# AKZO

ANNUAL REPORT

1987

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As we had expected, 1987 earnings before extraordinary items failed to maintain the high level of the last few years. However, earning capacity remained more than sufficient for us to further pursue our strategic objectives. The year under review has seen major shifts in our product mix and in the pattern of our global presence.

First, of course, there was the acquisition of Stauffer Specialty Chemicals, which significantly strengthened Akzo's position in the field of specialty chemicals worldwide, but especially in the United States. And just before the end of the year the consumer products division, in which we had a 51% share, was sold to Douwe Egberts.
We thus made further progress toward greater cohesion between Akzo's various activities and toward greater prominence of technology-intensive products.

In 1987, Akzo conducted a thorough investigation into its corporate functioning. This has led to decisions which should accomplish fundamental changes. From now on, Akzo will much more forcefully project an image as a unified business organization composed of five divisions. Full attention will also be given to our company's internal mechanisms and routines. We are faced with the challenge of making even better use than in the past of the human and technological potential available in the Company. The greater our success in meeting this challenge, the better we will be equipped to successfully defend our present market positions and to move into new fields. Many of our markets are becoming more international, forcing us to engage in worldwide competition. Increasingly, technological advances in our key business areas will involve different disciplines, so that we will have to pool the knowledge available in the various Akzo units. Our decentralized organizational structure continues to be the best guarantee of a flexible response to opportunities in the markets of our choice. But everyone in this decentralized structure should put the wider Akzo interest first. To help the Group function as one company, several strategic programs have been established. They are to give shape to a distinctive corporate identity, improve the coordination of our research efforts, optimize the development of our management potential, and encourage our work force to aim for excellence in day-to-day operations.

Officially proclaimed the European Year of the Environment, 1987 helped raise awareness of this important issue. I hope that this will benefit further efforts to advance the dialogue between chemical industry, government, and environmentalists. To competently address the problems, each party must first understand the other parties' concerns and responsibilities. Akzo, for one, is determined to be a constructive force in this process. Vigilance with respect to the environmental consequences of our operations is being increased. Further steps have been taken to ensure that, more than ever before, our employees will be constantly mindful of the Company's environmental responsibility.

With uncertainties abounding, as they do today, it has never been harder to predict performance a full year in advance, and caution is therefore indicated. The ongoing decline of the U.S. dollar has weakened our competitive positions in several fields. Much will depend on the performance of the economy. If that does not disappoint us, Akzo in its present healthier shape ought to be able to match the 1987 earnings level.
This pronouncement is also founded on the experience that our employees are invariably prepared to perform their tasks with great dedication and are ready to face the new challenges ahead. I would like to use this opportunity to express my gratitude to them.

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 28, 1988, at 2:00 p.m.

1. Opening
2. Report of the Board of Management for the fiscal year 1987
3. Approval of the financial statements; consideration of the dividend proposal
4. Appointment of members of the Supervisory Council
5. Appointment of a member of the Board of Management
6. Proposal to authorize the Board of Management to acquire shares in the Company on behalf of the Company
7. Any other business

## FINANCIAL CALENDAR 1988

| | |
|---|---|
| Annual Meeting of Stockholders | April 28 |
| Report for the 1st Quarter 1988 | April 28 |
| Report for the 2nd Quarter 1988 | August 4 |
| Report for the 3rd Quarter 1988 | November 3 |
| Payment of the 1987 Final Dividend | May 16 |

# *Financial Highlights*

| | 1987 | 1986 |
|---|---|---|
| *Millions of guilders* | | |
| Net sales | **15,535** | 15,615 |
| Operating income | **1,181** | 1,465 |
| Net income | **942** | 842 |
| Cash flow | **1,662** | 1,498 |
| Common stock | **804** | 803 |
| Stockholders' equity | **3,812** | 4,311 |
| Property, plant and equipment | | |
| - Expenditures | **1,095** | 1,106 |
| - Depreciation | **668** | 577 |
| Acquisitions | **1,519** | 678 |
| *Per common share of Hfl 20, in guilders* | | |
| Net income | **23.43** | 20.96 |
| Net income before extraordinary items | **16.63** | 20.35 |
| Dividend | **6.60** | 6.60 |
| Stockholders' equity | **94.80** | 107.40 |
| *Key financial statistics* | | |
| Operating income, as % of net sales | **7.6** | 9.4 |
| Operating income, as % of average invested capital | **16.1** | 21.1 |
| Net income, as % of average stockholders' equity | **23.2** | 19.9 |
| Number of employees at year end | **67,400** | 68,400 |

**Akzo,** *headquartered in the Netherlands, is a worldwide group of companies with operations in 50 countries.*
*Akzo's product range includes chemical products, man-made fibers, coatings, and health care products.*
*Akzo's activities are organized in five divisions.*
*Geographically, Group operations are largely concentrated in the Netherlands and the Federal Republic of Germany. Approximately 60% of the Group's total invested capital and manpower resources is employed in these two countries.*
*In the Netherlands, the United States, Belgium, Brazil, and Japan, Akzo has central organizations which have a coordinating function or render services to the divisions.*
*Akzo's objective is to build a strong and well-balanced product mix.*
*In addition to efforts to strengthen its existing range of products, Akzo focuses on the development of new activities in major growth sectors which draw upon the Company's technological and marketing know-how. Akzo has assigned a high priority to the expansion of its position in North America.*

