Business report

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Key figures of the Air Liquide Group

Air Liquide remained on track throughout 2001, recording growth in earnings per share of 9.1%. This level of growth, together with an improvement in all company indicators, illustrates the dynamic character of the Group and its ability to face a major economic slowdown.

2001 began very similar to Air Liquide's performance in 2000. In the second half, thanks to solid performance in our major growth markets and the efficiency programs reinforced in early 2001, earnings continued to rise, albeit at a more moderate pace. We achieved these results by continuing to improve margins and return on capital employed and also maintaining our level of capital investment.

Total Group consolidated **sales** rose to 8,328 million euros in 2001, up 4.6% (on a comparable basis).

For 2001 as a whole, the Group recorded increased sales in all Gas and Services activities. After a good start, the remainder of the year was marked by a major slowdown in the global economy, particularly in the US and Japan. Despite this, Air Liquide's second half sales performance (at constant currency, perimeter and natural gas price) remained at the high level achieved during the second half of 2000, as a result of continued development in our fastest growing sectors.

- In million euros	1999	2000	2001	2001/2000 in %	2001/2000 in % (at constant currency)
Total sales	6,538	8,099	8,328	+2.8	+3.3
of which Gas and Services	5,694	7,113	7,256	+2.0	+ 2.6
Operating income before depreciation amortization (EBITDA)	1,583	1,893	2,003	+5.8	+5.9
Operating income (EBIT)	935	1,116	1,178	+5.5	+5.8
Net income	**563**	**652**	**702**	**+7.7**	+7.9
Cash flow	**1,308**	**1,564**	**1,627**	**+4.0**	+ 4.0
Earnings per share(*) (in euros)	**6.22**	**7.22**	**7.88**	**+9.1**	+9.3
Dividend per share (in euros)	**2.36**	**3.00**	**3.20**	**+6.7**	
ROCE (before tax)	**14.4%**	**14.9%**	**15.2%**		
ROCE (after tax)	**9.6%**	**10.5%**	**10.7%**		

(*) EPS has been calculated on the average number of shares (89,054,614 in 2001 and 90,242,706 in 2000).

Operating income rose to 1,178 million euros, up 5.5% (5.8% at constant currency). Group profit margin (operating income over sales) was 14.2% (excluding the impact on sales of higher natural gas prices), up 0.4 point due in part to the combined impact of the efficiency programs (85 million euros in 2001) and a continued favorable pricing environment in the Industrial Customers business. The profit margin before depreciation (excluding the impact on sales of higher natural gas prices) was 24.2%, up 0.8 point.

Interest expenses (excluding capitalized expenses) decreased 3% to 159.5 million euros, due to lower interest rates. Capitalized interest expenses amounted to 2.7 million euros, compared with 13.2 million euros for the same period in 2000.

Other net expense items (–1.2 million euros compared with –4.3 million euros in 2000) remained at a comparable level and included capital gains and proceeds relating to our reorganization in the United States. The Group's **effective tax rate** was stable at 30.7% for 2001, compared with 30.9% in 2000.

Consolidated **net earnings** rose to 701.9 million euros, an increase of 7.7% (7.9% at constant currency). As a result of the 2001 share buy-back program, growth in **earnings per share,** at 9.1% (9.3% at constant currency), exceeded growth in net earnings. Over the course of the year the Group bought back 1,874,863 shares at an average price of 154.6 euros.

Cash flow rose 4% to 1,627.4 million euros, following a slight increase in depreciation and a reduction in the deferred tax charge. Capital expenditures totaled 1,102.2 million euros, compared with 1,015.0 million euros in 2000. Acquisitions relating to the expansion and consolidation of Gas and Services activities represented around 30% of capital expenditures.

Net debt amounted to 2,583.5 million euros on December 31, 2001, up 303.2 million euros. Discounting share buy-back and acquisitions, overall debt was reduced. On December 31, the net debt-to-equity ratio equaled 45.5%.

Return on capital employed (ROCE) after tax showed an increase of 0.2 point to 10.7% (ROCE before tax was 15.2%). The Group's objective remains 12%.

Efficiency programs

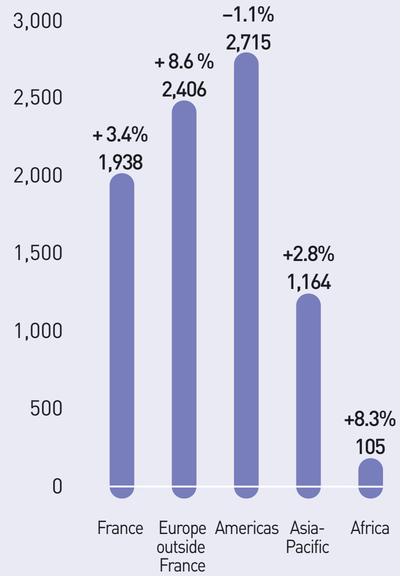
In March 2001, Air Liquide decided to accelerate its cost reduction program: the target is 300 million euros during the period 2001-2003. In order to achieve this objective, the Group launched the EOS (Efficiency Opportunities and Solutions) project, piloted by a small team with contact points within the various units. EOS is focused on five main targets:

- Convergence of information systems (integrated control systems, computer infrastructures, etc.).
- Reinforcement of continental platforms, allowing for the shared use of certain resources (information systems, purchasing, ad hoc teams for conducting international negotiations, etc.). The European platform (ALSES) is the most advanced. A North American structure is also in place.
- Reorganization of the Industrial Customers segment in the United States and improved industrial productivity in other geographical regions by adopting more efficient working methods.
- Globalization and centralization of purchasing on a scale appropriate to the type of product or service concerned (Group, continent, country or region).
- Adoption of a total quality program, extending to every area of the Group and based on statistical methods. This program is currently being deployed in the Large Industries Europe and Electronics segments.

In **2002**, growth in earnings per share seems likely to continue, especially in the second half when the economic recovery is likely to be more perceptible. We intend to advance our development strategy by concentrating on three major areas: sustainable growth and the environment, healthcare and hygiene, and advanced technologies. The Group's strong geographical and market diversity provide the optimum basis for seizing new opportunities for internal and external growth.

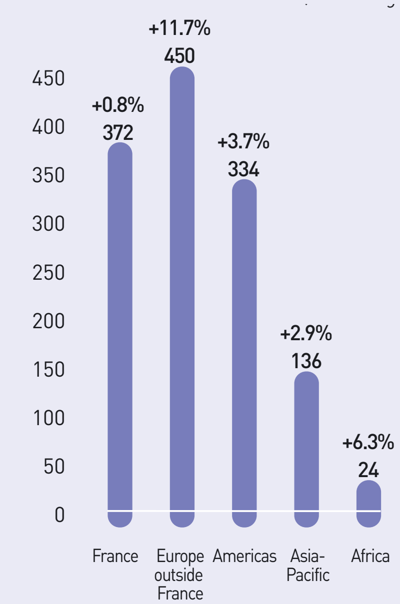
Sales by region

In million euros and % growth (at constant currency) 2001/2000



Operating income* (EBIT) by region

In million euros and % growth (at constant currency) 2001/2000



(*) Excluding research centers and corporate overhead.

By business line

Over the last five years, **Large Industries** have experienced very strong growth, with a doubling in sales. This growth has been associated with a major move toward increased supply of hydrogen and synthesis gas. The high level of investment made in these sectors over the last five years is now paying off. Opportunities for growth, despite the postponement of certain projects, remain unchanged. In 2001, the Group signed a large number of contracts and letters of intent, likely to lead to a quickened pace of growth, especially in response to new hydrogen requirements. Oxygen requirements are also expected to increase substantially with the development of gasification and GTL* (Gas to Liquid) processes.

In **Electronics**, the Group has developed a strategy focused on partnering with major customers in managing their gas, services, equipment and liquid chemical requirements. Thanks to this approach and a global distribution (Asia, Europe and the Americas) the Group has recorded growth in 2001 despite the more cyclical nature of this sector. This customer-focused approach puts us in the optimum position to take full advantage of the anticipated recovery in this sector.

Industrial Customers represent an area of business that is secure, diversified and geographically balanced. The repositioning of our activities in the United States undertaken in 2001, the sale of the LPG business in France coupled with a number of acquisitions (e.g. Aga in Austria and Messer in South America and South Africa) and our focus on high-growth markets such as food hygiene, analysis laboratories and secondary electronics will ensure growth and increase profitability still further.

Healthcare continues to register strong growth in homecare and services, especially hospital hygiene. Since 1995, Air Liquide has been establishing dedicated structures and has been placing an emphasis on the medical side of its business in order to respond to the specific requirements of this market. The result has been weighted average growth of over 13% per year over the last five years. The outlook in this sector remains extremely favorable.

Gas and Services : business line analysis

In million euros	2001	2000 (on a comparable basis)
Large Industries		
Sales	2,006	1,890
Operating income (EBIT)	502	495
Electronics		
Sales	861	860
Operating income (EBIT)	102	106
Industrial Clients		
Sales	3,234	3,233
Operating income (EBIT)	421	375
Healthcare		
Sales	1,155	1,130
Operating income (EBIT)	199	188
Total		
Sales	7,256	7,113
Operating income (EBIT)*	1,224	1,164

(*) Excluding research centers and corporate overhead.

In 2001, the Group adjusted the structure of its activities to align its business line reporting with its management reporting system. Large Industries, Electronics, Industrial Customers and Healthcare now account for 87% of total sales and continue to fall under the collective name Gas and Services. Healthcare includes hygiene and equipment, formerly grouped under "Other Activities". Industrial Customers include welding equipment resold with gas cylinders. Welding now covers only the activities of Air Liquide Welding. The table above indicates the sales and earnings of the four activities included in Gas and Services. The sales and operating income (EBIT) of Gas and Services over three years are presented on pages 78 to 80.

Gas and Services activities

By geographical zone

→ France

Large Industries

Air Liquide began operation of its first hydrogen production unit for Large Industries in the **chemical industry** sector. Following the acquisition, in 2000, of Rhodia's hydrogen and carbon monoxide production unit at Pont-de-Claix, the Group started up an additional unit to supply these two gases.

In the **oil and gas** market, Air Liquide and Dalkia signed a contract to supply steam, electricity and utilities to the BP site at Lavéra. The Group was also selected by TotalFinaElf to supply nitrogen to five different sites in the Lacq district.

In the field of **metals**, several successes were achieved based on oxy-combustion. Air Liquide signed a contract for the injection of oxygen into the Sollac Lorraine blast furnaces and developed the Alroll process (see p. 33). Services are making significant progress with several contacts at an advanced stage.

Electronics

In the context of a declining **semiconductors** market, Air Liquide continued the sales growth of its Electronics activity. The activity was marked by strong project development with ALTIS in Corbeil and ST Microelectronics in Crolles, continuing progress made in 2000, and profited from significant equipment orders in the first half of the year.

Industrial Customers

Several successes were recorded in 2001 in all markets. Air Liquide began operation of an oxygen and nitrogen production unit at the Montoir-de-Bretagne site (Brittany). A total of 40 contracts were signed and on-site* gas production units (Floxal*) commissioned.

In the glass market, the Group provides oxygen to Owens Corning Fiberglass (production of glass fiber) and since September 2001 has been supplying a German and UK customer at their flat glass production unit in Lorraine. Another notable event was the launch of the Phargalis range, which is specific to the pharmaceutical market. Several gas and services contracts were signed recently, particularly in the food industry.

Services also made further progress. The number of local customer support teams increased, especially in metrology and analysis. Services related to production processes also made substantial progress, particularly in secondary electronics (assembly), the food industry and welding.

Healthcare

As far as **medical gases** are concerned, marketing authorizations were obtained for medical nitrous oxide (anesthesia additive) and Kalinox, a mixture of oxygen and nitrous oxide used in hospitals to relieve pain. In the **homecare** sector, VitalAire recorded sharp growth in services for the treatment of sleep apnea and added new products to the range, especially for enteral feeding and perfusion treatment for diabetes. Orkyn' has also established a firm position in these two new markets.

In the hospital **hygiene** market, Anios greatly improved its performance. In the respiratory equipment sector, Taema is participating in a government program to increase the power of ventilators for emergency use.

