET INVENTORIES	**1,531.5**	**1,405.9**

(in millions of euros)	2019	2020
Write-down of inventories	(26.2)	(41.2)
Reversals of write-down	7.3	22.0

(in millions of euros)	2019	2020
NET WRITE-DOWN RECOGNIZED IN THE INCOME STATEMENT	**(18.9)**	**(19.2)**

Note 17 Trade receivables

(in millions of euros)	2019	2020
Trade and other operating receivables	2,661.5	2,409.8
Provisions for impairment	(183.6)	(204.0)
TRADE RECEIVABLES	**2,477.9**	**2,205.8**

Trade and other operating receivables include gross amounts relating to Engineering & Construction contracts for 119.5 million euros (109.6 million euros as of December 31, 2019).

As of December 31, 2020, cumulative revenue recognized using the percentage of completion method and cumulative cash in over the past years from the beginning of the projects in progress amounted respectively to 1,308.6 million euros (1,651.3 million euros as of December 31,2019) and 1,296.4 million euros (1,618.4 million euros as of December 31,2019).

17.1. BREAKDOWN OF TRADE AND OTHER OPERATING RECEIVABLES

(in millions of euros)	Gross carrying amount	Not yet due	Impaired and overdue	Not impaired and overdue
2019	2,661.5	1,898.4	166.0	597.1
2020	**2,409.8**	**1,812.6**	**199.5**	**397.7**

Trade receivables overdue and not impaired at the year-end mainly included receivables due within three months.

The accounting principles relating to trade receivables impairment (expected credit losses) are described in section 6.b of the accounting principles.

17.2. PROVISION FOR IMPAIRMENT

(in millions of euros)	As of January 1	Charges	Reversals	Foreign exchange differences	Other movements	As of December 31
2019	(178.3)	(49.9)	44.1	(1.5)	1.9	(183.6)
2020	**(183.6)**	**(64.1)**	**30.5**	**10.2**	**3.0**	**(204.0)**

17.3. INFORMATION RELATING TO NON-RECOURSE ASSIGNMENTS OF TRADE RECEIVABLES

Non-recourse factored receivables in Europe, in Asia and in the Americas, amounted to 1,062.3 million euros compared to 1,133.3 million euros at the end of 2019.

The European program, set up in 2015, reaching maturity in March 2021 has been renewed in December 2020 for 500 million euros, until February 28, 2026. The assigned receivables, in the amount of 356.8 million euros, were derecognized as of December 31, 2020 (367 million euros as of December 31, 2019).

The American program hold by Airgas and set up in December 2018, covers 700 million US dollars (623 million euros). 593.9 million US dollars (484.0 million euros) were derecognised as of December 31, 2020.

Other non-recourse factoring programs exist in various countries and activities, mainly in Asia and Healthcare.

Almost all the risks and rewards were transferred to the assignees.

Note 18 Working capital requirement

The decrease in working capital requirement by -364.3 million euros, presented in the consolidated cash flow statement, mainly comes from the decrease in working capital requirement of Gas & Services, Engineering & Construction and Global Market & Technologies by respectively -297.7 million euros, -22.3 million euros and -8.9 million euros.

Note 19 Other current assets

(in millions of euros)	2019	2020
Advances and down-payments made	149.0	155.3

(in millions of euros)	2019	2020
Prepaid expenses	132.1	112.8
Other sundry current assets	521.9	469.6
OTHER CURRENT ASSETS	**803.0**	**737.7**

Note 20 Cash and cash equivalents

(in millions of euros)	2019	2020
Short-term loans	44.9	53.6
Short-term marketable securities	169.1	137.4
Cash in bank	811.7	1,600.4
CASH AND CASH EQUIVALENTS	**1,025.7**	**1,791.4**

As of December 31, 2020, cash and cash equivalents include 86 million euros subject to restrictions (50 million euros as of December 31, 2019), mainly in four countries: in Luxembourg (regulatory restrictions relating to the Group's captive reinsurance company), in Egypt (because of effective currency restrictions), in China and in Germany (joint venture companies).

Furthermore, 17 million euros of cash and cash equivalents are held in countries in which a prior authorization is necessary to transfer funds abroad. These liquidities are at the Group's disposal within a reasonable time period, if preliminary formalities are respected. This amount stood at 37 million euros as of December 31, 2019.

From March 2020 and in order to address the liquidity risk related to the health crisis, the Group significantly increased its cash position from 1 billion euros as of December 31, 2019 to approximately 1.5 billion euros as of June 30, 2020 and 1.8 billion euros as of December 31, 2020. According to the strategy of diversifying the financing sources, the various debt markets have been accessed: commercial paper, bonds and bank debt.

Note 21 Shareholders' equity

21.1. SHARES

Number of shares

	2019	2020
NUMBER OF SHARES AS OF JANUARY 1	**429,423,434**	**473,105,514**
Free share attribution	44,117,721	-
Options exercised during the period	517,359	555,210
Cancelation of treasury shares	(953,000)	-
NUMBER OF SHARES AS OF DECEMBER 31	**473,105,514**	**473,660,724**

Shares have a par value of 5.50 euros each and are all issued and fully paid-up.

In 2020, a total of 371,000 shares were repurchased (net of disposals).

21.2. COMPANY TREASURY SHARES

Treasury shares are Air Liquide shares held by the Group, including shares forming part of the liquidity contract in accordance with an Ethics Charter recognized by the French financial markets authority (Autorité des marchés financiers). As of December 31, 2020, the Group held 1,525,395 treasury shares (1,616,458 as of December 31, 2019) including 11,000 treasury shares under a liquidity contract (5,000 as of December 31, 2019). Changes in the number of treasury shares are explained in the consolidated statement of changes in equity.

21.3. SHARE-BASED PAYMENTS

Share subscription option plans

Pursuant to the decisions of the Board of Directors, following the approval by the Annual General Meeting and based on the recommendations of the Remuneration Committee, the Group had adopted share subscription plans for some of the senior executives of the Company and its subsidiaries worldwide, as well as corporate officers.

The purpose of these options is to provide an incentive to key executives, by rewarding the loyalty of high-performing executives and their actions in exceptional situations, as well as associating them with the long-term interests of shareholders.

Stock options are granted for a minimum price which cannot be lower than the average closing market price over the 20 trading days preceding the grant date. Options granted since October 14, 2011 must be exercised within 10 years.

A four-year vesting period applies to stock options granted.

As of December 31, 2020, the number of outstanding share options granted by the Board of Directors under the plans approved by Annual General Meetings amounted to 2,268,200 options after adjustment (average price of 76.61 euros), or 0.48% of share capital, of which 531,349 options (average price of 77.33 euros) were granted to executive officer present as of December 31, 2020.

Out of the total number of options issued pursuant to the approval by the Annual General Meeting on May 7, 2019, 9,473,214 options were retained for possible grant by the Board of Directors as of December 31, 2020.

Performance shares plans

An additional compensation system involving performance shares was set up in 2008 as a way to reward our best employees and associate their medium-term performance with the Company's objectives.

The 14th resolution adopted by the Extraordinary Annual General Meeting held on May 7, 2019 authorizes the Board of Directors to grant free shares to Group employees, up to a maximum of 0.5% of the Company's share capital over a 38-month period. As part of this maximum attribution, free shares representing up to 0.1% of the Group's share capital can be granted to corporate officers over the same period.

Under this authority, the Board of Directors adopted:

- two different general regulations on September 30, 2019 ("France" Plan and "World" Plan) governing the attribution of performance shares to beneficiaries determined by the Board of Directors. The differences between the "France" and "World" Plans mainly differ as to the number of years of service required – paragraph a) below, and to the correlative absence of any holding requirement for the "World" Plan – paragraph c) below;
- two different general regulations on September 29, 2020 ("France" Plan and "World" Plan) governing the attribution of performance shares to beneficiaries determined by the Board of Directors. The differences between the "France" and "World" Plans mainly differ as to the number of years of service required – paragraph a) below, and to the correlative absence of any holding requirement for the "World" Plan – paragraph c) below.

The granted shares shall be either shares issued through a capital increase performed by the Company by no later than the definitive vesting date or shares bought back by the Company in the market prior to such date.

To date, performances shares granted are treasury shares bought back as part of the Company's shares buyback program.

The granted shares shall be of the same nature and category as those making up the Company's share capital at the date on which the plans are approved by the Board of Directors.

On September 29, 2020, the Board of Directors decided to grant 345,923 performance shares to employees (2,294 beneficiaries).

Subscription options and performance shares are subject to:

- a) a continued service requirement during the vesting period:

  the shares granted to a beneficiary shall only finally vest if he or she has been an employee or corporate officer of a Group company during a vesting period, calculated as from the grant date, of three years for "France" Plan beneficiaries and four years for "World" Plan beneficiaries. In the event of retirement, the beneficiary retains his rights, being no longer required to satisfy the continued service requirement;
- b) performance requirements for all performance shares allocated to all beneficiaries which are now identical to performance requirements applicable to stock-options;
- c) a holding requirement for performance shares:

  as from the final grant date, the beneficiaries of the "France" Plan are required to hold their shares for two additional years during which such shares may not be transferred (except in the event of disability or death).

Options granted to the ten employees of the Company and its subsidiaries (excluding corporate officers) who were attributed the highest number of options

In 2020, no options have been granted.

Options exercised in 2020 by the ten employees of the Company and its subsidiaries (excluding corporate officers) with the highest number of options exercised

Grant date	Number of options exercised	Average price *(in euros)* (a)
10/14/2011	38,822	57.28
09/27/2012	37,111	70.14
09/26/2013	25,802	74.06

Grant date	Number of options exercised	Average price *(in euros)* [(a)]
09/22/2014	24,804	77.67
09/28/2015	3,194	84.08
TOTAL	**129,733**	**68.85**

(a) Historical data.

Options exercised in 2019 by the ten employees of the Company and its subsidiaries (excluding corporate officers) with the highest number of options exercised

Grant date	Number of options exercised	Average price *(in euros)* [(a)]
10/14/2011	68,010	63.18
09/27/2012	17,387	77.36
09/26/2013	27,385	81.68
09/22/2014	13,011	85.66
09/28/2015	516	84.08
TOTAL	**126,309**	**71.54**

(a) Historical data.

Number of share subscription options and weighted average strike price

	2019		2020	
	Options	Weighted average strike price *(in euros)*	Options	Weighted average strike price *(in euros)*
Total number of options outstanding as of January 1 ***(adjusted number and price)***	3,393,362	74.21	2,829,394	75.14
Options exercized during the period *(adjusted number and price)*	517,359	74.69	555,210	69.01
Options canceled during the period *(adjusted number and price)*	46,609	84.92	5,984	83.27
Total number of options as of December 31 ***(adjusted number and price)***	2,829,394	75.14	2,268,200	76.61
of which total number of options eligible for exercize	*2,526,119*	*74.02*	*2,105,008*	*75.49*

Information on the fair value of share subscription options and attribution of performance shares

Share subscription options

No options have been granted in 2019 and 2020.

Attribution of performance shares

The achievement of performance conditions limited with Group result is not considered as an underlying assumption and was deemed to have been fully achieved at the valuation date.

	2019		2020	
	Plan 1 [(e)]		Plan 1	
	09/30/2019		09/29/2020	
Duration of performance shares	5 years [(a)]	4 years [(b)]	5 years [©]	4 years [(d)]
Fair value of performance shares *(in euros)*	120.62 [(a)]	116.25 [(b)]	127.53 [©]	123.02 [(d)]

(a) Performance share to employees for beneficiaries located in France for which the fair value depends for 60% on performance conditions linked to the Group's results and 40% on shareholder's return.
(b) Performance share to employees for beneficiaries located outside France for which the fair value depends for 60% on performance conditions linked to the Group's results and 40% on shareholder's return.
© Performance share to employees for beneficiaries located in France for which the fair value depends for 50% on performance conditions linked to the Group's results, 40% on shareholder's return and 10% on the reduction in Air Liquide's Carbon Intensity.
(d) Performance share to employees for beneficiaries located outside France for which the fair value depends for 50% on performance conditions linked to the Group's results, 40% on shareholder's return and 10% on the reduction in Air Liquide's Carbon Intensity.
(e) Fair value at the attribution date, not restated for the effect of the later share capital increase with preferential subscription rights in the market and attributions of free shares.

An expense of 38.5 million euros (excluding taxes) relating to share subscription options and the attribution of performance shares was recognized in the income statement in 2020 compared to 40.2 million euros in 2019. The corresponding entry is recorded in equity.

Note 22 Provisions, pensions and other employee benefits

2020 *(in millions of euros)*	As of January 1	Increase	Utilized	Other reversals	Discounting	Foreign exchange differences	Acquisitions related to business combination	Other movements (a)	As of December 31
Pensions and other employee benefits	1,748.6	45.6	(110.6)		84.4	(14.8)		(140.4)	1,612.8
Restructuring plans	16.0	27.9	(8.2)	(0.1)		(0.3)		(5.5)	29.8
Guarantees and other provisions related to engineering contracts	83.0	44.9	(18.4)	(14.2)		(0.6)		3.7	98.4
Dismantling	229.5		(2.7)	(0.5)	5.6	(7.6)		14.5	238.8
Provisions and contingent liabilities as part of a business combination	217.6	1.5	(19.9)	(9.7)	1.9	(16.5)		6.5	181.4
Other provisions	494.9	209.6	(76.2)	(37.3)	1.4	(16.6)	1.4	(4.0)	573.2
TOTAL PROVISIONS	**2,789.6**	**329.5**	**(236.0)**	**(61.8)**	**93.3**	**(56.4)**	**1.4**	**(125.2)**	**2,734.4**

(a) *Other movements correspond to account reclassifications, disposals and provisions for dismantling, with no impact on the consolidated cash flow statement. As of December 31, 2020, they primarily include the impact of the divestiture of Schülke & Mayr GmbH.*

2019 *(in millions of euros)*	As of January 1	Increase	Utilized	Other reversals	Discounting	Foreign exchange differences	Acquisitions related to business combination	Other movements (a)	As of December 31
Pensions and other employee benefits	1,622.4	57.0	(107.4)		168.5	5.5		2.6	1,748.6
Restructuring plans	26.6	6.7	(12.9)	(2.2)		0.1		(2.3)	16.0
Guarantees and other provisions related to engineering contracts	78.9	36.8	(16.7)	(16.4)		0.3		0.1	83.0
Dismantling	220.3		(1.0)	(2.8)	6.7	1.9		4.4	229.5
Provisions and contingent liabilities as part of a business combination	244.0		(45.4)	(9.7)	2.6	4.8	12.7	8.6	217.6
Other provisions	543.6	114.5	(123.8)	(28.0)	2.1	2.0	3.0	(18.5)	494.9
TOTAL PROVISIONS	**2,735.8**	**215.0**	**(307.2)**	**(59.1)**	**179.9**	**14.6**	**15.7**	**(5.1)**	**2,789.6**

(a) *Other movements correspond to account reclassifications, disposals and provisions for dismantling, with no impact on the consolidated cash flow statement.*

In the normal course of its operations, the Group is party to arbitration, judicial or administrative proceedings. The potential costs of such proceedings are provided for, when they are probable, only if the amount can be quantified or estimated within a reasonable range. In the latter case, the amount provided for represents the best estimate of the Group's management. Provisions are determined based on a case-by-case risk assessment and events occurring during ongoing proceedings may result in a risk reappraisal at any time. These litigations are by nature diverse and involve various Group subsidiaries. Contingency provisions recorded with respect to all Group litigations amounted to 215.9 million euros as of December 31, 2020 (167.9 million euros as of December 31, 2019) and are presented in "Other provisions". They include provisions for industrial disputes and for tax risks, excluding taxes on income, respectively for 165.0 and 50.9 million euros.

The Group does not provide the detail of these provisions, considering that disclosing the amount provided for each individual litigation could be prejudicial to the Group. Nevertheless, no single litigation is likely to have a material effect on the Group's financial position or its profitability.

Note 23 Employee benefit obligations

23.1. PENSION PLANS

The most significant pension plans relate to France, Germany and the United States.

In France, Air Liquide provides an additional retirement benefit based on the final salary which is paid in addition to other normal pension plans. On December 31, 1995, this plan was closed to employees under age 45 or with less than 20 years of service as of January 1, 1996; the latter being covered by a defined contribution plan. These plans are unfunded. The annual amounts paid with regards to additional benefits cannot exceed a threshold set originally at 12% of total payroll or 12% of pre-tax profits of companies involved. This 12% threshold will be proportionately reduced by comparing the number of plan beneficiaries for the year to the number of plan beneficiaries for the previous year. In 2017, this additional benefit was funded subsequently to the Article 50 of the law of January 20, 2014 securing the future and fairness of pensions plans.

IAS 19 "Employee Benefits" provides a very restrictive definition of defined contribution plans; any plans not complying fully with the conditions required are defined benefit plans by default.

This restrictive definition of defined contribution plans requires Air Liquide to account for these additional benefits as a defined benefit plan in spite of the limited obligations for the Company and the nature of the obligations not being stable or continuous.

The qualification as a defined benefit plan results in the recognition of a provision with regards to the future obligations.

With the Company's obligations being limited, the valuation of what will actually be paid to retirees is uncertain. Since the effect of this threshold cannot be measured reliably, the provision recognized represents the actuarial value of the amounts to be paid out to retirees until the plan is closed, excluding any potential threshold effect. The additional retirement benefit paid by Air Liquide is aligned with the indexation of French statutory and supplementary pension plans up to a maximum annuity. Any additional annuity will not be subject to any indexation. The effects related to the revaluation cap and floor were accounted for in "Other financial expenses".

In Germany, there are two main Air Liquide pension plans.

The first plan provides the retirees of Lurgi (Engineering & Construction activity) with a lifetime annuity, based on the income and length of service vested in the plan at the time of retirement, the normal retirement age being 65. The plan also provides disability and widowhood pensions. This plan is now closed to new entrants, the latter benefiting from a defined contribution plan.

The second plan is an old plan covering employees of the Gas & Services activity. The plan provides a lifetime annuity, based on the average income earned over the employee's career and the length of service vested at the time of retirement, the normal retirement age being 65. The plan also provides disability, pre-retirement and widowhood pensions. It is now closed to new entrants, with new employees benefiting from another defined benefit plan. Providing a minimum length of service of ten years, the plan provides a lifetime annuity based on the average income earned over the employee's career and the length of service vested at the time of retirement, the normal retirement age being 65. The plan also provides disability, pre-retirement and widowhood pensions.

In accordance with common market practice in Germany, limited funding contributions are made to pension funds as both plans are mainly managed internally.

In the United States, Air Liquide grants retirees supplemental benefits in addition to the normal pension plans. The US plan provides a traditional final average pay benefit to those who continue to accrue benefits. A retiring employee may elect to receive their pension benefit as a lump sum or a lifetime annuity. This plan was closed to new participants in 2004 and was frozen in 2016. Therefore, employees who joined the Company before 2004 are no longer acquiring new rights on this defined benefit plan, but benefit from the defined contribution plan that has been opened since 2004 to new employees.

A new plan was implemented on January 1, 2017 (Supplemental Saving plan). This plan comes on top of the basic savings plan offering additional retirement benefits beyond the tax limit of the basic plan. It represents an annual cost of around 7 million US dollars.

23.2. OBLIGATIONS

Group obligations related to pension plans and similar benefits as of December 31, 2020 are shown below:

2020 *(in millions of euros)*	**Defined benefit plans**	**Retirement termination payments**	**Other long term benefits**	**Medical Plans**	**Total**
A. Change in net liabilities					
Net liabilities at the beginning of the period	(1,467.5)	(198.3)	(24.5)	(38.3)	(1,728.6)
(Acquisition) divestiture / transfer	137.9	0.3	1.7		139.9 ©
(Expense) income recognized	(30.5)	(12.1)	(1.8)	(1.2)	(45.6)
Employer contributions	101.7	5.3	1.6	2.4	111.0
Gains (losses) for the period	(80.3)	(8.0)		(0.1)	(88.4)
Exchange rate movements	13.1	0.7	0.4	(0.4)	13.8
Net liabilities at the end of the period	**(1,325.6)**	**(212.1)**	**(22.6)**	**(37.6)**	**(1,597.9)**

2020 *(in millions of euros)*	Defined benefit plans	Retirement termination payments	Other long term benefits	Medical Plans	Total
B. Expense recorded in 2020					
Service cost	25.9	10.8	2.0	0.7	39.4
Interest expense on the net defined benefit liability	8.9	1.4	0.2	0.5	11.0
Past service cost	(4.3)				(4.3) [(a)]
Actuarial (gains) losses			(0.4)		(0.4)
Curtailment / settlement		(0.1)			(0.1) (a)
Expense (income) recognized	**30.5**	**12.1**	**1.8**	**1.2**	**45.6**
C. Change in present value of obligations in 2020					
DBO at the beginning of the period	2,738.3	198.6	24.5	38.5	2,999.9
Acquisition (divestiture) / transfer	(145.7)	(0.3)	(1.7)		(147.7) ©
Service cost	25.9	10.8	2.0	0.7	39.4
Interest cost	32.7	1.4	0.2	0.5	34.8
Employee contributions	2.1				2.1
Plan amendments	(4.3)				(4.3) (a)
Curtailment / settlement		(0.1)			(0.1) (a)
Benefit payments	(164.4)	(5.2)	(1.7)	(2.4)	(173.7)
Actuarial (gains) losses	162.2	7.9	(0.4)	0.1	169.8
Exchange rate movements	(85.7)	(0.7)	(0.3)	0.4	(86.3)
Obligations at the end of the period	**2,561.1**	**212.4**	**22.6**	**37.8**	**2,833.9**
D. Change in plan assets in 2020					
Fair value of assets at the beginning of the period	1,270.8	0.3		0.2	1,271.3
Acquisition (divestiture) / transfer	(7.8)				(7.8) ©
Actual return on plan assets	105.5	(0.1)			105.4
Employer contributions	86.1	5.3	1.6	2.4	95.4
Employee contributions	2.1				2.1
Benefit payments	(148.8)	(5.2)	(1.7)	(2.4)	(158.1)
Exchange rate movements	(72.4)		0.1		(72.3)
Fair value of assets at the end of the period	**1,235.5**	**0.3**	**-**	**0.2**	**1,236.0**
E. Funded status at the end of 2020					
Present value of obligations	(2,561.1)	(212.4)	(22.6)	(37.8)	(2,833.9)
Fair value of plan assets	1,235.5	0.3		0.2	1,236.0
Net liabilities	**(1,325.6)**	**(212.1)**	**(22.6)**	**(37.6)**	**(1,597.9)**
F. Actuarial (gains) and losses recognized directly in equity					
(Gains) and losses at the beginning of the period	1,296.6	60.0		7.2	1,363.8

2020 *(in millions of euros)*	**Defined benefit plans**	**Retirement termination payments**	**Other long term benefits**	**Medical Plans**	**Total**
Acquisition (divestiture) / transfer	(74.9)	0.1			(74.8) ©
(Gains) and losses on obligations	162.2	7.9		0.1	170.2
(Gains) and losses on plan assets	(81.7)	0.1			(81.6)
Change in surplus management reserve	(0.2)				(0.2)
Exchange rate movements	(36.4)	(0.5)		0.4	(36.5)
(Gains) and losses at the end of the period [b]	**1,265.6**	**67.6**		**7.7**	**1,340.9**

(a) Past service costs and plan amendments mainly relate to pension plans and medical costs in France.
(b) Losses (gains), net of tax, recognized in equity, amounted to 981.0 million euros as of December 31, 2020.
© Aquisition (divestiture) / transfer mainly relates to the divestiture of Schülke & Mayr GmbH.