**Changes in the Supervisory Council** At the Annual Meeting of Stockholders held on April 28, 1987, the stockholders voted to increase the membership of the Supervisory Council by one and to fix it at 10. H.G. Zempelin was appointed to fill the vacancy, having resigned as a member of the Board of Management upon reaching the mandatory retirement age.
Stockholders also approved the reappointment to the Council of F.H. Fentener van Vlissingen, A. Herrhausen, and O. Wolff von Amerongen, whose terms of office had expired.
At the Annual Meeting of Stockholders convened for April 28, 1988, G. Kraijenhoff, A. Batenburg, and E.G.G. Werner will step down because their terms of office are expiring. They are willing to serve another term, and we recommend that they be reappointed.

**Changes in the Board of Management** Having reached the mandatory retirement age, H.J.J. van der Werf will step down as a member of the Board of Management at the meeting of April 28, 1988. Mr. van der Werf joined the then Noury & Van der Lande company in 1961. In 1971 he became a member of the Board of Management of the chemical division. In 1976 Mr. van der Werf rose to be President of the salt and basic chemical division and a member of the Board of Management of Akzo N.V. He played a leading role in the restructuring and expansion of Akzo's chemical operations, and it is due in part to his capabilities and drive that this product sector now adds so much to earnings. His influence in directing research and in extending the engineering activities has also been substantial. We are deeply indebted to him for these contributions.
The stockholders will be asked to appoint M.D. Westermann a member of the Board of Management. Mr. Westermann has served the Company since 1961. From 1977 until January 1, 1988 he was President of the chemical division.

**Changes in the Management Committee** In view of the proposed appointment of Mr. Westermann as a member of the Board of Management, J.C.P. van Oosterom has been appointed President of the chemical division with effect from January 1, 1988. At the same time, Mr. van Oosterom also joined the Management Committee. Due to the divestiture of the consumer products division, H.B. Jacobs resigned from the Management Committee effective December 1, 1987.

**Supervision** The Supervisory Council again received regular reports on the Company's business and periodically consulted with the Board of Management.
We are pleased to record here that further progress was made on improvement of Akzo's product and geographic structure. For this, and for the Company's very acceptable performance in 1987, we thank both the Board of Management and the Company's employees.
We herewith submit to you for approval at the Annual Meeting of April 28, 1988, the financial statements for 1987 as prepared by the Board of Management. These financial statements have been examined by KPMG Klynveld Kraayenhof & Co., *Registeraccountants*. Their report appears on page 60.

We have approved these financial statements and the Board of Management's proposal made therein with regard to the allocation of profit. Acceptance of this proposal by stockholders means that the 1987 dividend will be fixed at Hfl 6.60 per common share of Hfl 20, of which Hfl 1.50 was declared and made payable as an interim dividend in November 1987. 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, March 11, 1988

The Supervisory Council

## *Management and Supervision*

### Supervisory Council

G. Kraijenhoff, Chairman
A. Herrhausen, Deputy Chairman
E.G.G. Werner, Deputy Chairman
A. Batenburg
A.G. van den Bos
F.H. Fentener van Vlissingen
H.A. van Stiphout
C. van Veen
O. Wolff von Amerongen
H.G. Zempelin

### Board of Management

A.A. Loudon, President
J.W. Berghuis
J. Veldman
H.J.J. van der Werf

### 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.

A.A. Loudon, Chairman
J.W. Berghuis, Deputy Chairman
J. Veldman, Deputy Chairman
H.J.J. van der Werf, Deputy Chairman
S. Bergsma, Financial Affairs
F.A.G. Collot d'Escury, salt and basic chemical division
A.R. Dragone, Akzo America
M.W. Geerlings, Research and Technology
J.R. Hutter, fibers and polymers division
H.B. Jacobs, consumer products division (until December 1, 1987)
J.C.P. van Oosterom, chemical division (from January 1, 1988)
A.G.J. Vermeeren, pharma division
M.D. Westermann, chemical division
C. Zaal, coatings division

# The Year in Review

## Development of Akzo

*Objective* Akzo's primary objective is to develop a strong, well-balanced product mix reducing its vulnerability to economic cycles and ensuring steady earnings.
To achieve this objective Akzo will concentrate on its core activities, most of which are based on high technology.

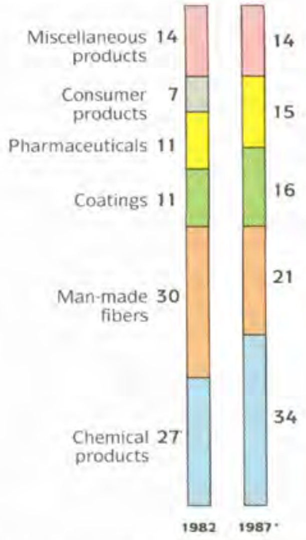
More particularly, Akzo will seek to:
– Maintain its positions in products which structurally generate more funds than they absorb to keep going and which require constant quality improvement and cost reduction to meet competition. Chief among the products in this category are basic chemicals and the Company's traditional fibers.
– Strengthen its positions in high-value-added products calling for considerable expertise in the fields of technology and marketing. Such products include certain classes of pharmaceuticals, coatings, and specialty chemicals.
– Develop new activities in products which exhibit a high growth potential and which permit Akzo to assume a leading position based on its technological and marketing know-how. Such products include diagnostics, biotechnology products, membranes, the New Materials, and materials for the electronics industry.