→ Europe (excluding France)

Large Industries

A number of major contracts were signed in the **chemical industry** sector, especially in the Antwerp industrial basin. The Group is supplying hydrogen to Atofina (new polyethylene unit), to Degussa (oxo-alcohol production), carbon monoxide to Bayer (polycarbonates) and nitrogen (global contract covering all the needs of the polyethylene production unit) to Solvay/BP Amoco. At Rotterdam, construction of the hydrogen and synthesis gas unit continued on the Rozenburg site, to supply ExxonMobil Chemicals beginning in April 2002. In the same basin, Air Liquide signed a contract to supply nitrogen and hydrogen to the chemical companies Lyondell and Bayer. In Germany, production plants for air gases and carbon monoxide have been expanded to meet increased demand from Dow.

A highlight of the **oil and gas** segment was the signing of a major contract to supply hydrogen to Repsol for its refinery at Puertollano (Spain). The plant will come on stream in 2003. At Antwerp, the Group increased the scope of the contract to supply oxygen to TotalFinaElf. In the services sector, several Pro-En working groups (see p. 31) have been created in partnership with Aspen Tech, in Austria and the UK.

In the **steel industry**, Air Liquide signed several contracts with the Arcelor Group, primarily in Belgium. The new air gas units specifically geared to this sector are doing very well, as demonstrated by the units recently delivered in Italy.

Electronics

Despite the slowdown in this sector in 2001, Air Liquide achieved a good growth rate for its electronics operations in Germany. This was due to the contracts signed in 2000 as well as the Infineon projects (high purity gases for the first 300 mm fab* in Europe) in Dresden and gas provided to Micronas Freiburg and AMD.

In southem Germany, the Group began its first chemical liquids operation by taking over Mitsubishi's TGCM* (Total Gas and Chemical Management). In Italy, the scope of the contract with ST Microelectronics was extended to include more comprehensive TGCM*.

Industrial Customers

The Group purchased Aga's operations in Austria (250 employees, a number of production units and a substantial customer portfolio) and acquired 100% of its Danish subsidiary Hede Nielsen. The Group also began operation of two new air separation units in Limito (Italy) and Basel (Switzerland). A number of important contracts were signed in all sectors of this activity: food industry (primarily Spain), optical fibers (in Germany and Italy), water treatment (Kimberly Clark in Italy), automotive industry (Volvo for all its sites in Sweden).

In the area of on-site* production units, in Greece Air Liquide started up one of the largest oxygen units in Europe, reinforcing the Group's technological leadership. It also installed major on-site* units in Italy (metallurgy and chemicals) and Finland (metallurgy and paper pulp).

Services are growing, with a particularly notable increase in the number of local customer support teams, in Belgium for example (Usinor-Cockerill), and traceability solutions, especially in Austria.

Healthcare

In Italy, the Group acquired 50% of OMASA (which specializes in sterilization), signed a major contract with Umberto I general hospital in Rome, and a number of additional contracts thanks to the subsidiary Medicasa. In Switzerland, the Liquid Oxygen Therapy Association selected Air Liquide to provide its patients with homecare services.

→ Americas

Large Industries

In 2001, Air Liquide successfully maintained an acceptable level of profitability. This was achieved in large part through implementation of efficiency programs, placing the Group in an ideal position to benefit from the economic recovery. The year was marked by major fluctuations in the price of natural gas and energy with no effects on margins (pass-through contracts), and a difficult global economic climate in the second half of the year. The group was little affected by the steel industry crisis in the US as sales in this market are limited.

In the **chemicals** sector, a synthesis gas plant under construction for Eastman Chemical in Texas and a cogeneration unit built for Shell in Louisiana are scheduled for start-up in early 2002.

In the **refining** industry, important hydrogen contracts were signed in Corpus Christi, Borger and Bayport in Texas.

In Argentina, the ongoing recession makes it difficult to determine the economic outlook. Air Liquide anticipated this development and took steps (cost reduction, focus on major customers, cash management) to minimize the impact of the current crisis on the Group's operations without compromising its longer-term position in this market.

In Trinidad and Tobago Air Liquide announced its intention to purchase Messer's operations.

Electronics

Air Liquide weathered the US electronics downturn by an anticipated and pro-active approach. Carrier gas sales (including on-site*) increased, while those of speciality gases dropped in the final two quarters. Equipment sales performed well during the first half of the year, thanks to 300 mm fab* projects but dropped during the second half. In services, the acquisition of Balazs, world leader in the analysis of process chemicals and water, further strengthened Air Liquide's analytical services expertise. Fabnet, an interactive Internet portal, gives Air Liquide employees and customers real-time access to fluid management.

Industrial Customers

Air Liquide has almost completed its restructuring of the cylinder and welding gas sector, stopped selling welding consumables and equipment, and transferred the majority of its cylinder sales outlets. These actions enabled the Group to maintain performance in an unfavorable economic climate. Additionally, the perimeter was expanded through the acquisition of Messer's activities in Argentina and Brazil.
Among the year's successes: two new contracts for the aerospace (Arizona) and aeronautic (Washington State) industries, a large argon unit for the metal industry (Kentucky), and the sale of an on-site* oxygen unit in Canada.

A network of technical experts was established in North America, facilitating cooperative efforts between top-level Air Liquide specialists and the Industrial Customers and Large Industries activities (ALTEC).

Healthcare

Development continues in hospital services: In the US, since 2001 Air Liquide has been fully responsible for managing medical gases at six Banner Health System hospitals in Phoenix (Arizona). Homecare results also improved: In Brazil, sales have doubled in under two years, primarily as a result of the significant progress made in major urban areas. In the US, the number of patients cared for at home increased by 20% in 2001. In Canada, Air Liquide purchased the minority equity interests held by Associated Respiratory Holdings Inc. of VitalAire Canada.

→ Asia-Pacific

Large Industries

In the **chemical industry** sector, Air Liquide reinforced its presence at the Yocheon industrial park in South Korea. Following the signing of a new contract for the supply of hydrogen and carbon monoxide, the Group began construction of a production unit that will be operational in 2003. In the Map Ta Phut industrial basin in Thailand, Air Liquide began construction of a second carbon monoxide plant to meet additional demand from Bayer, which is extending its polycarbonates unit. The Group is also strengthening its position in Singapore's chemical industry, with new developments for ExxonMobil, Lonza Singapore and Mitsui Phenol.

In the **oil and gas** market, Air Liquide started construction of its biggest air separation unit in Japan as part of a project for the gasification of oil residues on the Nisseki Mitsubishi site at Negishi. Another important development occurred in Western Australia, where Air Liquide extended its pipeline network to supply a customer with nitrogen gas.

Electronics

The year 2001 was one of rapid development in China, where numerous 200 mm fab* projects are underway. Air Liquide won contracts in two major projects in Shanghai: the Group will supply GSMC (Grace Semiconductor Manufacturing Corporation) with carrier gases, and SMIC (Semiconductor Manufacturing International Corporation) with specialty gases, equipment and a services contract as part of a TGCM* system. At Wuxi, a fast-growing industrial center 150 miles from Shanghai, Air Liquide began construction of an air separation unit (in partnership with Air Products) to serve local industry.

Pursuing its policy of supporting its global customers, the Group signed several important contracts, notably with Toshiba (Singapore), Sony (300 mm fab* in Japan) and ST Microelectronics (Singapore). In Japan, it secured the year's most important contract in the electronics sector, for the supply of all bulk gases for the new Seiko Epson production unit. It has also developed a service solution for TDK, based on a Teleflo* system with an Internet connection. Still in Japan, the Group has begun trial operations of its first on-site* fluorine production unit. In Taiwan, Toppoly selected Air Liquide to supply gas distribution equipment, construct an on-site* nitrogen unit and provide total management service for special gases for their future production unit.

Industrial Customers

In a more difficult economic climate, particularly in Japan, the Group developed new solutions for the environment, the food industry and oxy-combustion processes. The oxygen and ozone solutions for water and waste treatment led to numerous contracts, especially in Japan, Taiwan, Australia and New Zealand. In New Zealand, Air Liquide supplied a Ventoxal effluent treatment solution to Frontera Foods, the world's number one exporter of dairy products. In the food industry, Air Liquide signed a major contract with Schweppes in Australia to cover all its carbon dioxide requirements. In the oxy-combustion sector, a solution employing an integrated Datal service was installed at Metalcorp (Australia), and the first oxygen burner system was sold in the Philippines to improve the productivity of a glass furnace.

The first on-site* hydrogen unit was started up in Australia. Services have gained ground, particularly those utilizing Teleflo* (telemanagement). In Indonesia, several contracts were signed with customers in the secondary electronics sector east of Jakarta, which prompted the Group to extend its pipeline network.

Healthcare

In the hospital equipment sector, Taema scored numerous successes in China, where its ventilators are in regular use in over 150 hospitals. In the hospital hygiene sector, Schülke & Mayr expanded in Asia, where it acquired a distributor, set up two subsidiaries and launched new products (Japan). Homecare made further progress: notable events in this market included the signing of a contract for oxygen supplies and ventilation services with two major customers (Australia).

→ Africa

In South Africa, Air Liquide signed a service contract with Sasol to assist with the operation and maintenance of its air separation units at Secunda. Sasol also awarded the Group the contract for the construction of a new air separation unit on the same site.

Air Liquide acquired the Industrial Customers activities of Messer in South Africa and announced its intention to purchase Messer's operations in Egypt. In Gabon (Port-Gentil), Air Liquide launched an operation to produce and sell diving gas mixtures to the oil industry, in partnership with a Scottish company. In French-speaking Africa, there has been a notable increase in sales of carbon dioxide for food and beverage applications (especially in the beverages sector).

Other activities

→ Welding and cutting

Air Liquide Welding has concentrated its welding equipment and consumables operations in Europe mainly on three companies: FRO, Oerlikon and SAF. Following eight months of steady growth, business slowed down in September. Over the year, sales were up by 2.5%. The automation and robotization of product lines for welding and cutting operations did particularly well. A new equipment system was launched in the TIG (high precision/laser) welding sector, allowing increases of up to 60% in welding speeds. Air Liquide Welding also established a substantial flow of business with Air Liquide Canada, which is marketing its welding stations and core welding wires. On the services side, the number of "local customer support" teams is on the increase: one team, for example, has been installed on an Alstom railroad construction site in northern France. It takes care of equipment maintenance, the management of automatic spare-part distribution systems, and the supply logistics for welding wires, rods and gases.

→ Engineering and construction

The year 2001 was a good one for Air Liquide's **engineering** operations for external customers, with three contracts for very large-scale air separation units. The first is for the construction of a plant for Sasol in South Africa (at Secunda). The second plant is for the Illycha steel firm in the Ukraine. The third contract covers two units for Anshan Steel in China. Two other important contracts were signed in Chile and Kuwait.

The engineering teams are also stepping up their activities in hydrogen production and purification technologies to meet growing demand, especially from the refining industry (new legislation governing sulfur content in carburetor fuels). They began construction, on behalf of the Group, of the hydrogen plant to supply the Repsol refinery at Puertollano (Spain).

Air Liquide performed very well in the field of **cryogenic equipment**. The contract to operate and maintain the CERN (European Organization for Nuclear Research) installations in Geneva was launched in July. The Group also won a major new contract with CERN to supply cryogenic transfer lines for a particle accelerator.

The year 2001 also saw significant international development, with sales in the United States, Taiwan, Australia and India. The Group was selected to supply the Obiggs (nitrogen) and Obogs (oxygen) on-board inert gas generation systems for the future JSF combat aircraft.

Elsewhere, as part of its fuel cell activities, Air Liquide combined with Nuvera to set up a new company, Axane, to develop and produce electricity generation systems based on this technology (see p. 56).

In the **aerospace industry**, 2001 marked the delivery of the first cryogenic tanks for the future European Ariane 5 "plus" launcher (see p. 45).

→ Specialty Chemicals

Focused on specialty chemical products, the SEPPIC Group (100% owned by Air Liquide) had a good year, increasing sales by 12%. It successfully marketed a new range of emulsifiers based on renewable raw material (wheat glucose) for skin-care products. A new plant came on stream at Antwerp to increase production capacities.

→ Diving

Aqualung, which manages the Air Liquide Group's diving equipment operations, achieved substantial increases in both sales and profits in 2001. This was achieved despite the crisis in the tourism and travel industry after the events of September 11 in the United States.