Group obligations related to pension plans and similar benefits as of December 31, 2019 are shown below:

2019 *(in millions of euros)*	**Defined benefit plans**	**Retirement termination payments**	**Other long term benefits**	**Medical Plans**	**Total**
A. Change in net liabilities					
Net liabilities at the beginning of the period	(1,367.4)	(175.5)	(23.7)	(38.5)	(1,605.1)
(Acquisition) divestiture / transfer	(0.2)				(0.2)
(Expense) income recognized	(43.2)	(10.9)	(2.4)	(0.2)	(56.7)
Employer contributions	96.9	5.0	1.7	2.5	106.1
Gains (losses) for the period	(149.2)	(17.2)		(1.6)	(168.0)
Exchange rate movements	(4.4)	0.3	(0.1)	(0.5)	(4.7)
Net liabilities at the end of the period	**(1,467.5)**	**(198.3)**	**(24.5)**	**(38.3)**	**(1,728.6)**
B. Expense recorded in 2019					
Service cost	27.7	9.1	1.7	0.5	39.0
Interest expense on the net defined benefit liability	18.0	2.0	0.2	0.7	20.9
Past service cost	(2.4)		(0.1)	(0.9)	(3.4) (a)
Actuarial (gains) losses			0.6		0.6
Curtailment / settlement	(0.1)	(0.2)		(0.1)	(0.4) (a)
Expense (income) recognized	**43.2**	**10.9**	**2.4**	**0.2**	**56.7**
C. Change in present value of obligations in 2019					
DBO at the beginning of the period	2,490.5	175.8	23.7	38.7	2,728.7
Acquisition (divestiture) / transfer	0.2				0.2
Service cost	27.7	9.1	1.7	0.5	39.0
Interest cost	48.4	2.1	0.2	0.7	51.4
Employee contributions	2.0				2.0
Plan amendments	(2.4)		(0.1)	(0.9)	(3.4) (a)

2019 *(in millions of euros)*	**Defined benefit plans**	**Retirement termination payments**	**Other long term benefits**	**Medical Plans**	**Total**
Curtailment / settlement	(0.2)	(0.2)		(0.1)	(0.5) (a)
Benefit payments	(145.5)	(5.0)	(1.7)	(2.5)	(154.7)
Actuarial (gains) losses	278.3	17.2	0.6	1.6	297.7
Exchange rate movements	39.3	(0.4)	0.1	0.5	39.5
Obligations at the end of the period	2,738.3	198.6	24.5	38.5	2,999.9
D. Change in plan assets in 2019					
Fair value of assets at the beginning of the period	1,123.1	0.3		0.2	1,123.6
Actual return on plan assets	159.5				159.5
Employer contributions	80.4	5.0	1.7	2.5	89.6
Employee contributions	2.0				2.0
Benefit payments	(129.0)	(5.0)	(1.7)	(2.5)	(138.2)
Settlement	(0.1)				(0.1)
Exchange rate movements	34.9				34.9
Fair value of assets at the end of the period	1,270.8	0.3	-	0.2	1,271.3
E. Funded status at the end of 2019					
Present value of obligations	(2,738.3)	(198.6)	(24.5)	(38.5)	(2,999.9)
Fair value of plan assets	1,270.8	0.3		0.2	1,271.3
Net liabilities	(1,467.5)	(198.3)	(24.5)	(38.3)	(1,728.6)
F. Actuarial (gains) and losses recognized directly in equity					
(Gains) and losses at the beginning of the period	1,135.4	43.1		5.9	1,184.4
(Gains) and losses on obligations	278.3	17.2		1.6	297.1
(Gains) and losses on plan assets	(129.0)				(129.0)
Change in surplus management reserve	(0.1)				(0.1)
Exchange rate movements	12.0	(0.3)		(0.3)	11.4
(Gains) and losses at the end of the period [b]	1,296.6	60.0		7.2	1,363.8

(a) Past service costs and plan amendments mainly relate to pension plans and medical costs in Switzerland.
(b) Losses (gains), net of tax, recognized in equity, amounted to 995.6 million euros as of December 31, 2019.

The amounts mentioned above can be broken down as follows by geographical area as of December 31, 2020:

2020 *(in millions of euros)*	**Obligations**	**Plan assets**	**Provisions in the balance sheet**	**Surplus management reserve**
Europe / Africa	(1,825)	388	(1,437)	-
Americas	(941)	795	(146)	-
Asia Pacific	(68)	53	(15)	-
TOTAL	**(2,834)**	**1,236**	**(1,598)**	**-**

The amounts mentioned above can be broken down as follows by geographical area as of December 31, 2019:

2019 *(in millions of euros)*	**Obligations**	**Plan assets**	**Provisions in the balance sheet**	**Surplus management reserve**
Europe / Africa	(1,947)	389	(1,558)	-
Americas	(973)	822	(151)	-
Asia Pacific	(80)	60	(20)	-
TOTAL	**(3,000)**	**1,271**	**(1,729)**	**-**

23.3. MAIN ASSUMPTIONS

The main discount rates used are as follows:

	2019	**2020**
Euro zone	0.9%	0.6%
Canada	3.1%	2.6%
Japan	0.4%	0.6%
Switzerland	0.3%	0.1%
United States	3.2%	2.4%
United Kingdom	1.9%	1.3%

Differences between expected returns on plan assets and the main discount rates are as follows:

2020	**Expected return on assets** [(a)]	**Discount rate 2019**	**Impact** *(in bp)*
Euro zone	2.5%	0.9%	(160)
Canada	5.9%	3.1%	(280)
Japan	2.5%	0.4%	(210)
Switzerland	2.8%	0.3%	(250)
United States	3.1%	3.2%	10
United Kingdom	4.5%	1.9%	(260)

(a) The expected return on long-term assets was determined by taking into account, in each country, the asset allocation in the portfolio.

2019	**Expected return on assets** [(a)]	**Discount rate 2018**	**Impact** *(in bp)*
Euro zone	3.0%	1.6%	(140)
Canada	4.4%	3.8%	(60)
Japan	3.0%	0.4%	(260)
Switzerland	3.1%	0.9%	(220)
United States	5.6%	4.2%	(140)
United Kingdom	5.4%	2.7%	(270)

(a) The expected return on long-term assets was determined by taking into account, in each country, the asset allocation in the portfolio.

23.4. BREAKDOWN OF GAINS AND LOSSES FOR THE PERIOD

(in millions of euros)	**2019**	**2020**
Experience gains and losses on present value of the obligation	15	(22)

(in millions of euros)	2019	2020
Gains and losses on present value of the defined obligation related to changes in assumptions	(312)	(148)
Experience gains and losses on fair value of assets	129	82

Breakdown of experience gains and losses on financial assets

2020 *(in millions of euros)*	Interest income on financial assets	Actual return on assets	Gains and losses on assets
Europe / Africa	2.7	13.7	11.0
Americas	20.8	92.6	71.8
Asia Pacific	0.3	(0.9)	(1.2)
TOTAL	**23.8**	**105.4**	**81.6**

2019 *(in millions of euros)*	Interest income on financial assets	Actual return on assets	Gains and losses on assets
Europe / Africa	4.8	29.8	25.0
Americas	25.5	129.8	104.3
Asia Pacific	0.4	0.1	(0.3)
TOTAL	**30.7**	**159.7**	**129.0**

23.5. PENSION PLAN RISK ANALYSIS

Sensitivity to movements in discount rates and other variables

The present value of obligations related to defined benefit plans is measured by discounting future cash flows. Discount rates are determined based on Government bonds rates or, when the financial markets are sufficiently liquid, on “high-quality” corporate bond rates, which can vary from one period to another.

Changes in discount rates can materially change the present value of the Group’s obligations and the expense recorded in the year.

The amount of obligations is affected to a lesser extent by revised wages and inflation indexes, as well as legal changes regarding retirement age or official mortality tables.

Impact of a -0.25% decrease in discount rates

	Impact on obligations as of December 31, 2020 *(in millions of euros)*	% of total obligations as of December 31, 2020
Europe / Africa	62	3.4%
Americas	30	3.2%
Asia Pacific	1	1.0%
TOTAL	**93**	**3.3%**

	Impact on obligations as of December 31, 2019 *(in millions of euros)*	% of total obligations as of December 31, 2019
Europe / Africa	67	3.4%
Americas	30	3.1%
Asia Pacific	-	0.5%
TOTAL	**97**	**3.3%**

Impact of a +0.25% increase in discount rates

	Impact on obligations as of December 31, 2020 *(in millions of euros)*	% of total obligations as of December 31, 2020
Europe / Africa	(60)	-3.3%
Americas	(29)	-3.1%
Asia Pacific	(1)	-1.0%
TOTAL	**(90)**	**-3.2%**

	Impact on obligations as of December 31, 2019 *(in millions of euros)*	% of total obligations as of December 31, 2019
Europe / Africa	(65)	-3.3%
Americas	(29)	-3.0%
Asia Pacific	-	-0.5%
TOTAL	**(94)**	**-3.1%**

Sensitivity of the value of plan assets to market conditions

For the Group's defined benefit plans subject to funding requirements, the fair value of plan assets is primarily dependent on interest rates, the performance of plan assets and amendments to local regulations. Any adverse movement in these variables would require additional Group contributions to the pension funds on a timely basis.

Plan assets consist of shares, bonds and other assets whose value is subject to market fluctuations. A downturn in the financial markets would increase the net liabilities of defined benefit plans. The plans' coverage ratios would decrease accordingly, requiring additional Group contributions on a timely basis.

	Shares		Bonds		Real estate		Cash		Others		Total	
2020 *(in millions of euros)*	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%
Europe / Africa	80	20.8%	128	32.9%	107	27.6%	46	11.8%	27	6.9%	388	100.0%
Americas	187	23.5%	553	69.6%	22	2.8%	4	0.5%	29	3.6%	795	100.0%
Asia Pacific	5	9.5%	44	82.5%	-	0.0%	-	0.0%	4	8.0%	53	100.0%
TOTAL	**272**		**725**		**129**		**50**		**60**		**1,236**	

	Shares		Bonds		Real estate		Cash		Others		Total	
2019 *(in millions of euros)*	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%
Europe / Africa	81	20.8%	136	34.9%	103	26.5%	19	4.9%	50	12.9%	389	100.0%
Americas	199	24.2%	563	68.5%	25	3.0%	4	0.5%	31	3.8%	822	100.0%
Asia Pacific	13	21.7%	44	73.3%	1	1.7%	-	0.0%	2	3.3%	60	100.0%
TOTAL	**293**		**743**		**129**		**23**		**83**		**1,271**	

Note 24 Borrowings

This note provides information on the breakdown of the Group's borrowings by instrument. For further information on financial instruments and the exposure to foreign exchange and interest rate risks, please refer to note 25.

Net debt calculation

(in millions of euros)	**December 31, 2019**	**December 31, 2020**
Non-current borrowings	(11,567.2)	(10,220.2)
Current borrowings	(1,831.8)	(2,180.5)
TOTAL GROSS DEBT	**(13,399.0)**	**(12,400.7)**
Cash and cash equivalents	1,025.7	1,791.4
TOTAL NET DEBT AT THE END OF THE PERIOD	**(12,373.3)**	**(10,609.3)**

Statement of changes in net debt

(in millions of euros)	**December 31, 2019**	**December 31, 2020**
Net debt at the beginning of the period	(12,534.9)	(12,373.3)
Net cash flows from operating activities	4,712.2	5,205.7
Net cash flows used in investing activities	(2,584.8)	(1,954.6)
Net cash flows from (used in) financing activities excluding changes in borrowings	(1,663.8)	(1,690.5)
Total net cash flows	463.6	1,560.6
Effect of exchange rate changes, opening net debt of newly acquired companies and others	(62.4)	443.1
Adjustment of net finance costs	(239.6)	(239.7)
Change in net debt	161.6	1,764.0
TOTAL NET DEBT AT THE END OF THE PERIOD	**(12,373.3)**	**(10,609.3)**

The Air Liquide Group net debt breaks down as follows:

	2019			**2020**		
	Carrying amount			**Carrying amount**		
(in millions of euros)	**Non-current**	**Current**	**Total**	**Non-current**	**Current**	**Total**
Bonds and private placements	10,978.1	1,123.6	12,101.7	9,717.9	1,600.1	11,318.0
Commercial paper programs		191.1	191.1		201.8	201.8
Bank debt and other financial debt	530.4	476.0	1,006.4	444.1	339.7	783.8
Put options granted to minority shareholders	58.7	41.1	99.8	58.2	38.9	97.1
TOTAL BORROWINGS (A)	**11,567.2**	**1,831.8**	**13,399.0**	**10,220.2**	**2,180.5**	**12,400.7**
Short-term loans		44.9	44.9		53.6	53.6
Short-term marketable securities		169.1	169.1		137.4	137.4
Cash in bank		811.7	811.7		1,600.4	1,600.4
TOTAL CASH AND CASH EQUIVALENTS (B)		**1,025.7**	**1,025.7**		**1,791.4**	**1,791.4**
NET DEBT (A) – (B)	**11,567.2**	**806.1**	**12,373.3**	**10,220.2**	**389.1**	**10,609.3**

In accordance with the Group's policy to diversify funding sources, long-term bonds and private placements are the primary sources of funding and represent 91% of gross debt as of December 31, 2020. Outstanding notes under these sources amounted to 11.3 billion euros at the end of 2020.

The carrying amount of commercial paper amounted to 0.2 billion euros as of December 31, 2020, stable compared to December 31, 2019.

Gross debt decreased by 1.0 billion euros. Bond debt decreased by 0.8 billion euros, firstly because bond issues matured or repaid by anticipation were only partially renewed, and secondly because of a favorable exchange rate effect for 0.4 billion euros. In addition, bank debt decreased by 0.2 billion euros.

Two bonds were issued in 2020 by Air Liquide Finance, guaranteed by L'Air Liquide S.A.:

- a private placement of 100 million euros, maturity March 31, 2025, at a reoffer yield of 1.081% (1.081% coupon);
- a public bond issue of one billion euros in two tranches:
  - 500 million euros, maturity April 2, 2025, at a reoffer yield of 1.022% (1.000% coupon),
  - 500 million euros, maturity April 2, 2030, at a reoffer yield of 1.47% (1.375% coupon).

In consideration thereof:

- two bond issues of 500 million euros each were repaid by Air Liquide Finance on June 9 and June 13, 2020;
- two bond issues of 250 and 300 million US dollars (450 million euros) were repaid by Airgas on December 22, 2020 by anticipation.

The carrying amount of borrowings in the balance sheet is as follows:

	2019	2020		
(in millions of euros)	Carrying amount	Amount issued (a)	Amortized cost adjustments (b)	Carrying amount (a)+(b)
Bonds in the EMTN program	6,397.8	6,362.3	27.9	6,390.2
Bonds not in the EMTN program	4,571.3	3,737.7	14.1	3,751.8
Private placements in the EMTN program	504.1	588.9	11.5	600.4
Private placements not in the EMTN program	628.5	570.5	5.1	575.6
TOTAL BONDS AND PRIVATE PLACEMENTS	**12,101.7**	**11,259.4**	**58.6**	**11,318.0**
Commercial paper programs	191.1	201.8		201.8
Bank debt and other financial debt	1,006.4	776.7	7.1	783.8
Put options granted to minority shareholders	99.8	97.1		97.1
LONG-TERM BORROWINGS	**13,399.0**	**12,335.0**	**65.7**	**12,400.7**

(a) Nominal amount.
(b) Amortized cost including accrued interest.

24.1. CARRYING AMOUNT AND FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES

Financial assets or liabilities with a carrying amount differing from their fair value are unhedged fixed-rate borrowings.

	2019		2020	
(in millions of euros)	Carrying amount	Fair value	Carrying amount	Fair value
FINANCIAL LIABILITIES				
Non-current borrowings	11,567.2	11,814.3	10,220.2	10,792.0

The Group's financial instruments are measured at fair value to the extent that available financial market data enables a reliable estimate of their market value, assuming the absence of any intentions or needs to liquidate.

24.2. MATURITY OF BORROWINGS

It is the Group policy to spread over time the maturity of long-term debt (bonds, private placements and bank credit facilities) in order to limit the annual refinancing needs.

2020 *(in millions of euros)*	**Nominal amount**	**Carrying amount**	**On demand**	**< 1 year**	**Maturity ≥ 1 year and ≤ 5 years**				**> 5 years**			
					2022	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**> 2028**
Bonds and private placements	11,259.4	11,318.0		1,600.1	1,307.7	1,008.8	1,158.7	1,097.3	1,163.2	676.4	993.6	2,312.2
Commercial paper programs	201.8	201.8		201.8								
Bank debt and other financial debt	776.7	783.8		339.7	111.8	102.9	114.3	62.2	28.6	12.7	3.3	8.3
Put options granted to minority shareholders	97.1	97.1	24.4	38.9		3.1	30.7					
TOTAL BORROWINGS	**12,335.0**	**12,400.7**	**24.4**	**2,180.5**	**1,419.5**	**1,114.8**	**1,303.7**	**1,159.5**	**1,191.8**	**689.1**	**996.9**	**2,320.5**

2019 *(in millions of euros)*	**Nominal amount**	**Carrying amount**	**On demand**	**< 1 year**	**Maturity ≥ 1 year et ≤ 5 years**				**> 5 years**			
					2021	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**>2027**
Bonds and private placements	12,033.9	12,101.7		1,123.6	1,565.3	1,559.2	1,067.0	1,441.7	498.7	1,256.2	683.1	2,906.9
Commercial paper programs	191.1	191.1		191.1								
Bank debt and other financial debt	987.9	1,006.4		476.0	110.8	124.3	113.8	113.6	27.6	17.5	13.3	9.5
Put options granted to minority shareholders	99.8	99.8	22.8	41.1	2.3	3.0		30.6				
TOTAL BORROWINGS	**13,312.7**	**13,399.0**	**22.8**	**1,831.8**	**1,678.4**	**1,686.5**	**1,180.8**	**1,585.9**	**526.3**	**1,273.7**	**696.4**	**2,916.4**

24.3. FIXED-RATE PORTION OF GROSS DEBT

Portion of fixed-rate gross debt *(as % of total debt)*	**2019**	**2020**
EUR debt	92%	97%
USD debt	98%	94%
CNY debt	100%	100%
JPY debt	100%	100%
Total debt	93%	95%

As of December 31, 2020, fixed-rate debt represented 95% of the total debt.

24.4. DETAIL OF BOND DEBT

The table below details the main characteristics of the Group's bond issues in progress as of December 31, 2020. They represent 91% of the Group's debt (90% as of December 31, 2019).

Currency	Nominal value *(in millions)*	Issue date	Maturity	Issuer	Coupon
EUR	500	2020	2030	AL Finance	1.375%
EUR	500	2020	2025	AL Finance	1.000%
EUR	100	2020	2025	AL Finance	1.081%
EUR	600	2019	2030	AL Finance	0.625%
EUR	600	2017	2027	AL Finance	1.000%
EUR	1,000	2016	2028	AL Finance	1.250%
EUR	500	2016	2024	AL Finance	0.750%
EUR	500	2016	2022	AL Finance	0.500%
EUR	300	2016	2022	AL Finance	0.375%
EUR	500	2015	2025	AL Finance	1.250%
EUR	100	2014	2029	AL Finance	3.000%
EUR	150	2014	2026	AL Finance	3.000%
EUR	500	2014	2024	AL Finance	1.875%
EUR	300	2013	2023	AL S.A.	2.375%
EUR	500	2012	2021	AL Finance	2.125%
USD	500	2019	2029	AL Finance	2.250%
USD	750	2016	2046	AL Finance	3.500%
USD	1,250	2016	2026	AL Finance	2.500%
USD	750	2016	2023	AL Finance	2.250%
USD	1,000	2016	2021	AL Finance	1.750%
USD	100	2012	2027	AL Finance	3.460%
USD	200	2012	2024	AL Finance	3.260%
USD	400	2012	2022	AL Finance	3.110%
CNY	800	2018	2023	AL Finance	6.400%
CNY	1,400	2018	2021	AL Finance	5.950%
CNY	500	2015	2022	AL Finance	3.970%
JPY	15,000	2008	2038	AL Finance	3.160%
CHF	130	2014	2022	AL Finance	0.925%

24.5. NET DEBT BY CURRENCY

The Group ensures a natural hedge and reduces its exposure to currency fluctuations by raising debt mainly in the currency of the cash flows that are generated to repay the debt. In most countries, and especially outside the euro, US dollar, Japanese yen and Chinese renminbi zones, financing is raised in either local or foreign currency (EUR or USD) when sales contracts are indexed to foreign currency. Debt in other currencies is mainly denominated in Singapore dollar, in Canadian dollar, in British pound sterling and in Brazilian real.

As part of intra-group multi-currency financing, the Central Treasury Department converts the debt raised in financial markets into various currencies to finance subsidiaries in their functional currencies or their cash flow currencies. The breakdown of this hedging portfolio is shown in the table below.

Accordingly, a portion of the euro debt raised was converted (1,022.1 million euros) to other currencies to finance foreign subsidiaries. As an example, 4,206.0 million euros were raised initially in US dollar, 162.3 million were raised in euros and converted in US dollar using currency swap contracts. 176.1 million euros were in cash or cash equivalent, leading to an adjusted net debt in US dollars of 4,192.2 million euros.

2020 *(in millions of euros)*	Gross debt – original issue	Interest rate and currency swaps	Cash and cash equivalents	Ajusted net debt
EUR	7,136.6	(1,022.1)	(1,093.9)	5,020.6
USD	4,206.0	162.3	(176.1)	4,192.2
JPY	135.0	91.7	(7.9)	218.8
CNY	394.4	(195.4)	(263.0)	(64.0)
Other currencies	528.7	963.5	(250.5)	1,241.7
TOTAL	**12,400.7**	**-**	**(1,791.4)**	**10,609.3**

2019 *(in millions of euros)*	Gross debt – original issue	Interest rate and currency swaps	Cash and cash equivalents	Ajusted net debt
EUR	6,982.7	(1,256.1)	(144.3)	5,582.3
USD	5,199.9	(10.7)	(232.3)	4,956.9
JPY	126.9	129.0	(10.7)	245.2
CNY	445.2	(115.2)	(339.1)	(9.1)
Other currencies	644.3	1,253.0	(299.3)	1,598.0
TOTAL	**13,399.0**	**-**	**(1,025.7)**	**12,373.3**

24.6. BREAKDOWN OF AVERAGE NET FINANCE COSTS

Net debt depends on the original gross debt raised on the financial markets, the swap of this debt into foreign currencies to finance the subsidiaries, and surplus cash positions. The average cost of net debt presented in the following table takes into account these various components, i.e. financing expenses, income and expenses related to foreign currency translation and income or expenses related to cash surpluses.