Akzo's goal of achieving a greater geographic diversification is consistent with this policy. Akzo will maintain its strong positions in the Netherlands and the Federal Republic of Germany, while giving high priority to expanding activities in North America. Efforts will also be made to enhance the Company's presence in the Far East.

*Progress* In recent years the Company's product mix has been substantially modified. The core activities have been greatly strengthened through capital expenditures and acquisitions. Several companies whose lines of business did not fit well with these core activities have been divested.
This selective growth strategy was continued in 1987. Especially the acquisition of Stauffer's specialty chemicals business and the sale of Akzo's interest in the consumer products division resulted in large shifts in the product mix and the geomix.
Furthermore, the finalization of a cooperation agreement with Kollmorgen Corporation in the field of materials for the electronics industry resulted in the establishment of a joint venture.

By making organizational changes Akzo strengthened the coordination of its activities in the field of New Materials, which are undertaken by various Company units and in various countries.
In order to enhance the fibers and polymers division's responsiveness to changes in the marketplace a more business-oriented organization is now being set up, which will be implemented during 1988.
Good progress was made in the area of biotechnology, although spectacular results must not be expected in the short term.

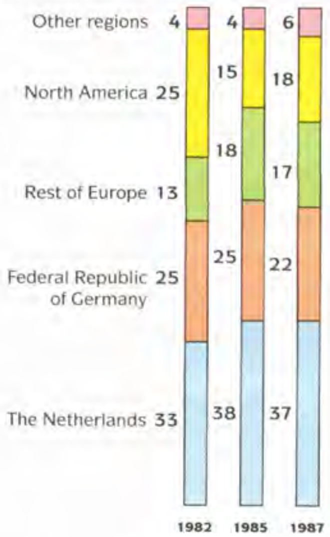
*Product mix, in net sales terms (as %)*




* Including annualized sales of the Stauffer activities acquired during the year and less sales of the divested consumer products division.

*Conveyor belts carry industrial salt to the storage area.*

*Geographic distribution, in invested capital terms (as %)*




As a result of the manifold major changes in the Company's recent history, a need was felt to clarify the image of Akzo as it is now, both for an external constituency of customers and other business relations, and for an internal constituency of the Company's employees. Meanwhile a Corporate Identity program has been launched which presents Akzo worldwide as a unified company. A new naming structure and a new house style are elements in this program. The present Annual Report is the first official publication to appear in the new look which it prescribes.

*Developments by Product Group* Both the product mix and the geomix of the specialty chemicals sector changed dramatically as a result of the acquisitions of Stauffer's specialty chemicals business and Vulnax. Especially the sectors of products for the plastics industry and rubber chemicals were considerably expanded and strengthened through the acquisitions. As a result of the acquisition of the Stauffer business, the specialty chemicals operations in the United States doubled in size. Significant cost savings were achieved through the completion of capital investment projects for the supply of energy to the salt and basic chemicals operations. In order to make the salt activities in the United States less dependent on sales of deicing salt an agreement for the acquisition of the salt activities of Diamond Crystal was concluded. Akzo also took over activities in the field of industrial colloids (Italy).

In the man-made fiber sector the first phase of the modernization of polyester textile filament production was completed. Work on the next phase was started during the year. Through the acquisition of Fortafil (United States) the Company strengthened its position in the sector of carbon fibers.

The integration of the coatings activities, which have been significantly expanded over the past few years, was energetically continued. Substantial cost savings were realized, resulting in improved profitability. The acquisition of the paint producer Tintas Ypiranga strengthened Akzo's position in Brazil.

In the sector of pharmaceuticals Akzo also continued its efforts to integrate the companies acquired in recent years. At year end an agreement in principle was reached on the acquisition of the animal health activities of Gist-brocades.

Integration of the companies acquired in 1986 was also a prime goal for the Barmag group and the engineering plastics sector.

*Acquisitions and Divestments* Total expenditures for acquisitions aggregated Hfl 1.5 billion in 1987. By far the most important acquisition was the specialty chemicals division of Stauffer Chemical Company, which operates in such countries as the United States, Japan, France, the Federal Republic of Germany, and Belgium. Made in August 1987, this acquisition, which involved a total amount of Hfl 1.3 billion, was the largest ever in Akzo's history. The assets and liabilities determined in accordance with the Akzo principles of valuation (Hfl 0.4 billion) were included in the financial statements, while the remainder (Hfl 0.9 billion) was charged as purchased goodwill against Group equity.

Effective December 1, 1987, Akzo transferred its 51% interest in the consumer products division to Douwe Egberts. For this divestiture Akzo received an amount of Hfl 0.65 billion, of which Hfl 0.2 billion was payment for Akzo's share in the net worth.