Financial information

Risk Management

→ Foreign exchange risk

In the industrial gas industry, most products are not exported but made in the country where they are invoiced. Thus, there is very little risk that currency fluctuations will reduce competitiveness. Foreign currency variations only affect operating income when we translate financial statements from local currencies into euros. Operating income by major currency region was approximately:

	2000	2001
Euro zone	49%	52%
US and Canadian dollar zone	28%	28%
Japanese yen zone	8%	6%
Others (*)	15%	14%

(*) It should be noted that the crisis in Argentina has no major impact on Group finances, since sales in Argentina account for only 1.3% of Group sales.

Only transactions involving patent royalties, technical support or dividends require the exchange of foreign currency between Air Liquide subsidiaries. In these cases foreign exchange risk is hedged systematically. The Group also hedges Engineering sales, whether inside or outside the Group. Finally, debt is generally owed in the same currency in which cash flow is generated.

→ Interest rate risk

In keeping with the new financial policy rules initiated in 2000, we have centralized the management of interest rate risk for most of our main trading currencies: the euro, the US dollar and the yen. The financial committee determines the proportion of fixed rate/variable rate hedging for each currency and approves the hedging instruments used.

→ Counterparty risk

Counterparty risk for Air Liquide essentially involves:

– Customers

– Financial instruments

Although our customer credit risk is very broadly dispersed – due to the large number of customers we serve worldwide (more than one million), the broad range of industries in which they do business and their extensive geographic spread – we decided to implement procedures for monitoring customer risk.

At Air Liquide, we mainly use financial instruments to hedge our foreign exchange and interest rate risks. Our financial policy is to spread the counterparty risk among several banks and financial instruments are only used after an in-depth analysis of bank warranties. The financial committee regularly checks and approves these financial instruments and banks.

Capital Expenditures

Investment decisions are critical to achieving our strategic objectives. Ever since we launched our initiative to expand our offer in 1995, we have greatly increased our capital expenditures in high-potential market segments such as: large contracts (pipeline sales), homecare, electronics and services. We generally invest to:

– develop our business, both internally and through acquisition
– improve efficiency and quality
– reinforce safety

Most of our investments are backed up by long-term contracts. When we sign a 10 to 15 year contract to supply gas to a large customer, we build a plant and connect it directly by pipeline to the customer's facility. Once we have committed to building a plant to honor a long-term contract, we make the corresponding expenditures 18 to 24 months later, which is the average plant construction time. To fulfill the many new contracts signed in 1995, 1996 and 1997, we committed around 4.5 billion euros in industrial investments, two-thirds of which were backed up by long-term contracts. This was three times as much as during the previous period. These commitments resulted in the commissioning of 68 large plants from 1997 to 2000. After this period of strategic development, Air Liquide continues its industrial investments (commitments reached 711 million euros in 2001) and acquisitions to consolidate its core business (Austria, Denmark, Canada in 2001) or to expand it (acquisition of Messer's assets in 2001 in South Africa, Brazil and Argentina and pending in Egypt and Trinidad & Tobago). In total, these commitments generated 1,102 million euros of capital expenditures in 2001.

All investment decisions are subject to a rigorous evaluation process that is monitored by the investment committee chaired by a member of the Management Board and with the endorsement of the relevant executive business and area managers. Investment decisions are based on a careful examination of each project on the basis of four key criteria.

The first is the project's location. Is it in a high-potential industrial basin such as Corpus Christi, Fos-sur-Mer or Rotterdam? Is it connected to an existing pipeline network or is it in an isolated area?

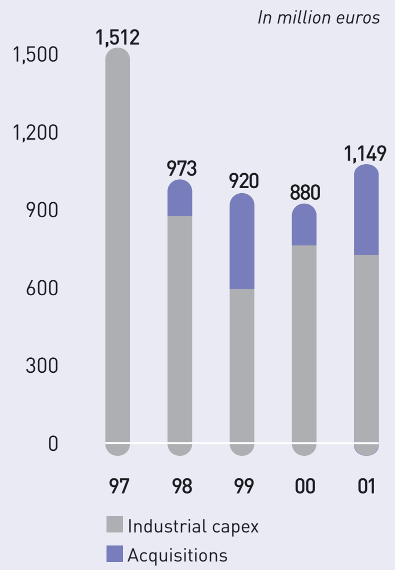
The second criterion for judging investment risk is the type of product supplied. Since we have many years of experience with air gases, such projects involve less risk. We will be more prudent with projects involving relatively new technologies such as hydrogen, carbon monoxide, synthesis gas or cogeneration, representing new areas of growth. For these markets, Air Liquide will conduct an in-depth risk and profitability analysis.

The third criterion, customer credit risk, is evaluated in accordance with the customer's global or local nature, its market and its financial strength.

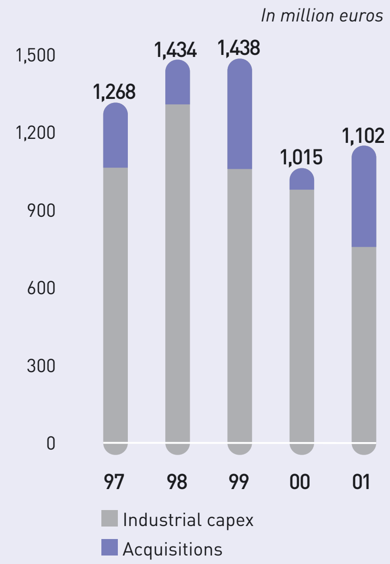
The fourth, country risk, depends on an evaluation of criteria such as a country's political, economic and currency risks. Most of the investments are located in OECD countries.

Investment analysis from 1997 to 2001

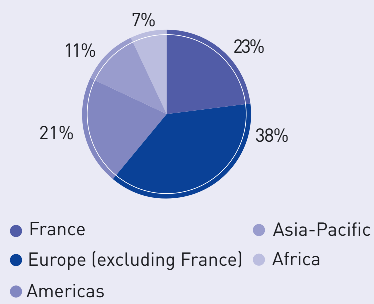
Investment commitments



Capital expenditures



Capital expenditures by zone



The purpose of these investments is to generate long-term growth while increasing the return on capital employed. The required minimum return on a given investment will vary with the estimated overall risk. The return on investment for a plant built to fulfill a 10 to 15 year long-term supply contract will be less during the first few years, as the customer's requirements gradually increase and the burden of interest and depreciation expense is relatively high, and will increase rapidly thereafter. Given the acceleration in capital expenditure from 1995 to 1999, our ROCE was initially weighed down as revenue from large new contracts took time to gain momentum, and also by the heavy burden of "construction in progress". 2001 is the second consecutive year of improved ROCE, which is now at 15.2% before tax and 10.7% after tax.

Share buy-back program

On December 31, 2000, Air Liquide held 1,574,853 shares of treasury stock (representing 1.7% of capital).

Air Liquide bought back 1,874,863 shares in 2001 (760,617 shares in 2000) at an average price of 154.6 euros, representing a total amount of 290 million euros. 1 million shares were cancelled over the same period. Acceleration of the share buyback program is in line with the Group's objectives to optimize equity capital.

On December 31. 2001, Air Liquide held 2,449,716 shares of treasury stock (representing 2.7% of capital).

Funding

→ Financing policy

All funding decisions are subject to our corporate financing policy, which is implemented and supervised by our Finance department. With the arrival of the euro, we reorganized cash management into three global regions: Europe, the Americas and Asia. A financial committee sets annual and multiyear objectives and monitors application. This committee meets every quarter.

To monitor and better control the financing functions independently from the industrial activities, Air Liquide established Air Liquide Finance, a French subsidiary, owned 100% by Air Liquide S.A. In 2001, Air Liquide Finance assumed the functions of financing and risk management of interest rates and treasury for the Group and its subsidiaries.

In order to increase our financial flexibility, gain access to new financial markets, and optimize finance costs through more powerful financing sources, we diversified our funding tools in 2001 by launching a US Commercial Paper program and a Euro Medium Term Note (EMTN) program, enabling us to issue bonds. Air Liquide has issued 300 million euros in 10-year notes under the EMTN program to lengthen the maturity date of its debt.

Air Liquide uses various sources to finance its holding company Air Liquide S.A. and main subsidiaries. These sources include bank debt (loans and bilateral credit lines), private placement and bonds and two commercial paper programs (including USCP).

Our gross debt as of December 31, 2001 consisted of:
– 38% commercial paper (including USCP)
– 33% private and bond investments (EMTN)
– 29% bank debt

→ Debt ratios

Net debt in 2001 was 2,583 million euros (2,280 million euros in 2000). This increase of 303 million euros can be accounted for by acceleration of the share buy-back program, a slight increase in capital expenditures for acquisitions and the effect of the rise in the dollar exchange rate on dollar debt (debt increased by 253 million euros, at constant currency).

The net debt-to-equity ratio was 45.5% in 2001 (40.4% in 2000). The same ratio by the American method: net debt divided by total capitalization (net debt + equity) reached 31.3% in 2001 (28.8% in 2000).

Our interest expense coverage ratio (i.e. operating income before amortization of goodwill + equity affiliate income/net interest expense) rose from 7.9 in 2000 to 8.0 in 2001.

→ Debt breakdown by currency

Borrowings in a given foreign currency are repaid by the cash flow generated in that currency. Matching currency debt to currency cash flow in this way reduces foreign exchange risk.

	2000	2001
Euro	44%	46%
US and Canadian dollar	49%	48%
Japanese yen	5%	4%
Others	2%	2%

→ Proportion of fixed-rate debt

Average fixed-rate debt in 2001 (including swaps and caps) represented 47% of total Group debt.

For 2001, the average fixed rate debt (including in the money options) accounts for:

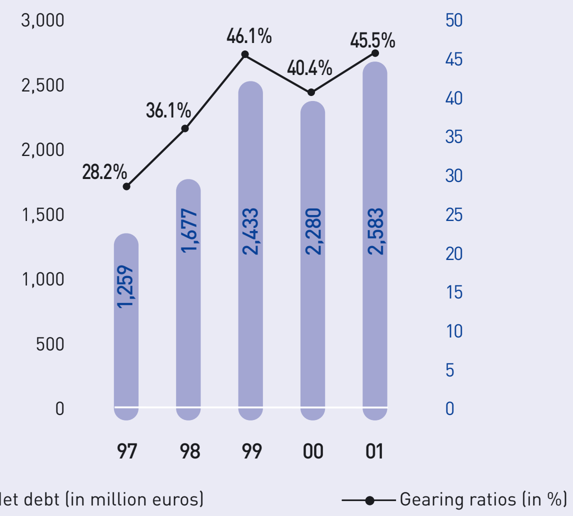
– 41% of euro debt*

– 58% of US dollar debt

– 81% of yen debt

(*) In addition, other interest rate options account for 18% on euro-denominated debt.

Gearing ratios



In 2001, the Group took advantage of falling rates to increase its euro and dollar hedging at fixed rates.

→ Medium and long-term debt

Medium and long-term debt account for 87% of the Group's gross debt as of December 31, 2001. The maturity period for our medium and long-term debt is shown on page 83 of the Notes to the consolidated financial statements.

→ Debt liquidity

As of December 31, 2001, we had 1,974 million euros of available committed bank lines of credit (compared with 2,024 million in 2000) and 1,200 million euros of outstanding commercial papers and USCP, vs. 1,136 million in 2000.

→ Cost of debt

Cost of debt is calculated by dividing net interest payments for the year (excluding bank charges not directly related to debt) by the year's average total outstanding debt. The latter is calculated as the average of the total outstanding debt at the end of each quarter. Cost of debt is used for internal control purposes.

Cost of debt in 2001 was 5.9%, (6.2% in 2000). This decrease is mainly due to the fall in short-term variable dollar interest rates.

Remuneration of L'Air Liquide S.A. Officers and Directors

Remuneration and benefits paid to officers and directors of L'Air Liquide S.A. during 2001 by the Group amount to:

In thousands of euros	Amount due for 2001		*Amount paid during 2001*
	Total	Of which Directors' fees	
Alain JOLY	1,334	32	*1,911*
Benoît POTIER	855	25	*943*
Jean-Claude BUONO	561	–	*683*

A part of the fixed portion and the whole variable portion of the remuneration due for the year are paid the following year.

The variable portion is based on Group earnings growth targets and may represent more than 50% of the total compensation if the objectives are achieved.

