



AKZO

A N N U A L R E P O R T

1989

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Translation.
In the event of a conflict in interpretation, reference should be made to the Dutch version of this Annual Report.

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The symbol ™ indicates trademarks filed for registration in one or more countries.

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Akzo, headquartered in the Netherlands, is a worldwide group of companies with operations in 50 countries. Its product range includes chemical products, fibers, coatings, and healthcare products. Group activities are organized in five divisions. Akzo's objective is to build a strong, well-balanced product mix. In addition to efforts to strengthen its existing core businesses, Akzo focuses on the development of new activities in major growth sectors that draw on the Company's technological and marketing know-how. Geographically, Akzo's operations are largely concentrated in the Netherlands, the Federal Republic of Germany, and the United States. Akzo continues to assign a high priority to strengthening its position in North America and to expansion in East Asia and South-East Asia. In the Netherlands, the United States, Belgium, Brazil, and Japan, Akzo has national organizations that have a coordinating function and render services to the divisions.

| | 1989 | 1988 |
|--|--------|--------|
| <i>Millions of guilders</i> | | |
| Net sales | 18,736 | 16,581 |
| Operating income | 1,713 | 1,424 |
| Net income | 954 | 843 |
| Cash flow | 1,832 | 1,623 |
| Stockholders' equity | 4,499 | 4,290 |
| Property, plant and equipment | | |
| - Expenditures | 1,297 | 1,270 |
| - Depreciation | 852 | 751 |
| Acquisitions | 1,120 | 327 |
| <i>Per common share of Hfl 20, in guilders</i> | | |
| Net income | 22.02 | 20.94 |
| Dividend | 8.00 | 7.50 |
| Stockholders' equity | 103.84 | 106.61 |
| <i>Key financial statistics</i> | | |
| Operating income, as % of net sales | 9.1 | 8.6 |
| Operating income, as % of average invested capital | 18.9 | 17.4 |
| Net income, as % of average stockholders' equity | 21.7 | 20.8 |
| Group equity/debt | 0.50 | 0.51 |
| Number of employees at year end | 70,900 | 71,100 |

1989 was a good year for Akzo. It was also a year highlighted by a further strengthening of our product portfolio. This improvement not only reflects the high level of investment but also the results of our acquisition program. Thus, the chemical division and the coatings division were able to expand their positions in the United States. Our coatings division finally succeeded in securing a significant position in the U.S. market, making Akzo one of the leading coatings producers worldwide.

The restructuring of the chemical industry requires us to make a constant critical evaluation of our activities to ascertain whether they fit Group strategy. As part of this ongoing evaluation we decided in late 1989 to sell a majority interest in Barmag, our German machinery factory.

The developments we currently see in the world, notably in the Soviet Union and in Eastern Europe, but also in Japan, which is increasingly projecting itself as an economic world power, and in the United States where persistent budget and trade balance deficits are awaiting a solution, will have consequences in the years ahead that are hard to predict. Also, we will be confronted with developments within the context of the Single European Market and changes as a result of increasingly stringent environmental regulations. Akzo will have to cope with these developments. As a consequence our Company must become a more flexible, more responsive, and more competitive

organization. In order to achieve such an organization, we will have to face the challenge of further decentralizing our operations by forming business units: smaller, homogeneous product/market combinations that can fully decide on all their business areas and disciplines. The Board of Management and the divisional boards should make sure that such business units can benefit from the advantages of the larger concern. Accordingly, besides further decentralization of our operations, we will need to add a Company-wide dimension in a number of strategically important functional areas while obviating the disadvantages of a complex matrix organization. In the years ahead we will continue to watch for opportunities to strengthen our product portfolio by acquisitions. Apart from that, we will need to increasingly concentrate on efforts to ensure that the Company's internal operations are effective.

The many uncertainties we are facing make it hard to give a forecast on our results in 1990. In the United States the first signs of softness in the economy are becoming manifest. There are at present no clear indications that such softness of the economy is going to carry over to Europe. In general, the prospects for Japan and other Far East countries remain fair. At the end of 1989 the rate of the dollar began to decline, which may erode our competitive position, notably in the Netherlands and the Federal Republic of Germany, where approximately 50% of our invested capital is employed. At this stage, however, we expect that the earnings level of 1989 can be maintained if the general economy does not develop adversely.

Finally, I would like to thank our employees for the commitment and dedication they have shown during the past year. I trust that we will all join forces to make our Company more flexible and responsive to change.



A handwritten signature in dark ink, which appears to read 'A.A. Loudon'. The signature is written in a cursive style and is positioned above a horizontal line.

A.A. Loudon

Agenda

Agenda of the Annual Meeting of Stockholders of Akzo to be held in Musis Sacrum, Velperplein, Arnhem, the Netherlands, on Thursday, April 26, 1990, at 2:00 p.m.

- 1 Opening

- 2 Report of the Board of Management for the fiscal year 1989

- 3 Approval of the financial statements; consideration of the dividend proposal

- 4 Determination of the number of members of the Supervisory Council; appointment of members of the Supervisory Council

- 5 Proposal to retire the shares of cumulative preferred stock held by the Company

- 6 Proposal to amend the Articles of Association

- 7 Proposal to designate the Board of Management as entitled to issue shares and to restrict or disregard the preemptive rights of stockholders

- 8 Proposal to authorize the Board of Management to acquire shares of the Company on behalf of the Company

- 9 Any other business

Financial Calendar 1990

| | |
|------------------------------------|------------|
| Annual Meeting of Stockholders | April 26 |
| Report for the 1st Quarter 1990 | April 26 |
| Report for the 2nd Quarter 1990 | August 2 |
| Report for the 3rd Quarter 1990 | November 1 |
| Payment of the 1989 Final Dividend | May 14 |

Supervisory Council

G. Kraijenhoff, Chairman
E.G.G. Werner, Deputy Chairman
A. Batenburg
A.G. van den Bos
F.H. Fentener van Vlissingen
J.G.A. Gandois
H.A. van Stiphout
C. van Veen
H.G. Zempelin

Board of Management

A.A. Loudon, Chairman
J.W. Berghuis
J. Veldman
M.D. Westermann

Secretary

Th.J.A.W. Schregardus

Management Committee

The Board of Management is assisted in policy-making by a Management Committee, which includes the members of the Board and other senior officers.

Members of the Board of Management:

A.A. Loudon, Chairman
J.W. Berghuis, Deputy Chairman
J. Veldman, Deputy Chairman
M.D. Westermann, Deputy Chairman

Division Presidents:

F.A.G. Collot d'Escury, Salt and Basic Chemical Division
J.C.P. van Oosterom, Chemical Division
U.G. Stark, Fibers and Polymers Division
A.G.J. Vermeeren, Pharma Division
C. Zaal, Coatings Division

Functional Members:

S. Bergsma, Financial Affairs
M.W. Geerlings, Research and Technology (until February 1, 1990)
F.I.M. van Haaren, Research and Technology (effective February 1, 1990)
J. den Hoed, Corporate Control (effective February 1, 1990)
H.A. van Karnebeek, Human Resources (effective February 1, 1990)
S. Minnema, Strategic Planning (effective February 1, 1990)

Geographic Members:

R.M. Clarke, Akzo America (effective January 1, 1990)
A.R. Dragone, Akzo America (until January 1, 1990)
A. van Es, Akzo Nederland (effective February 1, 1990)

Changes in the Supervisory

Council At the Annual Meeting of Stockholders held on April 27, 1989, H.A. van Stiphout, C. van Veen, and O. Wolff von Amerongen stepped down at the expiration of their terms of office. H.A. van Stiphout and C. van Veen were reappointed. Having reached the mandatory retirement age, Mr. Wolff von Amerongen was not eligible for reappointment.

J.G.A. Gandois was appointed to the Council to fill the vacancy.

With deep regret we received on November 30, 1989, the shocking news that A. Herrhausen, Deputy Chairman of the Supervisory Council, had lost his life through an act of violence. With his vast knowledge, dedication, and authority, he had made for many years substantial contributions to the growth and development of the company. We will hold him in respectful remembrance.

At the Annual Meeting of Stockholders of April 26, 1990, A.G. van den Bos and F.H. Fentener van Vlissingen will resign from the Council, as their terms of office are expiring. Mr. Fentener van Vlissingen will be recommended for reappointment. As Mr. van den Bos has reached the mandatory retirement age, he is not eligible for reappointment. We will

therefore bid him farewell at this meeting.

Mr. van den Bos joined Akzo in 1953. In 1973 he was appointed a member of the Board of Management. From 1978 till 1982 he was Chairman of the Board and then went on to join the Supervisory Council. We are indebted to Mr. van den Bos for the significant contributions he made in various positions to the development of Akzo.

Stockholders will be asked to increase membership of the Council by one.

To fill the vacancies caused by Mr. Herrhausen's death, the retirement of Mr. van den Bos, and the increase in membership we recommend the appointment of H. Kopper, A.R. Dragone, and H.H. van den Kroonenberg.

Changes in the Management

Committee A.R. Dragone, President of Akzo America, retired from the Company on December 31, 1989. We thank Mr. Dragone for his contributions to the Group's development, especially during the restructuring of our activities in the United States. He was succeeded by R.M. Clarke, who joined the Management Committee as of January 1, 1990.

M.W. Geerlings, who will retire in 1993, resigned as the member of the Management Committee responsible for research and technology effective February 1, 1990. As of the same

date he was succeeded by F.I.M. van Haaren. Given further decentralization and the associated formation of business units, it will be proposed at the Annual Meeting of Stockholders in 1991, when J. Veldman retires, that membership of the Board of Management be reduced from four to three. In view of this proposal and the need to add a Company-wide dimension in a number of strategically important functional areas, it was decided to expand the Management Committee. A. van Es (Akzo Nederland), J. den Hoed (Corporate Control), H.A. van Karnebeek (Human Resources), and S. Minnema (Strategic Planning) were accordingly appointed to the Management Committee effective February 1, 1990.

Supervision During 1989 the Council regularly received reports on the Company's business and consulted periodically with the Board of Management about such issues as planning, investments, acquisitions, divestments, and personnel. In addition, committees from the Supervisory Council and the Board of Management met to discuss items like the financial statements and internal control.

We thank both the Board of Management and the Company's employees for the good performance achieved in 1989.

Financial Statements and Dividend Proposal

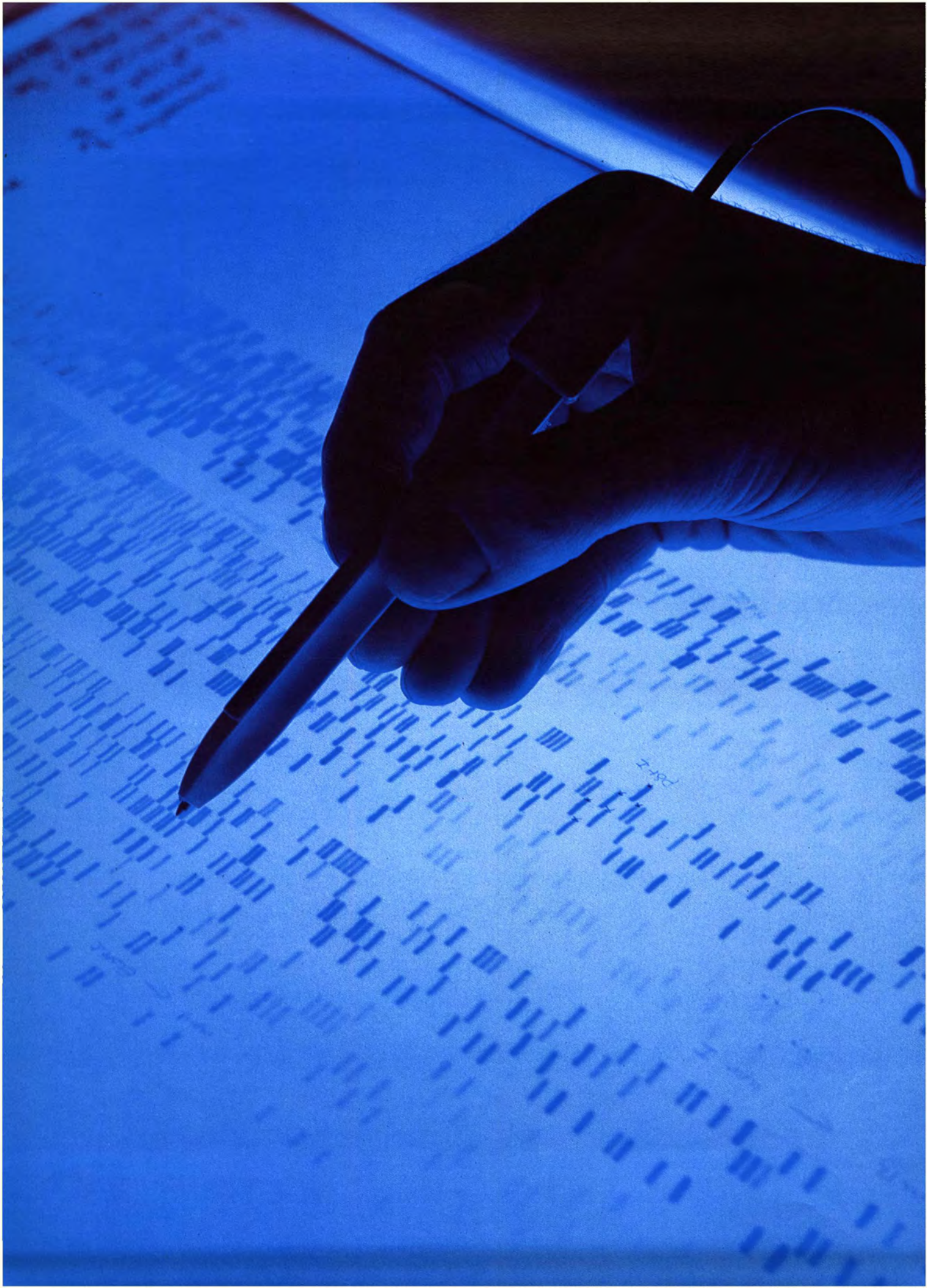
We herewith submit to you for approval at the Annual Meeting of April 26, 1990, the financial statements for 1989 as prepared by the Board of Management. These financial statements have been examined by KPMG Klynveld Kraayenhof & Co., *Registeraccountants*. Their report appears on page 64.

We have approved these financial statements as well as the Board of Management's proposal made therein with regard to the allocation of profit, and the dividend proposal as stated in the Report of the Board of Management on page 9.

We recommend that you also approve the financial statements, thus discharging the responsibility of the members of the Board of Management for their conduct of the business and of the members of the Supervisory Council for their supervision.

Arnhem, February 23, 1990

The Supervisory Council



General Review

Results of Operations In line with expectations, 1989 closed with higher earnings than achieved in 1988. Net income totaled Hfl 954 million, up 13% from 1988 (Hfl 843 million). This good performance is in part attributable to a continued favorable development of the economy and to fairly stable exchange rates. In addition, the distinct improvements in our product mix made in recent years exerted a positive influence. Sales increased 13% to Hfl 18.7 billion, and operating income was up 20% from Hfl 1,424 million in 1988 to Hfl 1,713 million. All product groups contributed to these gains in sales and operating income. Capital investments continued at a high level, while a sound financial condition and ample liquidity were maintained. 1989 capital investments break down into Hfl 1.3 billion for property, plant and equipment and Hfl 1.1 billion for acquisitions.

Dividend Proposal The number of common shares outstanding increased by 3.1 million to 43.3 million at December 31, 1989.

Despite this increase in common stock by 8%, net income per common share was up from Hfl 20.94 in 1988 to Hfl 22.02 in 1989. Excluding extraordinary items, per share income was Hfl 21.71, against Hfl 21.22 in 1988.

Stockholders' equity per common share at December 31, 1989 stood at Hfl 103.84, compared with Hfl 106.61 at year-end 1988. Net income per common share on a current-value basis was Hfl 20.10 in 1989 and Hfl 18.07 in 1988.

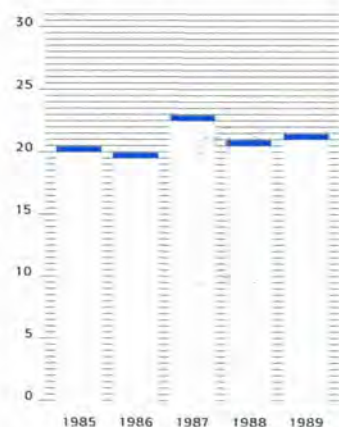
We will propose at the Annual Meeting of Stockholders that the 1989 dividend be fixed at Hfl 8.00 per common share. Of this amount, Hfl 1.50 was declared and made payable as an interim dividend in November 1989.

We will also propose that stockholders may choose to receive the final dividend of Hfl 6.50 in cash or partly in cash, in the amount of Hfl 3.25, with the remainder being paid in common stock chargeable to additional paid-in capital or, at the stockholder's option, to other reserves. In order to make allowance for changes in the price of Akzo N.V. stock, the proposal concerning the stock dividend rate will be drafted on April 26, 1990 and submitted for approval by stockholders at the Annual Meeting of Stockholders to be held on that date.

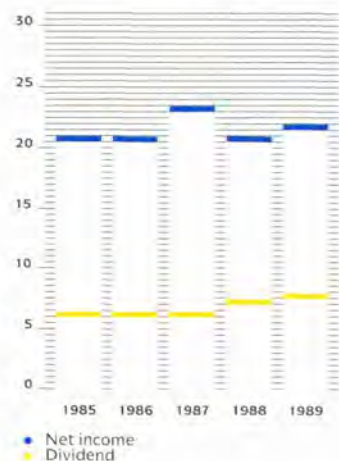
If the dividend proposal is adopted, Hfl 347 million (36%) of net income will be allocated for dividend payment.

Outlook for 1990 Given the many political and economic uncertainties, it is difficult to predict the development of earnings during 1990. While the economy in the United States appears to be weakening, we expect that the economic situation in the rest of the world will remain healthy. Under these conditions and provided that exchange

Net income, as percentage of average stockholders' equity



Net income and dividend per common share of Hfl 20, in guilders



Typing and sequencing of the building blocks of recombinant DNA in Organon's Oss, the Netherlands, laboratories.

rates will remain stable, the current earnings level should be maintained. This forecast is based on many factors, such as improvement of our product mix; stabilization of the market conditions, with slightly lower prices—notably for commodity chemicals; higher interest expense; utilization of potential synergies; the yield of the high capital expenditures made in recent years; and the results of cost-cutting measures.

In 1990, expenditures for property, plant and equipment will continue at the same high level as in 1989.

Strategic Developments

General In 1989 we were again able to make improvements in our business portfolio and in the geographic distribution of our activities. This was achieved by making acquisitions and additions to property, plant and equipment as well as by selling businesses that do not form part of our core activities and terminating unprofitable operations.

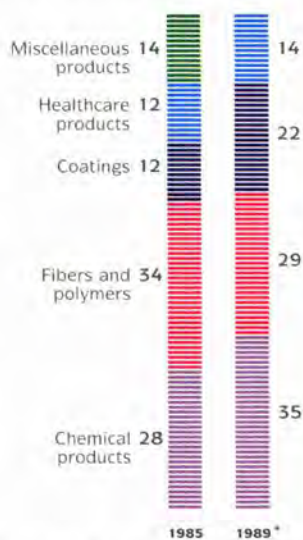
In a number of areas Akzo occupies leading positions, some of them worldwide. These areas are salt, additives for the polymer industry, catalysts for the petroleum and petrochemical industries, rubber chemicals, industrial fibers, membranes for medical applications, high-performance coatings such as decorative paints and car refinishes, and fertility and antifertility drugs.

The restructuring process of the chemical industry, which has been under way for many years, and the trend toward globalization for various products will be accelerated by the integration of the European market in 1992. The Single European Market is bound to lead to stiffer competition. While this requires an enhanced efficiency improvement effort to secure our competitive position, European integration will also offer new opportunities.

To achieve greater efficiency, the flexibility and synergy potential of the Company's internal organization will have to be boosted. We trust that major contributions will be made by the business units which have been formed, or are in the process of being formed, for a number of product groups.

The markets for coatings and

Product mix, in net sales terms (as %)



* situation at December 31, 1989

No operations in the capital market will be needed to finance existing activities. However, we will utilize suitable opportunities to further improve our debt portfolio.

Net of the effect of any acquisitions and divestments, the number of employees will hardly change in 1990. A slight increase in a few sectors will be offset by streamlining operations in the fibers and polymers division.

healthcare products are still determined to a large extent by regional factors. Therefore, the Single European Market will have the greatest impact on these product groups.

In 1989 we also stepped up our R&D efforts. Organizational measures are being taken to improve the effectiveness of our research activities. As in the previous years, we took numerous steps to enhance our care for safety, health, and the environment. In particular, we improved environmental control systems at production sites and intensified our research efforts to resolve environmental problems and develop products with reduced environmental impact.

The initiatives aimed at innovation are accommodated in Company programs launched in recent years, such as the Excellence in Operations campaigns and the corporate identity program designed to present Akzo worldwide as one company.

During the year the human resources management function was reorganized to enhance the quality of management as well as the innovative and entrepreneurial potential at all levels in the organization.

Chemical Products In 1989 we acquired Pennwalt Italia S.p.A. (methylamines, rubber chemicals) and Filtrol Corporation, United States (cracking catalysts). Also in 1989, it was decided to modernize and expand the capacity of the PVC plant of ROVIN, our joint venture with Shell.

Production facilities were modernized and additional capacity came on stream for industrial colloids, catalysts, organic peroxides, insoluble sulfur, rubber chemicals, and paper chemicals. A new dimethyl ether plant is under construction.

We also entered into joint ventures in the fields of paper chemicals (India), water glass, and white fillers (Thailand, Spain). The European activities in the field of silica products were transferred to a joint venture with PQ Corporation.

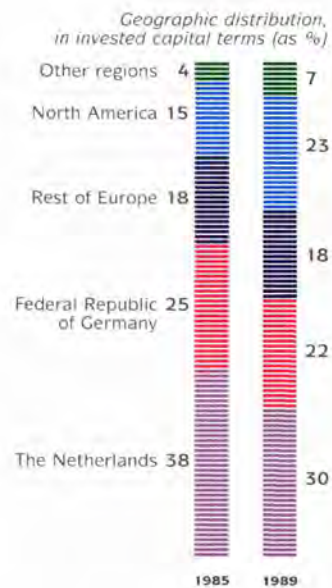
Fibers and Polymers In connection with the implementation of the business units in 1988 and the efforts to improve returns, we took steps to cut costs and increase the effectiveness of the organization, in particular in the overhead and service departments.

We continued modernizing the production facilities for polyester textile fibers in the Netherlands, the Federal Republic of Germany, and Spain.

We were able to strengthen our position in advanced reinforcing materials, as *Twaron*[®] aramid and *Tenax*[®] carbon high performance fibers registered substantial growth in market share.