*Approximated Sales and Income on the Basis of the Situation at Year-End 1987* The sales and income figures given below are only an approximation and do not therefore exactly represent the results Akzo would have achieved if the acquisition of Stauffer's specialty chemicals business and the sale of the interest in the consumer products division had actually been realized on January 1, 1987. The influence of the other acquisitions has been ignored in this approximation.
Net sales determined on this basis aggregate Hfl 14.6 billion. Sales by product group break down as follows:

| | |
|---|---|
| chemical products | 34% |
| man-made fibers | 21% |
| coatings | 16% |
| pharmaceuticals | 15% |
| miscellaneous products | 14% |

Net income before extraordinary items calculated in this way amounts to Hfl 700 million, against an actual figure of Hfl 669 million.
For sales and income of the Stauffer business the calculation is based on the actual figures for the period August through December 1987 and on estimates for the period January through July.

**Dividend Proposal** With common stock amounting to Hfl 804 million, net income per common share was Hfl 23.43, compared with Hfl 20.96 in 1986.
The corresponding figures on a current-value basis are Hfl 21.56 in 1987 and Hfl 21.08 in 1986.
Stockholders' equity per common share at December 31, 1987 was Hfl 94.80, compared with Hfl 107.40 at December 31, 1986.

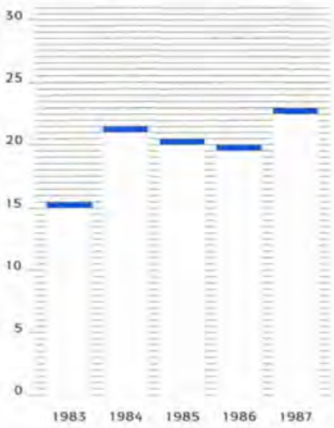
We will propose at the Annual Meeting of Stockholders that the 1987 dividend be fixed at Hfl 6.60 per common share of Hfl 20. Of this amount, Hfl 1.50 was declared and made payable as an interim dividend in November 1987.
If this proposal is adopted, Hfl 265 million, or 28%, of net income will be distributed, and Hfl 677 million will be retained. Without extraordinary items, the payout percentage is 40%.

**Outlook for 1988** The ongoing slide of exchange rates—in particular that of the dollar—and the substantially enhanced uncertainties over the development of the economy make it hard to give a forecast on the results of operations in 1988.

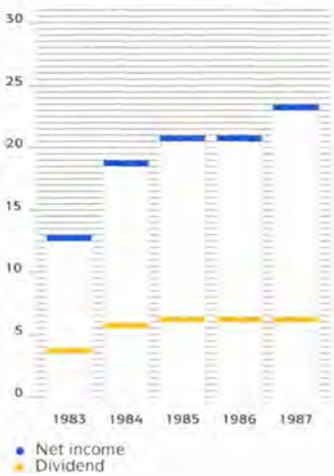
However, if the economic development continues at the present level and the U.S. dollar stabilizes around current levels, it should be possible to achieve in 1988 earnings before extraordinary items that are comparable with 1987 results. This forecast is based in part on our product mix which has improved considerably over the past few years.
The influence of the research and capital investment programs, as well as the integration and synergistic effects of the acquisitions made in recent years, will be reflected only to a limited extent in 1988 earnings.

No material changes are expected to occur in the situation of man-made fibers, although in a few product sectors there are signs of improvement over the second half of 1987.

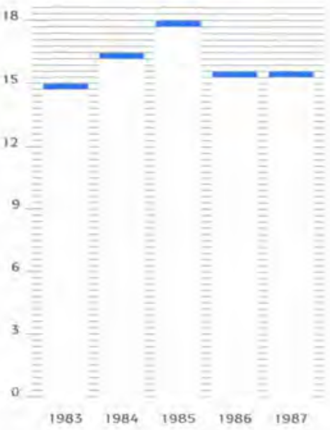
*Net income, as percentage of average stockholders' equity*



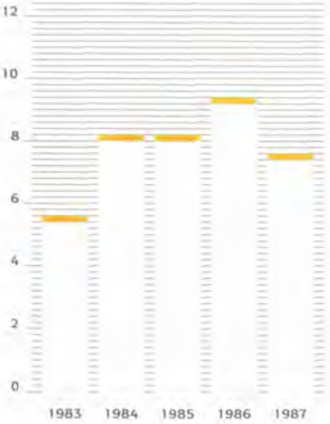

*Net income and dividend per common share of Hfl 20, in guilders*



*Net sales, in billions of guilders*




*Operating income, as percentage of net sales*




On the basis of the aforementioned assumptions all other product groups should register operating incomes of the same order of magnitude as in 1987.

Expenditures for property, plant and equipment should remain at about the same level as in the last few years.

Apart from the Euroguilder bond issue announced at the end of January 1988, only limited operations in the capital market should be needed to finance the existing activities. We will continue to utilize suitable opportunities to improve our debt portfolio.

If acquisitions are disregarded, the number of employees is not expected to grow further in 1988.