Total adjusted stock options granted to the officers and directors amount to:

	Total stock options granted	Average Purchase Price (in €)	Including those granted during the last 5 years
Alain JOLY	157,279	112.14	77,510
Benoît POTIER	42,481	131.74	34,305
Jean-Claude BUONO	39,886	117.69	22,703

The last options were granted in the year 2000.

Directors' fees and other compensation paid to the members of the Supervisory Board

The following table shows the Directors' attendance fees and other compensation paid in 2001 to the members of the Supervisory Board (Board of Directors until November 14, 2001). In addition, Mr. Edouard de ROYERE received retirement benefits of 1,385 K€ in 2001.

in thousands of euros	
Édouard de ROYERE	39
Pierre BELLON	33
Michel BON	33
Thierry DESMAREST	24
Pierre-Gilles de GENNES	32
Sir Christopher HOGG	14
Lindsay OWEN-JONES	24
Jean PEYRELEVADE	27
Edzard REUTER	33
Dennis WEATHERSTONE	33
Emilio de YBARRA Y CHURRUCA	18

Consolidated financial statements

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Principles and methods of consolidation

The consolidated accounts of the Air Liquide Group have been prepared in accordance with applicable French accounting principles and with the CRC 99-02 regulation.

The implementation of the new regulation CRC 2000-06 concerning liabilities has been already set up and has no impact on the accompanying consolidated financial statements.

The amounts of net earnings and shareholders' equity are not significantly different from those which would have been determined by following accounting principles generally accepted in the United States of America, except notably for the deduction from retained earnings:

– in 1994, of goodwill. Had the United States accounting principle been applied, the shareholders' equity would have increased by 136.9 million euros (898 million French francs) as at December 31, 2001 (141.2 million euros as at December 31, 2000 and 145.4 million euros as at December 31, 1999), with no significant change in 2001, 2000 and 1999 net earnings;
– in 2000, of the amounts payable relating to the pension plans of the Spanish subsidiaries. Had the United States accounting principle been applied, the cumulative negative impact amounting to 51.7 million euros would have been recorded as a "catch-up" adjustment and included in current year net earnings. This has no effect on the Year 2001 consolidated financial statements.

→ I – Principles of consolidation

→→ 1 – Companies included and consolidation methods used

a – Fully consolidated companies

In cases where companies are fully consolidated, all assets and liabilities are included in the consolidated balance sheet after adjusting for minority interests. Revenues and expenses are similarly included in the statement of consolidated earnings.

All significant subsidiaries in which Air Liquide has an interest greater than 50% are fully consolidated and, when certain conditions specified by law have been met, companies in which its interest is comprised between 40 and 50%.

b – Proportional basis

Under such consolidation method, assets and liabilities as well as revenues and expenses are recognized in the consolidated statements on a proportional basis to the extent of the controlling share owned.

The proportional consolidation applies to partnerships in which revenues and expenses are shared between the partners equally to their controlling shares.

c – Equity basis

Significant companies in which Air Liquide's interest is at least 20% and those where its interest is greater than 50% but which are not sufficiently important to justify their being fully consolidated are accounted for by the equity method. Thus, only the share of net equity and earnings which corresponds to Air Liquide's percentage of interest are included.

d – Other investments

Investments in other companies not fully or proportionally consolidated or accounted for by the equity method are recorded in the balance sheet under the heading "Other investments" and are reflected in consolidated earnings only to the extent of dividends received.

→→ 2 – Adjustments arising on consolidation

a – Intercompany balances and transactions

All intercompany balances between fully consolidated companies as well as intercompany gains or losses on group transactions are eliminated.

b – Goodwill

The consolidated balance sheet reflects the goodwill arising on acquisition for all consolidated companies.

Goodwill or badwill represent the difference between the purchase price and the fair value of the net assets acquired at the date of purchase. Considering the nature of the acquisitions and the activities of the Group, goodwill are being amortized on a straight-line basis generally over 40 years for Gas activities and over 10 to 20 years for other activities.

Furthermore, where circumstances indicate that adverse changes have occurred in the estimates used in the initial computation of goodwill, the amount thereof is reduced accordingly.

Under exceptional circumstances (investments financed by proceeds from stock offering...), goodwill may be eliminated against retained earnings.

c – Regulatory provisions

Movements in those provisions which have been established in conformity with fiscal regulations or which are similar to reserves are eliminated in the determination of consolidated net earnings.

These provisions mainly concern depreciation for tax purposes, provisions for price increases and for investments.

d – Deferred taxes

Adjustments made for purposes of consolidation which may result in timing differences between income reported for income tax purposes and that reported in the financial statements give rise to deferred taxes.

Deferred income taxes are primarily a result of:

– accelerated depreciation for tax purposes;

– the application of the LIFO method for certain inventories;

– provisions which are not immediately tax deductible.

Deferred taxes are computed using current tax rates.

e – Translation of financial statements of foreign subsidiaries

The financial statements of foreign subsidiaries are translated into euros as follows:

– balance sheet items, at the official year-end exchange rates;

– statement of earnings and statement of changes in financial position items, at average exchange rates during the year.

Resulting translation adjustments are recorded as a separate component of shareholders' equity and minority interests.

Financial statements of subsidiaries located in highly inflationist countries are translated at historical rates.

→ II – Valuation methods

The consolidated financial statements are prepared on the basis of historical costs without revaluation.

→→ 1 – Property, plant and equipment

Land, buildings and equipment are carried at cost, all financial charges were expensed as incurred until December 31, 1994.

Effective January 1, 1995, interest is capitalized during the period of construction where it relates to the financing of major projects over a 12 month period of development. This change was made considering the Group's substantial development of investments in these major projects.

Assets under capital leases are capitalized and depreciated according to the rules of the Group.

Depreciation is computed on the straight-line method, using the following estimated useful lives:

– Buildings	20 years
– Cylinders	20 years
– Plants	10 to 15 years
– Pipelines	25 to 35 years
– Other equipment	5 to 15 years

→→ 2 – Other investments

Other investments are reflected in the consolidated balance sheet at the lower of cost or market method on a going concern basis.

→→ 3 – Inventories

Inventories are valued at the lower of cost or market. The cost of certain categories of raw materials and finished goods, principally welding materials and equipment, is determined by the LIFO method.

The cost of other inventories is determined by the FIFO method, or by the average cost method.

→→ 4 – Engineering and construction

Revenues relating to engineering and construction activities are recorded upon contract completion. Provisions are established for losses anticipated on uncompleted contracts.

→→ 5 – Innovation costs (Research and Development)

Following the definition established by the OECD, innovation includes all costs relating to the scientific and technical activities, patent work, education and training, necessary to assure the development, manufacturing start-up, and market research of new improved products or processes. Innovation costs are charged to income during the year in which they are incurred.

Statement of earnings

Years ended December 31

	Notes	1999	2000	2001	2001
		In millions of euros			In millions of French francs
Net sales	(1) (*)	**6,537.7**	**8,099.5**	**8,328.3**	**54,630**
Cost of products sold, operating expenses and innovation costs	(2)	(4,954.7)	(6,206.6)	(6,325.5)	(41,493)
Depreciation and amortization	(3)	(648.0)	(776.9)	(825.2)	(5,413)
Operating income	(*)	**935.0**	**1,116.0**	**1,177.6**	**7,724**
Financial income (expense), net	(4)	(90.3)	(146.9)	(154.1)	(1,011)
Equity in earnings of companies accounted for by the equity method	(*)	39.1	46.0	44.9	295
Other income (expense), net	(5)	28.0	(4.3)	(1.2)	(8)
Earnings before income taxes		**911.8**	**1,010.8**	**1,067.2**	**7,000**
Current income taxes	(6)	(204.7)	(229.4)	(264.2)	(1,733)
Deferred income taxes	(6)	(97.6)	(69.0)	(50.0)	(328)
Earnings before minority interests		**609.5**	**712.4**	**753.0**	**4,939**
Minority interests		46.8	60.6	51.1	335
Net earnings		**562.7**	**651.8**	**701.9**	**4,604**
		In euros			In French francs
Net earnings per share	(**)	**6.22**	**7.22**	**7.88**	**51.69**

(*) For geographic information, see pages 80 to 82.

(**) Calculated on the adjusted weighted number of shares outstanding during the year (excluding treasury shares): 89,054,614 shares for 2001 (2000: 90,242,706 shares and 1999: 90,480,565 shares). The number of shares is 90,821,483 as at December 31, 2001.

→ Note (1) – Net Sales – Analysis by business lines

	1999	in %	2000	in %	2001	in %	2001	in %
	In millions of euros						In millions of French francs	
Gas and Services	**5,694.0**	87.1	**7,113.6**	87.9	**7,256.6**	87.1	**47,600**	87.1
Air Liquide Welding Group	**382.0**	5.8	**439.3**	5.4	**448.5**	5.4	**2,942**	5.4
Other activities	**279.7**	4.3	**310.7**	3.8	**334.3**	4.0	**2,193**	4.0
Engineering	**182.0**	2.8	**235.9**	2.9	**288.9**	3.5	**1,895**	3.5
Total	**6,537.7**	100.0	**8,099.5**	100.0	**8,328.3**	100.0	**54,630**	100.0

AL Welding Group produces and distributes welding and cutting consumables and equipment.
Other activities include Chemicals and Diving.

→ Note (2) – Cost of products sold, operating expenses and innovation costs

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Purchases including inventory variations	2,595.0	3,167.3	3,147.7	20,648
Salaries and employee benefits	1,390.1	1,558.0	1,603.0	10,515
Other operating expenses	1,593.0	1,876.1	1,872.4	12,282
	5,578.1	**6,601.4**	**6,623.1**	**43,445**
Sundry operating income	(37.5)	(30.2)	(31.5)	(207)
Production costs of fixed assets capitalized	(585.9)	(364.6)	(266.1)	(1,745)
	4,954.7	**6,206.6**	**6,325.5**	**41,493**

Innovation comprises activities defined as such by the OECD, notably in the field of research and development. In 2001, innovation costs amount to 146 million euros (958 million French francs), of which research and development expenses are 90.1 million euros (591 million French francs).
In 2000 and 1999, these costs amount to 149.2 and 142.9 million euros of which research and development expenses are 95.3 and 90.7 million euros for 2000 and 1999.
Other operating expenses include provisions for expenses and contingencies (net) of 10.8 million euros (71 million French francs) in 2001 compared to 9.3 million euros in 2000 and 28.5 million euros in 1999.
These provisions relate to termination indemnities, other benefits, as well as doubtful accounts receivables, engineering contract completion costs and employee profit sharing.

→ Note (3) – Depreciation and amortization

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Intangible assets	22.5	28.0	29.7	195
Property, plant and equipment	597.0	714.3	758.4	4,975
Goodwill	28.5	34.6	37.1	243
	648.0	**776.9**	**825.2**	**5,413**

→ Note (4) – Financial income (expense), net

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Interest expense net of interest income	(94.8)	(151.3)	(156.8)	(1,029)
Dividends received	4.5	4.4	2.7	18
	(90.3)	**(146.9)**	**(154.1)**	**(1,011)**

As described in the valuation methods, interests capitalized amount to 2.7 million euros (18 million French francs) in 2001, compared to 13.2 million euros in 2000 and 27.6 million euros in 1999.

→ Note (5) – Other income (expense), net

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Gains on disposal of fixed assets and investments	31.3	49.1	22.1	145
Miscellaneous income and expenses (net)	(3.3)	(18.6)	(23.3)	(153)
Exceptional provisions		(34.8)		
	28.0	**(4.3)**	**(1.2)**	**(8)**

Gains on disposal of fixed assets and investments are of an ordinary and repetitive nature.
Miscellaneaous income and expenses (net) include notably the exceptional costs related to the changes in some organizations within the Group, primarily in the United States in 2001.
In 2000, 34.8 million euros (228 million French francs) non-recurring provisions have been recorded to cover customers credit risks and for the expenses related to the harmonization of the Air Liquide Group's information systems.

→ Note (6) – Income taxes

Reconciliation between the standard tax rate and the effective group tax rate:

	1999	2000	2001
Standard tax rate (%)	**38.6**	**37.3**	**36.7**
Impact of transactions taxed at reduced rates	(3.2)	(3.5)	(4.2)
Impact of tax rates changes	(0.6)	(0.1)	(0.1)
Impact of permanent differences and others (*)	(0.2)	(2.8)	(1.7)
Effective Group tax rate (%)	**34.6**	**30.9**	**30.7**

(*) In 2000 including (2.3) points related to the n° 342 Italian law dated November 21, 2000, concerning assets revaluation, and in 2001 including (1.5) points.