Expansion projects for man-made fibers are under way at subsidiaries and affiliates in Latin America and India. We increased our interest in COBAFI, Brazil (industrial yarns), from 36% to 82%, which gave us full control.

Coatings In 1989, we acquired U.S.-based paint company Reliance and purchased the remaining half of the shares in Procolor, based in Spain. The Company reached agreement at



year-end 1989 on the formation of a joint venture in Hungary, in which we have taken a 51% interest.

Major capital outlays were again made for production facilities and distribution centers in Europe, the United States, and Brazil.

We vigorously pursued our activities aimed at integration of acquired companies and reduction of the number of production sites, as well as our search for products that are safer for the environment.

We began to study ways of streamlining the product range swollen by the many acquisitions made in recent years.

Healthcare Products Our positions in oral contraceptives and gynecological products were further strengthened. We launched new and improved tests and equipment in the sector of hospital products. We also gained access to new technologies for use in diagnostics of infectious diseases. New vaccines and other specialties were introduced in the veterinary sector.

We devoted much attention to strengthening our position in the United States and Japan. Investments were for the most part made in the Netherlands, primarily relating to the concentration of Organon Teknika in Boxtel.

Miscellaneous Products As we continued to concentrate activities on the Company's core businesses, we reduced our holding in Barmag (machinery and engineering products) from 100% to 15%.

Our electronic materials operations were restructured. These operations have now for the most part been transferred to a 50-50 joint venture with the U.S. company AMP Inc.

Sales, Costs, and Income

Condensed Statement of Income

| Millions of guilders | 1989 | 1988 |
|--|----------|----------|
| Net sales | 18,736 | 16,581 |
| Operating costs | (17,023) | (15,157) |
| Operating income | 1,713 | 1,424 |
| Financing charges | (324) | (255) |
| Operating income less financing charges | 1,389 | 1,169 |
| Taxes | (507) | (409) |
| Earnings of consolidated companies from normal operations, after taxes | 882 | 760 |
| Earnings from nonconsolidated companies | 86 | 123 |
| Extraordinary items | 12 | (11) |
| Group income | 980 | 872 |
| Minority interest | (26) | (29) |
| Net income | 954 | 843 |

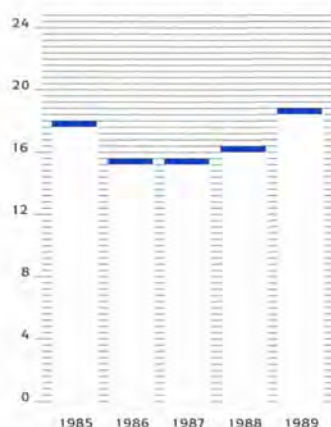
Current-value information

| | | |
|------------------|-------|-------|
| Operating income | 1,556 | 1,214 |
| Net income | 871 | 727 |

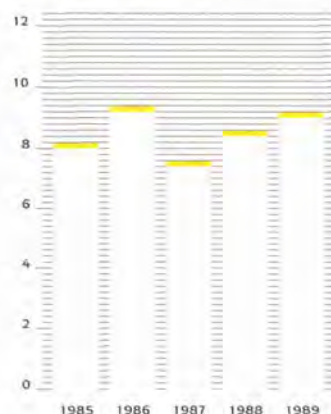
Sales Net sales totaled Hfl 18.7 billion, up 13% from 1988, when they were Hfl 16.6 billion. This sales gain is attributable to acquisitions (5 points), higher volume (2 points), higher selling prices (4 points), and changes in exchange rates (2 points).

Operating Costs Compared with 1988, operating costs increased by 12%. The rise in raw material prices that began in 1987 continued until mid-1989. Some raw material prices

Net sales, in billions of guilders



Operating income, as percentage of net sales



began to fall in the second half of the year. Energy prices remained fairly stable, although an upward trend was discernible, particularly in the second half of the year.

The costs of raw materials were 33% of sales (1988: 31%). Energy costs as a percentage of sales were 4.0% in 1989, against 4.3% in 1988.

On average, labor costs per employee were up 3% from 1988. The average number of employees was 5% higher. Labor costs as a percentage of sales were 28.3%, compared with 29.5% in 1988.

The high level of capital investments made in recent years is reflected in an increase in depreciation from Hfl 751 million in 1988 to Hfl 852 million in 1989.

Operating Income Operating income was up 20% from Hfl 1,424 million in 1988 to Hfl 1,713 million. Expressed as a percentage of sales, operating income advanced from 8.6% in 1988 to 9.1%.

Financing Charges Financing charges increased from Hfl 255 million in 1988 to Hfl 324 million, mainly due to the high level of investment and to strong inflation in Brazil.

Taxes The average tax burden was 36.5% (1988: 35.0%).

Earnings from Nonconsolidated Companies Earnings from nonconsolidated companies decreased from Hfl 123 million to Hfl 86 million. This decline is principally due to the fact that we acquired majority interests in COBAFI, Brazil, and Procolor, Spain, so that earnings from these companies are no longer included under this item.

Extraordinary Items Extraordinary items—on balance an extraordinary gain of Hfl 12 million—mainly related to book profit on divestments and additions to provisions for restructuring.

Net Income Net income in 1989 was Hfl 954 million, up 13% from 1988. Net income as a percentage of stockholders' equity was 21.7% (1988: 20.8%).

Net Income on the Basis of Current Value Net income on the basis of current value was Hfl 871 million, compared with Hfl 727 million in 1988.

Value Added Value added, defined as the aggregate amount of labor costs, financing charges, taxes, and Group income from normal operations, was Hfl 7,198 million, against Hfl 6,536 million in 1988.

The share of labor costs in value added was 73.7% (1988: 74.8%).

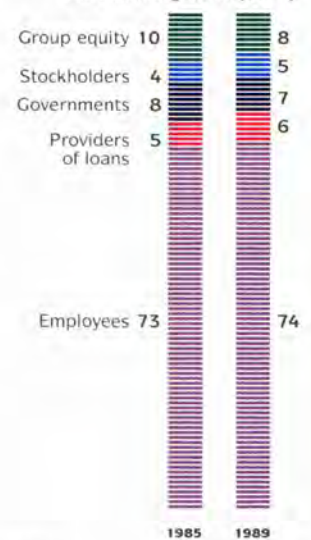
Capital Investments

Expenditures for property, plant and equipment totaled Hfl 1.3 billion (1988: also Hfl 1.3 billion).

In 1989 the total amount of project authorizations was Hfl 1.3 billion, against Hfl 1.1 billion in 1988.

Capital investments by nonconsolidated companies, with total sales of Hfl 3.8 billion on a 100% basis, amounted to Hfl 0.3 billion (1988: also Hfl 0.3 billion).

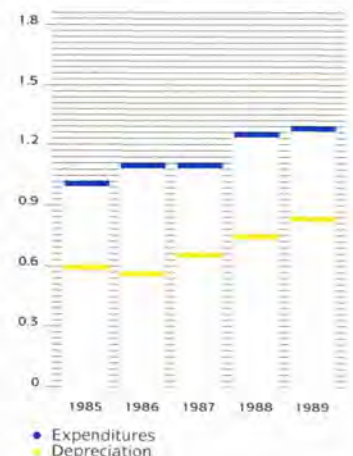
Shares in value added, exclusive of extraordinary items (as %)



Value added (millions of guilders)

6,375 7,198

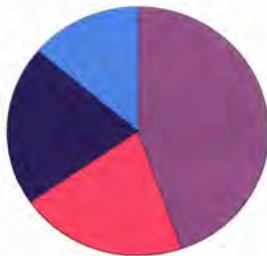
Property, plant and equipment, in billions of guilders



Acquisitions and Divestments

Expenditures for acquisitions aggregated Hfl 1.1 billion; the book value of sold interests (mainly Barmag) was Hfl 0.2 billion. In 1988, expenditures for acquisitions were Hfl 0.3 billion, while hardly any divestments were made in that year. The principal acquisitions made during 1989 were Pennwalt Italia (methylamines and rubber chemicals), Filtrol (cracking catalysts), and Reliance (coatings); the last two are based in the United States. Also, majority interests were acquired in companies that used to be included under nonconsolidated companies, notably Procolor (coatings) and COBAFI (industrial fibers). Of the amount of Hfl 1.1 billion paid for acquisitions, Hfl 0.7 billion was charged as purchased goodwill against Group equity.

Additions to PP&E and acquisitions at cost, less divestments at book value, 1985-1989



Breakdown by product group

| (billions of guilders) | |
|------------------------|------------|
| Chemical products | 3.8 |
| Fibers and polymers | 1.8 |
| Coatings | 1.8 |
| Healthcare products | 1.2 |
| Total | 8.6 |



Breakdown by region

| (billions of guilders) | |
|-----------------------------|------------|
| The Netherlands | 2.2 |
| Federal Republic of Germany | 1.1 |
| Rest of Europe | 1.4 |
| North America | 3.2 |
| Other regions | 0.7 |
| Total | 8.6 |

Financing

Condensed Statement of Sources and Applications of Funds

| Millions of guilders | 1989 | 1988 |
|------------------------------|--------------|--------------|
| <i>Sources of funds</i> | | |
| Group income | 980 | 872 |
| Depreciation | 852 | 751 |
| Cash flow | 1,832 | 1,623 |
| Other items | 343 | (153) |
| | 2,175 | 1,470 |
| <i>Applications of funds</i> | | |
| Investments and acquisitions | 2,538 | 1,618 |
| Disposal of interests | (198) | (19) |
| | 2,340 | 1,599 |
| Change in working capital | 401 | 244 |
| Dividends paid | 106 | 284 |
| Other applications | 9 | 6 |
| | 2,856 | 2,133 |
| Deficit | (681) | (663) |

Financing

| | | |
|--|------------|------------|
| Issuance of stock, drawdowns, etc. | 1,034 | 1,155 |
| Repayment of borrowings, etc. | (419) | (467) |
| | 615 | 688 |
| Change in cash and short-term investments | (66) | 25 |
| Cash and short-term investments at December 31 | 885 | 951 |

Interest-Bearing Borrowings Early in 1989 two loans were contracted in the aggregate amount of A\$ 120 million. These loans were swapped to U.S. dollar liabilities in the amount of U.S.\$ 104 million at an attractive level

of floating rate interest. No other major long-term loans were contracted during 1989. However, the Company took over loans in the amount of U.S.\$ 165 million when it acquired Reliance.

In 1989, we repaid Hfl 419 million of long-term borrowings. The amount of interest-bearing borrowings outstanding at year end was Hfl 3,960 million (at the end of 1988: Hfl 3,665 million).

At December 31, 1989, the Group equity/debt ratio was 0.50, against 0.51 at year-end 1988.

Credit Facilities At year end, the amount of credit available under long-term standby facilities was U.S.\$ 550 million (Hfl 1,056 million), which amount is unchanged from year-end 1988. The average remaining life of the standby credit lines is 6 years.

During 1989, we made active use of the commercial paper program set up in behalf of Akzo America Inc. with an Akzo N.V. repayment guarantee. The limit of this program remained unchanged at U.S.\$ 300 million at year-end 1989. The limits of the Euro-commercial paper program and of the Dutch commercial paper also remained the same at U.S.\$ 200 million and Hfl 300 million, respectively.

Official Listing in the United States

After Akzo's shares were registered in the United States under the Securities Exchange Act of 1934, Akzo's American Depositary Receipts (ADRs) began trading on May 8, 1989 on NASDAQ, a computerized stock trading system in the United States. The ADRs are listed under the symbol AKZOY. The ADRs are issued by Morgan Guaranty Trust Company, New York, with two ADRs

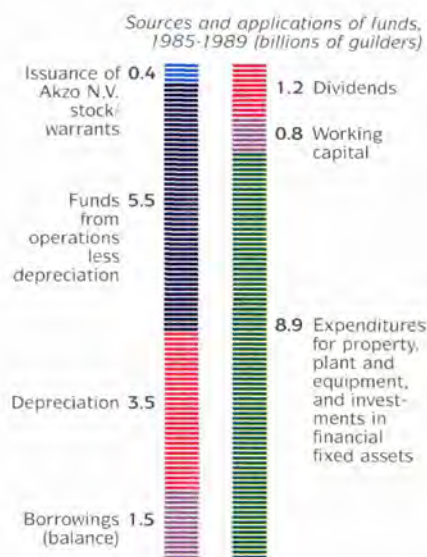
representing one common Akzo share. Holders of ADRs have almost the same rights as holders of common stock. Trading of Akzo shares in the United States has been considerably improved as a result of this listing.

Increase in Stock The importance to our Company of an official NASDAQ listing in the United States was illustrated by the acquisition of the U.S.-based paint company Reliance by means of a swap of shares that increased Akzo's capital stock by 1,553,014 shares.

The 1988 stock dividend added 1,528,639 shares to the number of outstanding shares of common stock. Finally, the number of shares of common stock was increased by 1,878 shares as a result of warrants being exercised. Of the 2,001,513 warrants issued in 1986 a total number of 2,588 were exercised, so that 1,998,925 warrants are still outstanding. Each warrant entitles the holder to obtain, at the price of Hfl 119, one share of Akzo N.V. common stock. The exercise period will expire on September 30, 1991. Akzo has the right to shorten this period with at least three months' prior notice.

During 1989 the total number of outstanding shares of common stock therefore increased by 3,083,531 (8%) to 43,324,238 at December 31, 1989.

In 1989 the last 29 shares of cumulative preferred stock of Hfl 1,000 each were purchased; no shares of cumulative preferred stock are now outstanding.





Research and Technology

A directorate charged with the planning and oversight of all strategically important affairs in research and technology has been set up. The directorate, which began work on February 1, 1990, is chaired by the Management Committee member responsible for research and technology.

R&D expenditures totaled Hfl 904 million (1988: Hfl 810 million). As a percentage of sales, R&D expenditures were 4.8% in 1989, versus 4.9% in 1988.

The number of people employed in research increased 220 to 6,490 at December 31, 1989.

Corporate research activities in the United States showed significant growth. Jointly with leading universities, some ten new research programs were initiated. These programs, which are largely exploratory in nature, comprise research into advanced material concepts. The results so far are highly encouraging, in part because relations with the U.S. scientific community have been considerably strengthened. The research has already yielded several inventions. Corporate research facilities are now being set up in the United States; the present volume of contract research will be maintained.

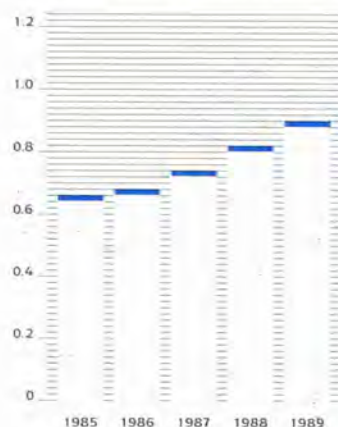
The use of computers in the research organization is fast expanding, particularly for the design of mathematical models for computational analysis and simulation in support of experimental research. This benefits both the efficacy and efficiency of research efforts. Mathematical models have been employed for some considerable time in optimizing existing processes and in designing new ones. A recent trend, which is rapidly gaining prominence, is the prediction of product characteristics by means of mathematical models.

Major examples of computer usage in R&D are to be found in the development of advanced polymeric materials for optical and electronic uses and for waterborne coatings. The pharmaceutical sector boasts a Computational Medicinal Chemistry Group specializing in the computer-aided design of new drugs. Computational medicinal chemistry raises both efficiency and quality in the initial stages of pharmaceutical research.

During the year progress was made on the development of new polymers and polymer modifications featuring dimensional stability and high-temperature resistance. These properties make such materials eligible for new reinforcing fibers, particularly in composites.

Catalysts research is another promising area. The work here centers on zeolites used in catalyst formulations. Zeolites are porous, crystalline materials. Advances in this field aid production of unleaded premium octane gasoline because of greater selectivity in the catalytic petroleum cracking process. Zeolites are also widely used in the

Research and development expenditures, in billions of guilders



Levitating magnet demonstrates superconductivity of the material developed in Akzo's laboratory in Dobbs Ferry, New York, United States.

petrochemical and chemical industries, particularly in processes in which they simultaneously raise efficiency and reduce harmful wastes. Significant advances are also being registered in the peroxide-based modification of existing polymers. Exploratory research has recently produced novel peroxide types which so modify certain common plastics that adhesion with fillers and reinforcing materials such as glass fiber is improved. The invention also improves the miscibility of polymers. The new systems based on this technology are protected by patents.

Starting from available knowledge on the processing of cellulose, we are endeavoring to develop environment-friendly, biodegradable cellulose-derived products.

As illustrated below, R&D efforts in the field of electronic materials have much intensified.

- In 1989, Akzo was the world's first private company to be awarded a superconductor patent. The superconductive ceramic material in question was developed in Dobbs Ferry, New York, United States.
- A special production technology was developed in Colorado Springs, Colorado, United States, for gallium arsenide wafers to be used in ultrafast electronic circuitry. The technology earned Akzo a "100 R&D Winners" award in the United States.
- Further research efforts related to the promising additive technology whereby copper is selectively precipitated on a printed wiring board.
- Lastly, new *Thermlam*[®] laminates for high-power electronics were developed for controlling or

supplying power to electrical equipment.

A significant research focus in 1989 was the control of pollution by solvent emissions from newly applied paint coats.

In the industrial coatings sector, stepped-up research efforts in previous years paid off in market launches of various water-reducible paint systems. In addition, the achievement of a higher solids content in paint is being energetically pursued; a highly advanced metallic system emerging from this work was successfully tested on several automotive finishing lines.

Considerable resources are being applied to rationalize and automate manufacturing processes to improve product quality, increase efficiency, and obtain better pollution control.

Safety, Health, and the Environment

In the year under review we continued to adopt measures and develop tools to add further substance to our safety, health, and environmental policy. We drew up several directives covering such fields as:

- soil protection, aiming to prevent pollution of the soil and to contain the spread via aquifers of pollutants from past spills.
- waste management, seeking to minimize waste generation and to control unavoidable waste.

Additionally, we established a three-year program arranging for regular internal audits in the field of safety, health, and the environment in our European plants. Most of the U.S. plants are already being audited. At a later date our other sites all over the world will be included in the program. Environmental standards are changing fast and will continue to be refined in the coming years. It is our policy to meet them in the most cost-effective way. This implies anticipation, because preventive measures integrated in process management are almost always preferable to add-on cleanup technologies. Anticipatory action is therefore the principal objective in the design and implementation of environmental care systems. Parts of the environmental care system have already been implemented at some ten Dutch sites, and generally considerable progress has been made. We intend to complete our program of action in the Netherlands in 1991 and to initiate steps at the other sites. Preparations in the United States have meanwhile begun.

Similar efforts were undertaken in the

field of safety and occupational health. To improve our safety record, we launched a drive which has already brought down the lost-time accidents rate.

A complete survey was undertaken of the occupational hygiene situation at several sites, which has proved helpful in establishing an effective action program.

Environmental groups in the Netherlands began campaigns against PVC, chiefly directed against the use of the material for packaging purposes, but also against other

The new thiuram unit in Cologne, Germany, is nearing completion.



applications. Moreover, these groups appear to favor diminished use of chlorine generally. We are convinced that PVC is a good product. Together with other producers and the manufacturing industry, we have launched a program to reduce pollution caused by uncontrolled processing of PVC, in order to be able to continue using the material in a responsible manner.

To sharply cut back the use of chlorofluorocarbons (CFCs), which have been shown to deplete the ozone layer, CFCs as aerosol propellants are progressively being replaced by dimethyl ether. The manufacturing facility being built for this product in Rotterdam is scheduled to commence operations in 1990. The development of manufacturing processes for CFC substitutes continues to be vigorously pursued. We are taking part in worldwide research programs concerned with the safety of such substitutes for man and the environment. The first installation in the Netherlands for the recycling of CFCs began operations, with the Ministry of Housing, Physical Planning, and the Environment cosponsoring the unit.

In a steadily increasing proportion of new products and processes health, safety, and environmental considerations have come to play a part. Typical examples are the new rubber chemicals plants in Cologne, Federal Republic of Germany, and Elbeuf, France, and the plant shortly to be built in LeMoyne, Alabama, United States. The processes used in these plants feature lower raw material consumption, higher purity products, and substantially reduced waste generation, to as little as 10 to 20 percent of the original volume.

Other examples of activities designed to achieve cleaner products and technologies are the research efforts in the fields of degradable surfactants, catalysts for premium octane gasoline, new catalysts for desulfurization and for the suppression of nitrogen oxides in combustion gases, and zeolites and peroxides for inclusion in detergent formulations.

Introduction of water-reducible paints is slower than anticipated because consumers, particularly in construction, have to get accustomed to using these new products.

Human Resources In recent years Akzo's organization has increasingly tended toward a structure in which business units bear full responsibility for primary functions such as sales, manufacturing, marketing, and product development. This development creates greater scope for active, innovative enterprise. We propose to furnish additional encouragement by assigning responsibilities to the lowest possible echelons in the organization. Furthermore, the creation of a working climate in which individual skills and talents can thrive is basic to the continued evolution of the Company. We will also seek to concentrate all the energies and intellectual resources that are available within Akzo. The one-company notion should inspire the various operations of Akzo to utilize their full synergy potential. The success of the Company is conditional upon a corporate culture that accommodates both the one-company concept and the needs of the individual. It will be one of our chief assignments in the next few years to foster such a corporate culture and to preserve the balance between the forces it evokes. The key items in this context are:

- the further development of Akzo's corporate identity so that Company employees will come to feel part of a larger entity and hence be conscious of the power of unity.
- intensification of local Excellence in Operations campaigns, which are to systematically emphasize quality consciousness, customer orientation, and cost awareness.
- the enhancement of Akzo's innovative capability by such means as heightened efforts in the field of research coordination.

The new corporate culture we envisage cannot really come about unless every employee, each in his or her position, is able and willing to help mold it. This requires a flexible organizational structure, but also a style of management of people in senior positions that welcomes initiative. The sharper focus on the human factor in the Company has led to reorganization of human resources management at the corporate level. This is expected to improve the coordination of management development and training efforts and raise the quality of management as a



Up to 400 young people from Akzo plants and other companies can be taught engineering skills in the new technical training center in Emmen, the Netherlands.



discipline. In framing overall policy and developing methods and techniques, we will make due allowance for differences in national cultures.

Workforce

| <i>Number of employees</i> | <i>Dec. 31 1989</i> | <i>Dec. 31 1988</i> |
|----------------------------------|---------------------|---------------------|
| Fibers and polymers division | 26,900 | 30,600 |
| Salt and basic chemical division | 6,500 | 6,500 |
| Chemical division | 8,300 | 7,700 |
| Coatings division | 15,200 | 12,500 |
| Pharma division | 12,600 | 12,400 |
| Other companies | 1,400 | 1,400 |
| Total | 70,900 | 71,100 |

At December 31, 1989, the number of employees was 70,900—down 200 relative to the 1988 year-end figure. The net effect of acquisitions and divestments is a decrease of 300. The coatings division showed the biggest increase in the number of employees, principally because of the Reliance and Procolor acquisitions. Geographically, the biggest increases occurred in the United States (acquisition of Reliance and Filtrol) and in Brazil (COBAFI). In the Federal Republic of Germany the number of employees decreased (sale of Barmag).