**External Developments** Although there was a further slowdown in the already moderate growth of the economy, the general economic situation was not unfavorable until the end of 1987, with inflation remaining at a low level. The developments in the last quarter of the year in the areas of exchange rates, interest rates, and share prices due to structural imbalances in the world economy have enhanced the uncertainties.
In 1987 many currencies, including the U.S. dollar, continued to decline against the Dutch guilder and the German mark. The mean value of the U.S. dollar in 1987 was Hfl 2.03—17% lower than in 1986, when it was Hfl 2.44. The continued fall of the dollar is affecting Akzo's competitiveness in various markets. The ultimate effect of the low dollar will also depend on general economic conditions.

During the year the Dutch minister of Economic Affairs introduced a new Electricity Bill in Parliament. As a result of this bill Dutch industry will be offered more uniform electricity rates comparable to those offered in neighboring countries. Reduced government interference with day-to-day operations in the electricity sector will be one of the factors allowing industry to adopt a more consistent and better predictable policy with regard to important power supply aspects.

**Sales and Income**

*1987 Net Income* Net income amounted to Hfl 942 million in 1987, which was substantially higher than the net income of Hfl 842 million achieved in 1986. The 1987 net income figure includes a book profit relating to the sale of our participation in the consumer products division. This extraordinary gain was partially offset by extraordinary losses because provisions were made.
Without extraordinary items, net income in 1987 was Hfl 669 million compared with Hfl 817 million in 1986—a decline of 18%.
Net income as a percentage of stockholders' equity was 23.2%, as opposed to 19.9% in 1986.

*Condensed Statement of Income*

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Net sales | 15,535 | 15,615 |
| Operating costs | (14,354) | (14,150) |
| Operating income | 1,181 | 1,465 |
| Financing charges | (147) | (106) |
| Operating income less financing charges | 1,034 | 1,359 |
| Taxes | (367) | (478) |
| Earnings of consolidated companies from normal operations, after taxes | 667 | 881 |
| Earnings from nonconsolidated companies | 53 | 17 |
| Extraordinary items | 273 | 23 |
| Group income | 993 | 921 |
| Minority interest | (51) | (79) |
| Net income | 942 | 842 |

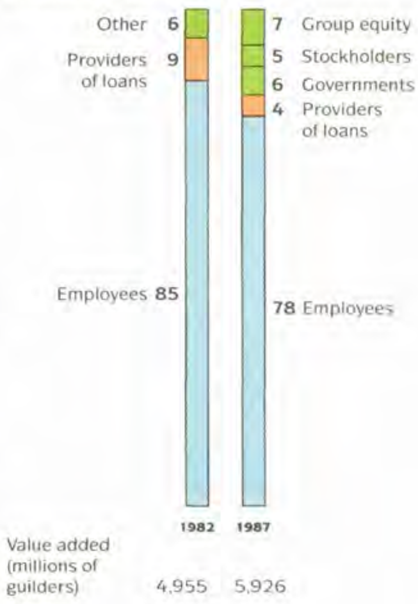
*Current-value information*

| | | |
|---|---|---|
| Operating income | 1,057 | 1,482 |
| Net income | 867 | 846 |

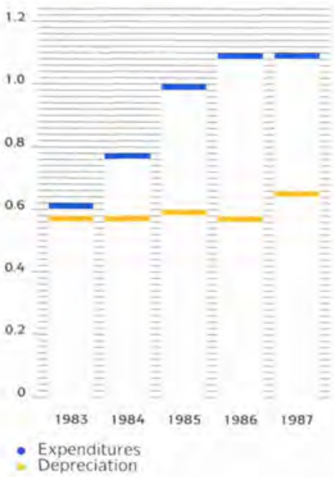
*Sales* At Hfl 15.5 billion, net sales in 1987 were almost equal to 1986 sales (Hfl 15.6 billion). However, the 1987 figure includes the sales by the consumer products division for the period January through November (Hfl 1.4 billion) and the sales by the specialty chemicals business taken over from Stauffer for the period August through December (Hfl 0.3 billion).
The virtually unchanged sales figure is the result of gains due to acquisitions (5%) and increased volume (1%) on the one hand, and of declines due to lower exchange rates (4%), disinvestments (1%), and price reductions (2%) on the other hand.
*Operating Costs* Operating costs were up 1% from the previous year. The decrease in feedstock and energy prices which began in 1986 came to a halt. For several raw materials prices were even increased during 1987.
As in 1986, the costs of raw materials were 31% of sales. Energy costs expressed as a percentage of sales were 4.4%, against 4.5% in 1986.
Labor costs were 4% higher than in 1986. The average number of employees was also approximately 4% higher. Labor costs as a percentage of sales rose from 28.4% in 1986 to 29.8%.
*Operating Income* Operating income decreased from Hfl 1,465 million in 1986 to Hfl 1,181 million. Expressed as a percentage of sales, operating income declined from 9.4% in 1986 to 7.6%.
*Financing Charges* Financing charges were up 40% from Hfl 106 million to Hfl 147 million.
*Taxes* As in the previous year, the tax burden was 35%, despite an increase of the tax burden in the Netherlands, where the deduction for net equity allowed in calculating taxable income was reduced.