The standard tax rate is the average rate obtained by applying the statutory tax rate for each country to their related earnings before tax.

Effective Group tax rate is determined as follows:

$$\frac{\text{(current \& deferred income taxes)}}{\text{(earnings before income taxes excluding equity in earnings of companies accounted for by the equity method)}}$$

In France, L'Air Liquide S.A. has elected to determine French income taxes on a consolidated basis, including all French subsidiaries complying with the requirements.
Foreign subsidiaries have also elected to apply for similar rules wherever this is allowed under local regulations.

Balance sheet

Years ended December 31

→ Assets

	Notes	1999	2000	2001	2001
		In millions of euros			In millions of French francs
Fixed assets					
Intangible assets	(A)	367.3	295.9	352.5	2,312
Less: amortization		(151.3)	(179.5)	(204.7)	(1,343)
		216.0	**116.4**	**147.8**	**969**
Property, plant and equipment	(B)	12,676.8	13,621.9	14,374.2	94,289
Less: accumulated depreciation		(6,121.8)	(6,818.0)	(7,495.1)	(49,165)
	(**)	**6,555.0**	**6,803.9**	**6,879.1**	**45,124**
Goodwill	(C)	1,046.6	1,105.3	1,276.1	8,371
Less: amortization		(318.2)	(361.5)	(404.9)	(2,656)
		728.4	**743.8**	**871.2**	**5,715**
		7,499.4	**7,664.1**	**7,898.1**	**51,808**
Other non-current assets					
Long-term loans, receivables and other assets		118.5	111.0	143.4	940
Investments in companies accounted for by the equity method	(*)	245.8	295.8	303.0	1,988
Other investments	(D)	177.5	183.5	208.4	1,367
		541.8	**590.3**	**654.8**	**4,295**
Total long-term assets	(**)	**8,041.2**	**8,254.4**	**8,552.9**	**56,103**
Inventories	(E)	**576.9**	**624.3**	**633.6**	**4,156**
Current assets					
Trade receivables	(F)	1,783.1	1,970.1	1,915.4	12,565
Prepaid expenses and other assets	(F)	314.2	348.6	352.7	2,314
Short-term loans	(H)	36.0	57.6	130.7	857
Marketable securities	(H)	42.0	66.4	242.6	1,591
Cash	(H)	154.9	187.3	226.6	1,486
		2,330.2	**2,630.0**	**2,868.0**	**18,813**
Total current assets and inventories		**2,907.1**	**3,254.3**	**3,501.6**	**22,969**
Total assets		**10,948.3**	**11,508.7**	**12,054.5**	**79,072**

(*) Contributions to shareholders' equity and earnings are split by geographic area, see pages 80 to 82.

(**) For geographic information, see pages 80 to 82.

→ Liabilities and shareholders' equity

		In millions of euros			In millions of French francs
	Notes	1999	2000	2001	2001
Shareholders' equity					
Capital stock		911.5	1,005.7	999.0	6,553
Additional paid-in capital		428.1	337.8	259.2	1,700
Retained earnings		3,126.8	3,497.8	3,758.1	24,652
Treasury shares		(102.3)	(207.2)	(364.9)	(2,394)
Net earnings for the year		562.7	651.8	701.9	4,604
	(***)	**4,926.8**	**5,285.9**	**5,353.3**	**35,115**
Minority interests	(***)	**344.7**	**357.5**	**323.0**	**2,119**
Provisions and deferred income taxes	(G)	**1,149.3**	**1,205.1**	**1,316.2**	**8,634**
Long-term debt	(H)	**1,909.0**	**2,414.5**	**2,753.4**	**18,061**
Total capital employed		**8,329.8**	**9,263.0**	**9,745.9**	**63,929**
Current liabilities					
Trade payables		864.3	957.5	877.4	5,755
Other liabilities		997.6	1,111.1	1,001.2	6,567
Short-term debt (including current maturities of long-term debt)	(H)	756.6	177.1	430.0	2,821
Total current liabilities		**2,618.5**	**2,245.7**	**2,308.6**	**15,143**
Total liabilities and shareholders' equity		**10,948.3**	**11,508.7**	**12,054.5**	**79,072**
Commitments and contingencies	(J)				

(***) See statement of shareholders' equity and minority interests page 79.

Statement of changes in financial position

Years ended December 31

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Net earnings	562.7	651.8	701.9	4,604
Minority interests	46.8	60.6	51.1	335
Depreciation and amortization	648.0	776.9	825.2	5,413
Deferred income taxes	97.6	69.0	50.0	328
Increase (decrease) in provisions	(41.5)	14.7	10.6	70
Equity in earnings of companies accounted for by the equity method, less dividends received	(5.2)	(8.7)	(11.4)	(75)
Funds provided by operations	**1,308.4**	**1,564.3**	**1,627.4**	**10,675**
Distributions:				
– Air Liquide shareholders	(224.4)	(247.9)	(317.9)	(2,085)
– Minority interests	(31.8)	(38.8)	(37.4)	(245)
Acquisitions of fixed assets	(1,129.4)	(910.2)	(769.8)	(5,050)
Investments	(309.0)	(104.8)	(332.4)	(2,180)
Sales of fixed assets and investments	107.1	83.0	146.7	962
Other non-current assets and sundry (1)	(102.6)	106.7	(119.0)	(781)
Change in working capital	(47.9)	(95.5)	(139.4)	(914)
Net before financing	**(429.6)**	**356.8**	**58.2**	**382**
Proceeds from issues of capital stock	32.3	3.6	47.7	313
Purchase of treasury shares	(126.4)	(104.9)	(289.9)	(1,902)
Effect of exchange rate changes	(222.3)	(83.5)	(79.5)	(522)
Net indebtedness of newly consolidated companies	(9.9)	(19.6)	(39.7)	(260)
Change in net indebtedness	**(755.9)**	**152.4**	**(303.2)**	**(1,989)**
Net indebtedness at beginning of year	(1,676.8)	(2,432.7)	(2,280.3)	(14,958)
Net indebtedness at end of year	(2,432.7)	(2,280.3)	(2,583.5)	(16,947)
Net indebtedness analysis				
Short-term loans	36.0	57.6	130.7	857
Marketable securities	42.0	66.4	242.6	1,591
Cash	154.9	187.3	226.6	1,486
Long-term debt	(1,909.0)	(2,414.5)	(2,753.4)	(18,061)
Short-term debt (including current maturities of long-term debt)	(756.6)	(177.1)	(430.0)	(2,820)
Net indebtedness at end of year	**(2,432.7)**	**(2,280.3)**	**(2,583.5)**	**(16,947)**

(1) Amounts for Years 1999 and 2000 mostly correspond to banking charges and fees related to the Joint Public Offer for the BOC Group plc.

For Year 2001, the amount mainly corresponds to payments to insurance companies in connection with the externalization of the Spanish pensions schemes.

Statement of shareholders' equity – Minority interests

In millions of euros	Capital stock	Additional paid-in capital	Retained earnings	Cumulative translation adjustment	Treasury shares	Total shareholders' equity	Minority interests
Balance as at December 31, 1998	**885.0**	**488.0**	**3,456.3**	**(437.7)**	**(44.7)**	**4,346.9**	**296.8**
Increases/Decreases in capital stock:							
- New offering for cash	4.7	30.7				**35.4**	(3.1)
- Stock dividends	27.3	(27.3)				**0.0**	
Distributions			(224.4)			**(224.4)**	(31.8)
Foreign currency translation				338.4		**338.4**	37.2
Change in treasury shares					(126.4)	**(126.4)**	
Capital decrease due to cancellation of treasury shares	(5.5)	(63.3)			68.8	**0.0**	
Sundry			(5.8)			**(5.8)**(2)	(1.2)(3)
1999 net earnings			562.7			**562.7**	46.8
Balance as at December 31, 1999	**911.5**	**428.1**	**3,788.8**	**(99.3)**	**(102.3)**	**4,926.8**	**344.7**
Increases/Decreases in capital stock:							
- New offering for cash	0.6	3.3				**3.9**	(0.3)
- Stock dividends	93.6	(93.6)				**0.0**	
Expenses relating to capital stock increases			(1.3)			**(1.3)**	
Distributions			(247.9)			**(247.9)**	(38.8)
Foreign currency translation				115.0		**115.0**	0.0
Change in treasury shares					(104.9)	**(104.9)**	
Retirement benefit plans (Spain)			(51.6)			**(51.6)**(4)	(0.1)(4)
Sundry			(5.9)			**(5.9)**(2)	(8.6)(3)
2000 net earnings			651.8			**651.8**	60.6
Balance as at December 31, 2000	**1,005.7**	**337.8**	**4,133.9**	**15.7**	**(207.2)**	**5,285.9**	**357.5**
Increases/Decreases in capital stock	4.3	42.6				**46.9**	0.8
Distributions			(317.9)			**(317.9)**	(37.4)
Foreign currency translation				(70.3)		**(70.3)**(5)	(9.1)
Capital decrease due to cancellation of treasury shares	(11.0)	(121.2)			132.2	**0.0**	
Purchase in treasury shares					(289.9)	**(289.9)**	
Sundry			(3.3)			**(3.3)**(2)	(39.9)(3)
2001 net earnings			701.9			**701.9**	51.1
Balance as at December 31, 2001 (1)	**999.0**	**259.2**	**4,514.6**	**(54.6)***	**(364.9)**	**5,353.3**	**323.0**
In millions of French francs							
Balance as at December 31, 2001 (1)	**6,553**	**1,700**	**29,614**	**(358)**	**(2,394)**	**35,115**	**2,119**

(*) The cumulative translation adjustment for the euro area amounts to (181.7) million euros as of December 31, 2001.
The variation since January 1, 1999 mainly concerns the entry of Greece in the Euro zone.

(1) The number of shares issued is 90,821,483 as of December 31, 2001 at par value 11 euros. During the year 2001, movements on capital stock have been as follows:
– 91,016 shares issued for cash, resulting from the exercise of stock options;
– 300,823 shares issued for cash, resulting from the employees stock purchase plan;
– Capital decrease due to cancellation of 1,000,000 treasury shares.
The total number of treasury shares amounts to 2,449,716 shares as of December 31, 2001 (including 2,425,946 shares owned by L'Air Liquide S.A.).

(2) Including withholding taxes paid by certain subsidiaries, amounts included in the overall calculation of the withholding tax on dividends paid by L'Air Liquide S.A.

(3) Corresponding mainly to changes of the group percentage of interest in consolidated subsidiaries.
In 2001, mainly due to the purchase of Minority Interests of Hede Nielsen (Denmark) and VitalAire (Canada).

(4) Effective from December 31, 2000, the Spanish legislation requires each company to externalize the amounts payable under internal pension schemes whatever their nature may be. As a consequence, as of December 31, 2000, the Spanish subsidiaries of the Air Liquide Group recorded the cumulative amount of 79.5 million euros (521 million French francs) due to the insurance companies. This amount was directly allocated to the retained earnings for a net amount of 51.7 million euros (339 million French francs) after recognition of a deferred tax asset amounting to 27.8 million euros (182 million French francs). These liabilities were fully paid in January 2001.

(5) Including (100) million euros due to the Peso's devaluation in Argentina.