We acknowledge a debt of gratitude to all our employees for their efforts during the year, which have made a major contribution to our healthy performance in 1989.



Product Groups

The statistics presented below illustrate the relative importance of the individual product groups in terms of net sales, operating income,

invested capital, and expenditures/depreciation in respect of property, plant and equipment.

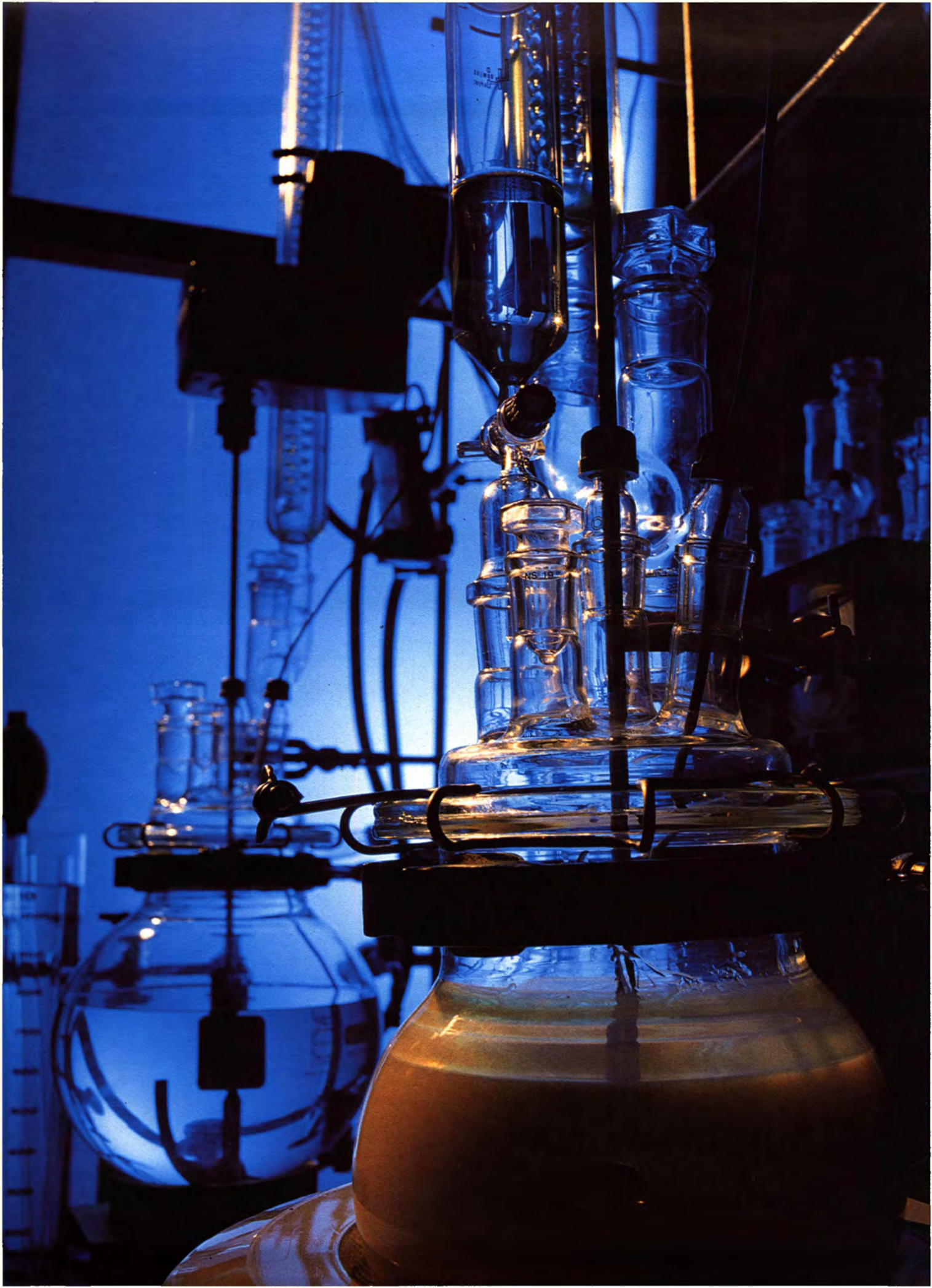
| Net sales | | Operating income | | Invested capital* | | Property, plant and equipment Expenditures | | Depreciation | | Millions of guilders |
|-----------|--------|------------------|-------|-------------------|-------|--|-------|--------------|------|--|
| 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | |
| 6,420 | 6,020 | 703 | 700 | 3,607 | 3,455 | 516 | 423 | 340 | 316 | Chemical products |
| 5,210 | 4,678 | 268 | 195 | 2,750 | 2,464 | 368 | 470 | 284 | 243 | Fibers and polymers |
| 3,659 | 2,794 | 281 | 210 | 1,708 | 1,291 | 170 | 158 | 92 | 76 | Coatings |
| 2,647 | 2,412 | 383 | 335 | 1,330 | 1,390 | 149 | 159 | 89 | 73 | Healthcare products |
| | | | | | | | | | | Miscellaneous products, intra-Group deliveries, and nonallocated items |
| (137) | (107) | 14 | (56) | (337) | (169) | 54 | 24 | 20 | 20 | |
| 17,799 | 15,797 | 1,649 | 1,384 | 9,058 | 8,431 | 1,257 | 1,234 | 825 | 728 | |
| 937 | 784 | 64 | 40 | 352 | 312 | 40 | 36 | 27 | 23 | Barmag |
| 18,736 | 16,581 | 1,713 | 1,424 | 9,410 | 8,743 | 1,297 | 1,270 | 852 | 751 | Total |

The terms and conditions for intra-Group deliveries are negotiated at arm's length and therefore are, in principle, identical with the ones used in transactions with third parties. International intra-Group deliveries

and international deliveries within a single product group are made in accordance with standard procedures that take due account of tax, currency, and pricing regulations in force in the countries concerned.

| Operating income as % of net sales | | Operating income as % of average invested capital | | Net sales/av. invested capital ratio | | Expenditures/depreciation ratio | | Ratios |
|------------------------------------|------|---|------|--------------------------------------|------|---------------------------------|------|---------------------|
| 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | |
| 11.0 | 11.6 | 19.9 | 22.5 | 1.82 | 1.94 | 1.5 | 1.3 | Chemical products |
| 5.1 | 4.2 | 10.3 | 8.1 | 2.00 | 1.95 | 1.3 | 1.9 | Fibers and polymers |
| 7.7 | 7.5 | 18.7 | 17.6 | 2.44 | 2.35 | 1.8 | 2.1 | Coatings |
| 14.5 | 13.9 | 28.2 | 26.4 | 1.95 | 1.90 | 1.7 | 2.2 | Healthcare products |
| 9.3 | 8.8 | 18.9 | 17.6 | 2.04 | 2.00 | 1.5 | 1.7 | |
| 6.8 | 5.1 | 19.3 | 13.9 | 2.82 | 2.72 | 1.5 | 1.6 | Barmag |
| 9.1 | 8.6 | 18.9 | 17.4 | 2.06 | 2.03 | 1.5 | 1.7 | Overall ratio |

* Total assets of consolidated companies, less cash and short-term investments, and less other current liabilities.



Chemical Products

General Sales of chemical products totaled Hfl 6,420 million, up 7% from 1988, when total sales were Hfl 6,020 million. This sales gain was due to acquisitions (2 points), higher volume (1 point), and higher selling prices (2 points).

Operating income was Hfl 703 million, compared with Hfl 700 million in 1988. The performance of salt and basic chemicals as well as of specialty chemicals was at about the same level as in the preceding year.

Expressed as a percentage of sales, operating income was down from 11.6% in 1988 to 11.0%.

Salt and Basic Chemicals

Practically all plants produced at full capacity in 1989.

Mild winter weather adversely affected shipments of salt in Western Europe. During the second half of the year, VCM/PVC prices came under distinct downward pressure. While earnings remained at about the same level in Western Europe, an improvement occurred in the United States.

At Hfl 2,592 million, sales of salt and basic chemicals were 1% lower than in 1988 (Hfl 2,618 million). This decline was due to lower volume, partially offset by acquisitions and the influence of changed exchange rates.

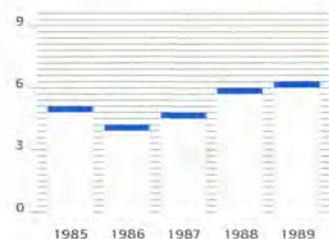
Salt As in the previous year, sales of deicing salt were virtually halted by very mild winter weather in Western Europe. Our salt operations in Western Europe continued to be confronted with imports of low-quality salt.

Shipments of electrolysis salt were very gratifying, with the European chlorine production plants operating at high capacity utilization rates. During the year work began on the renovation of the salt-processing plant in Hengelo, the Netherlands, which will enable us to better meet changing market needs. The project is scheduled to be completed by mid-1991.

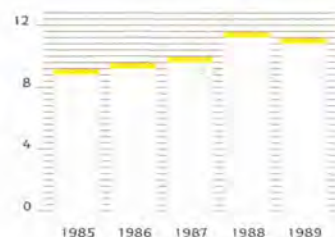
The results of this product sector in Western Europe were at the same level as in 1988.

In the United States a better performance was registered than in the previous year. While shipments of deicing salt were low early in the year because of the mild winter, volume and price level increased by the end of the year. Further integration of Diamond Crystal's salt activities resulted in a substantial improvement in efficiency.

Net sales, in billions of guilders



Operating income, as percentage of net sales



Research holds a prominent position in today's chemical industry.

Chlor-Alkali Products Supply and demand of PVC in Western Europe remained fairly well balanced. In the United States capacity expansion depressed prices.

In the Far East, where we sell part of the vinyl chloride monomer (VCM) produced by us, VCM production capacity expanded. Combined with reduced demand from China, this resulted in a considerable decline in VCM prices in the Far East and exerted a negative influence on ROVIN's results during the last few months of 1989.

While the chlorine market showed a stable development, demand for

Higher consumption of soda ash in the glass industry resulted in volume and earnings gains for this product sector.

Other Basic Chemicals Industrial colloids did slightly better, but earnings remained unsatisfactory. Market prices were depressed, although there was a moderate improvement. The modernization of the production facilities in Arnhem, which is scheduled for completion in the second half of 1990, should result in lower production costs and improved earnings.

The acquisition of Pennwalt Italia S.p.A. significantly strengthened our position in the field of methylamines and choline chloride.

For the chloroform and methylene chloride plant in Delfzijl, the Netherlands, a comprehensive environmental program is being implemented. The program includes the construction of a waste incinerator, which will be commissioned at the end of 1990. The perchloroethylene and carbon tetrachloride manufacturing plant in Delfzijl is to be shut down in the first quarter of 1990.

Storage of Gas in Salt Caverns In Stade, Federal Republic of Germany, we made progress on the leaching out of salt deposits for the storage of natural gas. This storage space will be used beginning in 1993.

Joint Ventures Sales of the nonconsolidated companies in the field of salt and basic chemicals aggregated Hfl 1,190 million, compared with Hfl 1,300 million in 1988.

Dansk Salt I/S, Denmark, again turned in a satisfactory performance. The healthy business climate in the chlor-alkali industry continued to exert a favorable influence on earnings of Electro-Chemie Ibbenbüren GmbH, Federal Republic of Germany.
Earnings of Denak Co Ltd, Japan



Detail of the DME plant under construction in Rotterdam, the Netherlands.

caustic soda (formed with chlorine in salt electrolysis) increased during 1989. This increased demand caused caustic soda prices to go up.

(monochloroacetic acid), remained at a good level in 1989.

The results of Methanor v.o.f., the Netherlands (methanol), were adversely affected by a sharp decline in methanol prices in the second half of the year. This decline has put a damper on exaggerated expectations in several countries, which should help avoid excessive expansion of production capacity for this product. The results of Methanol Chemie Nederland v.o.f. (resins) were at about the same level as in the previous year. Work commenced on the modernization of the PVC plant of ROVIN v.o.f., the Netherlands (VCM/PVC), to meet environmental regulations. This opportunity will be used to remove capacity bottlenecks in some parts of the plant.

Specialty Chemicals By and large, specialty chemicals turned in a healthy performance. Sales of this product group increased from Hfl 3,402 million in 1988 to Hfl 3,828 million in 1989, a gain of 13%. This gain is attributable to acquisitions (2 points), higher volume (5 points), and higher selling prices, changes in product portfolio, and changed exchange rates (6 points).

Catalysts for the Petroleum and Petrochemical Industries The performance of this product sector improved considerably in 1989. A major factor in this performance improvement was new product launches resulting in higher volume and revenue. The new catalysts plant of our joint venture in Brazil came on stream early in 1990. Despite this improvement, the price level of catalysts for the petroleum industry is on the whole inadequate because of vigorous competition spurred by changed market conditions. This situation is particularly aggravating in the light of the ongoing R&D efforts and the resulting large capital expenditures. In 1989 we commissioned a new facility in Amsterdam for the

production of zeolites—the major catalytic ingredient of cracking catalysts. Our zeolite-based *Vision*[®] and *Advance*[®] cracking catalysts met with good customer acceptance in the global marketplace.

The cracking catalysts produced by recently acquired Filtrol, United States, are largely supplementary to our catalyst range and substantially strengthen our market position. In late 1989 we purchased the remaining 50% stake in Cyanamid Ketjen Katalysator B.V.

Chemicals for the Plastics Manufacturing Industries The first signs of a declining demand became discernible in the second half of the year, in particular in the United States, mainly due to reduced activity in the construction and automotive industries. Even so, volume sales for the full year were satisfactory for the main products in this sector (organic peroxides and Ziegler-Natta catalysts). Both prices and margins have stabilized.

A major capacity addition was made in the organic peroxides plant in Bayport, Texas, United States. *Nouryset*[®] organic glass monomer, used for lightweight eyeglass lenses, showed a further improvement in performance.

Chemicals for the Rubber Processing Industries The demand for rubber chemicals in 1989 remained at a high level, aided by the healthy business climate in the tire industry.

The acquisition of Pennwalt Italia S.p.A. strengthened our position in the field of primary and ultra accelerators.

Modernization and expansion programs at our Japanese-based



Akzo's rubber processing laboratory in Deventer, the Netherlands, tests new rubber additive for strength, ease of blending, and degradation properties.





Akzo's Crystex® insoluble sulfur capacity is undergoing expansion, with a new manufacturing facility under construction in Brazil.

Crystex® insoluble sulfur plant were completed. In Brazil a new production facility for this product will come on stream in 1990. When we finish modernizing our U.S. plant, total production capacity will increase by approximately 15%.

The new thiuram plant in Cologne, Federal Republic of Germany, will start production in the first quarter of 1990.

We decided at the end of 1989 to construct a rubber chemicals plant in LeMoyné, Alabama, United States. Together with Thai Lion, Oriental Siam Ltd, and FMO (Dutch Financing Company for Developing Countries),

Chemicals for the Plastics Processing and Coatings Industries

For almost all products in this sector, which essentially consists of organic peroxides, flame retardants, PVC stabilizers, and other additives, we recorded a continued high level of shipments. Margins were up for these products.

Chemicals for the Detergent, Toiletries, and Cosmetic Industries

Prices of chemicals for the detergent, toiletries, and cosmetic industries showed lower-than-average growth as a result of vigorous competition.

We expended much effort on research into better degradable laundry softeners.

New specialty chemicals for use in haircare and skincare products were introduced.

Performance Chemicals Paper chemicals enjoyed a continued high demand in Europe. In Spain, construction of a paper chemicals plant begun in 1988 was completed. The business situation in the United States was less favorable because of strong competition.

We decided to construct a paper chemicals plant in India, which we will contribute to a joint venture. A similar project for Thailand is being studied. During the year we were granted a license by the Library of Congress, Washington D.C., United States, for a method to preserve books using special metal alkyl compounds produced by our joint venture Texas Alkyls.

Electromagnetic compatibility testing showed strong growth in Japan. Similar testing activities in Europe are getting off the ground.

Fine and Functional Chemicals

Sequestering agents registered a satisfactory performance. Results of fatty amines remained depressed because of intense competition.



Water glass (sodium silicate) is the base product for our new joint venture, Akzo-PO Silica.

we formed a joint venture in Thailand for the construction of a plant for water glass and white fillers.

In Spain we acquired a 50% stake in Iquesil S.A., a producer of white fillers. In this joint venture we will be concerned with marketing and distribution.

Major efforts were made to improve the quality of our sulfo products. We discontinued production of some organic intermediates because of insufficient profitability. Our subsidiary in France, PCAS, achieved better results; the activities in the fields of photochemicals and pharmaceutical intermediates will be expanded.

Joint Ventures Sales of the joint ventures in the field of specialty chemicals aggregated Hfl 1,250 million, compared with Hfl 1,110 million in 1988.

Silenka B.V., the Netherlands (glass fibers), turned in a considerably better performance, reflecting much higher volume and improved price levels. Because of growth in consumption of glass fibers in engineering plastics and in yarns and fabrics for the electronics industry, it was decided to build a new plant in Spain.

Kayaku Akzo Corporation, Japan (organic peroxides), achieved a further improvement in results, while Tosoh Akzo Corporation, Japan (Ziegler-Natta catalysts), duplicated its fine performance of the previous year. Together with Century Enka Ltd, a joint venture named Centak Chemicals Ltd will be set up in India. The peroxides plant currently under construction will be brought into this joint venture.

Kali-Chemie-Stauffer GmbH, Federal Republic of Germany (insoluble sulfur), achieved a significant earnings gain.

Nippon Ketjen Co Ltd, Japan (desulfurization catalysts), did much better and attained a satisfactory earnings level.

The results of Lion Akzo Co Ltd, Japan (fatty amines), were up from the previous year. A major capacity

expansion was realized, which is expected to make a contribution to higher earnings in 1990. Earnings of Glucona v.o.f., the Netherlands (gluconates), improved despite strong downward pressure on selling prices due to intense competition for sodium gluconates. Reduced demand for Ziegler-Natta catalysts, used in the production of plastics, depressed earnings of the Texas Alkyls companies in the United States and Belgium, and of Alkyls do Brasil Ltda, Brazil.

In the sector of silica products, which are for the most part used for the manufacture of fillers for the rubber industry, we formed a partnership with U.S.-based PQ Corporation. PQ's and our European silica activities were merged into a 50-50 joint venture. Named Akzo-PQ Silica, it has four production facilities, in the Netherlands, the Federal Republic of Germany, Austria, and Sweden.



About 40,000 books and documents can be deacidified annually in the pilot plant of our joint venture Texas Alkyls in Deer Park, Texas, United States.





Fibers and Polymers

General The upward trend in the performance of this product group that began in 1988 continued in 1989, increases in raw material prices notwithstanding. Plant capacity utilization was high.

The 1989 sales figure was Hfl 5,210 million, up 11% from 1988 sales of Hfl 4,678 million. Interpretation of these figures should take account of the fact that COBAFI, the Brazilian producer of industrial fibers, was consolidated as of May 1989, when we increased our stake in the company from 36% to 82%. Net of COBAFI, sales gained 8% relative to 1988. Sales volume was 1% higher, and prices were up by an average 6%. Operating income increased from Hfl 195 million in 1988 to Hfl 268 million in 1989. Price raises were not always sufficient to absorb increases in raw material costs, which increases were halted in the second half of the year.

As a percentage of sales, operating income from the fibers and polymers business was 5.1%, against 4.2% in 1988.

Cutbacks in the general, administrative, and service departments, which were begun in 1989, should significantly bring down overheads.

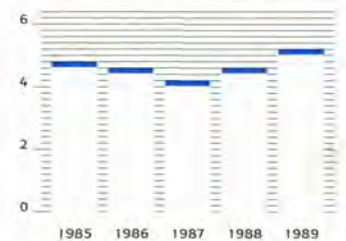
Textile and Carpet Fibers Sales in this product sector totaled Hfl 2,244 million (1988: Hfl 1,975 million). Operating income was up slightly. Western European consumption of textiles and clothing again increased. This growth also generated higher demand for man-made fibers. Production capacities, particularly for viscose and polyester filament, consequently had high rates of utilization throughout the year. The demand for viscose filament exceeded our ability to supply this fiber. Business for standard fabrics in the cotton weaving industry was sluggish, and shipments of cotton-type polyester staple were therefore unsatisfactory.

During the year prices for all textile filaments and staple were raised; for some products, however, the increases did not fully offset higher raw material costs. Earnings from our polyester products remained inadequate.

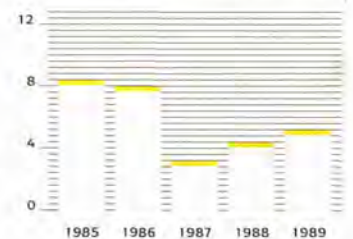
The modernized polyester staple manufacturing units in Emmen, the Netherlands, and Barcelona, Spain, began production in 1989. The equipment they use has rationalized fiber production and substantially reduced manufacturing costs. Modernization of the polyester spinning plant in Oberbruch, Federal Republic of Germany, continued. In 1990 the new facilities will be started up; they permit production of specialty yarns for the textile industry, which is now equipped with advanced machinery.

Production of polyamide textile filament in Emmen, the Netherlands, ended in mid-1989. In Europe, Akzo now only manufactures the product at La Seda de Barcelona in Spain.

Net sales, in billions of guilders



Operating income, as percentage of net sales



In Oberbruch, Federal Republic of Germany, a new pilot plant for Tenax® carbon fiber specialties was inaugurated.

Shipments of our *Sympatex*[®] breathable liner showed high growth rates. The properties of this membrane, which keeps out wind and water yet allows perspiration vapor to escape, soon secured it a major market position in Europe, in both outdoor apparel and footwear. Commercialization of the material in the United States and Japan is making good progress.

Sales volume of carpet yarns was satisfactory, both for the contract market—comprising offices, hotels, schools, etc.—and for the private segment, in part because of the persistence of favorable trading conditions in Western Europe. On the strength of our high-value products we succeeded in increasing our market share. With our new *Trilenka*[®] yarns, manufactured by a modern process, we will seek to develop new market segments.

Fibers for Industrial Uses 1989 industrial fiber sales were ahead Hfl 256 million from the 1988 figure to Hfl 1,688 million—an 18% gain (8% with COBAFI sales excluded). This gain is principally attributable to an increase in selling prices which had become necessary to compensate for higher raw material prices. Utilization of our production capacities was excellent because of high demand for industrial fibers, although for some products demand weakened somewhat after the summer. Earnings showed substantial growth.