*Earnings from Nonconsolidated Companies* Earnings from nonconsolidated companies were Hfl 36 million higher than in the previous year. From August 1987 the earnings figure includes the earnings from the joint ventures that were involved in the Stauffer deal.
Total income was negatively affected by start-up losses of the aramid plants, which were commissioned in 1986.
The man-made fiber companies in Latin America and India, with the exception of Enkador, turned in a substantially better performance than in 1986.
The performance of the nonconsolidated companies in the chemical sector was about the same as in the previous year.
The results of the nonconsolidated companies in the coatings sector were on a par with 1986.
*Extraordinary Items* Extraordinary items showed a positive balance of Hfl 273 million. This figure includes the book profit made on the sale of the participation in the consumer products division. Furthermore, provisions were made for various purposes, including restructuring of activities and start-up costs of Aramide Maatschappij.
*Net Income on the Basis of Current Value* Net income on the basis of current value was Hfl 867 million, as compared with Hfl 846 million in 1986.
*Value Added* Value added, defined as the aggregate amount of labor costs, financing charges, taxes, and Group

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



*Property, plant and equipment, in billions of guilders*




income from normal operations, was almost on a par with the previous year (Hfl 5,926 million, versus Hfl 6,019 million in 1986).
The share of labor costs in value added was 78.1% (1986: 73.7%).

**Capital Investments** Expenditures for property, plant and equipment totaled Hfl 1.1 billion (1986: Hfl 1.1 billion).
Expenditures for acquisitions in 1987 aggregated Hfl 1.5 billion, while an amount of Hfl 0.6 billion became available as a result of divestments. In 1986, acquisitions were made in the total amount of Hfl 0.7 billion. Major acquisitions during 1987 related to specialty chemicals (Stauffer; Vulnax, rubber chemicals), man-made fibers (Fortafil, carbon fibers), and coatings (Tintas Ypiranga, paints).
In 1987 the total amount of project authorizations was Hfl 1.4 billion, against almost Hfl 1.3 billion in 1986. Capital investments by nonconsolidated companies, with total sales of Hfl 2.9 billion in 1987, amounted to Hfl 0.3 billion on a 100% basis, as compared with Hfl 0.4 billion in 1986.

**Financing** At Hfl 2.9 billion, working capital was virtually equal to that at year-end 1986.
Cash and short-term investments decreased by Hfl 0.2 billion to Hfl 0.9 billion at December 31, 1987.

*Interest-Bearing Borrowings* In 1987, the 1982/1989 9½% German mark debenture loan was repaid prior to maturity.
During the year Akzo contracted an A$ 50 million loan with a maturity of three years and a Can.$ 60 million loan, likewise with a maturity of three years. These loans were swapped to floating rate loans in the aggregate amount of almost Hfl 169 million.

*Condensed Statement of Sources and Applications of Funds*

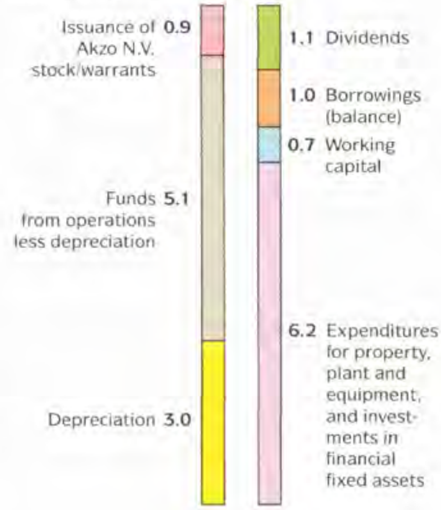
| *Millions of guilders* | | *1987* | | *1986* |
|---|---|---|---|---|
| *Sources of funds* | | | | |
| Group income | **994** | | 921 | |
| Depreciation | **668** | | 577 | |
| Cash flow | | **1,662** | | 1,498 |
| Other sources | | **293** | | 120 |
| | | **1,955** | | 1,618 |
| *Applications of funds* | | | | |
| Investments and acquisitions | **2,702** | | 1,864 | |
| Disposal of interests | **(177)** | | (66) | |
| | | **2,525** | | 1,798 |
| Change in working capital | | **157** | | (130) |
| Dividends paid | | **297** | | 294 |
| Other applications | | **50** | | 16 |
| | | **3,029** | | 1,978 |
| Deficit | | **(1,074)** | | (360) |
| *Financing* | | | | |
| Issuance of stock/ warrants, drawdowns, etc. | **1,442** | | 403 | |
| Repayment of borrowings, etc. | **(526)** | | (444) | |
| | | **916** | | (41) |
| Change in cash and short-term investments | | **(158)** | | (401) |
| Cash and short-term investments at December 31 | | **926** | | 1,084 |