Geographic Information

2001

→ Statement of earnings

	France	Europe (excluding France)	Americas	Asia-Pacific	Africa		Total	Total
	In millions of euros							In millions of French francs
Net sales								
Gas and Services	1,481.4	2,024.3	2,580.4	1,072.2	98.3		**7,256.6**	47,600
AL Welding Group	166.4	282.1					**448.5**	2,942
Other activities	205.9	37.7	82.2	8.5			**334.3**	2,193
Sub-total without Engineering	*1,853.7*	*2,344.1*	*2,662.6*	*1,080.7*	*98.3*		***8,039.4***	52,735
Engineering	84.1	61.7	52.8	83.4	6.9		**288.9**	1,895
Total	**1,937.8**	**2,405.8**	**2,715.4**	**1,164.1**	**105.2**		**8,328.3**	**54,630**
Operating Income								
Gas and Services	317.8	417.4	330.9	134.1	24.0		**1,224.2**	8,030
Other	54.4	33.0	3.0	1.6			**92.0**	603
R&D center/corporate						(138.6)	**(138.6)**	(909)
Total	**372.2**	**450.4**	**333.9**	**135.7**	**24.0**	**(138.6)**	**1,177.6**	**7,724**
Equity in earnings of companies accounted for by the equity method	**5.5**	**1.7**	**(0.1)**	**31.7**	**6.1**		**44.9**	**295**
Balance sheet								
Property, plant and equipment (net)	**890.5**	**2,097.9**	**3,032.3**	**811.7**	**46.7**		**6,879.1**	**45,124**
Investments in companies accounted for by the equity method	**50.4**	**24.4**	**21.4**	**184.6**	**22.2**		**303.0**	**1,988**
Total long-term assets	**1,250.7**	**2,590.8**	**3,366.9**	**1,208.7**	**135.8**		**8,552.9**	**56,103**
Pro forma								
Net sales	*1,937.8*	*2,405.8*	*2,715.4*	*1,287.1*	*105.2*		***8,451.3***	*55,437*
Operating income	*372.2*	*450.4*	*333.9*	*165.0*	*24.0*	*(138.6)*	***1,206.9***	*7,917*

Notes:

– Segment reporting presentation has been adjusted in order to be in accordance with the internal and operational management. Years 1999 and 2000 have been reformated to be comparable with 2001.

– Net sales are based upon the location of operations, except for the Engineering activity, which is based upon customer location.

– AL Welding Group produces and distributes welding and cutting consumables and equipment.

– Other activities include Chemicals and Diving.

– Pro Forma information includes 50% of the net sales and operating income of SOXAL (Singapore) and HKOAC (Hong Kong), S.O.A.E.O. subsidiaries accounted for by the equity method.

2000

→ Statement of earnings

	In millions of euros							In millions of French francs
	France	Europe (excluding France)	Americas	Asia-Pacific	Africa		Total	Total
Net sales								
Gas and Services	1,446.2	1,876.1	2,590.4	1,101.5	99.4		**7,113.6**	46,662
AL Welding Group	164.4	274.9					**439.3**	2,882
Other activities	186.0	35.3	79.5	9.9			**310.7**	2,038
Sub-total without Engineering	*1,796.6*	*2,186.3*	*2,669.9*	*1,111.4*	*99.4*		***7,863.6***	*51,582*
Engineering	77.2	30.0	18.0	106.0	4.7		**235.9**	1,547
Total	**1,873.8**	**2,216.3**	**2,687.9**	**1,217.4**	**104.1**		**8,099.5**	**53,129**
Operating Income								
Gas and Services	320.7	373.5	310.5	135.7	23.8		**1,164.2**	7,637
Others	48.5	29.3	5.0	4.0			**86.8**	569
R&D center/corporate						(135.0)	**(135.0)**	(886)
Total	**369.2**	**402.8**	**315.5**	**139.7**	**23.8**	**(135.0)**	**1,116.0**	**7,320**
Equity in earnings of companies accounted for by the equity method	**8.1**	**1.7**	**(1.8)**	**32.7**	**5.3**		**46.0**	**302**
Balance sheet								
Property, plant and equipment (net)	**870.0**	**2,037.9**	**3,077.1**	**767.1**	**51.8**		**6,803.9**	**44,630**
Investments in companies accounted for by the equity method	**56.5**	**24.0**	**23.6**	**172.9**	**18.8**		**295.8**	**1,940**
Total long-term assets	**1,206.3**	**2,394.4**	**3,383.8**	**1,194.7**	**75.2**		**8,254.4**	**54,145**
Pro forma								
Net sales	*1,873.8*	*2,216.3*	*2,687.9*	*1,317.6*	*104.1*		***8,199.7***	*53,787*
Operating income	*369.2*	*402.8*	*315.5*	*164.5*	*23.8*	*(135.0)*	***1,140.8***	*7,483*

Notes:

– Segment reporting presentation has been adjusted in order to be in accordance with the internal and operational management. Years 1999 and 2000 have been reformated to be comparable with 2001.

– Net sales are based upon the location of operations, except for the Engineering activity, which is based upon customer location.

– AL Welding Group produces and distributes welding and cutting consumables and equipment.

– Other activities include Chemicals and Diving.

– Pro forma information includes 50% of the net sales and operating income of SOXAL (Singapore) and HKOAC (Hong Kong), S.O.A.E.O. subsidiaries accounted for by the equity method.

1999

→ Statement of earnings

	In millions of euros							In millions of French francs
	France	Europe (excluding France)	Americas	Asia-Pacific	Africa		Total	Total
Net sales								
Gas and Services	1,224.6	1,650.1	1,862.4	864.3	92.6		**5,694.0**	37,350
AL Welding Group	159.2	222.8					**382.0**	2,506
Other activities	175.2	29.4	65.7	9.4			**279.7**	1,835
Sub-total without Engineering	*1,559.0*	*1,902.3*	*1,928.1*	*873.7*	*92.6*		**6,355.7**	41,691
Engineering	69.1	36.2	8.9	59.1	8.7		**182.0**	1,194
Total	**1,628.1**	**1,938.5**	**1,937.0**	**932.8**	**101.3**		**6,537.7**	**42,885**
Operating Income								
Gas and Services	279.6	336.1	242.4	87.4	21.8		**967.3**	6,345
Others	54.6	26.3	3.9	2.1			**86.9**	570
R&D center/corporate						(119.2)	**(119.2)**	(782)
Total	**334.2**	**362.4**	**246.3**	**89.5**	**21.8**	**(119.2)**	**935.0**	**6,133**
Equity in earnings of companies accounted for by the equity method	**4.4**	**3.3**	**(0.3)**	**27.1**	**4.6**		**39.1**	**256**
Balance sheet								
Property, plant and equipment (net)	**850.5**	**1,998.3**	**2,875.5**	**778.1**	**52.6**		**6,555.0**	**42,998**
Investments in companies accounted for by the equity method	**39.8**	**21.6**	**26.6**	**140.6**	**17.2**		**245.8**	**1,613**
Total long-term assets	**1,245.5**	**2,351.4**	**3,189.4**	**1,181.0**	**73.9**		**8,041.2**	**52,747**
Pro forma								
Net sales	*1,628.1*	*1,938.5*	*1,937.0*	*1,015.2*	*101.3*		***6,620.1***	*43,425*
Operating income	*334.2*	*362.4*	*246.3*	*111.6*	*21.8*	*(119.2)*	***957.1***	*6,277*

Notes:

– Segment reporting presentation has been adjusted in order to be in accordance with the internal and operational management. Years 1999 and 2000 have been reformated to be comparable with 2001.

– Net sales are based upon the location of operations, except for the Engineering activity, which is based upon customer location.

– AL Welding Group produces and distributes welding and cutting consumables and equipment.

– Other activities include Chemicals and Diving.

– Pro forma information includes 50% of the net sales and operating income of SOXAL (Singapore) and HKOAC (Hong Kong), S.O.A.E.O. subsidiaries accounted for by the equity method.

Notes to consolidated financial statements

→ Note (A) – Intangible assets

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Deferred charges	166.1	45.1	38.3	251
Intangible assets	201.2	250.8	314.2	2,061
Total intangible assets	**367.3**	**295.9**	**352.5**	**2,312**
Amortization	(151.3)	(179.5)	(204.7)	(1,343)
Net	**216.0**	**116.4**	**147.8**	**969**

Deferred charges mainly include costs of incorporation, capital increases and new plant start-up costs.

They are amortized over a five-year period. In 1999, they include 111.7 million euros (733 million French francs) of banking charges and fees related to the Joint Public Offer for the BOC Group plc. These expenses have been charged in the year 2000.

Other intangible assets consist principally of concessions, licences, patents acquired and capitalised IT expenses.

Amortization is computed over the estimated useful lives or legal limits of the assets.

→ Note (B) – Property, plant and equipment

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Land	205.7	207.6	217.6	1,428
Buildings	748.0	789.1	818.8	5,371
Equipment, cylinders, installations	10,786.3	12,162.9	12,917.0	84,730
Total property, plant and equipment in service	**11,740.0**	**13,159.6**	**13,953.4**	**91,529**
Construction in progress	936.8	462.3	420.8	2,760
Total property, plant and equipment	**12,676.8**	**13,621.9**	**14,374.2**	**94,289**
Accumulated depreciation	(6,121.8)	(6,818.0)	(7,495.1)	(49,165)
Net	**6,555.0**	**6,803.9**	**6,879.1**	**45,124**

Fixed assets relate primarily to the Group's Gas activity.

→ Note (C) – Goodwill

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Goodwill	1,046.6	1,105.3	1,276.1	8,371
Amortization	(318.2)	(361.5)	(404.9)	(2,656)
Net	**728.4**	**743.8**	**871.2**	**5,715**

The increase in 2001 is principally explained by the acquisition of Air Liquide Austria and the purchase of the minority interests in the subsidiary Hede Nielsen.

→ Note (D) – Other Investments

They mainly correspond to:

– the amount paid to Messer Griesheim GmbH for the purchase of the South African company Fedgas (Pty) ltd. for a total amount of 63.3 million euros (415 million French francs).

On January 23, 2002 the South-African Competition Commission approved without any condition Fedgas (Pty) ltd. acquisition by the Air Liquide Group.

This subsidiary will enter in the consolidation scope as of January 1, 2002;

– Usinor shares representing 0.96% of its stock capital acquired for a total amount of 33.5 million euros (220 million French francs). The market value of these shares amounts to 34.1 million euros (224 million French francs) as at December 31, 2001;

– the investment in "Air Liquide Ventures" venture capital fund amounting to 17.4 million euros (114 million French francs);

– investments individually non-significant.

→ Note (E) – Inventories

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Raw materials and supplies	162.8	175.8	179.1	1,175
Finished and semi-finished goods	375.7	392.6	402.0	2,637
Work in progress (essentially engineering and construction contracts in progress)	199.4	239.1	211.2	1,385
Provision for obsolescence and loss on completion	(37.6)	(38.6)	(43.4)	(285)
	700.3	**768.9**	**748.9**	**4,912**
Advances received on contracts in progress	(123.4)	(144.6)	(115.3)	(756)
Net	**576.9**	**624.3**	**633.6**	**4,156**

The LIFO reserve as of December 31, 2001, amounts to 24.5 million euros (161 million French francs). In 2000 and 1999, the LIFO reserve amounts to 27.9 million euros and 30.5 million euros.

→ Note (F) – Trade receivables and other debtors

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Trade receivables	1,855.7	2,047.3	1,999.2	13,115
Provision	(72.6)	(77.2)	(83.8)	(550)
Net	**1,783.1**	**1,970.1**	**1,915.4**	**12,565**
Prepaid expenses and other assets	316.5	355.6	355.8	2,334
Provision	(2.3)	(7.0)	(3.1)	(20)
Net	**314.2**	**348.6**	**352.7**	**2,314**

→ Note (G) – Provisions and deferred income taxes

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Deferred income taxes (1)	604.3	665.0	718.5	4,713
Employee termination indemnities and other benefits	257.9	256.0	253.6	1,664
Provision for the engineering activity	70.3	58.7	50.1	329
Badwill (2)			47.0	308
Other risks and accrued expenses (3)	123.2	135.9	162.0	1,063
Investment grants	84.7	80.9	77.0	505
Employee profit sharing	6.6	7.8	7.9	51
Deferred revenues	2.3	0.8	0.1	1
	1,149.3	**1,205.1**	**1,316.2**	**8,634**

(1) In 2001, net of 249.3 million euros debit deferred taxes (1,635 million French francs).

(2) In 2001, this amount corresponds to the acquisition of Messer Griesheim GmbH subsidiaries in Argentina and Brasil before 2002 allocation.

(3) In 2001, including provisions for identified fiscal and industrial litigations and restructuring costs.

→→ Litigation

None of the various known cases of litigation in which Group companies are involved is expected to have a significant effect on the Group's consolidated financial position, beyond provisions set up for that purpose.