Following sharp growth in 1988, shipments of tire yarns remained at a high level, reflecting continued strength in tire manufacturing. Near the end of the third quarter demand leveled off slightly. Concurrently with an increase in supply, this led to pressure on selling prices for, notably, steel cord and polyester yarns. We continued to benefit from high demand for high-speed tires, as our viscose yarns are the perfect reinforcement for this type of tire. The difficult situation in mining has adverse effects on the conveyor belt industry in Europe, and hence on our shipments of reinforcing materials. Shipments of yarns for transmission belts and hoses were up, however. Business in yarns for ropes and nets was satisfactory. So were shipments of products for use in coated fabrics, with demand occasionally outpacing supply. In car seat belts we succeeded in maintaining our strong position. Sales of fine industrial yarns—which account for a modest fraction of overall product offerings—were somewhat disappointing. Sewing thread in particular turned in an unsatisfactory performance, the result of flat demand and intense competition.

High Performance Fibers

Shipments of *Tenax*[®] carbon fiber increased significantly in the face of continued strong competition. Later in the year improved market conditions made for equilibrium of supply and demand and for stabilization of selling prices. Compared with 1988, carbon fiber shipments more than doubled, owing in part to high quality and to our R&D efforts. In 1989, our carbon fibers were again chiefly used in the manufacture of sporting goods. We have high expectations for our product in the aerospace industry, and good progress was made there. Revenue from carbon fiber sales was distinctly better, if still insufficient.



Sympatex[®] breathable liner makes outdoor apparel and footwear wind- and waterproof, yet allows perspiration vapor to escape.

The new pilot plant for carbon fiber specialties in Oberbruch, Federal Republic of Germany, was inaugurated in early 1989.

With shipments showing vigorous growth, the market share of *Twaron*[®] aramid fiber is now much improved. The aramid business is conducted by a joint venture with Noordelijke Ontwikkelings Maatschappij. High growth was particularly evident in friction materials such as brake linings, where aramid replaces asbestos. Advances were also made in aramid usage for tires, electrical and fiber optic cables, and mechanical rubber goods (conveyor belts, hoses). Over the past few years we have developed a position in Europe as a reliable supplier of high-value-in-use yarns, using intensive research to achieve further improvements. We particularly seek access to new fields of application like ballistic materials, aerospace, automotive manufacturing, mining, and the steel industry. Our research has come up with a new generation of aramid yarns and pulp. We have now entered the final testing stage. Possessing superior properties, the products in question will be commercialized in the near future.

Plastics Sales of plastics stood at Hfl 709 million, down 2% from the 1988 figure. Earnings dipped sharply, mainly because of problems in marketing some plastic products in Europe and higher raw material costs. In the face of heavy competition, especially in bottle molding polymers, it was not possible to adjust selling prices for the rise in raw material prices. Trading conditions for our specialty plastics, and color concentrates and additives were much better, both in Europe and in North America.

To meet rising demand for color concentrates and additives a new facility is to be built in the Federal Republic of Germany, complementing existing plants in Belgium, France, and Sweden.

Membranes Sales in 1989 totaled Hfl 227 million (1988: Hfl 223 million). We were again confronted during the year with measures adopted in countries all over the world to bring down the cost of health care. Even so, we achieved satisfactory earnings. In medical membranes we have a leading position in the global marketplace.



In the principal field of application, hemodialysis, good progress was made on the introduction of our new *Hemophan*[®] membrane. This membrane is launched in response to a trend toward the use of superior biocompatibility membranes in the low-flux segment of the market.

Akzo industrial fibers are the preferred reinforcing material of high performance tires.

Silica yarns resist temperatures up to roughly 1100°C.



Shipments of products for high-flux dialysis achieved further gains. In this market segment, which has always been dominated by synthetics, we recorded fine results with the market launch of *Hemophan*[®] HP (High Performance) membrane. Additionally, we invested considerable effort in the development of new, biocompatible high-flux membranes. We look to the resulting *Diaphan*[®] cellulose acetate membrane and new synthetic membranes to consolidate our prominent position in the hemodialysis field, where innovation and differentiation have become key factors.

Our *Oxyphan*[®] membranes for oxygenators sold well. These high-performance membranes, which serve to oxygenate the blood in open-heart surgery, are already employed in countless oxygenators. The new unit for their production was started up in 1989.

In early 1990, with a view to broadening our access to the industrial membrane applications market, we entered into a joint venture with an equipment manufacturer for the production and sale of our *Enka Microdyn*[®] crossflow microfiltration modules.

Nonwovens Our extensive range of high-grade polyester nonwovens is marketed under the trade names *Colback*[®], *Coltron*[®], and *Colbond*[®]. In 1989, shipments and sales of these products again substantially increased. This is true both of nonwovens serving as carriers in bituminous roofing and waterproofing materials and of nonwovens employed as backing for tufted carpets, notably for the automotive industry. As in the prior year, earnings attained a satisfactory level.

Given continued market growth and sustained high demand for our products, we decided on a further expansion of production capacity. Household products like synthetic chamois, sponges, and household clothes also prospered. Shipments expanded and earnings improved. In December 1989 we signed the agreement with Carl Freudenberg & Co., of Weinheim, Federal Republic of Germany, for the founding of a 50-50 joint venture to which we contributed our sponge products. This joint venture became operational on January 1, 1990.

Industrial Systems, a unit with operations in Europe and North America, is chiefly active in soil stabilization, hydraulic engineering, and road construction. By and large, products in this sector showed satisfactory growth and further shipment gains. The chief products are *Enkamat*[®] erosion control mat, *Enkadrain*[®] drainage mat, and *Stabilenka*[®] soil stabilizer. During the year we extended production capacity.

Development Products In the new products segment of our business, a polyether imide fiber was launched commercially. The fiber is resistant to chemicals and to temperatures as high as 200 °C. Furthermore, it is easily processed into textiles. The fiber is currently being tested for use in industrial applications, like the filtration of hot gases, and in blended yarn fabric for composite materials. Akzo has wide-ranging know-how of construction materials, gathered over many years of collaboration with Delft Technical University. In metal/plastic laminates it now occupies a prominent position. These laminates and composite materials are manufactured from aluminum, aramid, and glass fiber.



Twaron[®] aramid fiber has applications in numerous fields. Shown here is its use as tensioning member in the roof of a Paris subway station.

They typically combine superior resistance to fatigue and mechanical damage with low weight, and are therefore eminently suited for use in aerospace.

The development phase for silica yarns is now largely completed. Silica yarns are for the most part used in industrial applications requiring resistance to very high temperatures (up to 1100 °C).

Joint Ventures Sales of the nonconsolidated companies in the fibers and polymers sector aggregated Hfl 1,070 million (1988: Hfl 880 million, excluding sales of COBAFI).

Volume sales of Aramide Maatschappij v.o.f., the Netherlands (aramid fibers), rose steeply compared with 1988. Despite the higher rate of capacity utilization, the year still closed on a loss.

Enka de Colombia S.A. (polyester textile filament and staple), reported another fine performance in 1989. To meet higher demand, production capacity was expanded, particularly for staple.

Fibras Químicas S.A., Mexico (textile and industrial fibers), operated at

high capacity utilization rates in spite of relatively flat domestic demand. While the 1988 earnings figure was not quite matched, the company's performance in 1989 was satisfactory. Shipments by Enkador S.A., Ecuador (polyester textile filament), were roughly on a par with the prior year. Sales were ahead, but earnings were slightly lower than in 1988. Century Enka Ltd, India, enjoyed another good year. This producer of man-made textile and industrial fibers succeeded in continuing the sales and shipment growth seen in the last few years, and chalked up fine earnings. Since the growth opportunities for the company's products are as favorable as ever, we are planning to expand production capacities further. In the Republic of Korea the reinforced plastics plant built for the joint venture Kohap-Akzo Co. Ltd was inaugurated at year-end 1989.

Color concentrates from our Assesse, Belgium, facility.





Coatings

General Gains in volume, sales, and operating income were posted, which are in part attributable to acquisitions, with Reliance, United States, chief among them. Performance improvements were registered in a number of European countries, in the United States, and in Brazil. The mild winter in 1989 exerted a propitious influence on earnings, particularly in the decorative and do-it-yourself sectors. Sales were up 31% from Hfl 2,794 million in 1988 to Hfl 3,659 million in 1989. This rise is due to acquisitions (19 points), higher volume (3 points), and higher prices (6 points). Operating income rose 34% to Hfl 281 million (1988: Hfl 210 million). Expressed as a percentage of sales, operating income was 7.7% (1988: 7.5%).

Capital Expenditures and

Integration To strengthen our international position our coatings activities were further integrated. We decided to terminate production in Beverwijk, the Netherlands, and Bendorf, Federal Republic of Germany, and to concentrate the Belgian coatings activities in Vilvoorde.

In the resins plant in Bergen op Zoom, the Netherlands, major automation and expansion projects were completed.

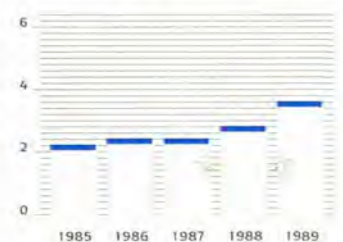
A totally enclosed system for the cleaning of paint containers began operations in Stuttgart, Federal Republic of Germany.

In Pontiac, Michigan, United States, a new plant for the production of top coats for the car refinishes market was dedicated. In Troy, Michigan, United States, we inaugurated a new laboratory and office building. The process of integrating our activities in Brazil was continued. The improved geographic distribution as a result of this process has already produced good results, notably in decorative paints and car refinishes. In January 1989 we acquired the remaining half of the shares in Industrias Químicas Procolor S.A. in Barcelona, Spain, while we also obtained full control of the subsidiaries Bruguer and Herpu. We have now begun integrating our coatings activities in Spain.

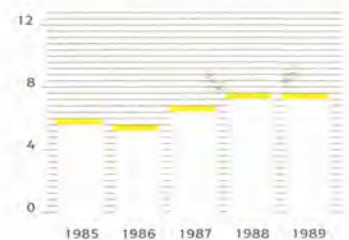
At the end of August 1989 we acquired Reliance Universal Inc., United States. Headquartered in Louisville, Kentucky, this company is a major producer of industrial coatings for wood, metal, plastics, metal packings, and paper, as well as coil coatings. The coatings activities of Reliance show a proper fit with our existing coatings operations in the United States, all of which have been conducted by one integrated company since early 1990.

In late 1989 we reached agreement with Tiszai Vegyi Kombinát on the formation of a joint venture (Akzo-TVK rt) in Hungary, in which we have

Net sales, in billions of guilders



Operating income, as percentage of net sales



Color effects in paints for diverse applications are a major research focus.



Architectural waterborne paints.

taken a 51% interest. This company will produce coatings and resins for the Hungarian market and for exports, notably to some Eastern European countries.

An investigation was started to streamline our product range, which has grown considerably as a result of the acquisitions made in recent years. In the second half of 1989 we commenced international coordination of quality programs. Through the implementation of customer-oriented programs, efforts are made to meet and maintain international quality standards.

Decorative and Do-It-Yourself Paints

In decorative paints and do-it-yourself products we achieved earnings gains worldwide. In several countries, however, results failed to meet expectations. In the maintenance and renovation sector in Europe we succeeded in bolstering our position. In the new construction sector we held our ground. In the sector of decorative paints we developed a specific, moisture-regulating paint for exterior walls and a waterborne multicolor wallpaint for interior use, which are to be launched soon.

The world of architecture is showing increasing interest in the use of color effects in coatings. In order to meet higher demand, we developed new color effects in cooperation with external advisers.

Providing service in the field of color is becoming increasingly important. A typical example of the combination of color and information technology is a computerized color consultancy system, which came on the market during the year. Computers for color research were installed in Sassenheim, the Netherlands, and

Stuttgart, Federal Republic of Germany.

We concluded an agreement with the city of Barcelona, Spain, to survey the original colors of the façades in part of the center of this city. We will also be advising on a color scheme for the whole city.

Our position as a supplier for the joinery industry was substantially strengthened, partly as a result of the introduction of products that have less impact on the environment.

Much attention was devoted to the training of professional painters, with special centers being set up in several countries.

Car Refinishes In the car refinishes sector we consolidated our position in nearly all countries. This sector enjoyed sustained growth, particularly in the United States.

Autonova[®], a fully isocyanate-free refinish system launched in 1988, enjoyed good customer acceptance in the European market. This product range was completed with a number of products that give the system a wider applicability and make it more user-friendly.

Autocoat BT[®] for trucks and buses was received well in the marketplace, which contributed to the improvement of our position.

As the trend toward computerization continues, we are working on the development of integrated systems for the color mixing process, calculations, and management as well as on paint system information. These subjects are also dealt with in training courses given in Car Refinishes Information Centers all over the world. Our major customers, who in a number of countries have been conferred *Acoat Selected* status, are thus given support in all aspects of their business.

Our laboratories have developed a finish system that complies with strict U.S. regulations concerning solvent content.

In January 1989 the new manufacturing complex in Orange, California, United States, was inaugurated. It is the center of all our coatings activities on the west coast.



Industrial Coatings Higher volume and further market penetration in the various industrial sectors bolstered our market position in 1989. Margins were slightly down, however, since it was not always possible to pass on higher raw material prices to customers because of intense competition.

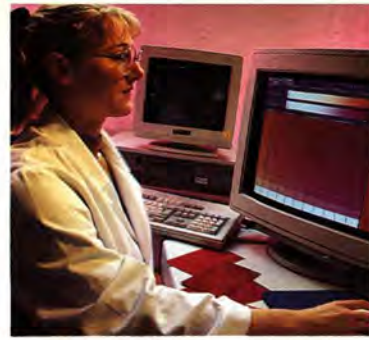
As in the two previous years, shipments of automotive finishes continued to grow. The on-line operations of some of our major customers confirmed the good properties of our water-based finishes. Major breakthroughs were also achieved in the field of water-based primers/surfacers. Even so, the automotive finishes sector continued to yield inadequate returns in 1989. Aided by our advanced technology, coatings for plastics achieved a significant gain in shipments. Our aircraft coatings are being confronted with ongoing major technological changes due to specific environmental regulations, and to demands for higher durability and superior appearance. With tests nearly complete, our new coatings generations will offer good prospects in this market segment. In this sector we also developed a coating with a highly durable top coat and a high solids content.

The acquisition of Reliance in particular bolstered the position of our industrial coatings. In 1990 much emphasis will be placed on the exchange of know-how between our European companies and those in the United States.

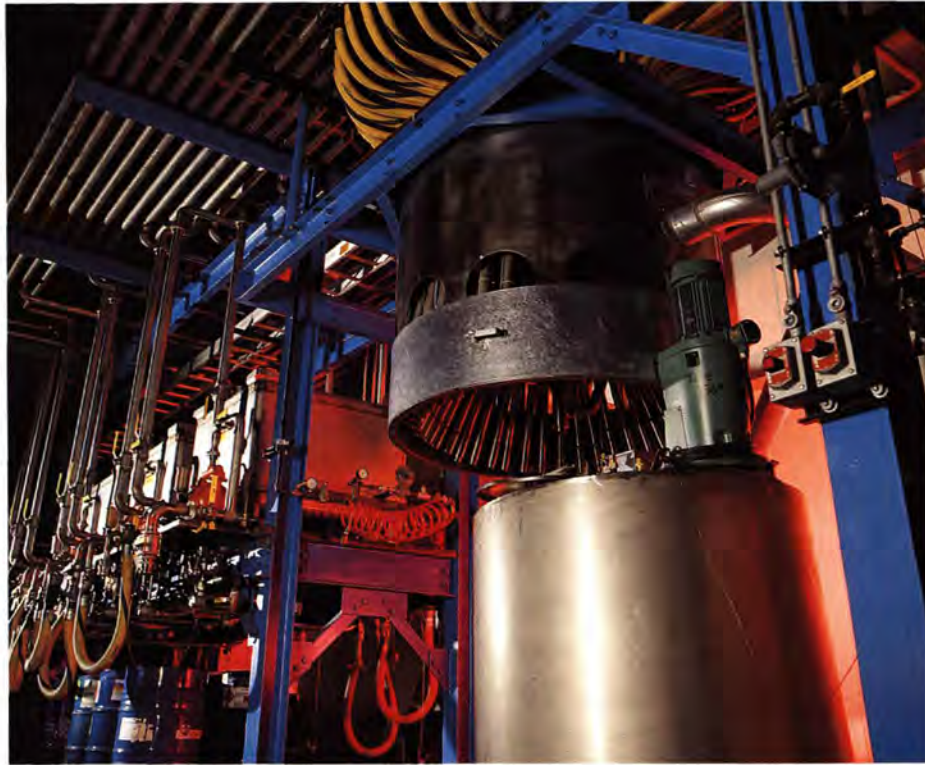
Other Products Talens, Apeldoorn, the Netherlands, showed stable results in 1989. Several new products for the printing and artists sectors were introduced. As the major step in the modernization process of the production facilities, a new filling hall was officially inaugurated by HRH Prince Bernhard of the Netherlands at the end of the year.

Both in Europe and in the United States, our synthetic resins enjoyed good volume growth all round, with the highest growth seen in resins for automotive finishes and adhesives. The introduction of a new range of polyesterpolyol resins was successful. The U.S. resin activities acquired in 1988 and early 1989 were integrated.

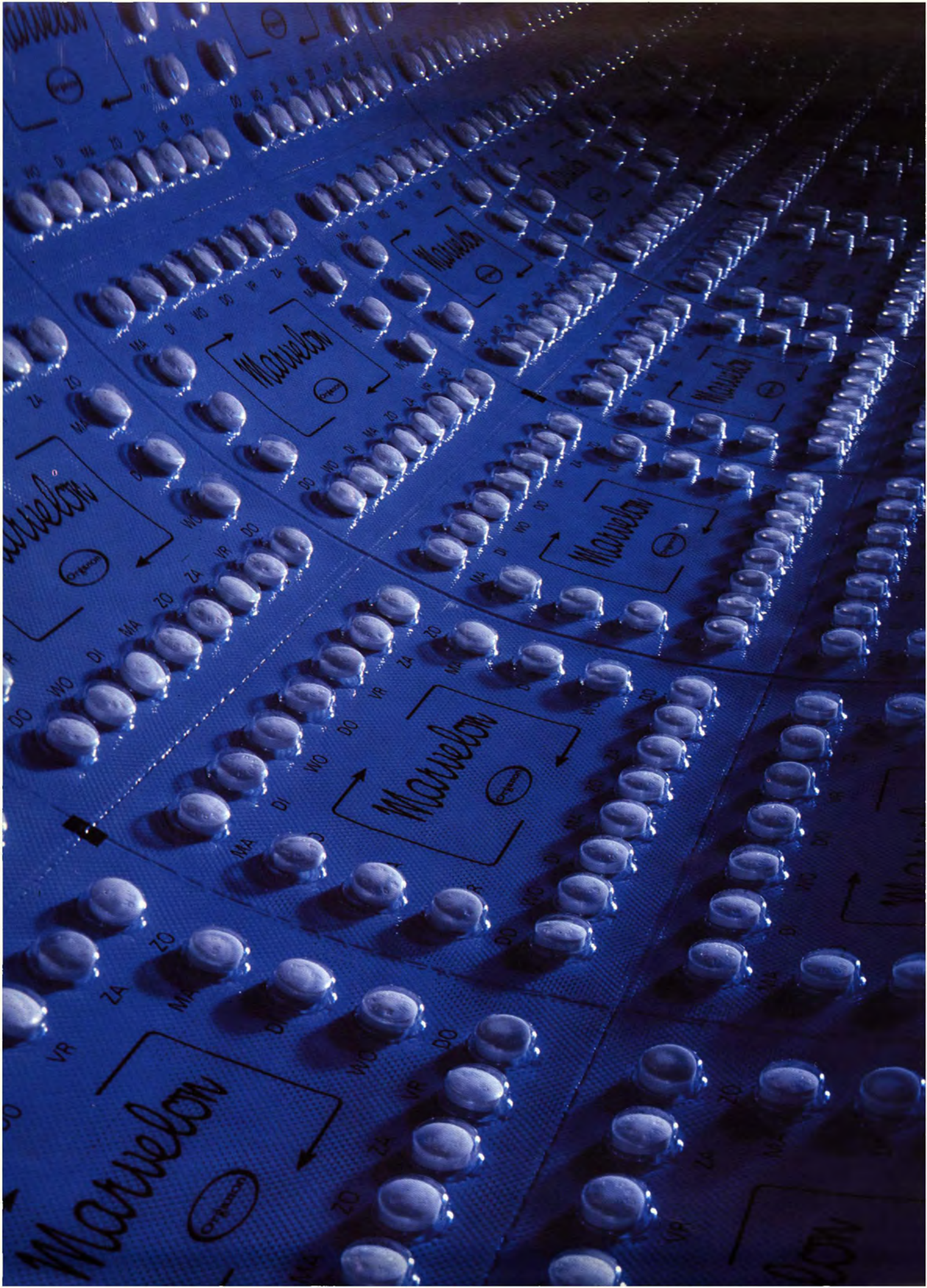
Intensive research efforts have resulted in high-grade resin-based binders for offset inks. Also, the foundation has been laid for resins for water-based inks to be used in the packaging industry.



High-tech computer is a powerful aid in color research and color consultancy.



Production of Autonova® car refinishes in Pontiac, Michigan, United States.



Healthcare Products

General Business for the year developed favorably, with practically all product sectors contributing. Sales were Hfl 2,647 million, up 10% from the 1988 figure of Hfl 2,412 million. This increase was mainly attributable to higher sales volume. Despite a further increase in research expenditures, operating income was up from Hfl 335 million in 1988 to Hfl 383 million. Operating income as a percentage of sales was 14.5% (1988: 13.9%).

Ethical Drugs In nearly all countries Organon again achieved distinct sales growth, reflected in the higher figure for operating income.

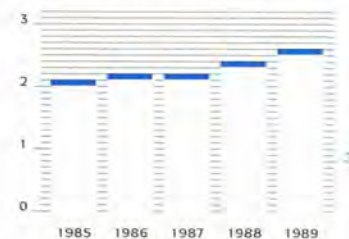
This positive development was partly due to our *Marvelon*[®] oral contraceptive. Demand for this product again showed significant growth, inside and outside Europe. With *Marvelon*[®] and *Mercilon*[®], a new contraceptive of very interesting composition and properties launched in 1988, Organon should be well placed to improve its market position. Growth was also achieved in sales of gynecological products, including drugs to treat fertility problems, and of products for the treatment of disorders of the central nervous system.

The plans developed in the prior year for intensified fundamental research efforts in endocrinology, immunology, biotechnology, and carbohydrate chemistry were elaborated in further detail and implemented.