	2019			**2020**		
(in millions of euros)	Average outstanding debt	Net interests	Average net finance costs	Average outstanding debt	Net interests	Average net finance costs
EUR	5,595.2	94.1	1.7%	5,549.6	98.9	1.8%
USD	5,471.0	167.6	3.1%	4,885.8	151.9	3.1%
JPY	441.7	7.1	1.6%	353.3	5.6	1.6%
CNY	243.3	28.8	11.8%	88.4	22.9	25.9%
Other currencies	1,696.4	109.7	6.5%	1,491.2	68.2	4.6%
TOTAL	**13,447.6**	**407.3**	**3.0%**	**12,368.3**	**347.5**	**2.8%**
Impact of Senior Note Airgas repayment		-			40.4	
Capitalized interests		(45.7)			(35.1)	
TOTAL COST OF DEBT		**361.6**			**352.8**	

The average net finance costs, excluding capitalized interests and impact for 40.4 million euros of repayment in December 2020 of Airgas Senior notes issued before Air Liquide acquisition, decreased by 59.8 million euros. They stand at 2.8% of the average outstanding debt in 2020.

24.7. OTHER FINANCING INFORMATION

Financial covenants are associated to one bank debt facility exceeding 50 million euros: a long-term loan used by Air Liquide Arabia (Saudi Arabia) with an outstanding amount of 476,6 million Saudi riyals (equivalent to 103,6 million euros) as of December 31, 2020. Financial covenants were all met as of December 31, 2020.

The amount of bank credit facilities subject to financial covenants represents around 2,7% of the Group's gross debt as of December 31, 2020.

Bonds issued by L'Air Liquide S.A. and Air Liquide Finance, and making up the carrying amount of bonds as of December 31, 2020, include a change of control clause.

Note 25 Financial risk policy and management

25.1. FINANCIAL RISK MANAGEMENT

Risk management is a priority for the Group. Consequently, the Finance Department governance relies on Strategic Finance Committees and Operational Finance Committees.

The Finance Department centrally manages the main financial risks, in accordance with decisions taken by the Strategic Finance Committee to which it reports on a regular basis. The Finance Department also performs country and customer risks analyses associated with investment decisions and attends Investment Committee meetings.

The financial policy adopted by Air Liquide, the purpose of which is to minimize the risks incurred by the Group and its subsidiaries, enables the Group to ensure sustainable funding sources. To minimize the refinancing risk related to debt maturity schedules, the Group diversifies financing sources and spreads maturities over several years. In 2020, the average debt maturity was 5.8 years. As of December 31, 2020, the long-term debt ratio (gross debt maturing in more than one year / total gross debt) represented 82% of the overall Group debt, compared to 86% as of December 31, 2019.

Interest rate and foreign currency hedging strategies validated by the Operational Finance Committee are set up depending on market opportunities with a concern for optimization, while complying with prudence and risk limitation principles.

The Group also pays particular attention to its bank and customer counterparty risks by regularly monitoring ratings and the level of risk associated with these counterparties. An internal ratings system, set-up in 2018, is used when no leading credit ratings agency information is available.

a) Foreign exchange risk

Principles

Financial instruments are only used to hedge transaction-based foreign exchange risk. The risk is attached on the one hand to financial cash flows arising from royalties, dividends, intra-group loans and borrowings denominated in foreign currencies and on the other hand to foreign currency commercial cash flows from operating entities. Although in slight increase, commercial cash flows denominated in foreign currencies do not represent significant amounts compared to consolidated revenue.

Foreign exchange risk related to royalties, dividend flows and intra-group loans and borrowings in foreign currencies is hedged by the Central Treasury Department using currency forwards or options with an overall term of less than 18 months. Currency hedging of intra-group loans and borrowings uses currency forwards.

Foreign currency commercial cash flows from operating entities are hedged either as part of the annual budgetary process for subsidiaries with recurring flows in foreign currency or at the signing date of a sale or purchase contract for non-recurring flows for the Engineering & Construction business line. Around a hundred subsidiaries are exposed to foreign exchange risk. These subsidiaries mainly use currency forwards set up by Air Liquide Finance (internal counterparty for hedging transactions) except in countries where it is prohibited by local regulations. The majority of these contracts have short maturities (three to twelve months) and market transactions are regulated by master agreements of the French Banking Federation ("FBF") or by master agreements of the International Swaps and Derivative Association ("ISDA") for local hedging operations.

When preparing their budget at the year-end, subsidiaries report their foreign exchange risk exposure to the Central Treasury Department in order to hedge the commercial cash flows expected in the following year. In each case, the Central Treasury Department monitors the adequacy of the hedges with the identified risks and performs a full revaluation of all hedges, every six months.

The foreign exchange translation risk (consolidation in euros of the assets and liabilities in currencies) was not subject to hedging. Indeed, investments are essentially funded in the currency in which the cash flows are generated, thus creating a natural currency hedging.

Sensitivity of income statement and balance sheet items to foreign currency fluctuations

The table below sets out the effect of the translation of balance sheet items and the income statement of subsidiaries with a functional currency of USD, CNY, JPY, or CAD assuming a 1% appreciation against the euro (foreign exchange translation risk) on the following items:

(in millions of euros)	**Revenue**	**% Total Group**	**Operating income recurring**	**% Total Group**	**Net profit**	**% Total Group**	**Equity**	**% Total Group**
USD	69.7	0.34%	14.0	0.37%	8.0	0.33%	103.8	0.56%
CNY	19.3	0.09%	5.2	0.14%	3.2	0.13%	17.6	0.09%
JPY	10.1	0.05%	2.1	0.06%	1.2	0.05%	9.3	0.05%

(in millions of euros)	Revenue	% Total Group	Operating income recurring	% Total Group	Net profit	% Total Group	Equity	% Total Group
CAD	6.0	0.03%	1.1	0.03%	0.5	0.02%	1.3	0.01%

The foreign currency risk sensitivity analysis shows that a 1% appreciation in the four major currencies as of December 31, 2020 would result in changes to revenue, operating income recurring, net profit and equity, as indicated above.

A 1% depreciation in the above currencies as of December 31, 2020, would have the equivalent but opposite effects as those presented above, assuming that all other variables remained constant.

Sensitivity of derivatives and their underlying hedged items to foreign currency fluctuations

The table below shows the effect of a 1% fluctuation in hedging currency exchange rates on the recognition of the foreign exchange derivatives portfolio in the Group's net profit and equity as of December 31, 2020. The sensitivity of net profit and equity primarily reflects the effect of foreign exchange swaps relating to the intragroup financing activity of the subsidiary Air Liquide Finance, and currency forward hedging instruments contracted at head office level.

	Foreign exchange risk			
	+1%		-1%	
(in millions of euros)	P&L impact	Equity impact	P&L impact	Equity impact
Foreign exchange derivatives and their hedged underlying items	0.1	3.1	(0.1)	(3.1)

b) Interest rate risk

Principles

Air Liquide centrally manages interest rate risk on the main currencies: euro, US dollar, Chinese renminbi and Japanese yen which represented 88% of the Group's total net debt as of December 31, 2020. Regarding other currencies, the Finance Department provides subsidiaries with advice as to the different types of bank loans and/or hedging transactions to enter into according to the characteristics of local financial markets.

The Group policy is to maintain the major portion of total debt at fixed rates and to protect the residual balance using optional hedging instruments. This approach enables the Group to limit the effect of interest rate fluctuations on financial expenses.

Consequently, at the 2020 year-end, 95% of the total debt was fixed-rate debt. The fixed-rate/floating-rate breakdown is reviewed on a regular basis by the Finance Committees, depending on interest rate fluctuations and the level of Group debt.

Sensitivity to interest rate fluctuations on floating-rate debt

The Group net debt exposed to interest rate fluctuations amounted to around 240 million equivalent euros as of December 31, 2020, for an average outstanding amount of 0.6 billion equivalent euros (total debt adjusted for interest rate hedging instruments and short-term securities) in slight increase compared to December 31, 2019 (0.5 billion equivalent euros).

An increase or decrease in interest rates by 100 basis points (±1%) on all yield curves would have an effect of approximately ±6 million euros on the Group's annual financial expenses before tax, assuming outstanding debt remains constant.

Sensitivity to interest rate fluctuations on derivatives and their underlying hedged items

The table below shows the effect of a 0.5% fluctuation of interest rates in all foreign currencies on the interest rate derivatives portfolio in the Group's net profit and equity, as of December 31, 2020.

	Interest rate risk			
	+0,5%		-0,5%	
(in millions of euros)	P&L impact	Equity impact	P&L impact	Equity impact
Interest rate derivatives and their hedged underlying items	0.0	16.9	0.0	(17.4)

To protect the Group against an increase in dollar rates at date of refinancing of a US dollar bond issue maturing in September 2021, a firm hedge (interest rate swap) for 100 million US dollars was set up.

All hedging instruments used for interest rate or foreign exchange risk management purposes relate to identified risks and were set up to comply with the Group's financial policy. The effect on equity primarily stems from the fixed-rate hedging instruments contracted by the subsidiary Air Liquide Finance.

c) Counterparty risk

Counterparty risks for Air Liquide potentially include customers and bank counterparties.

The Group's subsidiaries serve a large number of customers (around 2 million worldwide) located in extremely diverse markets: chemicals, steel, refining, food, pharmaceuticals, metals, automotive, manufacturing, healthcare, research laboratories, photovoltaic, etc. In 2020, the Group's main customer represents around

1.4% of revenue, the Group's 10 main customers around 10% of sales, and the Group's 50 main customers around 24% of sales. The geographical risk is limited by the Group's sustainable coverage in 78 countries on all continents. This diversity reduces customer and market risk.

To better assess its exposure, the Group has implemented procedures to regularly monitor the financial situation of its major customers as well as a monthly reporting for the Group's 176 main transnational customers in order to monitor the related consolidated risk.

Moreover, customer risk assessment and in particular the quality of the customer's site is an important component of the investment decision process.

Bank counterparty risk relates to the outstanding amounts of deposits, market values of derivatives and to the credit lines contracted with each bank. Pursuant to its financial policy, in the majority of cases, the Group requires a long-term Standard & Poor's "A" credit rating or a Moody's "A2" rating from its counterparties to accept commitments on financial instruments. The Group's credit lines are also spread among several banks from various geographical areas to avoid the risk of concentration while complying with the same credit rating requirements. The Operational Finance Committee regularly reviews and approves the list of bank counterparties related to investments and the list of financial instruments. With regards to short-term investments, outstandings are subject to strict limits per counterparty and are monitored daily.

IFRS 13 Fair Value Measurement specifies that the valuation of currency, interest rate and commodity hedging instruments must take into account the counterparty credit risk attached to these transactions. Considering the aforementioned counterparty selection criteria, the effect on the periodic valuations, by applying the historical default probabilities method is immaterial.

d) Liquidity risk

It is Group financial policy to spread over time the maturity of long-term debt in order to avoid concentration of annual refinancing needs. Liquidity risk is also reduced by the stability of cash flows generated from operations as well as by having confirmed credit lines in place. The financial covenants attached to the current financing arrangements described in note 24.7 do not affect the Group's access to liquidity.

The carrying amount of short-term financing in the form of commercial paper amounted to 202 million euros as of December 31, 2020, an increase by 11 million euros compared to the end of 2019. The average amount of commercial paper amounted to 970 million euros in 2020, compared to 763 million euros in 2019; this increase in the use of commercial paper is directly in line with the prudential will to increase liquidity during the Covid-19 crisis and the diversification of funding sources.

The Group policy requires that commercial paper in issue be backed by confirmed long-term credit lines. In 2020, this requirement was met, with an amount of confirmed credit lines of 3,600 million euros largely exceeding outstanding commercial paper.

The table below presents the maturities of the bilateral and syndicated credit lines:

(in millions of euros)	2021	2022	2023	2024	2025	2026	Total
Bilateral lines and syndicated credit lines	-	400.0	200.0	500.0	2,500.0	-	3,600.0

On December 2020, the second one-year extension option was exercised on the syndicated credit facility negotiated in 2018. The syndicated credit facility amounts to 2.5 billion euros and will mature in December 2025. Since 2019, this facility includes an indexing mechanism between its financial costs and three of the Group's RSE objectives in terms of carbon intensity, gender diversity and safety.

When the Group makes short-term financial investments other than bank deposits, it systematically favors monetary instruments with a short-term maturity in order to limit the risk of non-liquidity or high volatility.

The following tables represent the future cash flows related to the main balance sheet items and to the derivative financial instruments recognized at the end of the last two periods. Interest flows are calculated in accordance with IFRS 7 and represent the interest payable for each relevant period. Interest flows related to floating interest rate or foreign currency instruments were calculated using the closing interest and exchange rates as of December 31, 2019 and 2020. The flows related to debt repayment obligations differ from the amounts recognized in the Group's balance sheet due to the accounting treatment applied to borrowings and the exclusion of hedging instruments.

2020 *(in millions of euros)*	Book value as of December 31, 2020	Cash Flow < 1 year		Cash flow ≥ 1 year and ≤ 5 years		Cash Flow > 5 year	
		Interest	Capital refund	Interest	Capital refund	Interest	Capital refund
Derivative instruments							
Assets							
Fair value of derivatives (assets)	135.0	15.2	288.5	44.4	881.0	13.9	227.3
Liabilities							
Fair value of derivatives (liabilities)	(70.5)	(40.6)	(253.2)	(80.7)	(807.7)	(14.2)	(226.1)
SUB-TOTAL DERIVATIVE INSTRUMENTS		**(25.4)**	**35.3**	**(36.3)**	**73.3**	**(0.3)**	**1.2**
Assets							

2020 *(in millions of euros)*	Book value as of December 31, 2020	Cash Flow < 1 year		Cash flow ≥ 1 year and ≤ 5 years		Cash Flow > 5 year	
		Interest	Capital refund	Interest	Capital refund	Interest	Capital refund
Loans and other non-current receivables	339.9				339.9		
Trade receivables	2,205.8		2,181.2		24.6		
Cash and cash equivalents	1,791.4	5.6	1,785.8				
SUB-TOTAL ASSETS		**5.6**	**3,967.0**		**364.5**		
Liabilities							
Non-current borrowings	(10,220.2)	(117.3)		(551.9)	(4,967.6)	(640.6)	(5,193.8)
Other non-current liabilities	(206.5)				(206.5)		
Trade payables	(2,437.9)		(2,405.1)		(32.8)		
Current borrowings	(2,180.5)	(25.9)	(2,030.0)				
SUB-TOTAL LIABILITIES		**(143.2)**	**(4,435.1)**	**(551.9)**	**(5,206.9)**	**(640.6)**	**(5,193.8)**

2019 *(in millions of euros)*	Book value as of December 31, 2019	Cash Flow < 1 year		Cash flow ≥ 1 year and ≤ 5 years		Cash Flow > 5 year	
		Interest	Capital refund	Interest	Capital refund	Interest	Capital refund
Derivative instruments							
Assets							
Fair value of derivatives (assets)	57.6	19.8	464.9	42.5	945.6	21.6	343.2
Liabilities							
Fair value of derivatives (liabilities)	(112.9)	(54.8)	(319.1)	(134.9)	(930.2)	(54.1)	(342.9)
SUB-TOTAL DERIVATIVE INSTRUMENTS		**(54.8)**	**(319.1)**	**(134.9)**	**(930.2)**	**(54.1)**	0.3
Assets							
Loans and other non-current receivables	374.7				374.7		
Trade receivables	2,477.9		2,419.7		58.2		
Cash and cash equivalents	1,025.7	0.2	1,025.5				
SUB-TOTAL ASSETS		**0.2**	**3,445.2**		**432.9**		
Liabilities							
Non-current borrowings	(11,567.2)	(228.0)		(684.2)	(6,155.8)	(761.9)	(5,412.9)
Other non-current liabilities	(261.6)				(261.6)		
Trade payables	2,566.6		2,529.2		37.4		
Current borrowings	(1,831.8)	(31.1)	(1,660.1)				
SUB-TOTAL LIABILITIES		**(259.1)**	**869.1**	**(684.2)**	**(6,380.0)**	**(761.9)**	**(5,412.9)**

Cash and cash equivalents decreased at the end of 2020. The carrying amount of non-current borrowings has decreased, the bond issues of the year being less important than the reclassification in current borrowing. The carrying amount of current borrowings has strongly decreased, mostly following the decrease in outstanding commercial paper.

e) Hierarchy of financial instruments fair value

(in millions of euros)	2019	2020
Level 1	**92.7**	**33.9**
Non-consolidated shares (listed shares)	92.7	33.9
Level 2	**(55.3)**	**64.5**
Derivative instruments	(55.3)	64.5
Level 3	**99.8**	**97.1**
Put options granted to minority shareholders	99.8	97.1

f) Commodity risk (energy contracts)

Most of Air Liquide's energy supplies are obtained through forward purchase contracts at a fixed or indexed price.

IFRS 9 provides for the inclusion within its scope of forward purchases and sales of non-financial assets as soon as these transactions are deemed similar to derivative instruments.

However, IFRS 9 considers that forward contracts for non-financial assets should not be considered as derivatives when they have been entered into to meet the Company's "normal" business requirements, resulting in the delivery upon maturity of the underlying item for use in the Company's industrial process. As Air Liquide does not purchase electricity or natural gas for speculation or arbitrage on commodity price trends purposes, no forward contracts relating to energy meet the definition of a derivative instrument. The contracts enter into as part of the Company's normal business to be used in the industrial process and do not meet the definition of a derivative instrument.

Furthermore, in a global context of highly volatile electricity and natural gas market prices, Air Liquide continues to index long-term customer contracts to hedge these risks. For natural gas and electricity prices, the opening of some markets led the Group, under these circumstances, to replace the regulated tariffs by local market indices.

Nonetheless, a few isolated contracts remain for which price indexation alone cannot guarantee a total and effective hedge against the risk of energy prices fluctuations. These risks are therefore hedged by Air Liquide, particularly by Air Liquide Finance, using adequate commodity derivatives, which are mainly swaps with maturities of generally less than two years.

The fair value recognition of these derivative instruments had no material impact on Group equity or profits as of December 31, 2020.

25.2. INFORMATION ON DERIVATIVE INSTRUMENTS

The Group policy consists in using financial derivatives only when hedging actual financial flows. As a result, the majority of derivative financial instruments used by the Group benefit from hedge accounting. Derivative instruments that do not benefit from hedge accounting are not used for speculative purposes.

Impact of the fair value recognition of derivative instruments on the balance sheet:

		Assets					Equity and liabilities						
				Fair value of derivatives							Fair value of derivatives		
2020 *(in millions of euros)*	IFRS classification	Deferred tax assets	Trade receivables	Assets – non current	Assets – current	Total	Net income recognized in equity	Profit for the period	Borrowings	Trade payables	Liabilities – non current	Liabilities – current	Total
Foreign exchange risk													
Currency forwards hedging future cash flows	CFH [(a)]	3.4		3.7	25.8	32.9	(7.9)				4.4	36.4	32.9
Currency forwards hedging transactions recorded in the accounts and Cross Currency Swaps	FVH [(b)]	0.3	1.0	103.2	16.4	120.9		(0.8)	113.0	1.4	(3.2)	10.5	120.9
Other derivatives	©	0.1				0.1	(0.3)					0.40	0.1

		Assets					Equity and liabilities						
				Fair value of derivatives							Fair value of derivatives		
2020 *(in millions of euros)*	**IFRS classification**	**Deferred tax assets**	**Trade receivables**	**Assets – non current**	**Assets – current**	**Total**	**Net income recognized in equity**	**Profit for the period**	**Borrowings**	**Trade payables**	**Liabilities – non current**	**Liabilities – current**	**Total**
Interest rate risk													
Interest rate swaps	FVH [b]												
Swaps, options and Cross Currency Swaps	CFH [a] and NIH [d]	11.1		(16.7)	(0.5)	(6.1)	(28.1)				10.3	11.7	(6.1)
Commodity risk (Energy)													
Forwards hedging future cash flows	CFH [a]	(0.9)		0.7		2.2	2.0	0.2					2.2
TOTAL		**14.0**	**1.0**	**90.9**	**44.1**	**150.0**	**(34.3)**	**(0.6)**	**113.0**	**1.4**	**11.5**	**59.0**	**150.0**

(a) *CFH: Cash Flow Hedge.*
(b) *FVH: Fair Value Hedge.*
(c) *Derivative instruments not benefiting from hedge accounting.*
(d) *NIH: Net Investment Hedge.*

		Assets					Equity and liabilities						
				Fair value of derivatives							Fair value of derivatives		
2019 *(in millions of euros)*	**IFRS classification**	**Deferred tax assets**	**Trade receivables**	**Assets – non current**	**Assets – current**	**Total**	**Net income recognized in equity**	**Profit for the period**	**Borrowings**	**Trade payables**	**Liabilities – non current**	**Liabilities – current**	**Total**
Foreign exchange risk													
Currency forwards hedging future cash flows	CFH [a]	4.7		4.2	7.2	16.1	(11.0)				11.0	16.1	16.1
Currency forwards hedging transactions recorded in the accounts and Cross Currency Swaps	FVH [b]	0.3	2.0	32.7	23.1	58.1		(0.7)	14.2	1.1	26.2	17.3	58.1
Other derivatives	©	(0.3)			1.1	0.8	0.8						0.8
Interest rate risk													
Interest rate swaps	FVH [b]				0.1	0.1		0.1					0.1
Swaps, options and Cross Currency Swaps	CFH [a] and NIH [d]	16.4		(10.8)	(0.2)	5.4	(34.6)				8.6	31.4	5.4
Commodity risk (Energy)													
Forwards hedging future cash flows	CFH [a]	0.6		0.2		0.8	(0.9)	(0.6)				2.3	0.8
TOTAL		**21.7**	**2.0**	**26.3**	**31.3**	**81.3**	**(45.7)**	**(1.2)**	**14.2**	**1.1**	**45.8**	**67.1**	**81.3**

(a) *CFH: Cash Flow Hedge.*
(b) *FVH: Fair Value Hedge.*
(c) *Derivative instruments not benefiting from hedge accounting.*
(d) *NIH: Net Investment Hedge.*

Note 26 Other liabilities (non-current/current)

26.1. OTHER NON-CURRENT LIABILITIES

(in millions of euros)	2019	2020
Investment grants	60.3	79.3
Advances and deposits received from customers	34.3	28.2
Other non-current liabilities	167.0	99.0
TOTAL OTHER NON-CURRENT LIABILITIES	**261.6**	**206.5**

26.2. OTHER CURRENT LIABILITIES

(in millions of euros)	2019	2020
Advances received	243.8	307.0
Deposits received from customers	88.3	87.9
Other payables	1,113.3	1,235.2
Accruals and deferred income	183.6	179.1
TOTAL OTHER CURRENT LIABILITIES	**1,629.0**	**1,809.2**

Amounts payable to customers under Engineering & Construction contracts and amounting to 107.3 million euros are included in other current liabilities as of December 31, 2020 (76.7 million euros in 2019).

Note 27 Trade payables

(in millions of euros)	2019	2020
Operating suppliers	2,233.7	2,083.6
Property, plant and equipment and intangible assets suppliers	332.9	354.3
TOTAL TRADE PAYABLES	**2,566.6**	**2,437.9**

A suppliers payment platform which aims at facilitating the payment process of suppliers trade payables has been set up in the United States in 2020.The Group has analyzed the main features of the contract according to the principles described in paragraph 6.d of the accounting principles and has concluded that the qualification of trade payables subject to the contract should not be challenged.