→ Note (H) – Net indebtedness

→→ Net inebtedness

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Long-term debt	1,909.0	2,414.5	2,753.4	18,061
Current maturities of long-term debt	73.2	102.3	126.6	831
	1,982.2	**2,516.8**	**2,880.0**	**18,892**
Short-term debt (*)	683.4	74.8	303.4	1,990
Total indebtedness	**2,665.6**	**2,591.6**	**3,183.4**	**20,882**
Short-term loans, marketable securities and cash (*)	(232.9)	(311.3)	(599.9)	(3,935)
Net indebtedness	**2,432.7**	**2,280.3**	**2,583.5**	**16,947**

(*) As at December 31, 2001, net indebtedness includes temporary cash surplus from short-term bonds (Euro Medium Term Note) for an amount of 233 million euros. This surplus was issued on December 28, 2001, and reimbursed in January 2002.

This issue has no impact on the net indebtedness.

→→ Maturity profile of long-term debt at December 31, 2001 is as follows:

	In millions of euros	In millions of French francs
2003	223.3	1,465
2004	613.8	4,026
2005	1,021.8	6,703
2006	254.2	1,667
2007	252.0	1,653
Subsequent maturities	388.3	2,547
	2,753.4	**18,061**

→→ Analysis of net indebtedness by currency at December 31, 2001

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Euro	946.6	1,001.3	1,185.5	7,776
US and Canadian Dollar	1,245.7	1,121.1	1,246.2	8,175
Yen	144.4	102.0	89.4	587
Other currencies	96.0	55.9	62.4	409
Net indebtedness	**2,432.7**	**2,280.3**	**2,583.5**	**16,947**

Debt denominated in foreign currencies is repaid from the cash flow generated by operations in the corresponding currency.

A portion of long-term debt is secured by assets pledged with a net book value of 86 million euros as of December 31, 2001 (564 million French francs).

→ Note (I) – Financial instruments

Interest rate risks

In order to reduce its exposure to interest rate risks, the Group may enter into contracts to fix interest rates (swaps), or protect against a rise in interest rates (caps).

The interest rate differential received or paid is recorded in net financial expenses.

Fixed rate indebtedness including the effect of interest rate swaps represents 46% of the total indebtedness and 47% including interest rate caps.

The weighted average interest rate on total indebtedness is 5.9% for the year 2001.

Foreign exchange risks

The Group enters into hedging contracts for exchange risks arising from economic transactions.

As a result, the Group has no exchange risk exposure.

These transactions are entered into with selected financial institutions.

→ Note (J) – Commitments and contingencies

As at December 31, 2001, the commitments amount to 599 million euros (3,929 million French francs) and correspond to:

- 254 million euros (1,666 million of French francs) for the purchase of fixed assets and investments (including the commitments related to the purchase of Messer Griesheim Group subsidiaries in Egypt and Trinitad & Tobago);
- 217 million euros (1,423 million of French francs) for rentals and leases;
- 128 million euros (840 millions of French francs) for guarantees.

These commitments are given for normal operations.

→ Note (K) – Directors and Officers' remuneration

Emoluments granted to the members of the Supervisory and Management Boards and Executive Committee of L'Air Liquide as compensation for their responsibilities in the Group are as follows:

	In millions of euros			In millions of French francs
	1999	2000	2001	2001
Emoluments to the members of the Board	0.4	0.5	0.4	2.6
Emoluments to the Officers	5.9	7.3	6.4	41.7
Total	**6.3**	**7.8**	**6.8**	**44.3**

From 2001, emoluments to the Officers relate to all the members of the Management Board and Executive Committee.

The remuneration policy of the executive directors and chief executives takes into account current practices in the other companies. It includes a substantial variable portion based on earnings' targets achievements and individual performance. For the Chief Executives, this variable portion is essentially based on targets of group earnings growth.

This component may represent more than 50% of the total compensation if the objectives are achieved.

→ Note (L) – Stock options and stock purchase plans

→→ Stock options

Following the decisions of the Shareholders' General Meeting and on recommendation of the Selection and Remuneration commitee, the Board of Directors has adopted senior executives stock options schemes at the Group level, including executive directors.

These schemes are intended to motivate key executives at Group level, retain the most performing individuals and focus them on the medium- and long-term interests of shareholders'.

Stock options have been granted for an amount equal to 100% of the average market price of the last twenty days preceding the day they are granted. The maximum exercise term is ten years for stock options granted before the General Meeting dated May 4, 2000 and seven years for those granted since this date. Some of these options are exercisable under certain conditions of objectives achievements during a defined period.

→→ Options granted during the last ten years (maximum exercisable term after the date of grant)

Date of attribution by the Board	Date of decision by the Shareholders' meeting	Total stock options granted	Purchase price	Total adjusted stock options	Including total adjusted stock options granted to the General Management [3]	Total stock options exercised	Total adjusted not exercised as of December 31, 2001	Adjusted [*] purchase price
1/07/92	23/05/89	216,500	115.86 €	326,390	256,833	304,402	21,988	70.13 €
23/09/93	19/05/93	182,500	114.34 €	258,874	117,283	165,110	93,764	76.22 €
27/06/94	19/05/93	174,700	117.39 €	248,002	151,279	150,341	97,661	78.21 €
Year 1995		0		0	0	0	0	
22/05/96	22/05/96	105,000	138.73 €	142,838	61,312	14,781	128,057	101.84 €
[1] 24/09/97	22/05/96	73,000	140.25 €	7,442	0	0	7,442	113.12 €
[2] 22/01/98	22/05/96	20,000	140.25 €	0	0	0	0	
12/05/99	12/05/99	264,300	148.00 €	290,889	80,332	0	290,889	134.50 €
7/09/00	4/05/00	702,900	142.00 €	698,100	110,500	0	698,100	142.00 €
28/08/01	4/05/00	5,900	155.00 €	5,900	0	0	5,900	155.00 €
Total		**1,744,800**		**1,978,435**	**777,539**	**634,634**	**1,343,801**	

(*) Adjusted to account for the weighted number of shares outstanding resulting from stock dividends (2000, 1998, 1996, 1994) and for the loss of right for the options unexercised within the ten-year maximum exercisable term.

(1) Among 70,000 stock options exercisable only if certain targets of earnings growth are met over three years, 67,000 have been canceled in 2001 considering that these targets were not completed.

(2) Stock options exercisable only if certain targets of earnings per share performance and/or earnings are met over three years.

(3) General Management at the attribution date.

During the year 2001, 91,016 stock options have been exercised at an average purchase price of 75.88 euros.

Total adjusted stock options, granted by the Board under the schemes authorized by shareholders, but not exercised as of December 31, 2001, amount to 1,343,801 options (average purchase price: 126.04 euros), of which 134,596 options (average purchase price: 126.53 euros) have been granted to the General Management.

Since 1992, the total number of eligible executives is 386, of which 2 for the year 2001.

These stock options are to be exercised within a ten-year maximum term after the date of grant for those granted by May 4, 2000, and within a seven-year maximum term for those granted since that date. Those which have been granted between September 24, 1997, and September 7, 2000, are only exercisable after a five-year minimum term. The stock options granted since September 7, 2000, are only exercisable after a four-year minimum term (five-year minimum term for French fiscal residents).

→→ Stock purchase plans

Since 1986, L'Air Liquide has offered to the employees of certain companies within the Group, the opportunity to apply for several compensatory stock issues. A total of 1,164,180 shares, including the 2001 stock issue, have been subscribed.

The 2001 stock issue covered over 60 countries within the group. 40.8% of eligible employees (13,173 people) subscribed for a total of 300,823 shares.

Within the authorization granted by the Shareholders' Extraordinary General Meeting held on May 4, 2000, out of a total of 1,000,000 shares, 550,000 shares were offered to the employees, of which, 300,823 have been issued.

→ **Note** (M) – Pensions

Several pension plans exist within the group.

The parent company and a certain number of French subsidiaries grant:

- to the retired employees (4,798 participants as of December 31, 2001) and to employees who are over 45 years of age or who, as of January 1, 1996, have had more than 20 years of service (1,411 employees as of December 31, 2001), additional benefits in excess of the normal pension plans amounts. Both amounts are based upon the individual's last annual salary.

This plan was discontinued on February 1, 1996.

The annual obligation for the additional benefits cannot exceed 12% of the total payroll or 12% of the net profit before tax of the participating companies. Beginning in the year 2010, the 12% limitation rates will be reduced annually, to reflect the decreased number of beneficiaries resulting from the discontinuation of the pension plan.

The above obligations which are neither stable nor continuous, are therefore, by nature, the conditions of a defined contribution pension plan and, consequently, only the annual payments are expensed.

In 2001, on a consolidated basis, such payments amount to 32.1 million euros, i.e. 211 million French francs (2000 and 1999: 30.4 and 29.6 million euros). Without the limitation rates, the actuarial present value of the projected benefit obligations for retired employees, until the end of the plan, would amount to about 234 million euros, net of tax (1,533 million French francs);

- to other employees who are not part of the above described plan (3,458 participants as of December 31, 2001) and, have had more than one year of service, the right to participate in an externally funded pension plan, financed by contributions of both the participating companies and employees. In 2001, the contributions of the companies amount to 5.3 million euros, i.e. 34.8 million French francs (2000 and 1999: 4.0 and 4.0 million euros).

In the other French or foreign subsidiaries, the existing pension plans or other similar commitments have various characteristics:

- for the defined benefit plans, the commitments are recorded and provided as the rights are acquired, and for some are funded externally;
- for the defined contribution plans, the expenses are recorded only once the contributions are made to external organizations.

Consolidated companies, personnel and currency rates

% = Group percentage of interest

→ 1 – Companies fully consolidated

→→ France	%
L'Air Liquide S.A.	100.00
Air Liquide International	100.00
Air Liquide Santé France	100.00
Air Liquide Welding SA and its consolidated subsidiaries, notably:	
– FRO Srl (Italy)	100.00
– La Soudure Autogène Française including Oerlikon and Sauvageau Commercy Soudure	100.00
Société Industrielle des Gaz de l'Air	100.00
Société des Gaz Industriels de France	100.00
Compagnie Industrielle, Commerciale et Financière des Gaz	100.00
Cryolor	100.00
Société d'Exploitation de Produits Pour les Industries Chimiques	99.95
Aqualung International	98.36
GIE Cryospace	55.00
Taema	100.00
VitalAire	100.00
Air Liquide Electronics Systems	100.00
Chemoxal	100.00
Sudac Air Service	100.00
Azérus	100.00
Hélium Services	100.00
Société d'Utilisation Scientifique et Industrielle du Froid	99.39
Société Immobilière de L'Air Liquide	99.99
Sidergal	70.00
Air Liquide Santé (International)	100.00
Air Liquide Santé Engineering	99.80
Air Liquide Europe	100.00
Air Liquide Innovation	100.00
Altal	100.00
Métrotech	64.87
Pharmadom (Orkyn')	100.00
BTL S.A. and its preconsolidated subsidiaries, notably: Laboratoires Anios and Hydenet	66.00
Sedia	77.64
Service Industrie Marine	64.99
Azote Services	65.00
Belle Étoile Utilité	100.00
Société Industrielle de Cogénération de France	100.00
Figenal	60.00
Cogenal	99.99
Société d'Oxygène et d'Acétylène d'Extrême-Orient (SOAEO)	87.06
Air Liquide Eurotonnage	100.00
Air Liquide Engineering	100.00
Air Liquide Shared European Services	99.81
Pacome	100.00
Air Liquide Services and its consolidated subsidiaries, notably:	100.00
– Napac	60.00
– Keops (Canada)	50.00
Air Liquide Participations	100.00
Air Liquide Partners	99.80
Air Liquide Finance	100.00