Total interest-bearing borrowings at year-end 1987 were Hfl 2,864 million, versus Hfl 2,010 million at the end of 1986. The average rate of interest on long-term borrowings outstanding at December 31, 1987 was 7.2%, against 8.1% at year-end 1986.
In 1987, 2,363 $4\frac{3}{4}$% U.S. dollar convertible debentures were converted into 69,811 common shares of Hfl 20. At December 31, 1987, the amount of $4\frac{3}{4}$% U.S. dollar convertible debentures still outstanding was Hfl 4.3 million. During 1988, conversion may add a maximum of 34,075 shares to the number of outstanding Akzo shares.
In February 1988, a 1988/1998 $4\frac{5}{8}$% Sfr 100 million bond loan was issued. The proceeds thus obtained will be used for the accelerated repayment of the 1983/1993 $5\frac{5}{8}$% Sfr 100 million debenture loan.
At year end, the equity/debt ratio was 0.52, against 0.69 at the end of 1986. This decrease was primarily due to goodwill paid for acquisitions, which was charged against Group equity. Retained earnings added to reserves provided insufficient compensation for this negative factor.

*Credit Facilities* The amount of credit available under long-term standby facilities was Hfl 625 million at December 31, 1987. In January 1988, agreement was reached on additional standby credit facilities in the amount of U.S.$ 200 million, which raises the total amount of long-term credit facilities arranged but not yet utilized to Hfl 990 million. At year-end 1986 the total amount of available standby credit facilities was Hfl 540 million.
During the year the limit of the existing Euro-commercial paper program was extended from U.S.$ 150 million to U.S.$ 200 million. On behalf of Akzo America Inc. a new commercial paper program was set up in the United States for a total amount of U.S.$ 200 million, with repayment guaranteed by Akzo N.V.
Both Akzo's U.S. and Eurodollar commercial paper programs were given an A-1 and P-1 rating, respectively, by the independent U.S. rating agencies Standard & Poor's Corporation and Moody's Investors Service.
Furthermore, the domestic commercial paper facility in the Netherlands in the amount of Hfl 300 million was actively used during the year.
At the end of January 1988 the issue of a 1988/1995 $6\frac{1}{4}$% Hfl 200 million Euroguilder bond loan was announced. Meanwhile, this loan has been listed on the Amsterdam Stock Exchange.

**Research and Technology** In 1987, expenditures of the corporate and divisional research institutes totaled Hfl 811 million, compared with Hfl 746 million in 1986. After deduction of the cost of operational support, net R&D expenditures were Hfl 735 million (1986: Hfl 677 million). A major portion of the increase in expenditures is caused by intensified R&D efforts in the field of pharmaceuticals, which will be further stepped up in the next few years. Expressed as a percentage of sales, 1987 R&D expenditures were 4.7% (1986: 4.3%).
As a result of the increased research effort, which is due in part to additional research activities in strategic key areas, and as a result of acquisitions, capital investments, and

*Sources and applications of funds, 1983-1987 (billions of guilders)*



*In the chemical division's new safety laboratory at Deventer, the Netherlands, tests are constantly conducted to determine safe handling procedures for organic peroxides.*

divestitures, the technology-intensive character of Akzo's product range has been enhanced.
The number of employees engaged in R&D increased by 135 to 6,010 at year end.

The volume of research in a wide variety of polymer chemistry and technology areas has been further expanded, both in the corporate research centers and in the divisional laboratories. This type of research currently accounts for approximately half of the total research budget. An important part of this work is targeted at the development of new and modified polymers, and at the application of such polymers in New Materials—composites (mixtures of plastics and fibers) with special features such as high strength, high heat resistance, and very good electrical properties. Such properties are increasingly becoming free design variables, so that it is now easier to meet specific end-use requirements. Processing technology and product design are becoming more important. It falls to the development departments to educate customers about the engineering potential of the New Materials. One way in which they tackle this is through joint projects. Akzo can provide a wide choice of products, such as reinforcing fibers, engineering plastics, and adhesives, for use in New Materials. A number of these materials are still in the research stage. The principal outlets are the aerospace and automotive industries, sporting goods manufacturers, the electronic and telecommunication industries, and the producers of medical equipment.
Furthermore special polymers are being developed for optoelectronic components, to be used typically in telecommunication networks. This research is in part being conducted within the context of European Community-sponsored technology programs.
New product developments for the electronic industry include laminates for printed circuit boards and gallium arsenide wafers.

Research on coatings (basically films of polymer applied to the surface of materials for purposes of conservation and decoration) is another focus of attention. Product development in this field is largely based on modern chemical concepts and seeks to make paints more user- and environment-friendly. A promising development is the waterborne industrial coatings, particularly intended for the automotive industry.

Meanwhile, in the specialty chemicals field some research projects have become commercial, such as new processes for the production of rubber chemicals. The exploratory research program has been expanded to ensure the future supply of new products.
A significant portion of this research will be conducted in the United States, with the laboratory acquired along with the other Stauffer facilities sharing in the work.

In pharmaceutical research, notably in the Netherlands and the United States, biotechnology is increasingly a part of the development and production of diagnostics, medicinal drugs, and veterinary products. A very important R&D area is the use of human monoclonal antibodies, in particular for products for the diagnosis and therapy of various types of cancer.
The Company already has a pilot plant utilizing recombinant-DNA and cell culture technologies.