Note 28 Related party disclosures

28.1. TRANSACTIONS WITH COMPANIES INCLUDED IN THE SCOPE OF CONSOLIDATION

The consolidated financial statements include the financial statements of L'Air Liquide S.A. and all the subsidiaries listed on pages 88 to 95. L'Air Liquide S.A. is the ultimate parent company.

Due to the activities and legal organization of the Group, only executives, associates and joint ventures are considered to be related parties to the Group. Transactions performed between these individuals or these companies and Group subsidiaries are not material.

Information related to associates and joint ventures is disclosed in note 14.

28.2. REMUNERATION ALLOCATED TO MEMBERS OF THE BOARD OF DIRECTORS AND MANAGEMENT BODIES

The remuneration of Group executives includes the remuneration allocated to the Board of Directors and the Company's management bodies as compensation for their duties within the entire Group as employees and corporate officers for the respective fiscal years. The Company's management bodies include all the members of Executive Management and the Executive Committee. The amounts expensed in this respect are as follows:

(in thousands of euros)	2019	2020
Short-term benefits	16,900	15,784
Post-employment benefits	2,549	1,731

(in thousands of euros)	2019	2020
Termination benefits	508	-
Share-based payments	9,034	9,476
TOTAL	**28,991**	**26,991**

Short-term benefits

Short-term benefits include fixed remuneration, variable remuneration, benefits in kind and Directors' fees. The entire variable remuneration portion due for any given year is paid the following year after the financial statements have been approved.

The remuneration policy for members of the executive team takes into account market practices. It includes a substantial variable portion depending on the achievement of earnings and individual performance objectives.

Post-employment benefits

Post-employment benefits include the contributions paid to external pension funds. Retirement commitments amounted to 35,478 thousand euros in 2020 and 37,225 thousand euros in 2019.

Share-based payments

Stock options and performance shares granted to Executive Management and to the Executive Committee have the following expiry dates and strike prices:

Year	Expiry date	Strike price [(a)] *(in euros)*	Number 2019	Strike price *(in euros)*	Number 2020
2011 (October 14)	10/13/2021	57.28	137,105	57.28	3,770
2012 (September 27)	09/26/2022	70.14	231,936	70.14	206,728
2013 (September 26)	09/25/2023	74.06	277,175	74.06	258,874
2014 (September 22)	09/21/2024	77.67	255,668	77.67	234,236
2015 (September 28)	09/27/2025	84.08	139,193	84.08	139,193
2016 (July 29)			34,294		
2016 (November 29)	11/28/2026	76.47	67,605	76.47	67,605
2016 (November 29)			24,557		
2017 (September 20)	09/19/2027	85.52	28,092	85.52	28,092
2017 (September 20)			102,400		45,799
2018 (September 25)	09/24/2028	97.02	26,127	97.02	26,127
2018 (September 25)			91,693		91,693
2019 (September 30)			91,160		91,160
2020 (September 29)					77,980

(a) *Adjusted for share capital increases by attributions of free shares (2019, 2017, 2014, 2012) and for the share capital increase in cash of October 11, 2016.*

The fair value of performance shares granted in 2020 is disclosed in note 21.

These amounts are expensed over the lock-in period of the option and performance shares. The amounts that will be recognized in future periods in respect of the granted stock options and performance shares totaled 19,361 thousand euros as of December 31, 2020 (19,017 thousand euros as of December 31, 2019).

The 2020 plan performance shares granted to corporate officers and Executive Committee members cannot be exercised unless certain performance conditions are achieved.

No stock options or performance shares were granted to other non-executive Directors under these plans.

Note 29 Commitments

Commitments are given in the normal course of the Group's business.

(in millions of euros)	**2019**	**2020**
Firm purchase orders for fixed assets	1,280.5	930.3
Other commitments related to operating activities	4,865.4	4,459.1
Commitments relating to operating activities	**6,145.9**	**5,389.4**
Commitments relating to financing operations and consolidation scope	**235.3**	**244.5**
TOTAL	**6,381.2**	**5,633.9**

Air Liquide owns a 13.7% stake in Exeltium S.A.S. amounting to 24.5 million euros.

On March 24, 2010, Exeltium and EDF entered into an industrial partnership agreement under which Exeltium can acquire rights to a portion of EDF's electronuclear production. In consideration, Exeltium and its shareholder clients signed long-term electricity supply contracts. The contract signed by Air Liquide has a 20-year term and can be suspended by Air Liquide after 10 years. This contract provides long-term visibility over the price of the electricity to be supplied. This project was approved by the European Commission.

The Group's energy purchase commitments amounted to 1,155.3 million euros as of December 31, 2020 (1,261.1 million euros as of December 31, 2019). This amount includes the energy purchase commitments relating to the Exeltium contract.

Almost all of these commitments are covered by mutual commitments received from clients in connection with long-term gas supply contracts. These commitments are not disclosed in the table above.

Commitments to purchases of molecules as part of take-or-pay contracts amounted to 3,868.5 million euros as of December 31, 2020 (4,461.5 as of December 31, 2019), and are reported in other commitments related to operating activities. These amounts include Helium purchase commitments.

Confirmed credit lines are shown in note 25.

Commitments related to associates amounted to 42.6 million euros as of December 31, 2020.

Note 30 Contingent liabilities

To the best of the Group's knowledge, there is no exceptional event or litigation which has affected in the recent past or which is likely to materially affect its financial situation or profitability.

In September 2010, the Brazilian competition authority ("CADE") fined the major industrial gas companies operating in Brazil, including Air Liquide Brazil, for unfair trade practices prior to 2004. Air Liquide Brazil was fined 197.6 million Brazilian reals before interest on arrears amounting to 179.7 million Brazilian reals as of December 31, 2020 (equivalent to 31.0 million euros for the fine and 28.2 million euros for interest on arrears).

Air Liquide Brazil has strongly contested this decision and has consequently filed an application to annul the fine before the Brasilia Federal Court. In May 2014, the CADE ruling was annulled in first instance by this Court. In September 2014, the CADE filed an appeal against this decision, which was rejected by the Court of Appeals in November 2015. In November 2016, the CADE and the Procurator's Office had both filed a new appeal against this decision to the Superior Court and the Supreme Court of Justice, which is still to be ruled as of December 31, 2020. At this stage, the Group considers it probable that Air Liquide Brazil will prevail, mainly following appeals filed by the CADE against other companies and dismissed by the Superior Court. Consequently, no provision has been recorded.

Note 31 Climate risks consideration

According to the terms and conditions described in the paragraph related to the use of estimates and assumptions in the accounting principles, the Group takes into account climate risks in its closing assumptions and include their potential impact in the financial statements. The main climate risk identified by the Group relates to greenhouse gas emissions. The costs incurred for measures related to gas emissions are already taken into account as part of the investment decision and in the running costs of the Group's plants. These costs are passed on to most of the Large Industrie customers in accordance with the terms of the contract.

The ETS (Emission Trading Scheme) European Directive which established a quota system for greenhouse gas emissions in the European Union has entered its third phase (2013-2020), which will feature an expanded scope for industrial plants subject to the ETS and a gradual reduction in the free allocation of quotas.

With phase III, the Group is required to obtain CO2 quotas for the portion of emissions from hydrogen production sites not covered by free allocations, as well as for all emissions from cogeneration sites. As the Group manages CO2 quotas solely to cover its industrial needs, they are classified as a commodity and managed as such. The quotas are therefore valued at acquisition cost and presented in inventories.

The Group recognizes a provision when the year-end quotas covering greenhouse gas emissions are insufficient, based on the best estimate of the outflow of resources required to settle the obligation.

As of December 31, 2020, the amounts recognized in assets and liabilities are immaterial.

Note 32 Post-balance sheet events

There are no significant post-balance sheet events.

Foreign exchange rates and main consolidated companies

FOREIGN EXCHANGE RATES

Main foreign exchange rates used

AVERAGE RATES

Euros for 1 currency	2019	2020
USD	0.89	0.88
CNY	0.13	0.13
CAD	0.67	0.65
Yen (1,000)	8.20	8.22

CLOSING RATES

Euros for 1 currency	2019	2020
USD	0.89	0.81
CNY	0.13	0.12
CAD	0.69	0.64
Yen (1,000)	8.20	7.91

MAIN CONSOLIDATED COMPANIES

Companies marked with JO are consolidated by joint operation and those marked with E by the equity method. Other companies are fully consolidated.

The total Group interest is given after the name of each company.

Main consolidated companies	Country	Integration	% interest
GAZ & SERVICES			
EUROPE			
Air Liquide Austria GmbH	AUT		100.00%
L'Air Liquide Belge S.A.	BEL		100.00%
Air Liquide Industries Belgium S.A.	BEL		100.00%
Air Liquide Large Industry S.A.	BEL		100.00%
Air Liquide Medical S.A.	BEL		100.00%
Air Liquide Bulgaria EOOD	BGR		100.00%
Carbagas S.A.	CHE		100.00%
Air Liquide Deutschland GmbH	DEU		100.00%
Air Liquide Electronics GmbH	DEU		100.00%
Air Liquide Industriegase GmbH & Co. KG	DEU		100.00%
Energieversorgungscenter Dresden-Wilschdorf GmbH & Co. KG [(a)]	DEU		40.00%

Main consolidated companies	Country	Integration	% interest
VitalAire GmbH	DEU		100.00%
Zweite Energieversorgungscenter Dresden-Wilschdorf GmbH & Co. KG	DEU		50.00%
Air Liquide Danmark A/S	DNK		100.00%
Air Liquide España S.A.	ESP		99.90%
Air Liquide Ibérica de Gases S.L.U.	ESP		100.00%
Air Liquide Healthcare España, S.L.U.	ESP		100.00%
Air Liquide Finland Oy.	FIN		100.00%
Air Liquide Eastern Europe S.A.	FRA		100.00%
Air Liquide France Industrie S.A.	FRA		100.00%
Air Liquide Medical Systems S.A.	FRA		100.00%
Air Liquide Réunion S.A.	FRA		95.08%
Air Liquide Russie S.A.	FRA		100.00%
Air Liquide Santé (International) S.A.	FRA		100.00%
Air Liquide Santé France S.A.	FRA		100.00%
Air Liquide Guyane Spatial S.A.	FRA		98.79%
Air Liquide Ukraine S.A.	FRA		100.00%
Lavéra Energies S.N.C.	FRA	JO	50.00%
LVL Médical Groupe S.A.	FRA		100.00%
Pharma Dom S.A.	FRA		100.00%
Société des Gaz Industriels de la Guadeloupe S.A.	FRA		95.88%
Société d'Exploitation de Produits pour les Industries Chimiques S.A.	FRA		99.98%
Société Guyanaise de L'Air Liquide S.A.	FRA		97.04%
Société Martiniquaise de L'Air Liquide S.A.	FRA		95.87%
VitalAire S.A.	FRA		100.00%
Air Liquide Ltd	GBR		100.00%
Air Liquide (Homecare) Ltd	GBR		100.00%
Air Liquide UK Ltd	GBR		100.00%
Energas Ltd	GBR		100.00%

Main consolidated companies	Country	Integration	% interest
SPL Services Limited	GBR		98.02%
Air Liquide Hellas S.A.G.I.	GRC		99.78%
Air Liquide Italia S.p.A.	ITA		99.77%
Air Liquide Italia Service S.r.l	ITA		99.77%
Air Liquide Sanità Service S.p.A.	ITA		99.77%
Air Liquide Italia Produzione S.r.l	ITA		99.77%
Medicasa Italia S.p.A	ITA		99.77%
VitalAire Italia S.p.A.	ITA		99.77%
Air Liquide Healthcare Ireland Limited	IRL		100.00%
Air Liquide Munay Tech Gases	KAZ		75.00%
L'Air Liquide Luxembourg S.A.	LUX		100.00%
Air Liquide Acetylene B.V.	NLD		100.00%
Air Liquide B.V.	NLD		100.00%
Air Liquide Industrie B.V.	NLD		100.00%
Air Liquide Nederland B.V.	NLD		100.00%
Scott Specialty Gases Netherlands B.V.	NLD		100.00%
Air Liquide Norway A.S.	NOR		100.00%
Air Liquide Katowice Sp.z.o.o.	POL		79.25%
Air Liquide Polska Sp.z.o.o.	POL		100.00%
Air Liquide Medicinal S.A.	PRT		99.85%
Sociedade Portuguesa do Ar Liquido Lda	PRT		99.93%
Air Liquide Romania S.r.l	ROM		100.00%
Air Liquide OOO	RUS		100.00%
Air Liquide Severstal CJSC	RUS		75.00%
Air Liquide Lipetsk	RUS		100.00%
Air Liquide Gas A.B.	SWE		100.00%
NordicInfu Care A.B.	SWE		100.00%
Air Liquide Gaz San. Ve Tic. A.S.	TUR		100.00%

Main consolidated companies	Country	Integration	% interest
AMERICAS			
Air Liquide Argentina S.A.	ARG		100.00%
Air Liquide Brasil Ltda	BRA		100.00%
Air Liquide Canada, Inc.	CAN		100.00%
Vitalaire Canada, Inc.	CAN		100.00%
Respiratory Homecare Solutions Canada Inc.	CAN		100.00%
Air Liquide Chile S.A.	CHL		100.00%
Air Liquide Colombia S.A.S	COL		100.00%
Air Liquide Dominicana S.A.S	DOM		100.00%
Air Liquide Mexico, S. de RL de CV	MEX		100.00%
La Oxigena Paraguaya S.A.	PRY		87.96%
Air Liquide Trinidad and Tobago Ltd	TTO		100.00%
Air Liquide Uruguay S.A.	URY		96.68%
Airgas USA, LLC	USA		100.00%
Airgas Specialty Products	USA		100.00%
Red-D-Arc, Inc.	USA		100.00%
Airgas Safety, Inc.	USA		100.00%
Air Liquide Electronics U.S. LP	USA		100.00%
Air Liquide Large Industries U.S. LP	USA		100.00%
Air Liquide Advanced Materials, Inc.	USA		100.00%
MIDDLE EAST & AFRICA			0.00%
Air Liquide Afrique S.A.	FRA		100.00%
Air Liquide Middle East & North Africa FZCO	ARE		100.00%
Air Liquide Gulf FZE	ARE		100.00%
Air Liquide Bénin S.A.	BEN	E	99.99%
Air Liquide Burkina Faso S.A.	BFA		64.87%
Air Liquide Botswana Proprietary Ltd	BWA		99.93%
Air Liquide Côte d’Ivoire S.A.	CIV		72.08%

Main consolidated companies	Country	Integration	% interest
Air Liquide Cameroun S.A.	CMR		100.00%
Air Liquide Congo S.A.	COG		100.00%
Société d'Installations et de Diffusion de Matériel Technique S.P.A.	DZA	E	100.00%
Air Liquide Alexandria for Medical & Industrial Gases S.A.E.	EGY		99.99%
Air Liquide El Soukhna for Industrial Gases S.A.E.	EGY		99.93%
Air Liquide Misr S.A.E.	EGY		100.00%
Air Liquide Middle East S.A.	FRA		100.00%
Air Liquide Gabon S.A.	GAB		99.04%
Air Liquide Ghana Ltd	GHA		100.00%
Air Liquide India Holding Pvt. Ltd	IND		100.00%
Shuaiba Oxygen Company K.S.C.C. (a)	KWT		49.81%
Air Liquide Maroc S.A.	MAR		95.92%
Air Liquide Madagascar S.A.	MDG		73.74%
Air Liquide Mali S.A.	MLI		99.97%
Air Liquide Namibia Proprietary Ltd	NAM		100.00%
Air Liquide Nigeria Plc	NGA		87.31%
Air Liquide Sohar Industrial Gases LLC	OMN		50.10%
Gasal Q.S.C.	QAT	E	40.00%
Vitalaire Arabia LLC.	SAU		60.00%
Air Liquide Al-Khafrah Industrial Gases LLC	SAU		75.00%
Air Liquide Arabia LLC	SAU		65.00%
Air Liquide Sénégal S.A.	SEN		83.60%
Air Liquide Togo S.A.	TGO	E	70.57%
Air Liquide Tunisie S.A.	TUN		59.17%
Air Liquide Large Industries (Pty) Ltd	ZAF		100.00%
Air Liquide Proprietary Ltd	ZAF		99.93%
ASIA PACIFIC			
Air Liquide Australia Ltd	AUS		100.00%

Main consolidated companies	Country	Integration	% interest
Air Liquide Healthcare P/L	AUS		100.00%
Air Liquide W.A. Pty Ltd	AUS		100.00%
Brunei Oxygen SDN	BHD		50.00%
Air Liquide Cangzhou Co., Ltd	CHN		100.00%
Air Liquide China Holding Co., Ltd	CHN		100.00%
Air Liquide Shanghai Co., Ltd	CHN		100.00%
Air Liquide Shanghai International Trading Co. Ltd	CHN		100.00%
Air Liquide Tianjin Co., Ltd	CHN		100.00%
Air Liquide Yongli Tianjin Co., Ltd	CHN		55.00%
Air Liquide Zhangjiagang Industrial Gases Co., Ltd	CHN		100.00%
Shanghai Chemical Industry Park Industrial Gases Co., Ltd	CHN	JO	50.00%
Société d'Oxygène et d'Acétylène d'Extrême-Orient S.A.	FRA		100.00%
Celki International Ltd	HKG		100.00%
P.T. Air Liquide Indonesia	IDN		100.00%
Air Liquide Japan Ltd	JPN		100.00%
Toshiba Nano Analysis K.K.	JPN		51.00%
Sohgo Industry Co., Ltd	JPN		90.23%
Vital Air Japan K.K.	JPN		100.00%
Air Liquide Korea Co., Ltd	KOR		100.00%
VitalAire Korea Inc.	KOR		100.00%
Southern Industrial Gas Sdn Bhd	MYS		100.00%
Air Liquide Malaysia Sdn Bhd	MYS		100.00%
Air Liquide New Zealand Ltd	NZL		100.00%
Air Liquide Phils Inc.	PHL		100.00%
Air Liquide Singapore Pte Ltd	SGP		100.00%
Air Liquide Thailand Ltd	THA		100.00%
Air Liquide Electronics Systems Asia Ltd	TWN		100.00%
Air Liquide Far Eastern Ltd	TWN		65.00%

Main consolidated companies	Country	Integration	% interest
Air Liquide Vietnam Co., Ltd	VNM		100.00%
ENGINEERING & CONSTRUCTION			
Air Liquide Global E&C Solutions Canada LP	CAN		100.00%
Air Liquide Hangzhou Co., Ltd	CHN		100.00%
Air Liquide Global E&C Solutions (Yantai) Co., Ltd.	CHN		100.00%
Air Liquide Global E&C Solutions Germany Gmbh	DEU		100.00%
Air Liquide Global E&C Solutions France S.A.	FRA		100.00%
Air Liquide Global E&C Solutions Japan K.K	JPN		100.00%
JJ-Lurgi Engineering Sdn. Bhd.	MYS	E	50.00%
Air Liquide Global E&C Solutions Singapore Pte. Ltd	SGP		100.00%
Air Liquide Global E&C Solutions US, Inc.	USA		100.00%
GLOBAL MARKETS & TECHNOLOGIES			
Air Liquide Advanced Technologies US LLC	USA		100.00%
Alizent France S.A.	FRA		100.00%
Air Liquide Advanced Technologies S.A.	FRA		100.00%
Cryolor S.A.	FRA		100.00%
GIE Cryospace	FRA		55.00%
Air Liquide Electronics Systems S.A.	FRA		100.00%
FordonsGas Sverige AB	SWE		100.00%
Hélium Services S.A.	FRA		100.00%
The Hydrogen Company	FRA		100.00%
Oilfield Hire and Services	GBR		100.00%
HOLDING COMPANIES AND R&D ACTIVITIES			
Air Liquide Finance S.A.	FRA		100.00%
Air Liquide International S.A.	FRA		100.00%
Air Liquide Participations S.A.	FRA		100.00%
L'Air Liquide S.A.	FRA		100.00%
Orsay-Re S.A.	LUX		100.00%

Main consolidated companies	Country	Integration	% interest
Air Liquide International Corp.	USA		100.00%
American Air Liquide, Inc.	USA		100.00%
American Air Liquide Holdings, Inc	USA		100.00%

The extended list of consolidated companies is available on: https://www.airliquide.com/group/consolidation-scope-2020

Statutory Auditors' offices and fees

STATUTORY AUDITORS' OFFICE

Ernst & Young et Autres

PRINCIPAL STATUTORY AUDITOR

Ernst & Young et Autres is represented by

Jeanne Boillet and François-Guillaume Postel

Tour First – TS 14444 – 1, place des Saisons

92037 Paris-La Défense Cedex (Courbevoie)

DEPUTY STATUTORY AUDITOR

Auditex

Tour First – TS 14444 – 1, place des Saisons

92037 Paris-La Défense Cedex (Courbevoie)

PricewaterhouseCoopers Audit

PRINCIPAL STATUTORY AUDITOR

PricewaterhouseCoorpers Audit is represented by

Françoise Garnier and Séverine Scheer

63, rue de Villiers

92200 Neuilly-sur-Seine

DEPUTY STATUTORY AUDITOR

Jean-Christophe Georghiou

with PricewaterhouseCoorpers Audit

63, rue de Villiers

92200 Neuilly-sur-Seine

STATUTORY AUDITORS' FEES

	2020							
(in thousands of euros)	Ernst & Young et Autres		PricewaterhouseCoopers Audit		Others		Total	
Audit, certification, review of individual and consolidated financial statements	5,747	93.2%	6,382	95.2%	430	59.5%	12,559	92.4%
Issuer	728		648		-		1,376	
Fully consolidated subsidiaries	5,019		5,734		430		11,183	
of which Airgas	*-*		*1,456*		*-*		*1,456*	
Services required by law	20	0.3%	43	0.7%	3	0.4%	66	0.5%
Total of certification missions and services required by law	**5,767**	**93.5%**	**6,425**	**95.9%**	**433**	**59.9%**	**12,625**	**92.9%**
Services relating to Corporate Social Responsibility (CSR)	-	0.0%	110	1.6%	-	0.0%	110	0.8%
Due-diligence services (sell-side and buy-side)	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Other services	398	6.5%	168	2.5%	290	40.1%	856	6.3%
Total of non-audit services	**398**	**6.5%**	**278**	**4.1%**	**290**	**40.1%**	**966**	**7.1%**
TOTAL	**6,165**	**100%**	**6,703**	**100%**	**723**	**100%**	**13,591**	**100%**

	2019							
(in thousands of euros)	Ernst & Young		PricewaterhouseCoopers Audit		Autres		Total	
Audit, certification, review of individual and consolidated financial statements	7,319	94.2%	5,321	85.3%	533	78.6%	13,173	89.7%
Issuer	733		616		-		1,349	
Fully consolidated subsidiaries	6,586		4,705		533		11,824	
of which Airgas	*1,720*		*-*		*-*		*1,720*	
Services required by law	112	1.4%	85	1.4%	19	2.8%	216	1.5%
Total of certification missions and services required by law	**7,431**	**95.6%**	**5,406**	**86.7%**	**552**	**81.4%**	**13,390**	**91.2%**
Services relating to Corporate Social Responsibility (CSR)	27	0.4%	120	1.9%	-	0.0%	147	1.0%
Due-diligence services (sell-side and buy-side)	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Other services	314	4.0%	709	11.4%	126	18.6%	1,148	7.8%
Total of non-audit services	**341**	**4.4%**	**829**	**13.3%**	**126**	**18.6%**	**1,295**	**8.8%**
TOTAL	**7,772**	**100%**	**6,235**	**100%**	**678**	**100%**	**14,685**	**100%**

Statutory Auditors' Report on the consolidated financial statements

This is a translation into English of the statutory auditors' report on the consolidated financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users. This statutory auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the information concerning the Group presented in the management report and other documents provided to shareholders. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Annual General Meeting of L' Air Liquide,

OPINION

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying consolidated financial statements of L'Air Liquide ("the Group") for the year ended December 31, 2020.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2020 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit and Accounts Committee.