→→ Europe	%
Air Liquide Italia Srl (Italy)	99.76
AL Air Liquide España, S.A. (Spain)	99.83
Air Liquide Belge S.A. (Belgium) and its consolidated subsidiaries:	99.95
– Air Liquide Benelux NV S.A. (Belgium)	99.97
– Air Liquide Belgium NV S.A. (Belgium)	99.97
Air Liquide Nederland BV (The Netherlands)	100.00
Air Liquide Luxembourg S.A. (Luxemburg)	99.96
Oxylux S.A. (Luxemburg)	100.00
Air Liquide Gas AB (Sweden)	100.00
Sociedade Portuguesa do Ar Liquido (Portugal)	99.95
Air Liquide GmbH (Germany) and its consolidated subsidiary:	100.00
– Air Liquide Technische Gase Gmbh (Germany)	100.00
Air Liquide Hellas Société Anonyme de Gaz Industriels (Greece)	98.73
Air Liquide Progetti Italia Spa (Italy)	100.00
Air Liquide BV (The Netherlands)	100.00
Hede Nielsen AS (Denmark)	100.00
Oy Polargas AB (Finland)	69.88
Air Liquide Technische Gassen BV (The Netherlands)	100.00
Hydrowal (Belgium)	100.00
Schülke & Mayr GmbH (Germany)	100.00
VitalAire GmbH (Germany)	100.00
Air Liquide Industrie BV (The Netherlands)	100.00
Air Liquide UK Ltd. (Great Britain)	100.00
Air Liquide Katowice Sp (Poland)	79.24
Air Liquide Polska Sp (Poland)	100.00
Hydrofel (Belgium)	100.00
Carolox (Belgium)	100.00
Air Liquide Industries Belgium (Belgium)	100.00
Carba Holding (Switzerland)	100.00
Carbagas (Switzerland)	70.00
Air Liquide Austria (Austria)	100.00

Americas

	%
American Air Liquide, Inc. (USA)	100.00
Air Liquide America Holdings, Inc. (USA) and its consolidated subsidiary: – Air Liquide Canada Inc. (Canada)	100.00
Air Liquide International Corp. (USA)	100.00
Air Liquide Brasil (Brazil)	100.00
Air Liquide Process & Construction Inc. (USA)	100.00
Air Liquide Argentina (Argentina)	100.00
Air Liquide Uruguay (Uruguay)	93.70
Investissement Aloxy (Canada)	100.00
Air Liquide Spatial (French Guiana)	98.79
Société des Gaz Industriels de la Guadeloupe (Guadeloupe)	89.47
Société Martiniquaise d'Air Liquide (Martinique)	68.50
Société Guyanaise de L'Air Liquide (French Guiana)	97.04
Air Liquide Chile S.A. (Chile)	100.00
Sociedad Argentina de Aire Liquido S.A. (Argentina)	100.00
Sociedade Brasileira Arliquido Ltda (Brasil)	100.00

Africa

	%
Air Liquide Maroc (Morocco)	74.80
Société Ivoirienne d'Oxygène et d'Acétylène (Ivory Coast)	72.08
Air Liquide Tunisie (Tunisia)	59.20
Air Liquide Proprietary (South Africa)	81.10

Asia-Pacific

	%
Air Liquide Australia ltd. (Australia)	97.38
Air Liquide Japan ltd. (Japan)	66.88
Air Liquide Far Eastern ltd. (Taiwan)	54.35
Air Liquide Pacific (Japan)	100.00
Air Liquide Shanghai (China)	96.94
Air Liquide Asia Pte ltd. (Singapore)	100.00
Air Liquide Tianjin (China)	80.00
Air Liquide India Holding (India)	100.00
Air Liquide Shanghai International Trading (China)	100.00
Air Liquide Korea Services (South Korea)	83.44

2 – Companies consolidated by proportional integration

France

	%
Lavéra Energies	50.00

Americas

	%
Sabine Cogen (USA)	50.00
Alberta ltd. (Canada)	40.00

3 – Principal companies accounted for by the equity method

France

	%
Sorgal	99.98
Société Anonyme Française Péroune	99.94
Sepal	100.00
Séchilienne-Sidec	40.54

Europe

	%
Air Medical Gase und Apparate VmbH (Austria)	40.00
Air Liquide Kryotechnik (Germany)	100.00
Air Liquide Bulgaria EOOD (Bulgaria)	100.00
Air Liquide Ipari Gaztermelo Kft (Hungary)	100.00

Americas

	%
La Oxigena Paraguaya S.A. (Paraguay)	87.81

Africa

	%
Air Liquide Ghana ltd. (Ghana)	100.00
Société Camerounaise d'Oxygène et d'Acétylène (Cameroon)	99.99
Société Sénégalaise d'Oxygène et d'Acétylène (Senegal)	79.63
Société Gabonaise d'Oxygène et d'Acétylène (Gabon)	79.99
Société Burkinabé des Gaz Industriels (Burkina-Faso)	64.88
Société Béninoise des Gaz Industriels (Benin)	99.96
Société Togolaise des Gaz Industriels (Togo)	70.56
Société Malienne des Gaz Industriels (Mali)	99.94
Société Congolaise des Gaz Industriels (Congo)	99.99
Air Liquide Nigeria PLC (Nigeria)	61.11
Air Liquide Engineering Southern Africa ltd. (South Africa)	100.00

Asia-Pacific

	%
Daesung Sanso (South Korea)	33.38
Pacific Hydrogen (Japan)	26.75
Hang Yang Air Liquide (China)	62.03
Air Liquide Engineering India (India)	51.00
Air Liquide Engineering South Asia (Singapore)	100.00

→ 4 – Main changes occured in 2001

→→ Companies fully consolidated in 2001

Companies created:

Air Liquide Korea Services (first consolidation in 2001)

Companies acquired:

Air Liquide Austria (acquired in January 2001)

Sociedad Argentina de Aire Liquido S.A.

Sociedade Brasileira Arliquido Ltda

Both entities have been bought from Messer Griesheim GmbH Group in October 2001 and related balance sheets have been consolidated as of December 31, 2001.

→→ Companies accounted for by the equity method

Air Liquide Engineering South Asia (first consolidation in 2001). Séchilienne-Sidec (fully consolidated before 2001. Change of consolidation method following the merger of Séchilienne with its subsidiary Sidec S.A. As a result the percentage of Air Liquide Group's ownership decreases to 40.54%.).

The changes in the list of the consolidated companies have no significant impact on the 2001 consolidated financial statements.

→ 5 – Personnel

The number of employees of the fully consolidated companies amounts to 30,800 people as of December 31, 2001 (30,300 as of December 31, 2000).

→ 6 – Currency rates

→→ Average rates

	In euros			In French francs
	1999	2000	2001	2001
US dollar	0.94	1.08	1.12	7.32
Canadian dollar	0.63	0.73	0.72	4.73
Yen (1,000)	8.24	10.05	9.20	60.36

→→ Closing rates

	In euros			In French francs
	1999	2000	2001	2001
US dollar	1.00	1.07	1.13	7.44
Canadian dollar	0.68	0.72	0.71	4.66
Yen (1,000)	9.73	9.35	8.67	56.88

Report of Statutory Auditors

We have audited the accompanying consolidated accounts of Air Liquide and its subsidiaries expressed in euros as of December 31, 2001.

These consolidated accounts are the responsibility of the Company's management. Our responsibility is to express an opinion on these accounts based on our audits.

We conducted our audits in accordance with French professional standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated accounts are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated accounts. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated account presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated accounts fairly present, in all material respects, the financial position of Air Liquide and its subsidiaries as of December 31, 2001, and the results of their operations included in the consolidation for the year then ended in accordance with French accounting principles.

We have also reviewed the information relating to the Group contained in the Directors' reports. We have nothing to report with respect to the fairness of such information and its consistency with the consolidated accounts.

February 26, 2002

RSM SALUSTRO REYDEL

Édouard SALUSTRO   Jean-Pierre CROUZET

ERNST & YOUNG Audit

Jean-Claude LOMBERGET

Ten-year consolidated financial summary

	Notes	1992	1993	1994	1995	1996
		In millions of euros				
Net Sales		4,562.2	4,630.6	4,840.6	4,907.2	5,241.5
including Gas and Services		3,768.4	3,908.4	4,075.0	4,102.4	4,324.3
Operating income		554.0	561.5	606.6	649.1	663.2
Net earnings		338.6	339.2	373.8	405.7	422.7
Funds provided by operations		769.6	788.8	833.9	860.9	910.0
Acquisitions of fixed assets		483.3	511.0	446.7	548.4	887.3
Investments		55.2	79.9	559.0	117.2	157.8
Distributions	(1)	122.4	124.2	138.9	143.6	160.1
shareholders' equity		2,802.0	3,140.1	3,168.0	3,398.5	3,759.1
Net indebteness at end of year		542.9	468.2	642.0	525.2	842.0
Capital						
Number of shares issued and outstanding		57,352,114	58,208,391	65,081,957	66,279,226	73,117,927
Adjusted number of shares	(2)	84,815,239	86,800,493	88,356,343	89,749,774	90,825,823
Results per share (in euros)						
Net earnings per share	(3)	3.99	3.91	4.23	4.52	4.65
Dividend per share		2.13	2.13	2.13	2.13	2.13
Total dividend (including tax credit)		3.20	3.20	3.20	3.20	3.20
Dividend adjusted per share		1.42	1.42	1.56	1.56	1.71
Ratios						
Return on equity (ROE)	(4)	12.7%	11.4%	11.9%	12.4%	11.8%
Return on capital employed after tax (ROCE)	(5)	12.1%	11.0%	11.3%	11.5%	11.0%

(*) Excluding the net capital gain on the disposal of hydrogen peroxide business of 38.3 million euros.

Surplus dividend:

Since 1995, a surplus dividend equal to 10% of the dividend has been distributed to registered shares registered since more than two years as of the 31st of December preceding the period of distribution, and owned until the date of the payment of the dividend.

In 2001, the surplus dividend amounts to 0.32 euro per share (0.48 euro including dividend tax credit), representing a total amount of 7.5 million euros.

(1) Without withholding tax of 68.0 million euros in 2001, 36.1 million in 2000, 26.2 million in 1999, 19.2 million in 1998, 13.6 million in 1997, 13.7 million in 1996, 8.8 million in 1995, 7.6 million in 1994, 4.4 million in 1993 and 6.3 million in 1992 and including a surplus dividend of 7.5 million euros in 2001, 7.5 million in 2000, 6.3 million in 1999, 6.1 million in 1998, 5.5 million in 1997, 4.1 million in 1996 and 2.2 million in 1995.

(2) Adjusted to account for the weighted number of shares outstanding resulting from stock dividends declared in 2000, 1998, 1996, 1994 and 1992, stock offering (from 1991 to 2000) and treasury shares.

(3) Calculated on the adjusted weighted number of shares outstanding during the year (excluding treasury shares).

	Notes	1997	1998	1999	2000	2 001	2 001
		In millions of euros					In millions of French francs
Net Sales		5,851.3	6,087.6	6,537.7	8,099.5	**8,328.3**	54,630
including Gas and Services		4,959.9	5,194.2	5,694.0	7,113.6	**7,256.6**	47,600
Operating income		782.5	847.6	935.0	1,116.0	**1,177.6**	7,724
Net earnings		471.1	515.6	562.7	651.8	**701.9**	4,604
Funds provided by operations		1,013.5	1,156.5(*)	1,308.4	1,564.3	**1,627.4**	10,675
Acquisitions of fixed assets		1,173.2	1,222.5	1,129.4	910.2	**769.8**	5,050
Investments		95.3	211.6	309.0	104.8	**332.4**	2,180
Distributions	(1)	179.4	205.2	221.7	281.8	**298.1**	1,955
Shareholders' equity		4,171.5	4,346.9	4,926.8	5,285.9	**5,353.3**	35,115
Net indebteness at end of year		1,258.6	1,676.8	2,432.7	2,280.3	**2,583.5**	16,947
Capital							
Number of shares issued and outstanding		73,156,045	82,921,825	82,862,583	91,429,644	**90,821,483**	90,821,483
Adjusted number of shares	(2)	90,877,567	90,879,976	90,480,565	90,242,706	**89,054,614**	89,054,614
Results per share (in euros)							
Net earnings per share	(3)	5.18	5.67	6.22	7.22	**7.88**	51.69
Dividend per share		2.38	2.40	2.60	3.00	**3.20**	20.99
Total dividend (including tax credit)		3.57	3.60	3.90	4.50	**4.80**	31.49
Dividend adjusted per share		1.91	2.18	2.36	3.00	**3.20**	20.99
Ratios							
Return on equity (ROE)	(4)	11.9%	12.1%	12.1%	12.8%	**13.2%**	13.2%
Return on capital employed after tax (ROCE)	(5)	10.5%	10.1%	9.6%	10.5%	**10.7%**	10.7%

(4) Return on equity: (net earnings)/(weighted average of shareholders' equity).

(5) Return on capital employed after tax: (earnings before minority interests – financial income (expense) after taxes)/weighted average of (shareholders' equity + minority interests + net indebtedness).