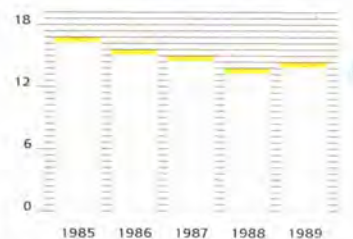
The final development stage of some products—including our new *Lomoparan*[®] antithrombotic agent—has been completed. Files are now being finalized for their submission for health registration.

Especially in the Federal Republic of Germany and the Netherlands, government measures designed to reduce the cost of medication by cutting prices and replacing proprietary drugs by cheaper generics are jeopardizing the future of the research-based pharmaceutical industry. On the positive side is the prospective extension of market exclusivity for products of innovative pharmaceutical producers; this extension is to be accomplished

Net sales, in billions of guilders



Operating income, as percentage of net sales



The position of Marvelon[®] oral contraceptive was strengthened further in 1989.

through protection of registration files of new drugs.

A key strategic objective for the next few years is the achievement of a stronger position for Organon products in the United States and Japan. Work to secure positions in oral contraceptives and gynecological products has a high priority.

Hospital Products Organon Teknika's sales and operating income distinctly surpassed the 1988 figures. During the year *Neo Planotest*[®] 200, an improved pregnancy test, and *Vironostika*[®] HIV MIXT, a combined HIV-1 and HIV-2 AIDS diagnostic, were among new products to be added to our range. In the Netherlands and Switzerland, health registration was obtained for *OncoTICE*[™] as a bladder cancer diagnostic.

Major developments in equipment and reagents concern the Micro Plate Processor fully automated system for Micro Elisa screening tests and the *Bact/Alert*[®] device for the detection of bacterial infections of the blood. Entirely as projected, our Micro Elisa bacteriological tests for the food industry did well, with the aid of successfully launched new equipment.

The improved hepatitis markers met with good market acceptance, which is having a positive effect on sales of the entire product range in this sector. Sales of hemostasis and fibrinolysis tests and their companion *Coag-A-Mate*[®] XM and XC Plus devices are steadily increasing. In late 1989 the new research laboratories for biotechnology and for the development of diagnostic systems at Boxtel, the Netherlands, were inaugurated. All Dutch production and research activities are now concentrated in Boxtel. We concluded an agreement with the Cangene biotechnology company of Canada licensing us to use the *Nasba*[®] technology. By means of this technology minute quantities of specific nucleic acid sequences can be simply and rapidly multiplied a millionfold or more, so permitting early detection of infectious diseases.

Nonprescription Products Chefaro achieved satisfactory growth in most European countries, in the face of some pressure from rival products in the pregnancy tests business. In the vitamins segment we registered further growth, due in part to the market launch in the Netherlands of *Davitamon*[®] C lozenges and to a propitious start of vitamin sales in Belgium. Initial results from sales of *Ibutop*[®] analgesic cream in the Federal Republic of Germany were also gratifying. Efforts to develop new diagnostics for home use were intensified.

Raw Materials for the Pharmaceutical Industry Diosynth maintained noncaptive sales at the prior year's level despite lower sales of



Receiver vessel used in separating chlorinated hydrocarbons from plant effluent at Diosynth, Oss, the Netherlands.

Bioreactor for large-scale production of animal cells operated by Diosynth, Oss, the Netherlands.



heparin and insulin. Heparin sales were depressed, mainly as a result of stiff competition from China. In the biochemical products sector some compensation for this negative factor was available from rising sales of human chorionic gonadotrophin (HCG).

Alkaloid sales were up slightly, principally because of somewhat higher prices of codeines. The chemical products sector also registered a modest increase in sales, which reflected rises for nearly all products. In the major subcategory of the corticosteroids, the decline in sales seen over the past few years was halted by diminished oversupply. Environmental hygiene in 1989 continued to demand much concentrated effort. Further measures to reduce emissions and discharges were adopted or are in preparation. The conditions for the environmental permit sought by Diosynth, Oss, the Netherlands, were the subject of full consultation with the provincial authorities.

Veterinary Products In 1989 Intervet managed to bolster its position. Both sales and operating income were up substantially. The principal three product sectors—vaccines, fertility products, and antibiotics—all grew at a higher rate than the market average. We

Intervet's serums and vaccines are widely used in veterinary surgeries.

developed a new vaccine against Aujeszky's disease based on the recombinant-DNA technique. The addition of this product and of a new Parvo vaccine has strengthened our position in the hog breeding market. In the poultry sector our market share expanded following the introduction of five new products, including three for which we have filed patent applications. Our line of antibiotics was expanded through the addition of a new specialty. We invest substantially in veterinary research to safeguard our future position. Our activities and investments in the United States and in the Far East (including Japan) again increased.

Generics Most of our generics activities again centered on the United States. During the year, the My-K operations acquired in 1988 were integrated with PBI's existing operations. Sales showed a growth of 34%, aided by this acquisition. At the end of 1989 we acquired RP Drugs of Leeds, United Kingdom. The company specializes in the development, manufacture, and marketing of liquid generics for oral use.



Latest model of the Coulter Counter, with graphic data processing, at Organon Teknika, Boxtel, the Netherlands.



Miscellaneous Products

Machinery and Other Engineering Products Sales of the Barmag group in 1989 stood at Hfl 937 million, up 20% from the prior-year figure of Hfl 784 million. Operating income was also appreciably higher. The sales gain particularly reflects a surge in investment activity in the North American man-made fiber and textile industry. Accounting for 70% of total sales, textile machinery remained the largest single product sector of Barmag. In plastics machinery, sales were steady at the prior year's high level. Automotive products and hydraulic components registered continued growth. Precision engineering products saw a gratifying increase in activities, with correspondingly higher earnings.

In late 1989 we reached agreement with AGIV, of Frankfurt, Federal Republic of Germany, on the sale of 85% of our interest in Barmag. The

other 15% remains in our hands. We feel that Barmag has brighter prospects outside the Akzo Group.

Materials for the Electronics Industry Our partner in materials for the electronics industry, Kollmorgen Corporation, expressed its wish to move out of these activities in early 1990. This made necessary a restructuring. Jointly with AMP Inc. of Harrisburg, Pennsylvania, United States, we formed a 50-50 joint venture for the manufacture of printed wiring boards and associated materials. Gallium arsenide wafer production will be continued by Akzo independently. Research and development as well as market introduction of these materials showed good progress.

Activities by Geographic Area

The statistics presented below concerning sales, income, invested capital, expenditures for property, plant and equipment, and number of employees of the *consolidated companies* illustrate the geographic pattern of Group operations. For a few significant ratios see the table at center.

To complete the global overview, a breakdown by relevant geographic area of sales, invested capital, and number of employees of the *nonconsolidated companies* (Group interest 50% or less) has been added. The latter statistics are presented on a pro forma full-ownership basis in the table at bottom.

Consolidated Companies

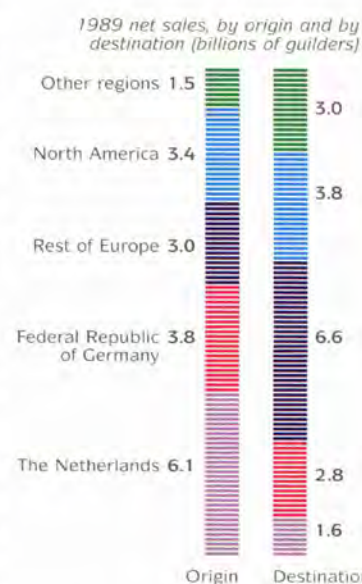
| Net sales by destination | | Net sales by origin | | Operating income | | Invested capital* | | Expenditures for property, plant and equipment | | Number of employees, December 31 | | Millions of guilders |
|--------------------------|--------|---------------------|--------|------------------|-------|-------------------|-------|--|-------|----------------------------------|--------|-----------------------------|
| 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | 1989 | 1988 | |
| 1,603 | 1,683 | 6,156 | 6,022 | 605 | 601 | 2,853 | 2,902 | 493 | 465 | 22,300 | 22,700 | The Netherlands |
| 2,758 | 2,554 | 3,792 | 3,470 | 300 | 228 | 1,670 | 1,515 | 273 | 250 | 16,000 | 16,200 | Federal Republic of Germany |
| 6,570 | 5,952 | 2,970 | 2,533 | 268 | 262 | 1,740 | 1,490 | 172 | 207 | 12,700 | 11,600 | Rest of Europe |
| 3,809 | 2,949 | 3,418 | 2,638 | 248 | 145 | 2,133 | 1,967 | 195 | 249 | 10,500 | 8,700 | North America |
| 3,059 | 2,659 | 1,463 | 1,134 | 228 | 148 | 662 | 557 | 124 | 63 | 9,400 | 7,800 | Other regions |
| 17,799 | 15,797 | 17,799 | 15,797 | 1,649 | 1,384 | 9,058 | 8,431 | 1,257 | 1,234 | 70,900 | 67,000 | |
| 937 | 784 | 937 | 784 | 64 | 40 | 352 | 312 | 40 | 36 | | 4,100 | Barmag |
| 18,736 | 16,581 | 18,736 | 16,581 | 1,713 | 1,424 | 9,410 | 8,743 | 1,297 | 1,270 | 70,900 | 71,100 | Total |

Ratios of Consolidated Companies

| | Operating income as % of net sales** | | Operating income as % of average invested capital | |
|-----------------------------|--------------------------------------|------|---|------|
| | 1989 | 1988 | 1989 | 1988 |
| The Netherlands | 9.8 | 10.0 | 21.0 | 21.1 |
| Federal Republic of Germany | 7.9 | 6.6 | 18.8 | 15.2 |
| Rest of Europe | 9.0 | 10.3 | 16.6 | 18.9 |
| North America | 7.3 | 5.5 | 12.1 | 8.7 |
| Other regions*** | 15.6 | 13.1 | 37.4 | 29.7 |
| Barmag | 9.3 | 8.8 | 18.9 | 17.6 |
| | 6.8 | 5.1 | 19.3 | 13.9 |
| Overall ratio | 9.1 | 8.6 | 18.9 | 17.4 |

Nonconsolidated Companies

| Millions of guilders | Net sales by origin | | Invested capital* | | Number of employees December 31 | |
|----------------------|---------------------|-------|-------------------|-------|---------------------------------|--------|
| | 1989 | 1988 | 1989 | 1988 | 1989 | 1988 |
| Europe | 1,910 | 2,086 | 1,041 | 1,192 | 2,000 | 3,000 |
| North America | 223 | 150 | 162 | 60 | 800 | 300 |
| Latin America | 715 | 772 | 555 | 657 | 5,100 | 6,200 |
| Other regions | 948 | 818 | 595 | 579 | 3,600 | 3,300 |
| Total | 3,796 | 3,826 | 2,353 | 2,488 | 11,500 | 12,800 |



* Total assets, less cash and short-term investments, and less other current liabilities.

** By origin.

*** In appraising these ratios, due allowance should be made for the fact that operating income is to be reduced by high financing charges as a result of strong inflation.

Europe Aggregate sales of the companies located in Europe, exclusive of Barmag, increased 7% to Hfl 12.9 billion. Operating income expressed as a percentage of sales was 9.1% (1988: also 9.1%). About 69% of the Group's total invested capital and 72% of its workforce are employed in Europe.

In the Netherlands modernized facilities for the production of polyester staple came on stream. The production of polyamide textile filament in Emmen was ended. It was decided to modernize the PVC plant of our joint venture ROVIN, construct a

waste incinerator in Delfzijl, and shut down the Delfzijl perchloroethylene and carbon tetrachloride plant in the first quarter of 1990.

In the *Federal Republic of Germany* we sold an 85% interest in Barmag. The modernized production facilities for polyester filament in Oberbruch as well as the new thiuram plant in Cologne are scheduled to come on stream during 1990.

In the *rest of Europe* our activities increased, particularly in Spain, where modernization of polyester staple production and construction of a new paper chemicals plant were completed. The remaining 50% of the stock of the Spanish paint company Procolor was acquired. Silenka, in which we have a 33% stake, decided to build a glass fiber plant in Spain. In Italy we acquired Pennwalt Italia (methylamines and rubber chemicals). At the end of 1989 we reached agreement on participation in a Hungarian joint venture for the production of coatings and resins.

North America Sales of our companies in North America went up, mainly because of the acquisition of Reliance (coatings) and Filtrol (cracking catalysts). Earnings also improved, as is reflected in operating income which as a percentage of sales increased from 5.5% in 1988 to 7.3%. This increase is due in part to integration of the activities acquired in recent years. The new plant in Pontiac, Michigan, for top coats for the car refinishes market was commissioned. In Troy, Michigan, we completed the construction of a new laboratory and office building for our coatings operations. The capacity of the organic peroxides plant in Bayport, Texas, was increased.



Filtrol's fluid cracking catalysts plant in Vernon, California, United States, which was acquired in 1989.

Our electronic materials business was restructured. The operations were for the most part transferred to a joint venture with AMP Inc., Harrisburg, Pennsylvania.

Other Regions Despite a slight decline in earnings of the fiber plants in Latin America, performance remained good. For some of our Latin American affiliates capacity expansion projects are in progress or planned. We increased our interest in COBAFI from 36% to 82%. The catalysts plant in Brazil, in which we have a 40% interest, was inaugurated early in 1990.

Production capacities for fatty amines (Lion Akzo) and insoluble sulfur (Akzo Kashima), both in Japan, were modernized and expanded.

At year end the plant for reinforced plastics (Kohap-Akzo) in the Republic of Korea came on stream.

Century Enka, India, continued to do well in 1989. Plans for a further increase of fiber production capacity are under way. Also in India, a peroxides plant is under construction, which project is to be brought into a joint venture.

In Thailand we set up a joint venture for the construction of a plant for water glass and white fillers.

Arnhem, February 23, 1990

The Board of Management



Products made by Reliance Universal Inc. headquartered in Louisville, Kentucky, United States, include wood finishes for furniture makers.



Akzo's Marano, Italy, site accommodates manufacturing facilities for methylamines and choline chloride.

Akzo N.V.
Arnhem
The Netherlands

February 1990

| <i>Divisions</i> | <i>Products</i> | <i>Management</i> |
|---|--|---|
| Fibers and Polymers Division Wuppertal Federal Republic of Germany | <i>Fibers for industrial uses and textile uses, including carpets; high performance fibers; engineering plastics; membranes; nonwovens; various industrial products</i> | U.G. Stark, President J.H. Katgert W.H. Meyberg C.M. Vermeulen G. von Sengbusch T. Kuipers M. Schütze |
| Salt and Basic Chemical Division Hengelo The Netherlands | <i>Salt, chlorine, alkali products, VCM, methanol, urea formaldehyde resins, industrial colloids, organochlor compounds, organic amines; raw materials for herbicides</i> | F.A.G. Collot d'Escury, President F.I.M. van Haaren (until Febr. 1, 1990) R.M.J. van der Meer |
| Chemical Division Amersfoort The Netherlands | <i>Additives for the manufacture and processing of plastics and elastomers, and for the paint industry; functional chemicals such as sizes for the papermaking industry, sequestrants, laundry softeners and other surfactants, and nonflammable hydraulic fluids; catalysts for the oil, petrochemical, and chemical industries</i> | J.C.P. van Oosterom, President J.C.E. Fuller E. Snoeck C.S. Kent |
| Coatings Division Hoofddorp The Netherlands | <i>Paints, stains, and synthetic resins for industrial, professional, and consumer uses</i> | C. Zaal, President H.C. Bijvank H.J. Groen J.D. Remijnse M. Rooseboom T.M. Tieleman |
| Pharma Division Oss The Netherlands | <i>Ethical drugs, nonprescription products, hospital supplies, diagnostics, raw materials for the pharmaceutical industry, veterinary products</i> | A.G.J. Vermeeren, President P.K. Brons B.H.M. van Dommelen T. Kalff J.F. Sistermans F.L. Vekemans |

National Organizations

| | | |
|-------------------------|--|----------------------------|
| Akzo Nederland | Arnhem, the Netherlands | A. van Es, President |
| Akzo America | New York, United States | R.M. Clarke, President |
| Akzo België | Brussels, Belgium | K. van Nierop, President |
| Akzo do Brasil | São Paulo, Brazil | J.W. Bootz, President |
| Akzo Japan | Tokyo, Japan | S. Matsubayashi, President |
| <i>National Offices</i> | | |
| Akzo Korea | Seoul, Republic of Korea | D. van der Linden |
| Akzo U.S.S.R. | Moscow, U.S.S.R. | R. Bennema |
| Akzo China | Beijing, Dalian, Guangzhou, Shanghai, People's Republic of China | R. Develing |

Accounting Policies Used in Preparing the Consolidated Financial Statements

Consolidation

The consolidated financial statements include the accounts of Akzo N.V. and all companies in which the interest of Akzo N.V. or any of its majority-owned subsidiaries separately or jointly exceeds 50% of the subscribed stock.

Partnerships ("Vennootschappen onder firma") in which the interest of Akzo N.V. or any of its majority-owned subsidiaries separately or jointly equals or is less than 50% are not included in consolidation because of the absence of a controlling vote.

All of the assets, liabilities, and results of the consolidated companies are included. Minority interest in Group equity and Group income is shown separately.

Valuation

The principles of valuation and determination of income used in the consolidated financial statements shown on pages 51 through 58 are based on historical cost. Current-value data are furnished by way of supplementary information on page 59.

Translation of Foreign Currencies

In the balance sheet, amounts in foreign currencies are translated into guilders at rates virtually equaling the rates of exchange in force at year's end. Where foreign exchange contracts have been concluded for long-term debt, translation is based on the rates of exchange stated in these contracts.

In the statement of income, amounts in foreign currencies are translated into guilders at rates of exchange fixed for each quarter as typical of the rates then applicable.

Foreign exchange differences are included in income, except for foreign exchange differences resulting from translation into guilders of intra-Group loans and of stockholders' equities of affiliated companies outside the Netherlands; the latter differences are directly added to, or deducted from, Group equity.

However, before being translated into guilders, the financial statements of

affiliated companies established in hyperinflationary countries are adjusted to reflect the effects of changing prices.

Exchange Rates of Key Currencies

The principal exchange rates against the Dutch guilder used in drawing up the balance sheet and the statement of income are:

| | Unit | Balance sheet | | Statement of income | |
|-------------|------|---------------|------|---------------------|-------|
| | | 1989 | 1988 | 1989* | 1988* |
| U.S.\$ | 1 | 1.92 | 2.00 | 2.12 | 1.97 |
| DM | 1 | 1.13 | 1.13 | 1.13 | 1.13 |
| £ stg. | 1 | 3.08 | 3.62 | 3.45 | 3.53 |
| Fr. fr. | 1 | 0.33 | 0.33 | 0.33 | 0.33 |
| Sw. fr. | 1 | 1.24 | 1.33 | 1.30 | 1.35 |
| Belg. fr. | 100 | 5.37 | 5.39 | 5.38 | 5.38 |
| Sp. pes. | 100 | 1.74 | 1.77 | 1.79 | 1.70 |
| Yen | 100 | 1.33 | 1.60 | 1.53 | 1.54 |
| Braz. cruz. | 1 | 0.17 | 2.63 | 0.62 | 6.90 |

* Period averages.

Principles of Valuation of Assets and Liabilities

Intangible fixed assets

Preparation and start-up expenses of large investment projects are capitalized and charged against operating income in not more than five equal annual installments after the facilities concerned have been put into service.

Other intangibles are not capitalized but are charged against operating income. Purchased goodwill is charged directly against Group equity.

Property, plant and equipment

Property, plant and equipment are valued at cost less depreciation.

Cost includes the financing charges of capital investment projects under construction. Capital investment grants are deducted from property, plant and equipment.

Depreciation is computed by the straight-line method based on estimated life, which in the majority of cases is 10 years for plant equipment and machinery, and which ranges from 20 to 30 years for buildings. In cases where the book value so computed exceeds the value to the business additional write-offs are made.

Financial fixed assets

Investments in nonconsolidated companies are stated at the amount of Akzo's share in stockholders' equity. The calculation of stockholders' equity is based as much as possible on the Akzo principles of valuation.

Loans to nonconsolidated companies are carried at face value less such provisions as are deemed necessary.

Other financial fixed assets are stated at face value, at cost, or at lower market value.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is defined as the full manufacturing cost related to the stage of processing.

Cost is determined by the first-in first-out (FIFO) method. Provisions are made for obsolescence.

In the valuation of inventories, profits arising from transactions between consolidated companies are eliminated.

Receivables

Receivables are stated at face amounts less such provisions as are deemed necessary.

Cash and short-term investments

Cash and short-term investments are carried at face value, with the exception of marketable private borrowings and marketable securities, which are valued at the lower of cost or market.

Provisions

Provisions for deferred taxes are stated at face value.

Dividend taxes for which no compensation is available are taken into account to the extent of earnings expected to be transferred by affiliated companies in the new fiscal year.

The provisions in respect of pension rights are generally computed on an actuarial basis.

Provisions for commitments and risks whose extent is uncertain but which can

reasonably be estimated, and provisions made to equalize expenses among several fiscal years are shown in the aggregate under "Other provisions." The amounts of these provisions are fixed in relation to the liabilities and risks concerned and are stated at face value.

Long-term debt and current liabilities

Long-term debt and current liabilities are stated at face value.

Principles of Determination of Income

The determination of income is closely associated with the valuation of assets and liabilities.

In addition, a number of specific principles are observed in the preparation of the statement of income, which are set forth below.

- Net sales is defined as the revenue from the sale and delivery of goods and services, net of rebates, discounts, and similar allowances, and net of sales tax.
- Cost of sales comprises the manufacturing cost of the goods and services sold and delivered, and any inventory write-downs to lower net realizable value. Manufacturing cost includes such items as:
 - . the cost of raw materials and supplies, energy, and other materials;
 - . depreciation and the cost of maintenance of the assets used in production;
 - . salaries, wages, and social charges for the personnel involved in manufacturing.
- Taxes on income comprise both current and deferred taxes. No tax deductions are made from income to the extent that this income can be offset against losses incurred in prior years. From losses, taxes are deducted to the extent that they can be offset against taxes charged to income in previous years.
- Income from nonconsolidated companies consists of the Group's equity in earnings of these companies and interest on loans granted to them, with due allowance being made for taxes relating to these items.