BASIS FOR OPINION

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (Code de commerce) and the French Code of Ethics (Code de déontologie) for statutory auditors, for the period from January 1, 2020 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No. 537/2014.

JUSTIFICATION OF ASSESSMENTS - KEY AUDIT MATTERS

Due to the global crisis related to the covid-19 pandemic, the financial statements of this period have been prepared and audited under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of the audits.

It is in this complex and evolving context that, in accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (Code de commerce) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Large Industries activity: qualification of the contracts and related revenue recognition method

RISK IDENTIFIED

The gas supply of the Large Industries activity is based on long term contracts with a limited number of customers and requires significant industrial investments.

As described in note "3.a. Revenue recognition – Gas & Services" to the consolidated financial statements, these investments are usually made to share production capacity with the other business lines of the Group, particularly the Industrial Merchant business or to serve customers connected to pipelines in an industrial region. In such cases, Group management considers that those assets are not identified as defined in the standard IFRS 16 "Leases".

When assets used for the long term supply agreements are dedicated to a customer, Group management considers that the Group retains the right to direct the use of these assets as defined in the standard IFRS 16 "Leases". Accordingly, gas supply agreements linked to those assets are not considered as leases. These industrial investments continue to be controlled by the Group and are recorded as property, plant and equipment, the full amounts received for the contracts being, otherwise, recognized as revenue. Customers of the Large Industries business simultaneously receive and consume the benefits granted by the gas supply service or its availability. As a result, the revenue recognition related to these contracts occurs when the gas is supplied or when the reserved capacity is made available.

Due to the complexity of those contracts and the impact on the consolidated financial statements of the judgments made when the contract is signed, or in case of subsequent significant modifications, we have considered the qualification of Large Industries long-term contracts and related revenue recognition criteria as a key audit matter.

OUR RESPONSE

Our procedures consisted in:

- considering the criteria to qualify the Large Industries long term contracts applied by Group management, considering in particular the specific nature of the underlying assets;
- considering internal control procedures implemented by Group management to confirm the compliance of these contracts with standard terms and conditions on which Group management's IFRS 16 analysis is based;
- assessing the compliance to standard terms of the new significant contracts of the current year for the Large Industries activity and conditions and the impact of potential deviations on the accounting treatment;
- verifying the appropriateness of the disclosure included in note "3.a. Revenue recognition – Gas & Services" to the consolidated financial statements.

Large Industries activity: useful lives of production units and measurement of their recoverable amount

RISK IDENTIFIED

As at December 31, 2020, the net book value of property, plant and equipment amounts to 20,003 million euros, or 47.7% of the Group total assets, that include the significant industrial investments to execute the customer agreements of the Large Industries activity. Large Industries production units are depreciated on a straight line basis over their estimated useful life, usually between 15 and 20 years. The estimated useful lives are reassessed on a regular basis and the resulting changes in estimates, if any, are recorded on a prospective basis.

In addition, the Group can be exposed to certain risks specific to industrial investments. Expected returns on investment and their recoverable value can, for example, be adversely impacted by events such as the economic context, overruns and construction delays, start-up conditions, technology changes, geographical location or counterparty risk.

As disclosed in note "5.f. Impairment of assets" to the consolidated financial statements, Group management determines on a regular basis whether asset impairment indicators exist. If a triggering event is identified, an impairment test is performed to confirm whether the net book value of the asset exceeds its recoverable value. These principles lead Group management to test production assets (either individually or within the cash generating unit to which they are attached), in particular in case of significant start-up delays, project termination, significant decrease in expected business volumes, early termination or non-renewal of related customer contracts.

As part of the preparation of its medium-term plan, the Group has carried out a strategic review of its activities and its assets portfolio, taking into account the impacts of the health crisis on specific markets. The measurement of the recoverable value of the equipment relies on significant estimates relating to the Group's capacity to generate future cash-flows, re-use certain equipment for other internal or external customers, to sell the assets, or to obtain indemnification, notably from customers.

Due to the significant value of each production asset and the cumulative value of these assets, the key assumptions used to assess their useful life, their re-use or the compensation to be received, we have considered the depreciation principles and measurement of the recoverable value of Large Industries production assets as a key audit matter.

OUR RESPONSE

Our procedures consisted in:

- considering the procedures performed by Group management to assess and update the depreciation period of the equipment and assess the consistency of their useful lives with contractual terms and available internal technical studies ;
- analyzing the Group's process to identify impairment indicators and considering the strategic review of its activities and its assets portfolio performed by Group management ;
- considering the work carried out by the Group to determine the recoverable values of the plants, including key assumptions and estimates used to determine the future cash flows and reconciling them to the underlying operational data and to the long-term growth rate of these cash flows ;
- verifying the accounting translation of impairment losses resulting from the determination of recoverable values ;
- considering discussions of the Group with its customers and advisors.

Impairment test of goodwill

RISK IDENTIFIED

In connection with its external growth strategy, the Group monitors the related goodwill at the level of group of cash generating units. For the Gas & Services activity, goodwill are mostly allocated on a geographical basis. For the world business units Engineering & Construction and Global Markets & Technologies, goodwill is monitored at the business unit level. As at December 31, 2020, goodwill amounts to a net book value of 13,087 million euros (31.2% of the Group total assets).

Group management performs annually, an impairment test, mostly by reference to market values and, if required, with discounted cash-flows as described in note "5.f. Impairment of assets" to the consolidated financial statements.

The determination of fair value and recoverable value, and the sensitivity to the fluctuation of market value and key data and assumptions used, require significant management judgement and estimates. We have considered the measurement of the recoverable value of the groups of cash generating units as a key audit matter.

OUR RESPONSE

Our procedures consisted in:

- considering the principles used to determine the groups of cash generating units ;
- analyzing principles and methods used to determine the market value and their measurement based on multiples of market capitalization ;
- considering in particular for cash generating units (or groups of cash generating units) subject to a value in use valuation, management key assumptions and estimates, notably the underlying operating data and long-term growth rates of the cash-flow. We have also assessed with the support of our valuation experts who are part of the audit team, the discount rates applied and performed sensitivity tests ;
- assessing the appropriateness of the information included in note “10. Goodwill” to the consolidated financial statements.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verification required by laws and regulations of the Group’s information given in the Group’s Management Report.

We have no matters to report as to their fair presentation and their consistency with the consolidated financial statements.

We attest that the consolidated non-financial statement required by Article L. 225-102-1 of the French Commercial Code (Code de commerce) is included in the Group’s information given in the Management Report, being specified that, in accordance with Article L. 823-10 of this Code, we have verified neither the fair presentation nor the consistency with the consolidated financial statements of the information contained therein and the information has to be subject to a report by an independent third party.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Format of the presentation of the consolidated financial statements intended to be included in the annual financial report

In accordance with Article 222-3, III of the AMF General Regulation, the Company’s management informed us of its decision to postpone the presentation of the consolidated financial statements in compliance with the European single electronic format as defined in the European Delegated Regulation No 2019/815 of 17 December 2018 to years beginning on or after January 1, 2021. Therefore, this report does not include a conclusion on the compliance with this format of the presentation of the consolidated financial statements intended to be included in the annual financial report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (Code monétaire et financier).

Appointment of the Statutory Auditors

We were appointed as statutory auditors of L’Air Liquide by the Annual General Meeting held on May 12, 2016 for PricewaterhouseCoopers Audit and on May 5, 2010 for ERNST & YOUNG et Autres.

As at December 31, 2020, PricewaterhouseCoopers Audit was in its fifth year of uninterrupted engagement and ERNST & YOUNG et Autres in its eleventh year of uninterrupted engagement. Previously, ERNST & YOUNG Audit was statutory auditor of L’Air Liquide from 1983 to 2009.

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Accounts Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

STATUTORY AUDITORS’ RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Objectives and audit approach

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

As specified in Article L. 823-10-1 of the French Commercial Code (Code de commerce), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements.
- Assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.
- Evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

Report to the Audit and Accounts Committee

We submit a report to the Audit and Accounts Committee which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Accounts Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit and Accounts Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code (Code de commerce) and in the French Code of Ethics (Code de déontologie) for statutory auditors. Where appropriate, we discuss with the Audit and Accounts Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Neuilly-sur-Seine and Paris-La-Défense, March 1, 2021

The Statutory Auditors

French original signed by

PricewaterHouseCoopers Audit		ERNST & YOUNG et Autres	
Françoise Garnier	Séverine Scheer	Jeanne Boillet	François-Guillaume Postel

STATUTORY ACCOUNTS OF THE PARENT COMPANY

Income statement

For the year ended December 31

(in millions of euros)	Notes	2019	2020
Revenue	(2)	117.4	86.8
Royalties and other operating income	(3)	579.2	550.8
Total operating income (I)		696.6	637.6
Purchases		(45.4)	(63.6)
Duties and taxes other than corporate income tax		(20.8)	(23.4)
Personnel expenses		(239.1)	(235.5)
Depreciation, amortization and provision expenses	(5)	(29.8)	(26.2)
Other operating expenses	(4)	(304.9)	(287.0)
Total operating expenses (II)		(640.0)	(635.7)
Net operating profit (loss) (I + II)		56.6	1.9
Financial income from equity affiliates	(6)	374.4	1,179.6
Interests, similar income and expenses	(6)	8.7	6.1
Other financial income and expenses	(6)	1.0	3.6
Financial income and expenses (III)		384.1	1,189.3
Net profit / (loss) from ordinary activities before tax (I + II + III)		440.7	1,191.2
Exceptional income and expenses	**(7)**	**142.2**	**154.2**
Statutory employee profit-sharing		(2.7)	(2.8)
Corporate income tax	(8)	(12.5)	(8.8)
NET PROFIT FOR THE YEAR		**567.7**	**1,333.8**

Balance sheet

For the year ended December 31

	Notes	December 31, 2019	December 31, 2020		
(in millions of euros)		Net	Gross carrying amounts	Amortization, depreciation and provisions	Net
Assets					
Intangible assets	(9) & (11)	29.6	289.5	(257.6)	31.9

	Notes	December 31, 2019	December 31, 2020		
(in millions of euros)		Net	Gross carrying amounts	Amortization, depreciation and provisions	Net
Tangible assets	(9) & (11)	79.3	175.1	(84.1)	91.0
Financial assets	(10) & (11)	13,106.3	13,160.6	(53.7)	13,106.9
TOTAL NON-CURRENT ASSETS		**13,215.2**	**13,625.2**	**(395.4)**	**13,229.8**
Inventories and work-in-progress	(11)	0.2	1.2	(1.0)	0.2
Operating receivables	(11) & (14)	525.9	536.1	(5.9)	530.2
Current account loans with subsidiaries	(11) & (14)	855.2	420.1	-	420.1
Short-term financial investments	(12)	126.5	114.4	-	114.4
Cash and financial instruments		13.2	12.4	-	12.4
Prepaid expenses		4.3	4.3	-	4.3
TOTAL CURRENT ASSETS		**1,525.3**	**1,088.5**	**(6.9)**	**1,081.6**
Bond redemption premiums		0.1	0.1	-	0.1
Unrealized foreign exchange losses		2.1	0.3	-	0.3
TOTAL ASSETS		**14,742.7**	**14,714.1**	**(402.3)**	**14,311.8**
Equity and liabilities					
Share capital		2,602.1			2,605.1
Additional paid-in capital		2,572.9			2,608.1
Revaluation reserve		23.9			23.9
Legal reserve		236.1			260.1
Other reserves		388.5			388.5
Retained earnings		5,587.8			4,821.5
Net profit for the year		567.7			1,333.8
Tax-driven provisions		1.7			2.5
TOTAL SHAREHOLDERS' EQUITY	**(13)**	**11,980.7**			**12,043.5**
PROVISIONS	**(11)**	**53.3**			**50.1**
Other bonds	(14)	302.3			302.3
Bank borrowings	(14)	0.6			3.5
Other borrowings	(14)	252.7			252.7

	Notes	December 31, 2019	December 31, 2020		
(in millions of euros)		Net	Gross carrying amounts	Amortization, depreciation and provisions	Net
Operating payables	(14)	642.1			589.5
Current account borrowings with subsidiaries	(14)	1,508.3			1,067.4
Deferred income		0.4			0.5
		2,706.4			**2,215.9**
Unrealized foreign exchange gains		2.3			2.3
TOTAL EQUITY AND LIABILITIES		**14,742.7**			**14,311.8**

Notes to the statutory accounts

ACCOUNTING POLICIES

1. General principles

The year-end financial statements of L'Air Liquide S.A. have been prepared in accordance with general accounting principles applicable in France and in particular those of the French Chart of Accounts (Plan Comptable Général) and the French Commercial Code.

2. Non-current assets

A. INTANGIBLE ASSETS

Internally generated intangible assets primarily include the development costs of information management systems. They are capitalized only if they generate probable future economic benefits. Internal and external costs corresponding to detailed application design, programming, the performance of tests and the drafting of technical documentation intended for internal or external use are capitalized.

Significant upgrade and improvement costs are added to the initial cost of assets if they specifically meet the capitalization criteria.

Other intangible assets include separately acquired intangible assets such as software, licenses and intellectual property rights and are measured at acquisition cost.

Intangible assets are amortized according to the straight-line method over their estimated useful lives.

B. TANGIBLE ASSETS

Land, buildings and equipment are recognized at historical cost. Interim interest expense is not included in the cost.

Where components of a tangible asset have different useful lives, they are accounted separately and depreciated over their own useful lives.

Depreciation is computed according to the straight-line method over their estimated useful lives as follows:

- buildings: 10 to 30 years;
- equipment: 5 to 20 years.

Land is not depreciated.

C. IMPAIRMENT OF INTANGIBLE AND TANGIBLE ASSETS

The Company assesses at each closing date whether there is any indication of impairment loss of intangible and tangible assets. If such indications exist, an impairment test is performed to assess whether the carrying amount of the asset exceeds its present value, which is defined as the greater of its fair value less costs to sell and its value in use.

In assessing value in use, the estimated future cash flows are discounted to their present value as this would be done for an investment decision.

When the present amount of an asset is lower than its net carrying amount, an impairment loss is recognized in the income statement. When the present value exceeds the carrying amount, the previously recognized impairment is reversed to the income statement.

D. EQUITY INVESTMENTS

Equity investments are recognized at their initial amount on the entry date, with the exception of those subject to a revaluation as provided by Law 76-1232 of December 29, 1976. Acquisition costs that are not representative of market value are expensed.

When the carrying amount, determined using the criteria normally adopted for the measurement of equity investments (market multiples method based on the Air Liquide group market valuation, estimated cash flow approach, and net asset value remeasured at fair value), is lower than the book value, an impairment loss is recognized for the difference.

E. TREASURY SHARES

When the Company purchases its own shares, they are recognized at cost as treasury shares in other long-term investment securities. The gains or losses on disposals of treasury shares contribute to the net profit for the year.

However, shares allocated for the purpose of implementing plans for free grants of shares are reclassified to a "Short-term financial investments – Company treasury shares" caption at the balance sheet value on the date of allotment.

A provision is recorded over the rights vesting period to cover the future charge of employees and members of Executive Management of the Company relating to the remittance of current shares when the performance criteria can be determined with reliability. Conversely, the amount corresponding to the maximum performance level is presented in off-balance sheet commitments.

When the purchase cost of shares is higher than their valuation based on the average share price during the last month of the fiscal year, treasury shares earmarked for cancellation or allocated for the purpose of implementing plans for free grants of shares are not impaired.

3. Inventories and work-in-progress

Raw materials, supplies and goods are primarily measured at weighted average cost.

An impairment loss is recognized for inventories and work-in-progress when the estimated realizable amount is lower than cost.

4. Trade receivables and other operating assets

Trade receivables and other operating assets are measured at historical cost.

An impairment loss for receivables is recognized when it becomes probable that the amount due will not be collected and the loss can be reasonably estimated.

5. Foreign currency transactions

Foreign currency transactions are translated at the exchange rate prevailing on the transaction date.

At year-end, the difference arising from the translation of receivables and payables denominated in a foreign currency, are recognized in suspense accounts in assets and liabilities ("Unrealized foreign currency gains or losses").

Where applicable, unrealized foreign exchange losses associated with non-hedged transactions are subject to a contingency provision.

6. Provisions

Provisions are recognized when:

- the Company has a present obligation as a result of a past event or an ongoing one;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate can be made of the amount of the obligation.

7. Financial instruments

Since January 1, 2017, L'Air Liquide S.A. has applied the ANC regulation no. 2015-05 of July 2, 2015 related to financial forward and hedging instruments.

In accordance with its risk management policy, L'Air Liquide S.A. enters into forward currency purchases or sales in order to hedge the exposure to foreign exchange risk associated with transactions carried out in foreign currencies.

By symmetry, the foreign exchange gains or losses on forward currency purchases or sales is presented at the same time and in the same income statement caption as the hedged item.

Likewise, the unrealized gain from the hedging is presented within the unrealized foreign currency gains or losses statement caption, to offset the exchange differentials related to the revaluation of underlying receivables and debts. When the forward currency purchases or sales, hedge future transactions not yet recorded on the balance sheet, the fair value of these instruments represents an off balance sheet commitment.

Where applicable, when the financial instruments used do not constitute hedging transactions ("isolated open position"), the losses resulting from their year-end market value are provided for in the income statement. In accordance with the principle of prudence, unrealized gains are not recognized in the income statement.

8. Post-employment benefits

The Company applies ANC recommendation 2013-02 related to the recognition and measurement of retirement benefits and similar obligations.

The Company provides its employees with various pension plans, termination benefits, jubilees (awards based on years of service) and other post-employment benefits for both active employees and retirees. These benefits are covered in two ways:

- by so-called defined contribution plans;
- by so-called defined benefit plans.

The Company grants both defined benefit and defined contribution plans.

Defined contribution plans are plans under which the employer's sole obligation is to pay regular contributions. The employer does not grant any guarantee on the future level of benefits paid to the employee or retiree ("means-based obligation"). The annual pension expense is equal to the contribution paid during the fiscal year which relieves the employer from any further obligation.

Defined benefit plans are those by which the employer guarantees the future level of benefits defined in the agreement, most often depending on the employee's salary and seniority ("result-based obligation"). Defined benefit plans can be:

- either financed by contributions to a fund specialized in managing the contributions paid;
- or managed internally.

In the case of defined benefit plans, retirement and similar obligations are measured by independent actuaries, according to the projected unit credit method. The actuarial calculations mainly take into account the following assumptions: salary increases, employee turnover, retirement date, mortality, inflation and appropriate discount rates.

Actuarial gains and losses exceeding the greater of 10% of the obligations or 10% of the fair value of plan assets at the beginning of the reporting period are amortized over the expected average working lives of the plan participants.

In accordance with the option offered by ANC recommendation 2013-02, the Company maintained its previous practices: obligations related to retirement termination payments and jubilees are provided whereas other retirement obligations related to defined benefit plans are not provided but are disclosed in the notes.

9. Revenue recognition

Revenue from the sale of goods is recognized when the risks and rewards of ownership have been transferred to the buyer.

Revenue associated with delivery of services is booked when delivery is completed.

10. Tax consolidation

L'Air Liquide S.A. has set up a tax consolidation group with the French subsidiaries in which it holds a direct or indirect interest exceeding 95%, as defined by article 223-A of the French General Tax Code.

Each company calculates its tax provision as if it was taxed separately. L'Air Liquide S.A., as head of the tax consolidation group, recognizes as an expense the tax corresponding to its own profits and recognizes in a balance sheet current tax account the impact of restatements and eliminations when determining taxable profit as a whole and the tax deferrals of subsidiaries with losses. It is booked in exceptional income and expenses according to the Opinion 2005-G of the emergency committee of the C.N.C.

11. Research and Development expenditures

Development costs shall be recognized as assets if and only if the Company can demonstrate all of the following:

- the project is clearly identified and the related costs are individualized and reliably monitored;
- the technical and industrial feasibility of the project is demonstrated;
- there is a clear intention to complete the project and use or sell the products arising from it;
- it is probable that the project will generate future economic benefits for the Company.

When these conditions are not satisfied, the work carried out does not systematically result in the completion of an intangible asset that will be available for use or sale, development costs generated are recognized as an expense when incurred.

ADDITIONAL NOTES ON THE BALANCE SHEET AND INCOME STATEMENT

1. Significant events

In 2019, there were no significant events during the fiscal year.

In 2020: On January 30, 2020, the World Health Organization declared a worldwide health emergency due to the propagation of the covid-19 virus and designated it as a pandemic on March 11, 2020. Consequently, governments from all over the world have been forced to adopt social and economic restrictive measures in order to limit the spread of the virus.

These measures have significantly affected the worldwide economy.

The impact of this pandemic on the Company's accounts is mainly reflected in the overall decrease in the royalties collected from subsidiaries (-41.5 million euros of which -7.6 million are related to currency effects).

2. Revenue breakdown by geographical area

(in millions of euros)	2019	2020
France	74.5	44.5
Abroad	42.9	42.3
REVENUE	**117.4**	**86.8**

By the nature of its activities, the revenue of L'Air Liquide S.A. mainly corresponds to services and pension expenses recharged to its subsidiaries (see note 16.A).

In 2020, the Company reviewed the billing terms of the Group retirement benefit guarantee agreement granted to its subsidiaries, regarding employee pension payments. This resulted in a 26.4 million euros decrease of the revenue.

3. Royalties and other operating income

Other operating income mainly includes change in inventories of goods and services, production of assets capitalized, operating subsidies, operating expense reclassifications, as well as operating provision and impairment reversals.

4. Other operating expenses

Other operating expenses primarily consist of research and development costs and other external expenses such as subcontracting and maintenance costs, fees, travel expenses, telecommunication costs and rental expenses.

5. Depreciation, amortization and provision expenses

Depreciation, amortization and provision expenses break down as follows:

(in millions of euros)	2019	2020
Depreciation and amortization expenses	(15.7)	(13.5)
Provision expenses	(14.1)	(12.7)
DEPRECIATION, AMORTIZATION AND PROVISION EXPENSES	**(29.8)**	**(26.2)**

6. Financial income and expenses

Financial income from equity affiliates amounts to 1,179.6 million euros in 2020 (374.4 million euros in 2019). In 2020, the company Air Liquide Industriegase GmbH & Co. KG paid an exceptional dividend of 820.0 million euros.

Interests, similar income and expenses break down as follows:

(in millions of euros)	2019	2020
Revenues from long-term loans and other financial revenues	24.6	19.1
Other interest and similar income	(15.9)	(13.0)
INTERESTS, SIMILAR INCOME AND EXPENSES	**8.7**	**6.1**

Other financial income and expenses break down as follows:

(in millions of euros)	2019	2020
Other financial expenses, impairment and provisions net of reversals	0.8	4.2
Foreign exchange gains / losses (net)	0.2	(0.6)
OTHER FINANCIAL INCOME AND EXPENSES	**1.0**	**3.6**

7. Exceptional income and expenses

As part of the tax consolidation of L'Air Liquide S.A. and its consolidated French subsidiaries, an exceptional income of 140.0 million euros was booked in 2020 (138.7 million euros in 2019). This income had no impact on the Group's consolidated tax position or the profit or loss of the relevant subsidiaries.

Exceptional income and expenses also include the impact of eliminations related to the tax consolidation regime in the amount of 14.2 million euros in 2020 and 9.7 million euros in 2019.

8. Corporate income tax

The total tax expense amounts to 8.8 million euros, compared to 12.5 million euros in 2019.

After allocation of add-backs, deductions and tax credits relating to profits, it breaks down as follows:

(in millions of euros)	2019	2020
Net profit from ordinary activities before tax	(11.3)	(7.6)
Additional contributions on earnings (a)	(1.2)	(1.2)
TOTAL	**(12.5)**	**(8.8)**

(a) 3.3% social security contribution on earnings.

9. Intangible and tangible assets

Changes in gross value break down as follows:

(in millions of euros)	Gross value as of January 1, 2020	Additions	Disposals	Gross value as of December 31, 2020
Concessions, patents, licenses	108.9	3.0	(0.5)	111.4
Other intangible assets	170.6	9.9	(2.4)	178.1
INTANGIBLE ASSETS	**279.5**	**12.9**	**(2.9)**	**289.5**
Land and buildings	94.8	5.8	(0.5)	100.1
Plant, machinery and equipment	37.9	2.8	(2.2)	38.5
Other tangible assets	21.0	0.1	(1.3)	19.8
Tangible assets under construction and payments on account – tangible assets	7.2	13.8	(4.3)	16.7
TANGIBLE ASSETS	**160.9**	**22.5**	**(8.3)**	**175.1**
TOTAL	**440.4**	**35.4**	**(11.2)**	**464.6**

Changes in amortization, depreciation and impairment losses break down as follows:

(in millions of euros)	Amortization, depreciation and impairment losses as of January 1, 2020	Amortization and depreciation	Decreases, disposals, scrappings	Amortization, depreciation and impairment losses as of December 31, 2020
Intangible assets	(249.9)	(7.8)	0.1	(257.6)
Tangible assets	(81.6)	(5.7)	3.2	(84.1)
TOTAL	**(331.5)**	**(13.5)**	**3.3**	**(341.7)**

10. Financial assets

Changes in gross value break down as follows:

(in millions of euros)	Gross value as of January 1, 2020	Increases	Decreases	Gross value as of December 31, 2020
Equity investments	12,494.0	39.0 (a)	(50.6) (b)	12,482.4
Other long-term investment securities (c)	9.1	111.3	(88.3)	32.1 (e)
Long-term loans	628.6	1.0	(1.0)	628.6
Other long-term financial assets	71.2	1.2	(54.9) (d)	17.5 (f)
FINANCIAL ASSETS	**13,202.9**	**152.5**	**(194.8)**	**13,160.6**

(a) The increase in equity investments mainly corresponds to the capital increase of the subsidiary Air Liquide Biogas Solutions Europe (ex-Air Liquide Advanced Business) for 39.0 million euros.

(in millions of euros)	Gross value as of January 1, 2020	Increases	Decreases	Gross value as of December 31, 2020

(b) The decrease in equity investments mainly results from the disposal of the subsidiary Axane to the subsidiary Air Liquide Advanced Technology.
© The change in other long-term investment securities mainly corresponds to:
the acquisition and sale of Company treasury shares under the liquidity contract for 89.2 million euros and -88.3 million euros respectively;
the acquisition of 165,000 Company treasury shares (for the purpose of cancellation) for 22.2 million euros;
(d) In connection with the litigation concerning the reimbursement of the receivable, the Administrative Court of Montreuil partially sided with L'Air Liquide S.A. on July 21, 2014. Following this decision, L'Air Liquide S.A. received 30.3 million euros in principal and 15.0 million euros in interest on arrears. On September 19, 2014, the Company appealed the decision of the Administrative Court of Montreuil regarding the recovery of the balance. On appeal, the Administrative Court of Versailles partially sided with Air Liquide on July 7, 2020. Following this decision, Air Liquide received 31.8 million of euros in principal and 23.1 million of euros in interest on arrears on July 27, 2020.
Following the decisions rendered by the Court of Appeal of Versailles and in order to challenge some of those decisions, Air Liquide and the tax administration have filed a plea before the Supreme Court ("Conseil d'État"). On October 23, the Conseil d'État decided to refer a question to the Court of Justice of the European Union. The Air Liquide Group, being a party to this case, is entitled to send a statement to the Court of Justice of the European Union before the end of February 2022.
At the 2020 year-end:
(e) The "Other long-term investment securities" caption includes 11,000 shares held under the liquidity contract in an amount of 1.5 million euros;
(f) The "Other long-term investments" caption mainly includes the receivable linked to the refund claim on the equalization charge paid for the years 2000 to 2004 for 9.5 million euros and the interest on arrears for 6.6 million euros.

11. Impairment, allowances and provisions

A. IMPAIRMENT AND ALLOWANCES

Impairment and allowances are recognized when the asset's carrying amount is lower than its entry value.

They break down as follows:

(in millions of euros)	2019	Charges	Reversals	2020
Intangible and tangible assets	(4.3)	-	-	(4.3)
Equity investments	(88.3)	(5.3)	48.2	(45.4)
Other long-term investment securities	(8.3)	-	-	(8.3)
Inventories and work-in-progress	(1.0)	-	-	(1.0)
Operating receivables	(5.9)	-	-	(5.9)
IMPAIRMENT AND ALLOWANCES	**(107.8)**	**(5.3)**	**48.2**	**(64.9)**
Whose charges and reversals:	*operating items*	-	-	
	financial items	*(5.3)*	*48.2*	
	exceptional items	-	-	

Charges and reversals mainly relate to impairment of equity investments.

B. PROVISIONS

Provisions mainly include:

- foreign exchange provisions;
- third party or employee contingency and litigation provisions;
- jubilee awards and vested rights with regard to retirement termination payments (27.5 million euros in 2020 and 25.4 million euros in 2019).

(in millions of euros)	2019	Charges	Reversals	2020
Provisions for contingencies	8.4	0.5	(2.9)	6.0
Provisions for losses	44.9	12.2	(13.0)	44.1
PROVISIONS	**53.3**	**12.7**	**(15.9)**	**50.1**
Whose charges and reversals:	*operating items*	*12.7*	*(15.0)*	
	financial items	-	-	
	exceptional items	-	*(0.9)*	

Charges mainly relate to provisions for jubilee awards and vested rights with regard to retirement termination payments for 2.8 million euros and provisions to cover the future charge of the remittance of current shares for 8.9 million euros.

Reversals primarily stem from the cancellation of foreign exchange provisions for -2.0 million euros and the remittance of current shares for -12.2 million euros.

12. Short-term financial investments

The item breaks down as follows:

(in millions of euros)	Gross value as of December 31, 2019	Gross value as of December 31, 2020
Company treasury shares	126.5	114.4
Other short-term financial investments	-	-
SHORT-TERM FINANCIAL INVESTMENTS	**126.5**	**114.4**

At the 2020 year-end, "Company treasury shares" consisted of 1,113,830 shares (1,375,893 shares in 2019) allocated to the implementation of performance shares plans to employees.

During the first 2020 half year, the Company bought 200,000 shares (in an amount of 26.9 million euros) allocated to the implementation of performance shares plans to employees.

13. Shareholders' equity

As of December 31, 2020, the share capital comprised 473,660,724 shares with a par value of 5.50 euros.

The portion of share capital arising from the special revaluation reserve totals 71.4 million euros.

(in millions of euros)	As of December 31, 2019 (before appropriation of earnings)	Appropriation of 2019 net profit	Capital increases	Capital decrease	Other changes	As of December 31, 2020 (before appropriation of earnings)
Share capital (b)	2,602.1	-	3.0	-	-	2,605.1
Additional paid-in capital (b)	2,572.9	-	35.2	-	-	2,608.1
Revaluation reserve	23.9	-	-	-	-	23.9
Reserves:						
Legal reserve	236.1	24.0	-	-	-	260.1
Tax-driven reserves	307.8	-	-	-	-	307.8
Translation reserve	7.7	-	-	-	-	7.7
Other reserves	73.0	-	-	-	-	73.0
Retained earnings ©	5,587.8	(769.9)	-	-	3.6	4,821.5
Net profit for the year	567.7	(567.7)	-	-	1,333.8	1,333.8
Investment grants	-	-	-	-	0.3	0.3
Accelerated depreciation (d)	1.7	-	-	-	0.5	2.2
SHAREHOLDERS' EQUITY	**11,980.7**	**(1,313.6)** (a)	**38.2**	**-**	**1,338.2**	**12,043.5**

(a) Following the decision of the Combined Annual Shareholders' Meeting of May 5, 2020.
(b) The change in the Share capital and Additional paid-in capital results from the following transactions:
Capital increases of 3.0 million euros resulting from the exercise of 555,210 subscription options. The Additional paid-in capital was increased by the premiums related to these shares, i.e. 35.2 million euros.
© The change in Retained earnings also includes the difference between the estimated loyalty dividend and the loyalty dividend actually paid and the cancellation of the dividend pertaining to treasury shares.
(d) The change in the Accelerated depreciation results from the reversal of accelerated depreciation in accordance with asset depreciation and amortization policies.

14. Debt maturity analysis

	December 31, 2020		
(in millions of euros)	Gross	≤ 1 year	> 1 year
Long-term loans	628.6	0.6	628.0
Other long-term investments	17.5	0.6	16.9
Operating receivables	536.1	466.6	69.5
Current account loans with subsidiaries [a]	420.1	420.1	-
ASSETS	**1,602.3**	**887.9**	**714.4**

(a) Current amount loans agreements are concluded for an indefinite period.

	December 31, 2020			
(in millions of euros)	Gross	≤ 1 year	> 1 to ≤ 5 years	> 5 years
Other bonds [a]	302.3	2.3	300.0	-
Bank borrowings	3.5	3.5	-	-
Other borrowings	252.7	2.4	250.0	0.3
Operating payables	589.5	520.0	69.5	-
Current account borrowings with subsidiaries [b]	1,067.4	1,067.4	-	-
DEBTS	**2,215.4**	**1,595.6**	**619.5**	**0.3**

(a) All new bond issues carried out by L'Air Liquide S.A., and constituting the outstanding bonds as of December 31, 2020, include a change of control clause.
(b) Current amount borrowings agreements are concluded for an indefinite period.

15. Financial instruments

Unsettled derivatives as of December 31, 2020 break down as follows:

	December 31, 2020	
(in millions of euros)	Carrying value	Fair value
Currency forwards		
Buy	38.2	(0.8)
Sell	173.4	3.7
FOREIGN EXCHANGE RISK		**2.9**

The fair value difference represents the difference between the derivative valuation and the value of the contract determined at the closing year-end exchange rate.

All of these instruments are allocated to hedging. There is therefore no isolated open position whose change in fair value would have a direct impact on the income statement.

16. Retirement and similar plans

A. GROUP RETIREMENT BENEFIT GUARANTEE AGREEMENT

In France, Air Liquide grants additional benefits to retirees (3,540 retirees as of December 31, 2020) and to employees over 45, or with more than 20 years of service as of January 1, 1996 (one employee as of December 31, 2020). These benefits provide a supplemental retirement income based on final pay, which is paid in addition to other normal retirement benefits. This plan is closed to employees under the age 45, or with less than 20 years of service as of January 1, 1996. These plans are unfunded. The annual amount paid with regards to additional benefits cannot exceed originally 12% of total payroll or, in some case, 12% of pre-tax profits of companies involved. This 12% threshold will be proportionately reduced by comparing the number of plan beneficiaries for the year to the number of plan beneficiaries for the previous year. In 2017, this additional benefit was funded subsequently to the article 50 of the law of January 20, 2014 securing the future and fairness of pensions plans.

In October 2020, the Company reviewed the billing terms of the Group retirement benefit guarantee agreement granted to its subsidiaries, regarding employee pension payments.

The contributions amounted to 20.1 million euros in 2020 (11.2 million euros in 2019) after reinvoicing subsidiaries. Excluding the impact of timelines, and until the plan ends, the actuarial value of obligations vis-à-vis retirees and those eligible as of December 31, 2020 amounts to 603.1 million euros.

Based on the assumptions used for the valuation of the retirement obligations, an estimated 310.7 million euros will be recharged to the subsidiaries of L'Air Liquide S.A. as and when benefits are paid to the retirees.

B. EXTERNALLY FUNDED PLAN

L'Air Liquide S.A. grants to employees not covered by the preceding plan (1,009 employees as of December 31, 2020) and with at least one half-year of service benefit from an externally funded defined contribution plan. Contributions to this plan are jointly paid by the employer and employee. For 2020, employer contributions amounted to 6.9 million euros (7.9 million euros in 2019).

C. RETIREMENT TERMINATION PAYMENTS AND JUBILEES

The corresponding obligations are provided for in the amount of 26.6 million euros (net of tax) and 0.9 million euros, respectively.

D. CALCULATION OF ACTUARIAL ASSUMPTIONS AND METHODS

The calculations with respect to the Group's retirement benefit guarantee agreement, retirement termination payments and jubilees are performed by independent actuaries using the projected unit credit method.

Actuarial gains and losses exceeding the greater of 10% of the obligations related to retirement termination payments and unrecognized past service costs are amortized over the expected average working lives of the plan participants. As of December 31, 2020, the amounts stand at 20.8 million euros (18.5 million euros in 2019).

The actuarial assumptions (turnover, mortality, retirement age, salary increase) vary according to demographic and economic conditions.

The discount rates used to determine the present value of obligations are based on Government bonds or High-quality Corporate bonds, with the same duration as the obligations at the valuation date (0.60% as of December 31, 2020).

E. CHANGE IN RETIREMENT OBLIGATIONS AND SIMILAR BENEFITS

Company obligations with respect to pension plans and similar benefits break down as follows:

(in millions of euros)	Defined benefit plan	Retirement indemnities	Jubilees	Total
OBLIGATIONS AS OF JANUARY 1, 2020	**626.2**	**56.8**	**0.9**	**683.9**
Service cost	0.8	2.7	0.1	3.6
Interest cost	3.0	0.3	-	3.3
Plan amendments	(4.2)	-	-	(4.2)
Benefit payments	(42.0)	(1.1)	-	(43.1)
Actuarial (gains) / losses	19.3	3.1	-	22.4
OBLIGATIONS AS OF DECEMBER 31, 2020 [(a)]	**603.1**	**61.8**	**1.0**	**665.9**

(a) Commitments as of December 31, 2020 are covered by assets amounting to 14.8 million euros.

17. Accrued income and accrued expenses

(in millions of euros)	December 31, 2020
Accrued income	
Other long-term financial assets	16.7
Operating receivables	182.7
ACCRUED INCOME	**199.4**
Accrued expenses	
Other bonds	2.3

(in millions of euros)	**December 31, 2020**
Other borrowings	1.9
Operating payables	279.6
ACCRUED EXPENSES	**283.8**

18. Deferred taxes

Deferred taxes arise from timing differences between the tax regime and the accounting treatment of income and expenses. According to the nature of the differences, these deferred taxes will increase or decrease the future tax expense and are not recorded pursuant to the provisions of the chart of accounts.

Deferred taxes as of December 31, 2020 are estimated as follows:

(in millions of euros)	**December 31, 2019**	**December 31, 2020**
Deferred tax assets (decrease in future tax expense)	3.8	2.7
Deferred tax liabilities (increase in future tax expense)	-	-

The deferred taxes were calculated taking into account the 3.3% social security contribution on earnings i.e. a general rate of 32.02% in 2019 and 28.41% in 2020.

OTHER INFORMATIONS

19. Items concerning related undertakings

The Company conducted related party transactions with its wholly owned subsidiaries or subsidiaries that were directly or indirectly controlled.

	December 31, 2019	
(in millions of euros)	**Gross**	**Including related undertakings**
Balance sheet		
Long-term loans	628.6	625.6
Other long-term financial assets	17.5	-
Operating receivables	536.1	485.2
Current account loans with subsidiaries	420.1	420.1
Other borrowings	252.7	251.9
Operating payables	589.5	194.0
Current account borrowings with subsidiaries	1,067.4	1,067.4
Income statement		
Financial income from equity affiliates	1,179.6	1,179.6
Interests, similar income and expenses	6.1	13.2
Other financial income and expenses	3.6	(4.7)

20. Off-balance sheet commitments

Off-balance sheet commitments break down as follows:

(in millions of euros)	**December 31, 2019**	**December 31, 2020**
Commitments given		
Endorsements, securities and guarantees given [(a)]	1,164.6	638.0

(in millions of euros)	December 31, 2019	December 31, 2020
To Air Liquide Finance and Air Liquide US LLC on transactions performed [(b)]	11,703.4	11,488.6
Firm purchase orders for fixed assets	1.0	7.4
COMMITMENTS GIVEN	**12,869.0**	**12,134.0**

(a) Endorsements, securities and guarantees given mainly consist of the joint and several liability guarantee linked to the European program of non-recourse assignments of trade receivable in an amount of 371 million euros (367 million euros as of December 31, 2019) and the joint and several liability guarantee of the subsidiary Air Liquide France Industrie in connection with the energy purchases. As of December 31, 2019, it was also taking into account the guarantees given in favor of holders of the Senior Notes issued by Airgas (550 million US dollars) who were early repaid at the end of December 2020.
(b) L'Air Liquide S.A. holds 100% of the French subsidiary Air Liquide Finance, which manages the Group's cash position and interest rate risk, as well as financing. In addition, Air Liquide Finance holds 100% of Air Liquide US LLC, in order to borrow on the US market.
Insofar as the sole activity of Air Liquide Finance and Air Liquide US LLC is the Group's financing, L'Air Liquide S.A. is required to guarantee any issuances performed by these companies.

21. Remuneration paid to members of Executive Management and the Board of Directors

The remuneration (short-term benefits: fixed and variable portions, benefits in kind, retirement termination payments, Directors' fees) paid by the Company to members of Executive Management and the Board of Directors respectively, amounts to:

(in millions of euros)	2020
Remuneration of the Board of Directors	0.8
Remuneration of Executive Management	3.4
TOTAL	**4.2**

During 2020, the Company paid to third parties the total amount of 232,023 euros for Benoît Potier: with respect to supplementary defined contribution pension plans: 9,836 euros, with respect to the collective death and disability benefits plan: 3,357 euros and with respect to the collective life insurance contract: 218,830 euros.

The Company will pay in 2021 in respect of 2020, in terms of the collective life insurance contract, contributions amounting to 222,134 euros and in terms of the collective pension insurance contract, an amount of 340,000 euros (split between a payment to the insurer and a payment to Benoît Potier intended to cover the social security contributions and taxes due on the payments made to the insurer), this contract was set up with effect on January 1, 2020, following legislative changes and in accordance with the remuneration policy. It replaces the acquisition of conditional rights under the defined benefit pension plan with effect from this date in order to maintain rights which are equivalent to those which would have existed under such plan, if it had been possible to maintain them for Benoît Potier.

22. Average number of employees

The average number of employees is:

	2019	2020
Engineers and executives	817	856
Supervisory staff	201	195
Employees	3	11
Laborers	11	4
TOTAL	**1,032**	**1,066**

23. Subsidiaries and affiliates information

(in thousands of euros)	Share capital as of December 31, 2020	Other equity as of December 31, 2020	% share holding	Carrying amount of shares held after the revaluations of 1976, 1978 and 1979			Loans and advances granted by the Company and not repaid	Guarantees and endorsements given by the Company	2019 net revenue [(a)]	Net profit (or loss) for 2019 [(a)]	Dividends collected by the Company during 2020
				Gross	Net	Including revaluation difference					
A. Detailed information on affiliates whose carrying amounts exceed 1% of the capital of the Company required to publish its financial statements											

(in thousands of euros)	Share capital as of December 31, 2020	Other equity as of December 31, 2020	% share holding	Carrying amount of shares held after the revaluations of 1976, 1978 and 1979			Loans and advances granted by the Company and not repaid	Guarantees and endorsements given by the Company	2019 net revenue [a]	Net profit (or loss) for 2019 [a]	Dividends collected by the Company during 2020
				Gross	Net	Including revaluation difference					
a) Companies operating in France											
Air Liquide International [b] – 75, quai d'Orsay – 75007 Paris	3,151,080	4,230,605	100.00%	9,333,923	9,333,923	21,186	279,648		60	456,232	
Air Liquide France Industrie – 6, rue Cognacq-Jay – 75007 Paris	72,268	531,564	100.00%	285,127	285,127				1,045,691	117,786	108,016
Air Liquide Finance – 6, rue Cognacq-Jay – 75007 Paris	102,000	11,730	100.00%	72,901	72,901		653,004	11,447,890		72,014	68,400
Air Liquide Santé (International) – 75, quai d'Orsay – 75007 Paris	38,477	356,385	100.00%	331,728	331,728	6,301				88,527	82,966
Chemoxal [b] – 75, quai d'Orsay – 75007 Paris	30,036	4,189	100.00%	30,326	30,326					30,182	30,193
Air Liquide Investissements d'Avenir et de Démonstration – 6, rue Cognacq-Jay – 75007 Paris	85,050	(22,838)	100.00%	85,050	85,050				10	(7,945)	
Air Liquide Biogas Solutions Europe (ex-Air Liquide Advanced Business) – 6, rue Cognacq-Jay – 75007 Paris	111,634	4,852	100.00%	175,450	134,460				22,695	(12,235)	
b) Companies operating outside of France											
Air Liquide Industriegase GmbH & Co. KG – Hans-Günther-Sohl-Strasse 5 – 40235 Düsseldorf – Germany	10	2,137,798	100.00%	2,106,474	2,106,474				51,709	92,663	875,000
B. General information on other subsidiaries and affiliates											
a) French companies (together)				56,212	52,547		5,186				8,127
b) Foreign companies (together)				3,973	3,216						6,858

(a) Most recent year-end accounts approved by the competent decision-making bodies.
(b) Holding company.

Statutory Auditors' Report on the financial statements

This is a translation into English of the statutory auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users. This statutory auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the Management Report and other documents provided to shareholders. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Annual General Meeting of L' Air Liquide,

OPINION

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying financial statements of L'Air Liquide for the year ended December 31, 2020.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2020 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit and Accounts Committee.

BASIS FOR OPINION

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (Code de commerce) and the French Code of Ethics (Code de déontologie) for statutory auditors, for the period from January 1, 2020 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014.

JUSTIFICATION OF ASSESSMENTS – KEY AUDIT MATTERS

Due to the global crisis related to the covid-19 pandemic, the financial statements of this period have been prepared and audited under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of the audits.