Consolidated Balance Sheet of the Akzo Group

See notes on pages 54 through 57.

after allocation of profit

| <i>Millions of guilders, December 31</i> | <i>1989</i> | <i>1988</i> |
|--|-----------------|-----------------|
| Assets | | |
| <i>Fixed assets</i> | | |
| Property, plant and equipment | 5,911.0 | 5,557.5 |
| Financial fixed assets | | |
| – Nonconsolidated companies | 699.0 | 703.4 |
| – Other financial fixed assets | <u>153.2</u> | <u>143.8</u> |
| | 852.2 | 847.2 |
| | <u>6,763.2</u> | <u>6,404.7</u> |
| <i>Current assets</i> | | |
| Inventories | 2,952.2 | 2,996.8 |
| Receivables | 3,683.9 | 3,125.3 |
| Cash and short-term investments | <u>884.6</u> | <u>951.2</u> |
| | 7,520.7 | 7,073.3 |
| Total | 14,283.9 | 13,478.0 |
| Group Equity and Liabilities | | |
| <i>Group equity</i> | | |
| Akzo N.V. stockholders' equity | 4,498.9 | 4,290.2 |
| Minority interest | <u>231.6</u> | <u>234.6</u> |
| | 4,730.5 | 4,524.8 |
| <i>Provisions</i> | 2,302.9 | 2,206.7 |
| <i>Long-term debt</i> | | |
| Subordinated loans | 84.1 | 114.8 |
| Other long-term borrowings | <u>2,341.2</u> | <u>2,114.4</u> |
| | 2,425.3 | 2,229.2 |
| <i>Current liabilities</i> | | |
| Short-term borrowings | 1,534.6 | 1,436.3 |
| Other current liabilities | <u>3,290.6</u> | <u>3,081.0</u> |
| | 4,825.2 | 4,517.3 |
| Total | 14,283.9 | 13,478.0 |

Consolidated Statement of Income of the Akzo Group

See notes on pages 57 and 58.

| <i>Millions of guilders</i> | <i>1989</i> | <i>1988</i> |
|---|-------------|-------------|
| <i>Net sales</i> | 18,736.2 | 16,580.5 |
| <i>Cost of sales</i> | (12,068.6) | (10,682.6) |
| <i>Gross margin</i> | 6,667.6 | 5,897.9 |
| <i>Selling expenses</i> | (3,135.3) | (2,875.7) |
| <i>Research and development expenses</i> | (903.5) | (809.8) |
| <i>General and administrative expenses</i> | (963.3) | (821.0) |
| <i>Other revenue from operations</i> | 47.2 | 32.8 |
| | (4,954.9) | (4,473.7) |
| <i>Operating income</i> | 1,712.7 | 1,424.2 |
| <i>Financing charges</i> | (323.8) | (254.8) |
| <i>Operating income less financing charges</i> | 1,388.9 | 1,169.4 |
| <i>Taxes</i> | (507.1) | (409.2) |
| <i>Earnings of consolidated companies from normal operations, after taxes</i> | 881.8 | 760.2 |
| <i>Earnings from nonconsolidated companies</i> | 85.8 | 123.3 |
| <i>Group income from normal operations, after taxes</i> | 967.6 | 883.5 |
| <i>Extraordinary items after taxes</i> | 12.2 | (11.3) |
| <i>Group income</i> | 979.8 | 872.2 |
| <i>Minority interest</i> | (25.6) | (29.5) |
| <i>Net income</i> | 954.2 | 842.7 |

Consolidated Statement of Changes in Financial Position of the Akzo Group

See notes on page 58.

| <i>Millions of guilders</i> | <i>1989</i> | <i>1988</i> |
|--|--------------|--------------|
| Sources of Funds | | |
| Group income | 980 | 872 |
| Depreciation | 852 | 751 |
| Cash flow | 1,832 | 1,623 |
| Nonconsolidated companies | 58 | (52) |
| Changes in provisions | 198 | (140) |
| Other sources | 87 | 39 |
| | <u>2,175</u> | <u>1,470</u> |
| Applications of Funds | | |
| Expenditures for property, plant and equipment | 1,297 | 1,270 |
| Investments in and acquisition of nonconsolidated companies | 167 | 27 |
| Acquisition of consolidated interests | 1,080 | 315 |
| Changes in other financial fixed assets | (6) | 6 |
| Disposal of interests | (198) | (19) |
| | <u>2,340</u> | <u>1,599</u> |
| Changes in working capital* | 401 | 244 |
| Dividends paid | 106 | 284 |
| Other applications | 9 | 6 |
| | <u>2,856</u> | <u>2,133</u> |
| <i>Balance of funds provided and funds used</i> | <i>(681)</i> | <i>(663)</i> |
| Financing | | |
| Issuance of stock, exclusive of stock dividend | 225 | 4 |
| Drawdowns | 677 | 1,151 |
| Repayment of long-term debt | (419) | (297) |
| Changes in short-term borrowings | 132 | (170) |
| | <u>615</u> | <u>688</u> |
| <i>Changes in cash and short-term investments</i> | <i>(66)</i> | <i>25</i> |

* Inventories and receivables less other current liabilities, exclusive of dividends.

Notes to the Consolidated Financial Statements of the Akzo Group

General

Affiliated Companies

The principal affiliated companies at December 31, 1989, are listed on pages 71 and 72.

A list of affiliated companies, drawn up in conformity with Book 2 of the Dutch Civil Code, section 379, paragraph 1, and using paragraph 3 (wording of the act before November 25, 1988), has been filed at the Trade Registry of Arnhem.

Changes in Consolidated Interests

In 1989 the U.S.-based companies Reliance (coatings) and Filtrol (chemicals) as well as the remaining half of the shares in Spanish-based Procolor (coatings) were acquired. The interest in the Brazilian company COBAFI (fibers) was increased from 36% to 82%.

In 1989, 85% of the Barmag group (machinery), headquartered in the Federal Republic of Germany, was divested. There were no other changes of significance to the financial statements.

Consolidated Balance Sheet

Property, Plant and Equipment

| <i>Millions of guilders</i> | <i>Total</i> | <i>Buildings and land</i> | <i>Plant equipment and machinery</i> | <i>Other equipment</i> | <i>Construction in progress and prepaid projects</i> | <i>Assets not used in the production process</i> |
|---|--------------|---------------------------|--------------------------------------|------------------------|--|--|
| <i>Situation at</i> | | | | | | |
| <i>December 31, 1988</i> | | | | | | |
| Cost of acquisition | 13,204.9 | 2,735.2 | 8,514.4 | 1,132.1 | 651.7 | 171.5 |
| Depreciation | (7,647.4) | (1,254.0) | (5,554.1) | (710.5) | | (128.8) |
| Book value | 5,557.5 | 1,481.2 | 2,960.3 | 421.6 | 651.7 | 42.7 |
| <i>Changes in book value</i> | | | | | | |
| <i>Acquisitions and disposal of interests</i> | | | | | | |
| Capital expenditures | 1,297.4 | 213.7 | 875.0 | 187.4 | 17.7 | 3.6 |
| Depreciation | (851.9) | (101.8) | (600.3) | (141.8) | | (8.0) |
| Additional write-offs | (85.1) | (20.9) | (63.8) | (0.4) | | |
| Disinvestments | (39.6) | (14.6) | (16.5) | (6.7) | | (1.8) |
| Changes in exchange rates | (117.1) | (44.3) | (60.7) | (9.5) | | (2.6) |
| Other changes | (18.2) | 19.2 | (22.4) | (15.5) | | 0.5 |
| Total changes in 1989 | 353.5 | 134.9 | 199.6 | (0.2) | 17.7 | 1.5 |
| <i>Situation at</i> | | | | | | |
| <i>December 31, 1989</i> | | | | | | |
| Cost of acquisition | 13,959.3 | 2,917.2 | 9,048.3 | 1,185.0 | 669.4 | 139.4 |
| Depreciation | (8,048.3) | (1,301.1) | (5,888.4) | (763.6) | | (95.2) |
| Book value | 5,911.0 | 1,616.1 | 3,159.9 | 421.4 | 669.4 | 44.2 |

The book value of property, plant and equipment financed by installment buying and leasing was approximately Hfl 29 million at December 31, 1989 (at December 31, 1988: approximately Hfl 32 million).

Given their comparatively slight magnitude, preparation and start-up expenses, carried at Hfl 3.1 million at December 31, 1989 (at December 31, 1988: Hfl 4.7 million), were included in property, plant and equipment.

Financial Fixed Assets

| Millions of guilders | Total | Non-consolidated companies | Loans to non-consolidated companies | Other financial fixed assets |
|---|--------------|----------------------------|-------------------------------------|------------------------------|
| Situation at December 31, 1988 | 847.2 | 692.8 | 10.6 | 143.8 |
| Investments | 188.7 | 135.3 | 32.0 | 21.4 |
| Disinvestments | (41.2) | (11.9) | (2.4) | (26.9) |
| Consolidation/deconsolidation due to changes in participation | (50.6) | (68.5) | | 17.9 |
| Equity in 1989 earnings | 92.6 | 92.6 | | |
| Dividends received | (151.0) | (151.0) | | |
| Changes in exchange rates | (33.5) | (30.1) | (0.4) | (3.0) |
| Situation at December 31, 1989 | 852.2 | 659.2 | 39.8 | 153.2 |

| Inventories | | |
|--|----------------|----------------|
| Millions of guilders | 1989 | 1988 |
| Raw materials and supplies | 816.4 | 771.0 |
| Work in process | 599.2 | 688.1 |
| Finished products and goods for resale | 1,532.3 | 1,527.3 |
| Inventory prepayments | 4.3 | 10.4 |
| | 2,952.2 | 2,996.8 |

| Receivables | | |
|--|----------------|----------------|
| Millions of guilders | 1989 | 1988 |
| Trade receivables | 2,782.8 | 2,776.2 |
| Receivables from nonconsolidated companies | 127.5 | 81.8 |
| Other receivables | 988.8 | 474.5 |
| | 3,899.1 | 3,332.5 |
| Discounted portion | (215.2) | (207.2) |
| | 3,683.9 | 3,125.3 |

Other receivables at December 31, 1989, include the proceeds from the sale of 85% of the Barmag group to be received in 1990.

| Cash and Short-Term Investments | | |
|---------------------------------|--------------|--------------|
| Millions of guilders | 1989 | 1988 |
| Short-term investments | 754.7 | 835.0 |
| Cash on hand and in banks | 129.9 | 116.2 |
| | 884.6 | 951.2 |

Short-term investments almost entirely consist of cash loans, time deposits, marketable private borrowings, and debentures that are immediately convertible into cash.

| Group Equity | | |
|---|--------------------------------|-------------------|
| Millions of guilders | Akzo N.V. stockholders' equity | Minority interest |
| Situation at December 31, 1988 | 4,290.2 | 234.6 |
| Issuance of stock | 445.4 | |
| Cumulative preferred stock purchases | (0.0) | |
| Retained earnings | 607.6 | 5.9 |
| Changes in minority interest in Group companies | | 1.6 |
| Goodwill | (735.3) | |
| Changes in exchange rates | (109.0) | (10.5) |

| | | |
|--------------------------------|----------------|--------------|
| Situation at December 31, 1989 | 4,498.9 | 231.6 |
|--------------------------------|----------------|--------------|

For details on changes in Akzo N.V. stockholders' equity see the notes to the Akzo N.V. balance sheet on page 62.

| Provisions | | |
|----------------------|----------------|----------------|
| Millions of guilders | 1989 | 1988 |
| Deferred taxes | 391.0 | 323.1 |
| Pension rights | 1,227.1 | 1,124.7 |
| Other provisions | 684.8 | 758.9 |
| | 2,302.9 | 2,206.7 |

The current portion of provisions amounted to approximately Hfl 212 million (at December 31, 1988: approximately Hfl 193 million).

Provisions in respect of pension rights

Most Group companies have arranged appropriate pension plans for their employees, with due observance of the statutory regulations and customs in the countries concerned. The provisions in respect of pension rights relate to rights not covered by independent pension funds or by third parties. At December 31, 1989, as at December 31, 1988, the accumulated pension benefits were fully covered by these provisions and by contributions paid into independent pension funds or to third parties.

Other provisions

The principal provisions are for the restructuring of activities. Other provisions also include amounts in respect of guarantees, and amounts providing coverage for losses, not otherwise insured, contingent upon the outcome of litigation.

Subordinated Loans

This item is composed of the amounts borrowed in respect of subordinated loans arranged by Akzo Nederland B.V., together with either Enka B.V. or Akzo Salt and Basic Chemicals Nederland B.V. Akzo N.V. has accepted joint and several liability for these loans. They are subordinated to all third-party debts of the companies named.

The interest rate averaged 11.0% (1988: 11.0%). Repayment is scheduled to be made in 1990 (Hfl 30.6 million), and in 1991 and 1992 (Hfl 53.5 million).

Other Long-Term Borrowings

| Millions of guilders | 1989 | 1988 |
|------------------------------------|----------------|----------------|
| Debentures | | |
| – Issued by Akzo N.V. | 1,393.2 | 1,227.8 |
| – Issued by consolidated companies | 170.2 | 43.4 |
| Private borrowings | 317.9 | 418.2 |
| Debt to credit institutions | 316.5 | 245.6 |
| Other borrowings | 143.4 | 179.4 |
| | 2,341.2 | 2,114.4 |

Aggregate maturities are as follows:

| Millions of guilders | 1990 | 1991/ 1994 | after 1994 |
|------------------------------------|--------------|----------------|---------------|
| Debentures | | | |
| – Issued by Akzo N.V. | 188.8 | 680.7 | 523.7 |
| – Issued by consolidated companies | 0.2 | 11.2 | 158.8 |
| Private borrowings | 176.1 | 71.3 | 70.5 |
| Debt to credit institutions | 60.7 | 226.1 | 29.7 |
| Other borrowings | 40.9 | 56.7 | 45.8 |
| | 466.7 | 1,046.0 | 828.5 |

The average interest rate was 7.7% (1988: 6.7%).

Private borrowings and debt to credit institutions have been secured to an aggregate amount of Hfl 110 million (at December 31, 1988: Hfl 106 million) by means of mortgages, etc.

The total amount of long-term credit facilities arranged by Akzo but not yet utilized was approximately Hfl 1,056 million at December 31, 1989 (at December 31, 1988: approximately Hfl 1,100 million). For details on debentures issued by Akzo N.V. see the notes to the Akzo N.V. balance sheet on page 62.

Short-Term Borrowings

| Millions of guilders | 1989 | 1988 |
|-----------------------------|----------------|----------------|
| Commercial paper | 576.0 | 591.1 |
| Debt to credit institutions | 958.6 | 845.2 |
| | 1,534.6 | 1,436.3 |

Other Current Liabilities

| Millions of guilders | 1989 | 1988 |
|---|----------------|----------------|
| Prepayments by customers | 9.9 | 102.5 |
| Debt to suppliers | 1,572.8 | 1,460.3 |
| Debt to non-consolidated companies | 30.9 | 40.5 |
| Taxes and social security contributions | 588.1 | 374.3 |
| Dividends | 284.1 | 243.5 |
| Pensions | 57.7 | 67.1 |
| Other liabilities | 747.1 | 792.8 |
| | 3,290.6 | 3,081.0 |

Commitments and Contingent Liabilities

There are pending against companies of the Akzo Group a number of claims, all of which are contested. While the results of litigation cannot be predicted with certainty, management believes, based upon legal advice, that the final outcome of such litigation will not materially affect the consolidated financial position of the Akzo Group.

Purchase commitments for property, plant and equipment aggregated Hfl 192 million at December 31, 1989. At December 31, 1988, these commitments totaled Hfl 236 million. In addition, the Company has purchase commitments for raw materials and supplies incident to the ordinary conduct of business.

Long-term liabilities were contracted in respect of leasehold, rental, operating leases, etc. For 1990, these liabilities will require total payments of Hfl 67 million.

Guarantees in behalf of nonconsolidated companies totaled Hfl 125 million (at December 31, 1988: Hfl 106 million).

As general partners of several partnerships, companies of the Akzo Group are liable for obligations incurred by the partnerships. These obligations, exclusive of debt to, or debt guaranteed by, other Group companies, aggregated Hfl 363 million (at December 31, 1988: Hfl 339 million).

Consolidated Statement of Income

| Net Sales | | |
|---|---------------|--------|
| <i>Product groups*</i> | | |
| <i>Millions of guilders</i> | 1989 | 1988 |
| Chemical products | 6,420 | 6,020 |
| Fibers and polymers | 5,210 | 4,678 |
| Coatings | 3,659 | 2,794 |
| Healthcare products | 2,647 | 2,412 |
| Miscellaneous products and intra-Group deliveries | (137) | (107) |
| | 17,799 | 15,797 |
| Barmag | 937 | 784 |
| | 18,736 | 16,581 |
| <i>Areas of destination</i> | | |
| <i>Millions of guilders</i> | 1989 | 1988 |
| The Netherlands | 1,603 | 1,683 |
| Federal Republic of Germany | 2,758 | 2,554 |
| Rest of Europe | 6,570 | 5,952 |
| North America | 3,809 | 2,949 |
| Other regions | 3,059 | 2,659 |
| | 17,799 | 15,797 |
| Barmag | 937 | 784 |
| | 18,736 | 16,581 |

| Financing Charges | | |
|---|----------------|---------|
| <i>Millions of guilders</i> | 1989 | 1988 |
| Interest received and similar income | 83.3 | 81.5 |
| Interest paid and similar expenses | (407.1) | (336.3) |
| | (323.8) | (254.8) |
| Interest paid decreased by Hfl 43 million (1988: Hfl 39 million) due to the capitalization of financing expenses of capital investment projects under construction. | | |

| Taxes on Operating Income less Financing Charges | |
|---|--|
| Taxes averaged 36.5% (1988: 35.0%). Because of loss compensation facilities a portion of income was not included in taxable income. | |

| Earnings from Nonconsolidated Companies | |
|--|--|
| Earnings from nonconsolidated companies include a tax charge of Hfl 8.3 million in 1989 and of Hfl 18.4 million in 1988. | |

* The breakdown by product group has been changed due to the divestment of the Barmag group. Given the minor importance of the remaining miscellaneous products (1989 sales: Hfl 120 million; 1988 sales: Hfl 104 million), they have been combined with intra-Group deliveries.

| Extraordinary Items after Taxes | | | Employees | | |
|---|---------|---------|------------------------------------|--------|--------|
| Millions of guilders | 1989 | 1988 | Average number of employees | 1989 | 1988 |
| Extraordinary gains | 274.8 | 8.0 | Fibers and polymers division | 31,100 | 30,400 |
| Extraordinary losses | (249.3) | (48.2) | Salt and basic chemical division | 6,500 | 6,200 |
| Extraordinary items | 25.5 | (40.2) | Chemical division | 8,000 | 7,600 |
| Taxes | (13.3) | 28.9 | Coatings division | 14,000 | 12,100 |
| | 12.2 | (11.3) | Pharma division | 12,500 | 12,300 |
| | | | Other companies | 1,400 | 1,400 |
| Extraordinary items for 1989 principally relate to the divestiture of interests and business activities as well as to the creation of provisions for restructuring. | | | | 73,500 | 70,000 |
| Salaries, Wages, and Social Charges | | | Number of employees at December 31 | | |
| Millions of guilders | 1989 | 1988 | | 70,900 | 71,100 |
| Salaries and wages | 4,154.4 | 3,770.5 | | | |
| Pension costs | 339.7 | 404.3 | | | |
| Other social charges | 814.2 | 714.1 | | | |
| | 5,308.3 | 4,888.9 | | | |

Consolidated Statement of Changes in Financial Position

This statement provides data on sources and applications of funds and on the Company's financing activities. It is based on a comparison of initial and final balance sheet amounts, in which currency translation differences, changes in

investments in affiliated companies, etc. are eliminated.

For some items the elimination can be derived directly from the notes to the balance sheet. For certain other items the elimination is shown below.

| Millions of guilders | Working capital* | Provisions | Long-term debt | Short-term borrowings |
|-------------------------------------|------------------|------------|----------------|-----------------------|
| Changes in 1989 balance sheet items | 345 | 96 | 196 | 99 |
| Eliminations: | | | | |
| Changes in exchange rates | 89 | 13 | 73 | 39 |
| Changes in consolidation | (33) | 89 | (11) | (6) |
| Changes in 1989 financial position | 401 | 198 | 258 ** | 132 |

* Inventories and receivables less other current liabilities, exclusive of dividends.

** Balance of drawdowns (Hfl 677 million) and repayments (Hfl 419 million).

Supplementary Information on the Basis of Current Value

In the valuation and determination of income on the basis of current value the following additional accounting policies are used:

Property, plant and equipment

- The current value of land is approximated on the basis of appraisals.
- The current value of the other property, plant and equipment is computed using indexes from external sources in the principal countries of establishment, with adjustments for the estimated decrease in value as a result of technological advances. In cases where the current value exceeds the value to the business, the latter value is used.
- Deferred taxes resulting from the revaluation of property, plant and equipment not yet realized are shown under provisions.
- To calculate depreciation on the basis of current value the same percentages are

used as for depreciation on the basis of historical cost.

- The difference between depreciation on the basis of current value and depreciation on the basis of historical cost is treated as additional depreciation.

Inventories

- Inventories are shown at historical cost, unless there is a material difference with the current value at the balance sheet date.
- The difference between current value and historical cost of the inventories consumed is treated as inventory results.

Gearing adjustment

- To the extent that fixed assets and inventories are considered to be financed with debt, additional depreciation and inventory results are not included in net income.

Condensed Consolidated Balance Sheet

| Millions of guilders | 1989 | 1988 |
|--|---------------|---------------|
| Assets | | |
| Fixed assets on the basis of historical cost | 6,763 | 6,405 |
| Revaluation of fixed assets | 1,146 | 1,292 |
| Fixed assets on the basis of current value | 7,909 | 7,697 |
| Current assets | 7,521 | 7,073 |
| Total | 15,430 | 14,770 |
| Group equity and liabilities | | |
| Stockholders' equity | 5,238 | 5,144 |
| Minority interest | 274 | 279 |
| Group equity | 5,512 | 5,423 |
| Provisions | 2,668 | 2,601 |
| Debt | 7,250 | 6,746 |
| Total | 15,430 | 14,770 |

Summarized Consolidated Income Data

| Millions of guilders | 1989 | 1988 |
|--|--------|--------|
| Net sales | 18,736 | 16,581 |
| Operating income on the basis of historical cost | 1,713 | 1,424 |
| Adjustment of operating income to current value | | |
| – Inventory results | (39) | (83) |
| – Additional depreciation | (118) | (127) |
| Operating income on the basis of current value | 1,556 | 1,214 |
| As percentage of net sales | 8.3 | 7.3 |
| Net income on the basis of historical cost | 954 | 843 |
| Adjustment of operating income to current value | (157) | (210) |
| Gearing adjustment | 77 | 103 |
| Adjustments for non-consolidated companies and minority interest | (3) | (9) |
| Net income on the basis of current value | 871 | 727 |

Akzo N.V. Balance Sheet

See notes on pages 61 through 63.

after allocation of profit

| <i>Millions of guilders, December 31</i> | <i>1989</i> | <i>1988</i> |
|---|----------------|----------------|
| Assets | | |
| <i>Fixed assets</i> | | |
| Financial fixed assets | 7,019.8 | 7,019.4 |
| <i>Current assets</i> | | |
| Receivables | 56.5 | 61.6 |
| Cash and short-term investments | <u>270.8</u> | <u>280.6</u> |
| | 327.3 | 342.2 |
| Total | 7,347.1 | 7,361.6 |
| Stockholders' Equity and Liabilities | | |
| <i>Stockholders' equity</i> | | |
| Subscribed stock | 866.5 | 804.9 |
| Additional paid-in capital | 1,435.2 | 1,257.5 |
| Statutory reserves | - | - |
| Other reserves | <u>2,197.2</u> | <u>2,227.8</u> |
| | 4,498.9 | 4,290.2 |
| <i>Long-term debt</i> | 2,189.0 | 2,309.2 |
| <i>Current liabilities</i> | 659.2 | 762.2 |
| Total | 7,347.1 | 7,361.6 |

Akzo N.V. Statement of Income

See notes on page 63.

| <i>Millions of guilders</i> | <i>1989</i> | <i>1988</i> |
|--------------------------------------|--------------|--------------|
| Net income from affiliated companies | 962.6 | 864.2 |
| Other net income | (8.4) | (21.5) |
| <i>Net income</i> | 954.2 | 842.7 |

Notes to Akzo N.V. Balance Sheet and Statement of Income

General

Foreign currency has been translated, assets and liabilities have been valued, and net income has been determined, in accordance with the principles of valuation and determination of income set forth on pages 49 and 50.