It is in this complex and evolving context that, in accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (Code de commerce) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Equity investments measurement

Identified risk	Our audit response
As at December 31, 2020, the net book value of the equity investments amounts to €12,437 million and represents 86.9% of the total balance sheet. Equity investments are recognized at their initial consideration, excluding acquisition costs and after considering legal reevaluation if any. As disclosed in note "2.D. Accounting policies – Equity investments" to the statutory financial statements, when the carrying amount (determined applying the market multiples method based on the Group market capitalization or the estimated cash flows method or the method of net asset value re-measured at fair value) is lower than the net book value of the equity investment, an impairment loss is recognized for the difference The selection of the method used to determine the carrying amount requires significant Management judgement. Due to the significant equity investments balance and the impact of the method retained to determine the carrying amount, we have considered that the measurement of the equity investments as a key audit matter.	Our procedures consisted in: assessing, based on information provided by Management, valuation methods applied by the Company; assessing assumptions used to determine the re-measured net asset; assessing the methodology and the results of the tests performed based on the Group market capitalization; verifying the information included in notes "2.D. Accounting policies – Equity investments", "10. Financial assets" and "11. Impairment, allowances and provisions" to the statutory financial statements.

SPECIFIC VERIFICATIONS

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

Information given in the Management Report and in the other documents with respect to the financial position and the financial statements provided to the Shareholders

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the Management Report of the Board of Directors and in the other documents with respect to the financial position and the financial statements provided to the Shareholders.

We attest the fair presentation and the consistency with the financial statements of the information relating to the payment deadlines mentioned in Article D. 441-4 of the French Commercial Code (Code de commerce).

Information relating to corporate governance

We attest that the Board of Directors' report on corporate governance sets out the information required by Articles L. 225-37-4, L. 22-10-10 and L. 22-10-9 of the French Commercial Code (Code de commerce).

Concerning the information given in accordance with the requirements of Article L. 22-10-9 of the French Commercial Code (Code de commerce) relating to remunerations and benefits received by the directors and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your company from controlling and controlled companies. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your company considered likely to have an impact in the event of a takeover bid or exchange offer, provided pursuant to Article L. 22-10-11 of the French Commercial Code (Code de commerce), we have agreed this information to the source documents communicated to us. Based on these procedures, we have no observations to make on this information.

Other information

In accordance with French law, we have verified that the required information concerning the identity of the shareholders and holders of the voting rights has been properly disclosed in the Management Report.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Format of the presentation of the financial statements intended to be included in the annual financial report

In accordance with Article 222-3, III of the AMF General Regulation, the Company's management informed us of its decision to postpone the presentation of the financial statements in compliance with the European single electronic format as defined in the European Delegated Regulation No. 2019/815 of 17 December 2018 to years beginning on or after January 1, 2021. Therefore, this report does not include a conclusion on the compliance with this format of the presentation of the financial statements intended to be included in the annual financial report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (Code monétaire et financier).

Appointment of the Statutory Auditors

We were appointed as statutory auditors of the Annual General Meeting held on May 12, 2016 for PricewaterhouseCoopers Audit and on May 5, 2010 for ERNST & YOUNG et Autres.

As at December 31, 2020, PricewaterhouseCoopers Audit was in its fifth year of uninterrupted engagement and ERNST & YOUNG et Autres in its eleventh year of uninterrupted engagement. Previously, ERNST & YOUNG Audit, was statutory auditor of L'Air Liquide from 1983 to 2009.

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENTS

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

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Accounts committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

STATUTORY AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Objectives and audit approach

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

As specified in Article L. 823-10-1 of the French Commercial Code (Code de commerce), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the financial statements.
- Assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.
- Evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

REPORT TO THE AUDIT AND ACCOUNTS COMMITTEE

We submit a report to the Audit and Accounts Committee, which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Accounts Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit and Accounts Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code (Code de commerce) and in the French Code of Ethics (Code de déontologie) for statutory auditors. Where appropriate, we discuss with the Audit and Accounts Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Neuilly-sur-Seine and Paris-La-Défense, March 1, 2021
The Statutory Auditors
French original signed by

PricewaterHouseCoopers Audit

Françoise Garnier — Séverine Scheer

ERNST & YOUNG et Autres

Jeanne Boillet — François-Guillaume Postel

Five-year summary of Company results

(Articles R. 225-83 and R. 225-102 of the French Commercial Code)

	2016	2017	2018	2019	2020
I – Share capital at the end of the year					
a) Share capital *(in euros)* (a) (b) (c)	2,138,816,686	2,356,186,525	2,361,828,887	2,602,080,327	2,605,133,982
b) Number of outstanding ordinary shares	388,875,761	428,397,550	429,423,434	473,105,514	473,660,724
c) Number of shares with loyalty dividend entitlement (d)	102,292,196	117,152,854	128,524,663	134,154,877	131,753,261
d) Convertible bonds					
II – Operations and results of the year ***(in millions of euros)***					
a) Revenue	154.5	139.3	110.3	117.4	86.8
b) Net profit before tax, employee profit-sharing, depreciation, amortization and provisions	577.9	1,276.8	624.0	622.4	1,378.9
c) Corporate income tax	53.8	70.8	27.5	12.5	8.8
d) Employee profit-sharing for the year	2.6	2.6	2.6	2.7	2.8
e) Net profit after tax, employee profit-sharing, depreciation, amortization and provisions	482.4	1,149.8	544.8	567.7	1,333.8
f) Distributed profit	1,037.7	1,165.7	1,171.4	1,316.6	1,338.1
III – Per share data ***(in euros)***					
a) Net profit after tax, employee profit-sharing, but before depreciation, amortization and provisions					
over the number of ordinary shares outstanding	1.34	2.88	1.38	1.28	2.89
over the adjusted number of shares (e)	1.19	2.62	1.26	1.29	2.90
b) Net profit after tax, employee profit-sharing, depreciation, amortization and provisions					
over the number of ordinary shares outstanding	1.24	2.68	1.27	1.20	2.82
over the adjusted number of shares (e)	1.10	2.44	1.16	1.20	2.83
c) Dividend allocated to each share					
over the number of ordinary shares outstanding	2.60	2.65	2.65	2.70	2.75
over the adjusted number of shares (f)	2.14	2.40	2.40	2.70	2.75
d) Loyalty dividend					
over the number of ordinary shares outstanding	0.26	0.26	0.26	0.27	0.27
over the adjusted number of shares (f)	0.21	0.24	0.24	0.27	0.27

	2016	2017	2018	2019	2020
IV – Employees working in France					
a) Average number of employees during the year	1,107	1,057	1,046	1,032	1,066
b) Total payroll for the year *(in millions of euros)*	149.9	151.9	160.4	156.6	155.3
c) Amounts paid with respect to employee benefits during the year (social security, staff benefits, etc.) *(in millions of euros)*	68.9	69.8	75.2	82.5	80.1

(a) Using the authorization granted by the 12th resolution of the Combined Annual Shareholders' Meeting of May 5, 2017 and the 15th resolution of the Combined Annual Shareholders' Meeting of May 16, 2018, the Board of Directors made the following decisions:

- *in its meeting of May 6, 2015, capital decrease by cancellation of 1,500,000 treasury shares;*
- *in its meeting of May 3, 2017, capital decrease by cancellation of 1,100,000 treasury shares;*
- *in its meeting of May 16, 2018, capital decrease by cancellation of 654,000 treasury shares;*
- *in its meeting of May 7, 2019, capital decrease by cancellation of 953,000 treasury shares.*

(b) Using the authorization granted by the 17th resolution of the Combined Annual Shareholders' Meeting of May 12, 2016, the Board of Directors decided in its meeting of July 27, 2017, the granting of one free share for ten existing shares (ranking for dividends as of January 1, 2017), and the granting of a 10% bonus for shares held in registered form from December 31, 2014 to September 29, 2017 (ranking for dividends as of January 1, 2017).

Using the authorization granted by the 16th resolution of the Combined Annual Shareholders' Meeting of May 16, 2018, the Board of Directors decided in its meeting of July 29, 2019, the granting of one free share for ten existing shares (ranking for dividends as of January 1, 2019), and the granting of a 10% bonus for shares held in registered form from December 31, 2016 to October 8, 2019 (ranking for dividends as of January 1, 2019).

(c) Using the authorizations granted by the resolutions of Combined Annual Shareholders' Meetings of May 5, 2010, May 7, 2013, and May 12, 2016.

- *the Board of Directors noted in its meeting of February 10, 2020 the issuance of 28,270 shares (ranking for dividends as of January 1, 2020) arising from:*
  - *the exercise of 12,832 options subscribed at the price of 57.28 euros;*
  - *the exercise of 3,914 options subscribed at the price of 70.14 euros;*
  - *the exercise of 4,898 options subscribed at the price of 74.06 euros;*
  - *the exercise of 5,061 options subscribed at the price of 77.67 euros;*
  - *the exercise of 1,565 options subscribed at the price of 84.08 euros.*
- *the Board of Directors noted in its meeting of November 20, 2020 the issuance of 455,663 shares (ranking for dividends as of January 1, 2020) arising from:*
  - *the exercise of 162,182 options subscribed at the price of 57.28 euros;*
  - *the exercise of 2,830 options subscribed at the price of 57.94 euros;*
  - *the exercise of 83,706 options subscribed at the price of 70.14 euros;*
  - *the exercise of 96,294 options subscribed at the price of 74.06 euros;*
  - *the exercise of 51,386 options subscribed at the price of 77.67 euros;*
  - *the exercise of 59,265 options subscribed at the price of 84.08 euros.*
- *the Board of Directors noted in its meeting of February 9, 2021 the issuance of 71,277 shares (ranking for dividends as of January 1, 2020) arising from:*
  - *the exercise of 21,042 options subscribed at the price of 57.28 euros;*
  - *the exercise of 13,426 options subscribed at the price of 70.14 euros;*
  - *the exercise of 12,795 options subscribed at the price of 74.06 euros;*
  - *the exercise of 7,637 options subscribed at the price of 76.47 euros;*
  - *the exercise of 10,346 options subscribed at the price of 77.67 euros;*
  - *the exercise of 6,031 options subscribed at the price of 84.08 euros.*

Using the authorization granted by the 16th resolution of the Combined Annual Shareholders' Meeting of May 6, 2015, pursuant to the delegation granted by the Board of Directors in its meetings of July 29, 2015 and October 23, 2015, and confirmed on February 15, 2016, the Chairman and CEO noted on May 10, 2016 the employee-reserved issuance of 999,143 new shares:

- *931,900 new shares subscribed in cash at a price of 77.18 euros per share, (ranking for dividends as of January 1, 2016), of which 2,728 shares were subscribed as part of the contribution paid by the Company (1 bonus share for 4 shares subscribed with a maximum of 3 bonus shares per employee);*
- *67,243 new shares subscribed in cash at a price of 82.00 euros per share, (ranking for dividends as of January 1, 2016).*

Using the authorization granted by the 12th resolution of the Combined Annual Shareholders' Meeting of May 6, 2015, the Chairman and CEO, pursuant to the delegation granted by the Board of Directors in its meetings of July 29, 2016, noted on October 11, 2016, the issuance of 43,202,209 new shares, with retention of the preferential subscription rights on the basis of one new share for eight existing shares, subscribed in cash, at a price of 76.00 euros per share.

Using the authorization granted by the 15th resolution of the Combined Annual Shareholders' Meeting of May 3, 2017, pursuant to the delegation granted by the Board of Directors in its meetings of May 16, 2018 and confirmed on July 27, 2018, the Chairman and CEO noted on December 7, 2018 the employee-reserved issuance of 1,049,529 new shares:

- *934,697 new shares subscribed in cash at a price of 87.09 euros per share, (ranking for dividends as of January 1, 2018), of which 2,413 shares were subscribed as part of the contribution paid by the Company (1 bonus share for 4 shares subscribed with a maximum of 3 bonus shares per employee);*
- *114,832 new shares subscribed in cash at a price of 92.53 euros per share, (ranking for dividends as of January 1, 2018).*

(d) Beginning December 31, 1995, shareholders holding their shares in registered form for at least two years at the period-end, and who will retain these shares in this form until the dividend payment date, will receive a dividend with a 10% bonus compared to the dividend paid to other shares. The difference between the loyalty dividend calculated on the number of shares outstanding as of the period-end and the loyalty dividend actually paid shall be allocated to retaining earnings.

(e) Adjusted to take into account, in the weighted average, the capital increases performed via cash subscriptions and treasury shares.

(f) Adjusted to account for share capital movements.

FINANCIAL STATEMENTS

First Half Financial Report as of June 30, 2021

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CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Consolidated income statement

(in millions of euros)	Notes	1st half 2020	1st half 2021
Revenue	(4)	**10,272.8**	**10,845.7**
Other income		53.3	70.0
Purchases		(3,631.3)	(4,078.6)
Personnel expenses		(2,183.1)	(2,129.2)
Other expenses		(1,614.3)	(1,711.3)
Operating income recurring before depreciation and amortization		**2,897.4**	**2,996.6**
Depreciation and amortization expense	(5)	(1,084.3)	(1,048.9)
Operating income recurring		**1,813.1**	**1,947.7**
Other non-recurring operating income	(6)	9.3	12.7
Other non-recurring operating expenses	(6)	(101.5)	(52.9)
Operating income		**1,720.9**	**1,907.5**
Net finance costs	(7)	(170.5)	(140.7)
Other financial income		9.6	4.1
Other financial expenses		(55.1)	(50.9)
Income taxes	(8)	(380.8)	(425.3)
Share of profit of associates		0.5	(1.6)
Profit for the period		**1,124.6**	**1,293.1**
- Minority interests		46.2	53.8
- Net profit (Group share)		1,078.4	1,239.3

Basic earnings per share *(in euros)*	(10)	**2.29**	**2.63**
Diluted earnings per share *(in euros)*	(10)	**2.28**	**2.61**

Statement of net income and gains and losses recognized directly in equity

(in millions of euros)	1st half 2020	1st half 2021
Profit for the period	**1,124.6**	**1,293.1**
Items recognized in equity		
Change in fair value of financial instruments	(13.3)	21.4
Change in foreign currency translation reserve	(288.0)	505.6
Items that may be subsequently reclassified to profit	**(301.3)**	**527.0**
Actuarial gains/ (losses)	(34.3)	90.1
Items that may not be subsequently reclassified to profit	**(34.3)**	**90.1**
Items recognized in equity, net of taxes	**(335.6)**	**617.1**
Net income and gains and losses recognized directly in equity	**789.0**	**1,910.2**
- Attributable to minority interests	41.5	67.5
- Attributable to equity holders of the parent	747.5	1,842.7

Consolidated balance sheet

ASSETS *(in millions of euros)*	Notes	December 31, 2020	June 30, 2021
Goodwill	(11)	13,087.4	13,435.4
Other intangible assets		1,397.8	1,413.9
Property, plant and equipment	(2)	20,002.9	21,360.0
Non-current assets		**34,488.1**	**36,209.3**
Non-current financial assets		602.5	621.3
Investments in associates		160.9	157.3
Deferred tax assets		268.4	274.4
Fair value of non-current derivatives (assets)		90.9	52.2
Other non-current assets		**1,122.7**	**1,105.2**
TOTAL NON-CURRENT ASSETS		**35,610.8**	**37,314.5**
Inventories and work-in progress		1,405.9	1,481.6
Trade receivables		2,205.8	2,500.4
Other current assets		737.7	797.2
Current tax assets		90.4	96.9
Fair value of current derivatives (assets)		44.1	38.4
Cash and cash equivalents	(14)	1,791.4	1,387.3
TOTAL CURRENT ASSETS		**6,275.3**	**6,301.8**
ASSETS HELD FOR SALE		**91.0**	**82.7**
TOTAL ASSETS		**41,977.1**	**43,699.0**

EQUITY AND LIABILITIES *(in millions of euros)*	Notes	December 31, 2020	June 30, 2021
Share capital		2,605.1	2,606.5
Additional paid-in capital		2,608.1	2,624.8
Retained earnings		11,033.8	12,783.1
Treasury shares		(139.8)	(179.9)
Net profit (Group share)		2,435.1	1,239.3
Shareholders' equity		**18,542.3**	**19,073.8**
Minority interests		**462.3**	**500.2**
TOTAL EQUITY [(a)]		**19,004.6**	**19,574.0**
Provisions, pensions and other employee benefits	(13)	2,418.3	2,324.2
Deferred tax liabilities		1,871.5	1,936.3
Non-current borrowings	(14)	10,220.2	10,068.9
Non-current lease liabilities		969.4	993.8
Other non-current liabilities		206.5	247.0
Fair value of non-current derivatives (liabilities)		11.5	19.2
TOTAL NON-CURRENT LIABILITIES		**15,697.4**	**15,589.4**
Provisions, pensions and other employee benefits	(13)	316.1	304.0
Trade payables		2,437.9	2,608.4
Other current liabilities		1,809.2	1,770.6
Current tax payables		215.2	223.7
Current borrowings	(14)	2,180.5	3,331.6
Current lease liabilities		218.2	219.7
Fair value of current derivatives (liabilities)		59.0	42.1
TOTAL CURRENT LIABILITIES		**7,236.1**	**8,500.1**
LIABILITIES HELD FOR SALE		**39.0**	**35.5**
TOTAL EQUITY AND LIABILITIES		**41,977.1**	**43,699.0**

(a) A breakdown of changes in shareholders' equity and minority interests is presented on pages 123 and 124.

Consolidated cash flow statement

(in millions of euros)	Notes	1st half 2020	1st half 2021
Operating activities			
Net profit (Group share)		**1,078.4**	**1,239.3**
Minority interests		**46.2**	**53.8**
Adjustments:			
• Depreciation and amortization	(5)	1,084.3	1,048.9
• Changes in deferred taxes [a]		1.8	(14.6)
• Changes in provisions		(12.9)	(30.5)
• Share of profit of associates		(0.4)	1.6
• Profit/loss on disposal of assets		(7.2)	22.1
• Net finance costs		119.7	101.3
• Other non cash items		60.8	61.5
Cash flows from operating activities [b]		**2,370.7**	**2,483.4**
Changes in working capital	(12)	(157.0)	(266.8)
Other cash items		(60.9)	(26.2)
Net cash flows from operating activities		**2,152.8**	**2,190.4**
Investing activities			
Purchase of property, plant and equipment and intangible assets		(1,319.9)	(1,439.0)
Acquisition of consolidated companies and financial assets	(2)	(63.9)	(569.2)
Proceeds from sale of property, plant and equipment and intangible assets [c]		68.7	44.6
Proceeds from the sale of activities, net of net debt sold, and of financial assets [c]		13.8	84.2
Dividends received from equity affiliates		2.0	3.3
Net cash flows used in investing activities		**(1,299.3)**	**(1,876.1)**
Financing activities			
Dividends paid [d]			
• L'Air Liquide S.A.	(16)	(1,306.7)	(1,332.7)
• Minority interests		(42.8)	(33.4)
Proceeds from issues of share capital [d]		26.7	22.6
Purchase of treasury shares [d]		(50.4)	(40.2)
Net financial interests paid		(166.9)	(146.8)
Increase (decrease) in borrowings		1,319.6	874.9
Lease liabilities repayments		(121.4)	(118.4)
Net interests paid on lease liabilities		(20.3)	(16.5)
Transactions with minority shareholders		(9.7)	(36.8)
Net cash flows from (used in) financing activities		**(371.9)**	**(827.3)**
Effect of exchange rate changes and change in scope of consolidation		11.7	60.7
Net increase (decrease) in net cash and cash equivalents		**493.3**	**(452.3)**
NET CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD		**896.5**	**1,718.6**
NET CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD		**1,389.8**	**1,266.3**

(a) Changes in deferred taxes reported in the consolidated cash flow statement do not include changes in deferred taxes relating to disposals of assets and capitalized finance costs.
(b) The cash flows from operating activities before changes in net working capital are presented before payment of interests on net debt and of interests paid on lease liabilities and after payment of income taxes.
(c) From the end of 2020 onwards, proceeds from activities are reported in the line proceeds from the sale of activities, net of net debt sold, and of financial assets while they were presented within the proceeds from sale of property, plant and equipment and intangible assets as of June 30, 2020. These two lines would have respectively amounted to 45.6 million euros and 36.9 million euros if this adjustment had been applied from the first half 2020.
(d) A breakdown of dividends paid, share capital increases and treasury share purchases is provided on pages 123 and 124.

The analysis of net cash and cash equivalents at the end of the period is as follows:

(in millions of euros)	Notes	December 31, 2020	June 30, 2020	June 30, 2021
Cash and cash equivalents	(14)	1,791.4	1,474.2	1,387.3
Bank overdrafts (included in current borrowings)		(72.8)	(84.4)	(121.0)
NET CASH AND CASH EQUIVALENTS		**1,718.6**	**1,389.8**	**1,266.3**

Consolidated statement of changes in equity

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1, 2021 TO JUNE 30, 2021

(in millions of euros)	Notes	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Equity and minority interests as of January 1, 2021		**2,605.1**	**2,608.1**	**15,643.9**	**(272.0)**	**(1,903.0)**	**(139.8)**	**18,542.3**	**462.3**	**19,004.6**
Profit for the period				**1,239.3**				**1,239.3**	**53.8**	**1,293.1**
Items recognized directly in equity				90.1	21.4	491.9		603.4	13.7	617.1
Net income and gains and losses recognized directly in equity (a)				**1,329.4**	**21.4**	**491.9**		**1,842.7**	**67.5**	**1,910.2**
Increase (decrease) in share capital		1.4	16.7					18.1	4.5	22.6
Distribution	(16)			(1,335.7)				(1,335.7)	(33.4)	(1,369.1)
Purchase/Sale of treasury shares (c)							(40.1)	(40.1)		(40.1)
Share-based payments				19.2				19.2		19.2
Transactions with minority shareholders recognized directly in equity				(2.1)				(2.1)	(0.5)	(2.6)
Others (e)				45.8		(16.4)		29.4	(0.2)	29.2
EQUITY AND MINORITY INTERESTS AS OF JUNE 30, 2021		**2,606.5** (b)	**2,624.8** (d)	**15,700.5**	**(250.6)**	**(1,427.5)**	**(179.9)** (c)	**19,073.8**	**500.2**	**19,574.0**

(a) The statement of net income and gains and losses recognized directly in equity is presented on page 120.

(b) Share capital as of June 30, 2021 was made up of 473,908,777 shares at a par value of 5.50 euros. During the fiscal year, share capital was increased by the creation of 248,053 shares in cash with a par value of 5.50 euros resulting from the exercise of options.

(c) The number of treasury shares as of June 30, 2021 totaled 1,831,433 (including 1,595,868 held by L'Air Liquide S.A.). During the fiscal year, movements affecting treasury shares were mainly as follows:

- acquisitions, net of disposals, of 306,088 shares;

- allocation of 50 shares as part of performance shares.

(d) During the fiscal year, additional paid-in capital was increased by the amount of share premiums relating to the capital increases in the amount of 16.7 million euros.

(e) Mainly the effects of hyperinflation in Argentina.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1, 2020 TO JUNE 30, 2020

(in millions of euros)	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Equity and minority interests as of January 1, 2020	**2,602.1**	**2,572.9**	**14,534.9**	**(269.1)**	**(441.6)**	**(128.8)**	**18,870.4**	**454.0**	**19,324.4**
Profit for the period			**1,078.4**				**1,078.4**	**46.2**	**1,124.6**
Items recognized directly in equity			(34.0)	(13.3)	(283.6)		(330.9)	(4.7)	(335.6)
Net income and gains and losses recognized directly in equity [(a)]			**1,044.4**	**(13.3)**	**(283.6)**		**747.5**	**41.5**	**789.0**
Increase (decrease) in share capital	1.9	21.5					23.4	3.3	26.7
Distribution			(1,309.7)				(1,309.7)	(42.8)	(1,352.5)
Purchase/Sale of treasury shares						(50.3)	(50.3)		(50.3)
Share-based payments			17.3			1.7	19.0		19.0
Transactions with minority shareholders recognized directly in equity			2.8				2.8	(1.6)	1.2
Others			11.0		(12.2)		(1.2)		(1.2)
EQUITY AND MINORITY INTERESTS AS OF JUNE 30, 2020	**2,604.0**	**2,594.4**	**14,300.7**	**(282.4)**	**(737.4)**	**(177.4)**	**18,301.9**	**454.4**	**18,756.3**

(a) The statement of net income and gains and losses recognized directly in equity is presented on page 120.

Accounting principles

The condensed interim consolidated financial statements for the half-year ended June 30, 2021 include the Company and its subsidiaries (together referred to as the “Group”) as well as the Group share of associates or joint ventures. The Group consolidated financial statements for the fiscal year ended December 31, 2020 are available upon request at the Company registered office at 75, quai d’Orsay, 75007 Paris, France or on the website www.airliquide.com.

BASIS FOR PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

The condensed interim consolidated financial statements have been prepared in accordance with IAS 34 “Interim Financial Reporting”, a standard within the IFRS (International Financial Reporting Standards), as endorsed by the European Union. They do not include all the information required for complete annual financial statements and should be read in conjunction with the Group financial statements for the fiscal year ended December 31, 2020.

Except for the application of standards, interpretations and amendments being mandatory as of January 1, 2021, the accounting principles used for the preparation of the condensed interim consolidated financial statements are identical to those used for the preparation of the consolidated financial statements for the fiscal year ended December 31, 2020. They have been prepared in accordance with IFRS, as endorsed by the European Union as of June 30, 2020, and with IFRS without use of the carve-out option as published by the IASB (International Accounting Standards Board).

The IFRS standards and interpretations as endorsed by the European Union are available at the following website:

https://ec.europa.eu/info/law/international-accounting-standards-regulation-ec-no-1606-2002/amending-and-supplementary-acts/acts-adopted-basis-regulatory-procedure-scrutiny-rps

The Group has not anticipated any standards, amendments or interpretations published by the IASB but not yet approved or not yet mandatory in the European Union as of June 30, 2021.

The financial statements are presented in million of euros. They were reviewed by the Board of Directors on July 28, 2021.

NEW IFRS AND INTERPRETATIONS

1. Standards, interpretations and amendments endorsed by the European Union whose application is mandatory as of January 1, 2021

The following texts are not applicable to the Group financial statements:

- amendments to IFRS 4 “Insurance Contracts - deferral of IFRS 9”, issued on June 25, 2020.

2. Standards, interpretations and amendments not yet endorsed by the European Union

The impacts on the financial statements of texts published by the IASB as of June 30, 2021 and not yet endorsed by the European Union are currently being analyzed. These texts are as follows:

- amendments to IAS 1 “Presentation of Financial Statements : Classification of Liabilities as Current or Non-current” and “Classification of Liabilities as Current or Non-current - Deferral of Effective Date”, issued on January 23, 2020 and July 15, 2020 respectively;
- amendments to IFRS 3 “Business Combinations”; IAS 16 “Property, Plant and Equipment”; IAS 37 “Provisions, Contingent Liabilities and Contingent Assets” as well as annual improvements to IFRS (Cycle 2018-2020), issued on May 14, 2020;
- amendment to IFRS 16 “Leases – Covid-19 Related Rent Concessions beyond 30 June 2021”, issued on March 31, 2021;
- amendments to IAS 1 “Presentation of Financial Statements”, issued on February 12, 2021;
- amendments to IAS 8 “Accounting Policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates”, issued on February 12, 2021;
- amendments to IAS 12 “Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction”, issued on May 7, 2021.

Additionally, the following texts are not applicable to the Group:

- IFRS17 “Insurance Contracts”, issued on May 18, 2017.

USE OF ESTIMATES AND ASSUMPTIONS

The preparation of the financial statements requires Group or subsidiary Management to make estimates and use certain assumptions which have a significant impact on the carrying amounts of assets and liabilities recorded in the consolidated balance sheet, the notes related to these assets and liabilities, the profit and expense items in the income statement and the commitments relating to the period-end. Subsequent results may differ.

The significant judgments exercised by the Group or subsidiary Management in applying the Group accounting policies used in preparing the half-year condensed consolidated financial statements, and the main sources of uncertainty in making the estimates, are identical to those described in the consolidated financial statements for the fiscal year ended December 31, 2020.

BASIS FOR PRESENTATION AND MEASUREMENT OF FIRST HALF-YEAR INFORMATION

The segment information corresponds to the information required by IAS 34 “Interim Financial Reporting”.

The Group’s activities may be affected by significant changes in the economic situation. Therefore, its interim results are not necessarily indicative of those to be expected for the fiscal year as a whole.

The income tax expense for the period is calculated by applying the estimated effective income tax rate for the fiscal year, based on the information available as of the interim reporting date, to the different categories of profit.

Notes to the consolidated financial statements for the half-year ended June 30, 2021

Note 1 Impacts of health crisis on the financial statements

The Group continued to operate in a context of health crisis without significant impact on its activities during the 1st half of the year 2021.

The Group did not identify any indications of impairment loss as of June 30, 2021.

Note 2 Significant events

Air Liquide has finalized the acquisition of Sasol's 16 Air Separation Units (ASU) located in Secunda, South Africa, on June 24, 2021.

The amount of the acquisition reported in the consolidated cash flow statement in the acquisition of consolidated investments and financial assets amounts to 479.3 million euros. Besides, the allocation of preliminary goodwill leads to recognize property, plant and equipment for 417.2 million euros.

Note 3 Segment information

3.1. INCOME STATEMENT FOR THE HALF-YEAR ENDED JUNE 30, 2021

	Gas & Services								
(in millions of euros)	Europe	Americas	Asia Pacific	Middle East and Africa	Sub-total	Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
Revenue	3,656.7	4,059.4	2,325.7	308.4	10,350.2	168.4	327.1		10,845.7
Inter-segment revenue						*194.6*	*243.6*	*-438.2*	
Operating income recurring	**691.8**	**801.6**	**513.3**	**59.7**	**2,066.4**	**7.5**	**40.0**	**-166.2**	**1,947.7**
incl. depreciation and amortization	*(336.2)*	*(406.8)*	*(214.3)*	*(33.8)*	*(991.1)*	*(11.4)*	*(27.6)*	*(18.8)*	*(1,048.9)*
Other non-recurring operating income									12.7
Other non-recurring operating expenses									(52.9)
Net finance costs									(140.7)
Other financial income									4.1
Other financial expenses									(50.9)
Income taxes									(425.3)
Share of profit of associates									(1.6)
Profit for the period									**1,293.1**

3.2. INCOME STATEMENT FOR THE HALF-YEAR ENDED JUNE 30, 2020

	Gas & Services								
(in millions of euros)	Europe	Americas	Asia Pacific	Middle East and Africa	Sub-total	Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
Revenue	3,440.0	3,975.7	2,236.3	268.3	9,920.3	104.1	248.4		10,272.8
Inter-segment revenue						*174.8*	*211.4*	*(386.2)*	
Operating income recurring	**680.4**	**743.5**	**484.3**	**38.5**	**1,946.7**	**(21.4)**	**24.3**	**(136.5)**	**1,813.1**
incl. depreciation and amortization	*(329.5)*	*(446.6)*	*(210.9)*	*(37.7)*	*(1,024.7)*	*(13.2)*	*(27.0)*	*(19.4)*	*(1,084.3)*
Other non-recurring operating income									9.3
Other non-recurring operating expenses									(101.5)
Net finance costs									(170.5)
Other financial income									9.6
Other financial expenses									(55.1)
Income taxes									(380.8)
Share of profit of associates									0.5
Profit for the period									**1,124.6**

Note 4 Revenue

Consolidated revenue for the 1st half of 2021 amounts to 10,845.7 million euros, up +5.6% compared to the 1st half of 2020 (10,272.8 million euros). Excluding the impact of foreign exchange fluctuations, revenue is up +10.4%. The foreign exchange fluctuations are mainly driven by the depreciation of the US dollar and, to a lesser extent, of the Japanese yen, the Argentinian peso and the Brazilian real against the euro.

Note 5 Depreciation and amortization expense

(in millions of euros)	1st half 2020	1st half 2021
Intangible assets	(87.6)	(82.4)
Property, plant and equipment [(a)]	(996.7)	(966.5)
TOTAL	**(1,084.3)**	**(1,048.9)**

(a) Including the depreciation expense after deduction of investment grants released to profit.

Note 6 Other non-recurring operating income and expenses

(in millions of euros)	1st half 2020	1st half 2021
Income		
Net gain on the disposals of activities or group of assets	9.3	12.7
TOTAL OTHER NON-RECURRING OPERATING INCOME	**9.3**	**12.7**
Expenses		
Reorganization, restructuring and realignment programs costs	(43.4)	(25.5)
Integration costs related to the acquisition of Airgas	(8.0)	3.0
Acquisition costs	(12.2)	(3.5)
Political risks and legal procedures	7.5	(21.4)
Net loss on the disposals of activities or group of assets and impairments of assets	(5.0)	—
Purchases of protection equipments and sanitizing costs	(13.4)	—
Others	(27.0)	(5.5)
TOTAL OTHER NON-RECURRING OPERATING EXPENSES	(101.5)	(52.9)
TOTAL	**(92.2)**	**(40.2)**

In the 1st half of 2021, the Group recognized:

- Capital gains on disposal amounting to +12.7 million euros mainly linked to the disposal of its activities in Greece in the 1st half of 2021 for +15.4 million euros;
- Restructuring costs corresponding to realignment programs primarily in Gas & Services;
- Acquisition costs mainly related to the purchase of oxygen production activities of Sasol in the 1st half of 2021;
- Political risks and legal procedures costs primarily in Gas & Services.

The impact of integration costs related to the acquisition of Airgas for +3.0 million euros is due to the payment of the long-term incentives - implemented as part of this operation - during the 1st half of 2021.

Besides, some expenses identified as incremental and directly linked to the health crisis as of June 30, 2020 were reported in "Other non-recurring operating expenses". Similar potential costs incurred by the Group during the 1st half of the year 2021 are now presented in the Operating income recurring.

In the 1st half of 2020, the Group recognized:

- Restructuring costs corresponding to realignment programs primarily in Gas & Services and severance costs consecutive to the health crisis;
- Purchases of protection equipments for employees and sanitizing costs directly attributable to the consequences of the outbreak;

- Impairment of assets for -5.0 million euros, mainly related to operations in Europe in the continuity of the strategic review of its activities and its assets portfolio initiated in 2017 in connection with NEOS company program;
- Airgas integration costs corresponding to long term incentives specifically implemented as part of this operation;
- Other direct and incremental costs related to the pandemic such as shutdown and start-up expenses linked to clients stopping production for safety reasons and special allowance paid to employees.

Note 7 Net finance costs

The average net finance costs stands at 2.9% in the 1st half of 2021, stable compared with the 1st half of 2020.

Note 8 Income taxes

(in %)	1st half 2020	1st half 2021
Average effective tax rate	25.3	24.7

The decrease in average effective tax rate compared to the 1st half of 2020 is mainly due to the reduction of the income tax rate in France from 32.02% as of June 2020 to 28.41% as of June 2021.

Note 9 Employee benefits

The expense recognized for pension and other employee benefits amount to 68.3 million euros in the 1st half of 2021 and can be broken down as follows:

(in millions of euros)	1st half 2020	1st half 2021
Service cost	16.7	21.3
Interest cost on the net defined benefit liability	4.1	3.1
Defined benefit plans	**20.8**	**24.4**
Defined contribution plans	**44.1**	**43.9**
TOTAL	**64.9**	**68.3**

Note 10 Net earnings per share

10.1. BASIC EARNINGS PER SHARE

	1st half 2020	1st half 2021
Net profit (Group share) attributable to ordinary shareholders of the parent *(in millions of euros)*	1,078.4	1,239.3
Weighted average number of ordinary shares outstanding	471,411,633	471,986,824
Basic earnings per share *(in euros)*	**2.29**	**2.63**

10.2. DILUTED EARNINGS PER SHARE

	1st half 2020	1st half 2021
Net profit used to calculate diluted earnings per share *(in millions of euros)*	**1,078.4**	**1,239.3**
Weighted average number of ordinary shares outstanding	471,411,633	471,986,824
Adjustment for dilutive impact of share subscription options	983,478	1,002,235
Adjustment for dilutive impact of performance shares	1,380,704	1,336,383
Adjusted weighted average number of shares outstanding used to calculate diluted earnings per share	**473,775,815**	**474,325,442**
Diluted earnings per share *(in euros)*	**2.28**	**2.61**

All instruments that could dilute net profit – Group share, are included in the calculation of diluted earnings per share.

The Group has not issued any other financial instruments that may result in further dilution of net earnings per share.

Note 11 Goodwill

(in millions of euros)	As of January 1, 2021	Goodwill recognized during the period	Goodwill removed during the period	Foreign exchange differences	Other movements	As of June 30, 2021
Goodwill	**13,087.4**	**98.1**	**(20.3)**	**270.2**	**—**	**13,435.4**

The increase in Goodwill recognized during the period mainly comes from the acquisition of the oxygen production site of Sasol finalized on June 24, 2021. In compliance with IFRS3 (revised), the final measurement of preliminary goodwill booked following this acquisition shall be finalized within twelve months following the acquisition date.

The Group did not identify any indications of impairment loss as of June 30, 2021.

Note 12 Working capital requirement

The increase by +266.8 million euros, presented in the consolidated cash flow statement, mainly comes from the increase in working capital requirement of Gas & Services by +276.9 million euros (including +91.2 million euros related to the payment of the long-term incentives implemented as part of the acquisition of Airgas).

Note 13 Provisions, pensions and other employee benefits

2021 *(in millions of euros)*	As of January 1	Increase	Utilized	Other reversals	Discounting	Foreign exchange differences	Acquisitions related to business combination	Other movements (a)	As of June 30
Pensions and other employee benefits	1,612.8	24.4	(46.8)		(113.4)	5.9		6.5	1,489.4
Restructuring plans	29.8	4.0	(4.2)	(0.8)		0.2		0.3	29.3
Guarantees and other provisions related to engineering contracts	98.4	17.6	(13.7)	(4.5)		0.5		(0.3)	98.0
Dismantling	238.8		(0.9)	(0.4)	3.0	1.6		(2.6)	239.5
Provisions and contingent liabilities as part of a business combination	181.4		(9.4)	(4.6)	0.8	5.5	20.2		193.9
Other provisions	573.2	75.9	(69.3)	(6.4)	1.0	4.9	0.1	(1.3)	578.1
TOTAL PROVISIONS	**2,734.4**	**121.9**	**(144.3)**	**(16.7)**	**(108.6)**	**18.6**	**20.3**	**2.6**	**2,628.2**

(a) Other movements correspond to account reclassifications, disposals and provisions for dismantling, with no impact on the consolidated cash flow statement.

In the 1st half of 2021, no new litigation is likely to have a material impact on the Group’s financial position or profitability.

Furthermore, the assets covering defined benefit plan obligations were measured at fair value. The discount rates used to determine the present value of the Group’s obligations were also reviewed.

Note 14 Borrowings

Net debt calculation

(in millions of euros)	December 31, 2020	June 30, 2020	June 30, 2021
Non-current borrowings	(10,220.2)	(12,487.9)	(10,068.9)
Current borrowings	(2,180.5)	(2,162.0)	(3,331.6)
TOTAL GROSS DEBT	**(12,400.7)**	**(14,649.9)**	**(13,400.5)**
Cash and cash equivalents	**1,791.4**	**1,474.2**	**1,387.3**
TOTAL NET DEBT AT THE END OF THE PERIOD	**(10,609.3)**	**(13,175.7)**	**(12,013.2)**

Statement of changes in net debt

(in millions of euros)	December 31, 2020	1st half 2020	1st half 2021
Net debt at the beginning of the period	**(12,373.3)**	**(12,373.3)**	**(10,609.3)**
Net cash flows from operating activities	5,205.7	2,152.8	2,190.4
Net cash flows used in investing activities	(1,954.6)	(1,299.3)	(1,876.1)
Net cash flows from (used in) financing activities excluding changes in borrowings	(1,690.5)	(1,524.6)	(1,555.4)
Total net cash flows	**1,560.6**	**(671.1)**	**(1,241.1)**
Effect of exchange rate changes, opening net indebtedness of newly acquired companies and others	443.1	(14.5)	(64.8)
Adjustment of net finance costs	(239.7)	(116.8)	(98.0)
Change in net debt	**1,764.0**	**(802.4)**	**(1,403.9)**
TOTAL NET DEBT AT THE END OF THE PERIOD	**(10,609.3)**	**(13,175.7)**	**(12,013.2)**

The Air Liquide Group net debt breaks down as follows:

	December 31, 2020			June 30, 2021		
	Carrying amount			Carrying amount		
(in millions of euros)	Non-current	Current	Total	Non-current	Current	Total
Bonds and private placements	9,717.9	1,600.1	11,318.0	9,457.8	2,267.2	11,725.0
Commercial paper programs		201.8	201.8		657.7	657.7
Bank debt and other financial debt	444.1	339.7	783.8	549.5	404.4	953.9
Put options granted to minority shareholders	58.2	38.9	97.1	61.6	2.3	63.9
TOTAL BORROWINGS (A)	**10,220.2**	**2,180.5**	**12,400.7**	**10,068.9**	**3,331.6**	**13,400.5**
TOTAL CASH AND CASH EQUIVALENTS (B)		**1,791.4**	**1,791.4**		**1,387.3**	**1,387.3**
NET DEBT (A) - (B)	**10,220.2**	**389.1**	**10,609.3**	**10,068.9**	**1,944.3**	**12,013.2**

Gross debt (A) increased by 1,000 million euros between December 31, 2020 and June 30, 2020. This increase mainly comes from:

- a bond issue for 500 million euros, on May 19 2021, realized under the Group's Euro Medium Term Note (EMTN). First green bond issue for the Group, it has a 10-year maturity with a yield of 0.461% (coupon at 0.375% p.a.) and is dedicated to financing and refinancing the development of several sustainable projects, in particular in hydrogen, biogas and oxygen. This operation is in line with the "Sustainable Financing Framework" published on May 17 and validated by a Second-Party opinion. This new bond issue will notably contribute to the financing of the ambitious sustainable projects the Group announced on March 23, 2021. At the same time, Air Liquide undertakes to publish, annually until the funds raised are fully allocated, a "Sustainable Financing Reporting" which will include an allocation report and an impact report, both audited and made public on the Air Liquide website;
- the use of commercial paper program, mainly in euro;
- a slight unfavorable foreign exchange impact, mainly related to the depreciation of the euro against the US dollar.

The increase in gross debt is partially offset by the repayment of the first tranche of Panda bond on March 7, 2021 amounting to 1,400 million Chinese renminbi (equivalent to 182 million euros).

Gross current debt (maturing in less than 12 months) (A) increased by 1,151 million euros compared to December 31, 2020.
This increase of current gross debt comes from:

- the reclassification to current borrowings of the "Formosa" long-term bond issue maturing in January 2022 amounting to 500 million Chinese renminbi (equivalent to 65 million euros);
- the reclassification to current borrowings of a long-term bond issue maturing in April 2022 and amounting to 300 million euros;
- the reclassification to current borrowings of a long-term bond issue maturing in June 2022 and amounting to 500 million euros;
- the increase of commercial paper portfolio.

Cash decreased by 404 million euros compared to December 31, 2020. The net debt amounts to 12,013 million euros, increasing by 1,404 million euros compared to December 31, 2020, and decreasing by 1,163 million euros compared to June 30, 2020.

Note 15 Commitments

The commitments did not change significantly in comparison to December 31, 2020.

Note 16 Dividend per share

The 2020 dividend authorized by the General Meeting and paid on May 19, 2021 to the Group shareholders was 1,335.7 million euros (including fidelity premium), corresponding to an ordinary dividend of 2.75 euros and a fidelity premium of 0.27 per share.

Note 17 Related party disclosures

Due to the activities and legal organization of the Group, only executives, associates and joint ventures are considered to be related parties to the Group. Transactions performed between these individuals or these companies and Group subsidiaries are not material.

Note 18 Contingent liabilities

To the best of the Group's knowledge, there is no exceptional event or litigation which has affected in the recent past or which is likely to materially affect its financial situation or profitability.

Note 19 Post-balance sheet events

There are no significant post-balance sheet events.

Statutory auditors' review report on the interim financial information

This is a free translation into English of the statutory auditors' review report on the interim financial information issued in French and is provided solely for the convenience of English-speaking users. This report includes information relating to the specific verification of information given in the Group's interim management report. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In compliance with the assignment entrusted to us by your Annual General Meeting, and in accordance with the requirements of article L. 451-1-2 III of the French monetary and financial Code (Code monétaire et financier), we hereby report to you on:

- the review of the accompanying condensed interim consolidated financial statements of L'Air Liquide S.A., for the period from January 1 to June 30, 2021;
- the verification of the information contained in the interim management report.

Due to the global crisis related to the Covid-19 pandemic, the condensed interim consolidated financial statements of this period have been prepared and reviewed under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of our procedures.

These condensed interim consolidated financial statements are the responsibility of the Board of Directors. Our role is to express a conclusion on these financial statements based on our review.

1. Conclusion on the financial statements

We conducted our review in accordance with professional standards applicable in France. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with professional standards applicable in France and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Based on our review, nothing has come to our attention that causes us to believe that the accompanying condensed interim consolidated financial statements are not prepared, in all material respects, in accordance with standard IAS 34 of the IFRSs as adopted by the European union applicable to interim financial information.

2. Specific verification

We have also verified the information given in the interim management report on the condensed interim consolidated financial statements subject to our review. We have no matters to report as to its fair presentation and consistency with the condensed interim consolidated financial statements.

Neuilly-sur-Seine and Paris-La Défense, July 29, 2021

The Statutory Auditors

French original signed by

PricewaterhouseCoopers Audit		ERNST & YOUNG et Autres	
Françoise Garnier	Séverine Scheer	Jeanne Boillet	François-Guillaume Postel

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This First half financial report contains information on the Group's prospects, objectives and trends for growth. These forward-looking statements can be identified by the use of the future tense, conditional or of forward-looking terms such as “consider”, “intend”, “anticipate”, “believe”, “estimate”, “plan”, “expect”, “think”, “aim”, or, as the case may be, the negative of these words, or any other terms with a similar meaning. This information is not based on historical data and should not be considered as a guarantee that the prospects and objectives described will be achieved. These statements are based on data, assumptions and estimates considered reasonable by the Group as of the date of this First half financial report. They may be affected by known or unknown risks, uncertainties and other factors which might impact future results, performances and achievements of the Group in a way that is substantially different from the objectives described. This information might therefore change due to uncertainties relating notably to the economic, financial, competitive and regulatory environment or due to the occurrence of certain risks described in Chapter 1 of this First half financial report. This information is given solely as of the date of this First half financial report. All forward-looking statements contained in this First half financial report are qualified in their entirety by this cautionary note