Thus stockholders' equity and net income are equal to stockholders' equity and net

income as shown in the consolidated financial statements on pages 51 and 52. As the financial data of Akzo N.V. are included in the consolidated financial statements of the Akzo Group, the statement of income of Akzo N.V. is condensed in conformity with Book 2 of the Dutch Civil Code, section 402.

Balance Sheet

Financial Fixed Assets

| Millions of guilders | Total | Consolidated companies | | Nonconsolidated companies | | Other financial fixed assets |
|--------------------------------|----------------|------------------------|----------------|---------------------------|------------|------------------------------|
| | | Share in capital | Loans* | Share in capital | Loans | |
| Situation at December 31, 1988 | 7,019.4 | 3,580.4 | 3,284.3 | 154.0 | - | 0.7 |
| Investments/disinvestments | 816.3 | 816.6 | | (0.7) | | 0.4 |
| Equity in 1989 earnings | 962.6 | 921.1 | | 41.5 | | |
| Dividends received | (577.0) | (522.4) | | (54.6) | | |
| Loans granted | 449.9 | | 444.9 | | 5.0 | |
| Repayment of loans | (807.1) | | (807.1) | | | |
| Changes in exchange rates | (109.0) | (102.7) | (13.9) | 7.6 | | |
| Goodwill | (735.3) | (735.3) | | | | |
| Situation at December 31, 1989 | 7,019.8 | 3,957.7 | 2,908.2 | 147.8 | 5.0 | 1.1 |

| Receivables | | | Cash and Short-Term Investments | | |
|--|------|------|---------------------------------|-------|-------|
| Millions of guilders | 1989 | 1988 | Millions of guilders | 1989 | 1988 |
| Receivables from consolidated companies | 20.6 | 32.7 | Short-term investments | 268.6 | 273.0 |
| Receivables from nonconsolidated companies | 0.1 | 0.3 | Cash on hand and in banks | 2.2 | 7.6 |
| Other receivables | 35.8 | 28.6 | | 270.8 | 280.6 |
| | 56.5 | 61.6 | | | |

* Loans to consolidated companies have no fixed repayment schedule.

Stockholders' Equity

| Millions of guilders | Subscribed stock | Additional paid-in capital | Statutory reserves | Other reserves | Stockholders' equity |
|--|------------------|----------------------------|--------------------|----------------|----------------------|
| Situation at December 31, 1988 | 804.9 | 1,257.5 | - | 2,227.8 | 4,290.2 |
| Issuance of common stock due to: | | | | | |
| - exercise of warrants | 0.0 | 0.2 | | | 0.2 |
| - acquisition of Reliance | 31.0 | 194.0 | | | 225.0 |
| - 1988 stock dividend | 30.6 | (16.5) | | 206.1 | 220.2 |
| Cum. pref. stock purchases | (0.0) | (0.0) | | | (0.0) |
| Retained earnings | | | | 607.6 | 607.6 |
| Goodwill | | | | (735.3) | (735.3) |
| Changes in exchange rates in respect of affiliated companies | | | | (109.0) | (109.0) |
| Situation at December 31, 1989 | 866.5 | 1,435.2 | - | 2,197.2 | 4,498.9 |

Subscribed stock

Authorized capital stock of Akzo N.V. is Hfl 1,030,048,000 and consists of 48 shares of priority stock of Hfl 1,000 each, 30,000 shares of cumulative preferred stock of Hfl 1,000 each, and 50 million shares of common stock of Hfl 20 each. Subscribed stock consists of 48 shares of priority stock and 43,324,238 shares of common stock. During 1989, 1,553,014 shares of common stock were issued toward the financing of the acquisition of Reliance and 1,528,639 shares of common stock in respect of the 1988 stock dividend.

Warrants

In 1986, Akzo N.V. issued 2,001,513 warrants to bearer. Until September 30, 1991 each warrant entitles the holder thereof to obtain, at the price of Hfl 119, one share of Akzo N.V. common stock. Akzo N.V. has the right to shorten the exercise period of the warrants with due observance of a period of prior notice of at least three months. In 1989, a total of 1,878 warrants were exercised (1988: 710 warrants).

Purchases of own stock

In 1989 the remaining 29 cumulative preferred shares of Hfl 1,000 were offered to the Company. They were purchased for an amount of Hfl 34,800.

Additional paid-in capital

At least Hfl 813 million of additional paid-in capital (at December 31, 1988: Hfl 827 million) can be considered free from income tax within the meaning of the Dutch 1964 Income Tax Law (Wet op de Inkomstenbelasting 1964).

Statutory reserves

This includes the statutory reserve relating to the earnings retained by affiliated companies after 1983. Goodwill paid by affiliated companies is deducted from the statutory reserve. The statutory reserve has been calculated by the so-called collective method.

Long-Term Debt

| Millions of guilders | 1989 | 1988 |
|--------------------------------|----------------|----------------|
| Debentures | 1,393.2 | 1,227.8 |
| Debt to consolidated companies | 573.7 | 827.0 |
| Private borrowings | 159.6 | 168.4 |
| Other borrowings | 62.5 | 86.0 |
| | 2,189.0 | 2,309.2 |

Debentures

| Millions of guilders | 1989 | 1988 |
|----------------------|----------------|----------------|
| 4¾% 1969/89 (U.S.\$) | | 0.1 |
| 10¾% 1982/88-92 | 60.0 | 80.0 |
| 14% 1987/90 (A\$) | 73.5 | 73.5 |
| 9¾% 1987/90 (Can.\$) | 95.3 | 95.3 |
| 6¼% 1988/95 | 200.0 | 200.0 |
| 4½% 1988/98 (Sfr) | 123.7 | 133.4 |
| 6% 1988/96 | 200.0 | 200.0 |
| 5½% 1988/93 (DM) | 225.8 | 225.8 |
| 11% 1988/91 (Can.\$) | 104.2 | 104.2 |
| 7½% 1988/91 (ECU) | 110.3 | 114.9 |
| 14½% 1989/92 (A\$) | 117.3 | |
| 14¾% 1989/92 (A\$) | 82.5 | |
| Employee debentures | 0.6 | 0.6 |
| | 1,393.2 | 1,227.8 |

The liabilities arising from the A\$- and Can.\$-denominated debenture issues were swapped to liabilities in guilders and

U.S. dollars on which interest is payable at a floating rate related to AIBOR/LIBOR.

The liability arising from the ECU-denominated debenture issue was swapped to a liability in U.S. dollars on which interest is payable at a floating rate related to LIBOR.

Debt to consolidated companies

Borrowings from these companies have no fixed repayment schedule. Part of these borrowings do not bear interest. To the extent that interest is charged, it averaged 7.6% in 1989 (1988: 6.1%).

Private and other borrowings

Aggregate maturities are as follows:

| Millions of guilders | 1990 | 1991/ 1994 | after 1994 |
|----------------------|-------|---------------|---------------|
| Private borrowings | 158.8 | 0.4 | 0.4 |
| Other borrowings | 57.3 | 0.4 | 4.8 |

The average rate of interest was 7.7% (1988: 7.1%).

Current Liabilities

| Millions of guilders | 1989 | 1988 |
|---|--------------|--------------|
| Debt to credit institutions | 141.9 | 287.7 |
| Commercial paper | | 10.1 |
| Debt to consolidated companies | 52.9 | 78.4 |
| Taxes and social security contributions | 71.7 | 5.1 |
| Dividend | 284.1 | 243.5 |
| Other liabilities | 108.6 | 137.4 |
| | 659.2 | 762.2 |

Liabilities Not Shown in the Balance Sheet

Joint and several liability; guarantees

Akzo N.V. has declared in writing that it accepts joint and several liability for contractual debts of Dutch consolidated companies.

These debts, at December 31, 1989 aggregating approximately Hfl 1.6 billion (at December 31, 1988: approximately Hfl 1.7 billion), are included in the consolidated balance sheet of the Akzo Group. Additionally, guarantees were issued in behalf of consolidated companies in the amount of Hfl 1.2 billion (1988: Hfl 1.3 billion) and in behalf of nonconsolidated companies in the amount of Hfl 125 million (1988: Hfl 106 million).

Statement of Income

Net Income from Affiliated Companies

Net income from affiliated companies concerns Akzo N.V.'s share in the earnings of its affiliates.

Remuneration of Members of the Board of Management and of the Supervisory Council of Akzo N.V.

In fiscal 1989, remuneration including pension expense amounted to Hfl 4,933,000 (1988: Hfl 4,787,000) for members and former members of the Board of Management, and to Hfl 687,000 (1988: Hfl 674,000) for members and former members of the Supervisory Council. These amounts were charged to Akzo Group income.

Arnhem, February 23, 1990

The Board of Management

A.A. Loudon
J.W. Berghuis
J. Veldman
M.D. Westermann

The Supervisory Council

G. Kraijenhoff
E.G.G. Werner
A. Batenburg
A.G. van den Bos
F.H. Fentener van Vlissingen
J.G.A. Gandois
H.A. van Stiphout
C. van Veen
H.G. Zempelin

Auditors' Report

We have examined the foregoing 1989 financial statements of Akzo N.V. In our opinion, these financial statements present fairly the financial position of Akzo N.V. at December 31, 1989, and the results of its operations for the year then ended.

Arnhem, February 23, 1990

KPMG Klynveld Kraayenhof & Co.

Provisions of the Articles of Association with regard to Profit Allocation

Article 39

1
The Board of Management shall be authorized to determine, with the approval of the Supervisory Council, how great a share of the profit as shown by the approved statement of income shall be added to reserves; the general meeting of shareholders may dispose of such reserves only on the proposal of the Board of Management approved by the Supervisory Council. The remainder of the profits shall be put at the disposal of the general meeting of shareholders, with due observance of the provisions in paragraph 2.

2
The remainder of the profits shall, to the extent possible, be allocated as follows:

a
to the holders of priority shares: six per cent per share or the statutory interest as stated in article 8, paragraph 1, whichever is lower, plus any accrued and unpaid dividends;

b
to the holders of cumulative preferred shares:
six per cent per share, plus any accrued and unpaid dividends;

c
to the holders of ordinary shares:
a dividend of such an amount per share as the remaining profit, less the aforesaid payments and less such amounts as the general meeting of shareholders may decide to carry to reserves, shall permit.

3
The holders of ordinary shares are, to the exclusion of everyone else, entitled to allocations made from reserves accrued by virtue of the provision of the second paragraph sub c.

4
The right to receive dividends and interim dividends shall lapse six years after such dividends and interim dividends have been made payable.

Proposal for Profit Allocation

Amounts in guilders

1989

| | |
|------------|-------------|
| Net income | 954,200,000 |
|------------|-------------|

With due observance of art. 39, para 2, of the articles of association, it is proposed that this amount be allocated as follows:

| | |
|-------------------------------|--------------------|
| To be distributed: | |
| dividend on priority stock | 2,880 |
| dividend on common stock | <u>346,593,817</u> |
| | 346,596,697 |
| To be added to other reserves | 607,603,303 |

Following the acceptance of this proposal, the holders of common stock will receive a dividend of Hfl 8.00 per common share of Hfl 20, of which Hfl 1.50 was paid earlier as an interim dividend.

Of the final dividend of Hfl 6.50, an amount of Hfl 3.25 will be paid in cash on dividend coupon No. 34 from May 14, 1990. As of the same date stockholders

may choose to receive on the talon an amount of Hfl 3.25 in cash or in Akzo N.V. common stock chargeable to additional paid-in capital or, at the stockholder's option, to other reserves. The stock dividend rate will be determined on April 26, 1990. From June 25, 1990, the talon will only be payable in cash.

Special Rights to Holders of Priority Stock

The priority stock is held by "Akzo-stichting" (Akzo Foundation), which is controlled by the members of the Supervisory Council and the Board of Management.

The meeting of holders of priority stock has the right to draw up binding lists of nominees for appointment to the

Supervisory Council and the Board of Management. Amendments of the Articles of Association are subject to the approval of this meeting.

Balance Sheets, with Notes, of Dutch Partnerships

("Vennootschappen onder Firma")

Akzo Group companies are general partners in the following partnerships:

| | |
|--|-----|
| Aramide Maatschappij v.o.f., Emmen | 50% |
| Glucona v.o.f., Ter Apelkanaal | 50% |
| Methanol Chemie Nederland v.o.f., Delfzijl (MCN) | 50% |
| Methanor v.o.f., Delfzijl | 30% |
| ROVIN Rotterdamse Vinylunie v.o.f., Amsterdam | 50% |

The percentages indicate Akzo Group interest in the above companies.

In conformity with Book 2 of the Dutch Civil Code, section 379, paragraph 4, the Minister of Economic Affairs has granted an exemption for Aramide Maatschappij v.o.f., Emmen, for the years 1987, 1988, and 1989, as contemplated in Book 2 of the Dutch Civil Code, section 392, paragraph 5 (wording of the act before November 25, 1988).

The data of the other Dutch partnerships are of negligible significance for a proper understanding of the financial statements.

Ten-Year Financial Summary

In the computation of ratios, the amounts used for invested capital and stockholders' equity represent averages of the amounts at January 1 and December 31 of the year.

Consolidated Balance Sheet

| <i>Millions of guilders</i> | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Property, plant and equipment | 5,911 | 5,558 | 4,795 | 4,330 | 3,843 | 4,208 | 3,840 | 3,911 | 3,673 | 3,441 |
| Financial fixed assets | 852 | 847 | 792 | 660 | 622 | 610 | 611 | 499 | 532 | 525 |
| Fixed assets | 6,763 | 6,405 | 5,587 | 4,990 | 4,465 | 4,818 | 4,451 | 4,410 | 4,205 | 3,966 |
| Inventories | 2,952 | 2,997 | 2,568 | 2,586 | 2,691 | 2,653 | 2,457 | 2,542 | 2,506 | 2,454 |
| Receivables | 3,684 | 3,125 | 2,733 | 2,768 | 3,114 | 2,893 | 2,701 | 2,339 | 2,587 | 2,308 |
| Cash and short-term investments | 885 | 951 | 926 | 1,084 | 1,485 | 1,067 | 1,206 | 778 | 898 | 883 |
| Current assets | 7,521 | 7,073 | 6,227 | 6,438 | 7,290 | 6,613 | 6,364 | 5,659 | 5,991 | 5,645 |
| Total assets | 14,284 | 13,478 | 11,814 | 11,428 | 11,755 | 11,431 | 10,815 | 10,069 | 10,196 | 9,611 |
| Subscribed capital | 867 | 805 | 804 | 803 | 796 | 789 | 664 | 593 | 593 | 593 |
| Additional paid-in capital | 1,435 | 1,257 | 1,254 | 1,247 | 1,120 | 1,087 | 740 | 658 | 658 | 658 |
| Statutory reserves | - | - | - | 438* | 372* | 300* | - | - | - | - |
| Other reserves | 2,197 | 2,228 | 1,754 | 1,823* | 1,854* | 1,838* | 1,563 | 1,237 | 1,198 | 1,015 |
| Stockholders' equity | 4,499 | 4,290 | 3,812 | 4,311 | 4,142 | 4,014 | 2,967 | 2,488 | 2,449 | 2,266 |
| Minority interest | 232 | 235 | 217 | 354 | 353 | 170 | 120 | 122 | 407 | 393 |
| Group equity | 4,731 | 4,525 | 4,029 | 4,665 | 4,495 | 4,184 | 3,087 | 2,610 | 2,856 | 2,659 |
| Provisions | 2,303 | 2,207 | 2,266 | 2,005 | 2,003 | 1,729 | 1,535 | 1,427 | 1,335 | 1,329 |
| Subordinated loans | 84 | 115 | 145 | 167 | 184 | 203 | 221 | 175 | 75 | 25 |
| Other long-term borrowings | 2,341 | 2,114 | 1,194 | 1,438 | 1,678 | 2,169 | 3,132 | 3,227 | 3,114 | 3,072 |
| Long-term debt | 2,425 | 2,229 | 1,339 | 1,605 | 1,862 | 2,372 | 3,353 | 3,402 | 3,189 | 3,097 |
| Short-term borrowings | 1,535 | 1,436 | 1,525 | 405 | 439 | 430 | 349 | 571 | 613 | 574 |
| Other current liabilities | 3,290 | 3,081 | 2,655 | 2,748 | 2,956 | 2,716 | 2,491 | 2,059 | 2,203 | 1,952 |
| Current liabilities | 4,825 | 4,517 | 4,180 | 3,153 | 3,395 | 3,146 | 2,840 | 2,630 | 2,816 | 2,526 |
| Total Group equity and liabilities | 14,284 | 13,478 | 11,814 | 11,428 | 11,755 | 11,431 | 10,815 | 10,069 | 10,196 | 9,611 |
| <i>Invested capital**</i> | | | | | | | | | | |
| Of consolidated companies | 9,410 | 8,743 | 7,603 | 7,061 | 6,832 | 7,203 | 6,666 | 6,881 | 6,744 | 6,418 |
| In nonconsolidated companies | 699 | 703 | 630 | 535 | 482 | 445 | 452 | 351 | 351 | 357 |
| Total | 10,109 | 9,446 | 8,233 | 7,596 | 7,314 | 7,648 | 7,118 | 7,232 | 7,095 | 6,775 |
| <i>Property, plant and equipment</i> | | | | | | | | | | |
| Capital expenditures | 1,297 | 1,270 | 1,095 | 1,106 | 1,008 | 784 | 625 | 730 | 693 | 645 |
| Depreciation | 852 | 751 | 668 | 577 | 608 | 576 | 584 | 533 | 527 | 504 |
| <i>Ratios</i> | | | | | | | | | | |
| Net sales : invested capital | 2.06 | 2.03 | 2.12 | 2.25 | 2.57 | 2.38 | 2.23 | 2.08 | 2.20 | 1.99 |
| Group equity : debt | 0.50 | 0.51 | 0.52 | 0.69 | 0.62 | 0.58 | 0.40 | 0.35 | 0.39 | 0.38 |
| Group equity : fixed assets | 0.70 | 0.71 | 0.72 | 0.93 | 1.01 | 0.87 | 0.69 | 0.59 | 0.68 | 0.67 |
| Inventories and receivables : other current liabilities | 2.02 | 1.99 | 2.00 | 1.95 | 1.96 | 2.04 | 2.07 | 2.37 | 2.31 | 2.44 |

* Restated for comparison.

** Total assets less cash and short-term investments, and less other current liabilities.

Consolidated Statement of Income

| <i>Millions of guilders</i> | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 |
|---|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Net sales | 18,736 | 16,581 | 15,535 | 15,615 | 18,010 | 16,520 | 15,085 | 14,154 | 14,476 | 12,453 |
| Operating income | 1,713 | 1,424 | 1,181 | 1,465 | 1,465 | 1,340 | 843 | 493 | 564 | 416 |
| Financing charges | (324) | (255) | (147) | (106) | (185) | (285) | (341) | (297) | (329) | (261) |
| Taxes on operating income less financing charges | (507) | (409) | (367) | (478) | (465) | (369) | (73) | (28) | (79) | (48) |
| Equity in earnings of nonconsolidated companies | 86 | 123 | 53 | 17 | 98 | 123 | 110 | 59 | 83 | 72 |
| Group income from normal operations, after taxes | 968 | 883 | 720 | 898 | 913 | 809 | 539 | 227 | 239 | 179 |
| Extraordinary items after taxes | 12 | (11) | 273 | 23 | 3 | (35) | (102) | (49) | 7 | (246) |
| Group income | 980 | 872 | 993 | 921 | 916 | 774 | 437 | 178 | 246 | (67) |
| Minority interest | (26) | (29) | (51) | (79) | (73) | (22) | (9) | (13) | (7) | (3) |
| Net income | 954 | 843 | 942 | 842 | 843 | 752 | 428 | 165 | 239 | (70) |

| | | | | | | | | | | |
|---|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Common stock, in thousands of shares of Hfl 20 | 43,324 | 40,241 | 40,208 | 40,138 | 39,755 | 39,427 | 33,151 | 29,594 | 29,594 | 29,594 |
| Dividend | 347 | 302* | 265 | 265 | 262 | 236 | 133 | 47* | 59 | - |

*Per common share of Hfl 20,
in guilders*

| | | | | | | | | | | |
|----------------------|---------------|--------|-------|--------|--------|--------|-------|-------|-------|--------|
| Net income | 22.02 | 20.94 | 23.43 | 20.96 | 21.21 | 19.06 | 12.91 | 5.56 | 8.07 | (2.35) |
| Dividend | 8.00 | 7.50 | 6.60 | 6.60 | 6.60 | 6.00 | 4.00 | 1.60 | 2.00 | - |
| Stockholders' equity | 103.84 | 106.61 | 94.80 | 107.40 | 104.16 | 101.80 | 89.48 | 84.06 | 82.72 | 76.56 |

Adjusted for common stock issues

| | | | | | | | | | | |
|----------------------|---------------|--------|-------|--------|--------|--------|-------|-------|-------|--------|
| Net income | 22.02 | 20.90 | 23.39 | 20.92 | 21.17 | 19.03 | 12.83 | 5.28 | 7.66 | (2.23) |
| Dividend | 8.00 | 7.49 | 6.59 | 6.59 | 6.59 | 5.99 | 3.97 | 1.52 | 1.90 | - |
| Stockholders' equity | 103.84 | 106.42 | 94.63 | 107.21 | 103.98 | 101.62 | 88.87 | 79.80 | 78.53 | 72.68 |

| | | | | | | | | | | |
|--|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Number of employees at December 31 | 70,900 | 71,100 | 67,400 | 68,400 | 65,000 | 66,100 | 66,300 | 73,700 | 77,800 | 83,100 |
| Salaries, wages, and social charges | 5,308 | 4,889 | 4,627 | 4,439 | 4,641 | 4,292 | 4,303 | 4,229 | 4,182 | 3,789 |
| Ditto, as % of net sales | 28.3 | 29.5 | 29.8 | 28.4 | 25.8 | 26.0 | 28.5 | 29.9 | 28.9 | 30.4 |

Ratios

| | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|-----|------|-------|
| Operating income, as percentage of net sales | 9.1 | 8.6 | 7.6 | 9.4 | 8.1 | 8.1 | 5.6 | 3.5 | 3.9 | 3.3 |
| Operating income, as percentage of invested capital | 18.9 | 17.4 | 16.1 | 21.1 | 20.9 | 19.3 | 12.4 | 7.2 | 8.6 | 6.7 |
| Net income, as percentage of stockholders' equity | 21.7 | 20.8 | 23.2 | 19.9 | 20.7 | 21.5 | 15.7 | 6.7 | 10.1 | (3.0) |

Figures on a Current-Value Basis

| | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 |
|--|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <i>Per common share of Hfl 20, in guilders</i> | | | | | | | | | | |
| Net income | 20.10 | 18.07 | 21.56 | 21.08 | 18.49 | 16.36 | 9.26 | 2.20 | 2.74 | (5.98) |
| Stockholders' equity | 120.90 | 127.83 | 115.00 | 126.00 | 123.41 | 123.50 | 113.40 | 110.74 | 110.51 | 100.84 |

* Of which Hfl 82 million in cash in 1988 and Hfl 30 million in 1982.

Product Group Statistics*

| Millions of guilders | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <i>Net sales</i> | | | | | | | | | | |
| Chemical products: | | | | | | | | | | |
| Salt and basic chemicals | 2,592 | 2,618 | 2,034 | 2,029 | 2,482 | 2,302 | 2,001 | 1,872 | 1,924 | 1,729 |
| Specialty chemicals | 3,828 | 3,402 | 2,617 | 2,303 | 2,673 | 2,498 | 2,096 | 1,945 | 2,087 | 1,820 |
| | 6,420 | 6,020 | 4,651 | 4,332 | 5,155 | 4,800 | 4,097 | 3,817 | 4,011 | 3,549 |
| Fibers and polymers: | | | | | | | | | | |
| Fibers | | | | | | | | | | |
| – textile uses | 2,244 | 1,975 | 1,821 | 1,995 | 2,206 | 2,069 | 1,860 | 2,001 | 2,172 | 1,866 |
| – industrial uses | 1,688 | 1,432 | 1,340 | 1,448 | 1,647 | 1,507 | 1,303 | 1,255 | 1,250 | 1,119 |
| Polymers | 1,278 | 1,271 | 1,130 | 1,070 | 982 | 1,011 | 819 | 750 | 717 | 612 |
| | 5,210 | 4,678 | 4,291 | 4,513 | 4,835 | 4,587 | 3,982 | 4,006 | 4,139 | 3,597 |
| Coatings | 3,659 | 2,794 | 2,415 | 2,314 | 2,171 | 1,973 | 1,796 | 1,572 | 1,513 | 1,432 |
| Healthcare products | 2,647 | 2,412 | 2,218 | 2,239 | 2,138 | 1,849 | 1,647 | 1,563 | 1,484 | 1,320 |
| Miscellaneous products and intra-Group deliveries | (137) | (107) | (136) | (103) | (66) | (62) | (14) | (9) | 59 | 4 |
| | 17,799 | 15,797 | 13,439 | 13,295 | 14,233 | 13,147 | 11,508 | 10,949 | 11,206 | 9,902 |
| Divested operations** | 937 | 784 | 2,096 | 2,320 | 3,777 | 3,373 | 3,577 | 3,205 | 3,270 | 2,551 |
| Net sales | 18,736 | 16,581 | 15,535 | 15,615 | 18,010 | 16,520 | 15,085 | 14,154 | 14,476 | 12,453 |
| <i>Operating income</i> | | | | | | | | | | |
| Chemical products | 703 | 700 | 470 | 421 | 474 | 403 | 193 | 89 | 125 | 183 |
| Fibers and polymers | 268 | 195 | 129 | 350 | 404 | 372 | 146 | 87 | 51 | (98) |
| Coatings | 281 | 210 | 164 | 132 | 130 | 144 | 143 | 97 | 110 | 110 |
| Healthcare products | 383 | 335 | 330 | 350 | 355 | 306 | 260 | 233 | 190 | 145 |
| Miscellaneous products and nonallocated items | 14 | (56) | (57) | (8) | (60) | (58) | (37) | (18) | (33) | 5 |
| | 1,649 | 1,384 | 1,036 | 1,245 | 1,303 | 1,167 | 705 | 488 | 443 | 345 |
| Divested operations** | 64 | 40 | 145 | 220 | 162 | 173 | 138 | 5 | 121 | 71 |
| Operating income | 1,713 | 1,424 | 1,181 | 1,465 | 1,465 | 1,340 | 843 | 493 | 564 | 416 |
| <i>Invested capital</i> | | | | | | | | | | |
| Chemical products | 3,607 | 3,455 | 2,765 | 2,386 | 2,393 | 2,362 | 2,025 | 1,895 | 1,851 | 1,749 |
| Fibers and polymers | 2,750 | 2,464 | 2,329 | 2,149 | 2,082 | 1,978 | 1,969 | 2,151 | 2,042 | 1,847 |
| Coatings | 1,708 | 1,291 | 1,089 | 1,070 | 894 | 738 | 653 | 598 | 569 | 585 |
| Healthcare products | 1,330 | 1,390 | 1,152 | 1,069 | 987 | 809 | 772 | 701 | 714 | 733 |
| Miscellaneous products and nonallocated items | (337) | (169) | 3 | (151) | (86) | (73) | (14) | (40) | (16) | 42 |
| | 9,058 | 8,431 | 7,338 | 6,523 | 6,270 | 5,814 | 5,405 | 5,305 | 5,160 | 4,956 |
| Divested operations** | 352 | 312 | 265 | 538 | 562 | 1,389 | 1,261 | 1,576 | 1,584 | 1,462 |
| Invested capital | 9,410 | 8,743 | 7,603 | 7,061 | 6,832 | 7,203 | 6,666 | 6,881 | 6,744 | 6,418 |

* Figures for 1980 through 1988 restated for comparison.

** Relates to consumer products division, American Enka, Brand-Rex, and Barmag.

Regional Statistics

| <i>Millions of guilders</i> | 1989 | 1988 | 1987 | 1986 | 1985 | 1984 | 1983 | 1982 | 1981 | 1980 |
|--|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <i>The Netherlands</i> | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| – destination | 1,612 | 1,706 | 1,948 | 1,902 | 1,988 | 1,836 | 1,675 | 1,561 | 1,460 | 1,454 |
| – origin | 6,156 | 6,022 | 5,763 | 5,721 | 6,234 | 5,772 | 5,106 | 4,528 | 4,699 | 4,255 |
| Operating income | 605 | 601 | 496 | 546 | 568 | 453 | 229 | 75 | 133 | 117 |
| Expenditures for property, plant and equipment | 493 | 465 | 451 | 442 | 424 | 286 | 283 | 338 | 303 | 246 |
| Invested capital* | 2,853 | 2,902 | 2,783 | 2,657 | 2,560 | 2,414 | 2,293 | 2,288 | 2,143 | 2,095 |
| Number of employees* | 22,300 | 22,700 | 22,500 | 23,900 | 23,100 | 22,400 | 22,000 | 22,600 | 23,000 | 23,600 |
| <i>Federal Republic of Germany</i> | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| – destination | 2,894 | 2,692 | 2,613 | 2,602 | 2,605 | 2,493 | 2,340 | 2,168 | 2,266 | 2,198 |
| – origin | 4,595 | 4,179 | 3,959 | 4,251 | 4,419 | 4,130 | 3,580 | 3,395 | 3,385 | 3,106 |
| Operating income | 341 | 261 | 240 | 433 | 384 | 370 | 178 | 128 | 105 | 66 |
| Expenditures for property, plant and equipment | 309 | 282 | 232 | 273 | 191 | 157 | 110 | 136 | 138 | 130 |
| Invested capital* | 2,022 | 1,785 | 1,714 | 1,651 | 1,679 | 1,562 | 1,694 | 1,688 | 1,660 | 1,578 |
| Number of employees* | 16,000 | 19,700 | 19,600 | 19,400 | 19,000 | 18,400 | 18,700 | 19,400 | 20,200 | 21,000 |
| <i>Rest of Europe</i> | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| – destination | 6,831 | 6,125 | 6,404 | 6,617 | 6,739 | 5,902 | 5,131 | 5,137 | 5,276 | 4,716 |
| – origin | 3,008 | 2,566 | 3,094 | 3,056 | 3,063 | 2,470 | 2,226 | 2,392 | 2,458 | 2,216 |
| Operating income | 270 | 263 | 266 | 303 | 299 | 215 | 174 | 164 | 109 | 83 |
| Expenditures for property, plant and equipment | 174 | 209 | 163 | 157 | 124 | 100 | 77 | 68 | 95 | 99 |
| Invested capital* | 1,740 | 1,504 | 1,291 | 1,361 | 1,246 | 1,052 | 892 | 909 | 933 | 941 |
| Number of employees* | 12,700 | 11,700 | 11,600 | 13,200 | 12,500 | 11,100 | 11,000 | 12,700 | 14,000 | 16,000 |
| <i>North America</i> | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| – destination | 4,016 | 3,128 | 2,333 | 2,224 | 3,923 | 3,781 | 3,744 | 3,241 | 3,375 | 2,362 |
| – origin | 3,487 | 2,664 | 2,014 | 1,918 | 3,510 | 3,353 | 3,462 | 3,048 | 3,210 | 2,253 |
| Operating income (loss) | 258 | 150 | 86 | 84 | 95 | 166 | 123 | (24) | 99 | 45 |
| Expenditures for property, plant and equipment | 197 | 251 | 209 | 207 | 231 | 217 | 136 | 148 | 139 | 150 |
| Invested capital* | 2,133 | 1,983 | 1,367 | 1,102 | 1,047 | 1,853 | 1,510 | 1,695 | 1,721 | 1,542 |
| Number of employees* | 10,500 | 8,900 | 7,500 | 6,200 | 5,400 | 8,800 | 9,100 | 13,400 | 14,900 | 16,000 |
| <i>Other regions</i> | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| – destination | 3,383 | 2,930 | 2,237 | 2,270 | 2,755 | 2,508 | 2,195 | 2,047 | 2,099 | 1,723 |
| – origin | 1,490 | 1,150 | 705 | 669 | 784 | 795 | 711 | 791 | 724 | 623 |
| Operating income | 239 | 149 | 93 | 99 | 119 | 136 | 139 | 150 | 118 | 105 |
| Expenditures for property, plant and equipment | 124 | 63 | 40 | 27 | 38 | 24 | 19 | 40 | 18 | 20 |
| Invested capital* | 662 | 569 | 448 | 290 | 300 | 322 | 277 | 301 | 287 | 262 |
| Number of employees* | 9,400 | 8,100 | 6,200 | 5,700 | 5,000 | 5,400 | 5,500 | 5,600 | 5,700 | 6,500 |

* At December 31.

Principal Companies of the Akzo Group

(other than holding companies and national organizations)

December 31, 1989

Percentages of participation are only stated for companies in which Akzo N.V. or any of its majority-owned subsidiaries separately or jointly holds less than 95% of the subscribed stock.

Fibers and Polymers Division

(Wuppertal, Federal Republic of Germany (D))

| | | |
|--|---------------|------|
| Enka B.V., Arnhem | Netherlands | |
| Akzo Plastics B.V., Arnhem | Netherlands | |
| Colbond B.V., Arnhem | Netherlands | |
| Aramide Maatschappij v.o.f., Emmen | Netherlands | (50) |
| Akzo Industrial Systems B.V., Arnhem | Netherlands | |
| with establishments in the Federal Republic of Germany and the United States | | |
| Enka AG, Wuppertal | D | |
| Kuaggarn Textil GmbH, Wuppertal | D | |
| Akzo Engineering Plastics Belgium S.A., Assesse | Belgium | |
| Akzo Engineering Plastics France S.A., Ceyzeriat | France | |
| Enka France S.A., Saint-Denis | France | |
| La Seda de Barcelona S.A., Barcelona | Spain | (58) |
| Akzo Engineering Plastics Sweden A.B., Angered | Sweden | |
| Akzo Engineering Plastics Inc., Neshanic Station, New Jersey | U.S. | |
| Enka America Inc., Asheville, North Carolina | U.S. | |
| Fortafil Fibers Inc., Rockwood, Tennessee | U.S. | |
| Akzo Engineering Plastics Inc., Stoney Creek, Ontario | Canada | |
| Fibras Químicas S.A., Monterrey | Mexico | (40) |
| Polyenka S.A., São Paulo | Brazil | (51) |
| COBAFI Companhia Bahiana de Fibras S.A., Camaçari | Brazil | (82) |
| Enka de Colombia S.A., Medellín | Colombia | (49) |
| Enkador S.A., Quito | Ecuador | (49) |
| Century Enka Ltd, Calcutta | India | (40) |
| Nippon Aramid Co. Ltd, Tokyo | Japan | (50) |
| Kohap-Akzo Co. Ltd, Seoul | Rep. of Korea | (50) |

Salt and Basic Chemical Division

(Hengelo (O), the Netherlands)

| | | |
|---|-------------|------|
| Akzo Salt and Basic Chemicals B.V., Hengelo | Netherlands | |
| Methanol Chemie Nederland v.o.f., Delfzijl | Netherlands | (50) |
| Methanor v.o.f., Delfzijl | Netherlands | (30) |
| Delamine B.V., Delfzijl | Netherlands | (50) |
| Delesto B.V., Delfzijl | Netherlands | (50) |
| ROVIN Rotterdamse Vinylunie v.o.f., Amsterdam | Netherlands | (50) |
| Norddeutsche Salinen GmbH, Stade | D | |
| Elektro-Chemie Ibbenb. GmbH, Ibbenbüren | D | (50) |
| Akzo België N.V., Division Salt and Basic Chemicals, Brussels | Belgium | |
| Dansk Salt I/S, Mariager | Denmark | (50) |

| | | |
|--|--------|------|
| Akzo Salt and Basic Chemicals A.B., Göteborg | Sweden | |
| Akzo Salt and Basic Chemicals S.p.A., Milan | Italy | |
| Denak Co. Ltd, Tokyo | Japan | (50) |
| Akzo Salt Inc., Clarks Summit, Pennsylvania | U.S. | |
| with establishments in Canada and the Netherlands Antilles | | |

Chemical Division

(Amersfoort, the Netherlands)

| | | |
|--|-------------|------|
| Akzo Chemicals B.V., Amersfoort | Netherlands | |
| Glucona v.o.f., Ter Apelkanaal | Netherlands | (50) |
| Silenka B.V., Hoogezand | Netherlands | (33) |
| Akzo Chemicals GmbH, Düren | D | |
| Carbosulf Chemische Werke GmbH, Cologne | D | (67) |
| Rhodanid Chemie GmbH, Cologne | D | (67) |
| Kali-Chemie-Stauffer GmbH, Hanover | D | (50) |
| Akzo Chemicals S.A., Mons | Belgium | |
| Texas Alkyls Belgium S.A., Seneffe | Belgium | (50) |
| Akzo Chemicals A/S, Horsholm | Denmark | |
| Akzo Chemicals A.S., Oslo | Norway | |
| Akzo Chemicals Oy, Helsinki | Finland | |
| Akzo Chemicals S.à.r.l., Venette | France | |
| Eurecat S.A., La Voulte-sur-Rhône | France | (42) |
| Produits Chimiques Auxiliaires et de Synthèse S.A., Longjumeau | | |
| | France | |
| Société Européenne de Soufres Industriels S.A., Marseille | France | (45) |
| Akzo Chemicals S.p.A., Arese | Italy | |
| Akzo Chimica S.p.A., Marano | Italy | |
| Bertelli S.p.A., Porcari | Italy | |
| Akzo Chemicals S.A., Barcelona | Spain | |
| Akzo Chemicals U.K. Ltd, Gillingham | U.K. | |
| Vulnax International Ltd, Gillingham | U.K. | |
| with establishment in France | | |
| Akzo Chemicals Inc., Chicago, Illinois | U.S. | |
| Filtrol Corporation, Vernon, California | U.S. | |
| Texas Alkyls Inc., Deer Park, Texas | U.S. | (50) |
| Akzo Chemicals Ltd, Toronto | Canada | |
| Cornwall Chemicals Ltd, Cornwall (Ont.) | Canada | (50) |
| Peroxidos Argentinos S.A.I.C.F. y A., Buenos Aires | | |
| | Argentina | (82) |
| Akzo Ltda, Divisão Química, São Paulo | Brazil | |
| Alkyls do Brasil Ltda, São Paulo | Brazil | (50) |
| FCC-Fábrica Carioca de Catalisadores S.A., Rio de Janeiro | | |
| | Brazil | (40) |
| Akzo Chemicals Pte. Ltd, Singapore | Singapore | |
| Nippon Ketjen Company Ltd, Tokyo | Japan | (50) |
| Kayaku Akzo Corporation, Tokyo | Japan | (50) |
| Lion Akzo Company Ltd, Tokyo | Japan | (50) |
| Akzo Japan Ltd, Tokyo | Japan | |

* Participation less than 95%.

| | | | | |
|--|-------------|------|--|-------------|
| Tosoh Akzo Corporation, Tokyo | Japan | (50) | Pharma Division | |
| Akzo Kashima Ltd, Tokyo | Japan | (70) | | |
| Akzo & Pacific Oleochemicals Sdn. Bhd., Selangor | Malaysia | (50) | (Oss, the Netherlands) | |
| Akzo Chemicals Ltd, Camellia | Australia | | Organon International B.V., Oss | Netherlands |
| Pacific Chemical Industries Pty Ltd, Camellia | Australia | (50) | Chefaro International B.V., Rotterdam | Netherlands |
| | | | Diosynth B.V., Oss | Netherlands |
| | | | Intervet International B.V., Boxmeer | Netherlands |
| | | | Verenigde Pharmaceutische Fabrieken (VPF) B.V., Oss | Netherlands |
| | | | Organon Teknika N.V., Turnhout | Belgium |
| Coatings Division | | | | |
| (Hoofddorp, the Netherlands) | | | | |
| Akzo Coatings B.V., Sassenheim | Netherlands | | Sales offices or production plants of one or more of the above companies are established in: | |
| Koninklijke Brink/Molyn B.V., Groot-Amers | Netherlands | | | |
| Koninklijke Talens B.V., Apeldoorn | Netherlands | | | |
| Akzo Resins B.V., Bergen op Zoom | Netherlands | | | |
| Akzo Coatings GmbH, Stuttgart | D | | – the Netherlands, Federal Republic of Germany, Belgium, France, Italy, United Kingdom, Republic of Ireland, Denmark, Norway, Sweden, Finland, Switzerland, Spain, Portugal, Greece, Turkey | |
| Akzo Coatings Ges.mbH, Salzburg | Austria | | – United States, Canada | |
| Akzo Coatings N.V./S.A., Vilvoorde | Belgium | | – Mexico, Argentina, Brazil, Chile, Colombia, Ecuador, Venezuela | |
| Akzo Coatings A/S, Hedehusene | Denmark | | – Cyprus, Bangladesh*, India*, Malaysia, Pakistan*, Thailand, Republic of Korea*, Indonesia*, Hong Kong, Japan*, Taiwan* | |
| Akzo Coatings S.A., Paris with establishments in Morocco*, Senegal*, Ivory Coast*, and Cameroon* | France | (50) | – Australia | |
| Dacral S.A., Paris | France | | – Morocco, Nigeria* | |
| Akzo Coatings AE, Athens | Greece | | | |
| Akzo Coatings PLC, Didcot | U.K. | | | |
| Akzo Coatings S.p.A., Milan | Italy | | | |
| Akzo Coatings S.A., Barcelona | Spain | | Other Companies | |
| Industrias Químicas Procolor S.A., San Adrián de Besós | Spain | | Akzo Engineering B.V., Arnhem | Netherlands |
| Akzo Coatings Inc., Troy, Michigan | U.S. | | Akzo Systems B.V., Velp | Netherlands |
| Reliance Universal Inc., Louisville, Kentucky | U.S. | | Akzo Electronic Materials Co., New York | U.S. (50) |
| Akzo Coatings Ltd, Toronto | Canada | | | |
| Morilla Inc., Holyoke, Massachusetts | U.S. | (30) | | |
| Akzo Coatings S.A., Buenos Aires | Argentina | | | |
| Akzo Ltda, Divisão Tintas, São Paulo | Brazil | | | |
| Tintas Ypiranga Ltda, Rio de Janeiro | Brazil | | | |
| General Paint Company de Mexico S.A. de C.V., Tlalnepantla | Mexico | | | |
| PT Akzo Coatings Indonesia, Jakarta | Indonesia | (37) | | |
| Synthese (Malaysia) Sdn. Bhd., Kuala Lumpur | Malaysia | (43) | | |
| Akzo Coatings Thailand Ltd, Bangkok | Thailand | | | |

* Participation less than 95%.

Akzo N.V. common stock is listed on the following stock exchanges:

The Netherlands: Amsterdam
Federal Republic
of Germany: Frankfurt/Main, Düsseldorf,
and Berlin (West)
Belgium: Brussels and Antwerp
France: Paris
Austria: Vienna
United Kingdom: London
Switzerland: Zurich, Basel, and Geneva
United States: New York (Nasdaq)

Dividends are paid through the following banks:

The Netherlands

Algemene Bank Nederland
Amsterdam-Rotterdam Bank
Bank Mees & Hope
Nederlandsche Middenstandsbank
Pierson, Heldring & Pierson
at their offices in Amsterdam, Rotterdam,
The Hague, and Arnhem, if established
there, as well as at F. van Lanschot
Bankiers, 's-Hertogenbosch, and at
Rabobank Nederland, Utrecht

Federal Republic of Germany

Deutsche Bank
Deutsche Bank Berlin
Berliner Handels- und Frankfurter Bank
Dresdner Bank
Dresdner Bank Berlin
Sal. Oppenheim jr. & Cie.
at their offices in Düsseldorf,
Frankfurt/Main, Hamburg, Cologne, Berlin
(West), and Wuppertal, if established there

Belgium

Generale Bank
Paribas Bank België
Kredietbank
at their offices in Brussels and Antwerp

France

Lazard Frères & Cie
Banque Nationale de Paris
at their offices in Paris

Luxembourg

Banque Générale du Luxembourg,
Luxembourg

Austria

Creditanstalt-Bankverein, Vienna

United Kingdom

Barclays Bank
Midland Bank
at their offices in London

Switzerland

Schweizerische Kreditanstalt, Zurich
Schweizerische Bankgesellschaft, Zurich
Schweizerischer Bankverein, Basel
and the Swiss branch offices of these banks
Pictet & Cie, Geneva

United States

Morgan Guaranty Trust Company, New York