Complementing existing divisional research activities, a corporate research program is to be started in the United States. Initially most of the research work in question is to be contracted out to selected universities, but at a later stage it will be carried out in a Company-run research facility. This arrangement will accomplish two things: divisional development work in the United States is provided with fundamental support, and Company contacts with the American scientific community will receive a boost.

**Safety and the Environment** In recent years we have seen major changes in society's appreciation of the environment, with the care for proper environmental hygiene evolving into the much broader concept of environmental management.
The care for proper environmental hygiene used to be interpreted as the control of pollution. The emission control standards were so fixed as to prevent any immediate threat to human health, and policies substantially reflected local and regional views of environmental hygiene.
Environmental management, on the other hand, aims at the long-term conservation of ecosystems. This requires the fixation of targets, the adoption of planned procedures, and integration of the environmental factor in the decision-making on numerous community activities on a national as well as on an international scale.

Industry plays an important role in the choice and realization of specific targets. Many national and international industry organizations, such as the International Chamber of Commerce (ICC) and the Conseil Européen des Fédérations de l'Industrie Chimique (CEFIC) have formulated guidelines and codes of conduct.
Partly under the inspiration of these developments Akzo decided to review its in-house regulations. The resulting new safety, health, and environmental code underscores the personal responsibility of every employee.
The emphasis on planned procedures and on integration of the environmental aspects in the decision-making at all levels in the organization is highly compatible with the objectives of the "Excellence in Operations" campaign, which seeks to enhance the quality of the actions of all of us.

It is too early now to assess the full implications to the Company of the agreement, signed by some thirty governments, which seeks to curtail production and use of chlorofluorocarbons.

The pollution of the Rhine by contaminated firefighting water which occurred in 1986 prompted us to review the pollution risks at our locations. We found that no immediate action was called for but we *are* preparing rules for the systematic evaluation of such risks and for the containment of spills.

Much study continues to be undertaken with the aim of further reducing the chances of calamities.

**Human Resources** At December 31, 1987 the number of employees was 67,400, representing a decrease by 1,000 relative to the 1986 year-end figure:

| *Number of employees* | ***Dec. 31 1987*** | *Dec. 31 1986* | *change* |
|---|---|---|---|
| Fibers and polymers division | **30,300** | 29,900 | 400 |
| Salt and basic chemical division | **5,800** | 5,700 | 100 |
| Chemical division | **7,300** | 5,700 | 1,600 |
| Coatings division | **10,600** | 10,600 | - |
| Pharma division | **12,000** | 11,600 | 400 |
| Consumer products division | | 3,600 | -3,600 |
| Other companies | **1,400** | 1,300 | 100 |
| Total | **67,400** | 68,400 | -1,000 |

The decrease in the number of employees is the net result of increases due to internal growth (+800) and to acquisitions (+2,100), and of a decrease due to the sale of interests, notably in the consumer products division (-3,900).

Increases due to acquisitions were particularly a feature of the chemical division. Internal growth in the number of employees mainly occurred in the Netherlands (+300) and in the United States (+300). The rate of such growth has slackened.

Despite high unemployment, the recruitment of appropriate personnel in certain sectors is still presenting difficulties, in particular in the Netherlands but also in the Federal Republic of Germany.
In 1987 we continued to give a high priority to career planning for, and training of, our personnel. In the Company's training programs, identification by the work force with Akzo was stressed, as was employee commitment to the goals of the "Excellence in Operations" campaign.
The experiments with more flexible hours announced in the 1986 report for several Dutch plants were, after all, not carried out because of insufficient support from individual employees as well as from organizations representing them.
The additional training efforts designed to afford more young people a realistic chance of employment in industry were continued in 1987. The results so far have been positive.
The number of young people employed in Akzo's German companies under the apprentice system was more than 900, up 4% from the 1986 figure.
Coordinated training schemes to raise the level of skills of employees will be initiated in all divisions during 1988.

We hereby express our gratitude to all of our employees for their efforts. Without these efforts, we would not have achieved the very acceptable 1987 earnings shown in this report.

## 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.
The consumer products division was sold to Douwe Egberts effective December 1, 1987.
Consequently the 1987 figures of that unit regarding net sales, operating income, and expenditures and depreciation reflect operations for 11 months, while invested capital at year-end 1987 is nil. The following compilations therefore adopt a separate presentation of the statistics concerning ongoing operations and of those bearing on consumer products.

| Net sales 1987 | Net sales 1986 | Operating income 1987 | Operating income 1986 | Invested capital* 1987 | Invested capital* 1986 | Property, plant and equipment: Expenditures 1987 | Expenditures 1986 | Depreciation 1987 | Depreciation 1986 | Millions of guilders |
|---|---|---|---|---|---|---|---|---|---|---|
| **4,651** | 4,332 | **470** | 421 | **2,765** | 2,386 | **363** | 384 | **274** | 236 | Chemical products |
| **3,161** | 3,443 | **49** | 275 | **1,704** | 1,618 | **257** | 262 | **152** | 139 | Man-made fibers |
| **2,415** | 2,314 | **164** | 132 | **1,089** | 1,070 | **140** | 128 | **68** | 58 | Coatings |
| **2,218** | 2,239 | **330** | 350 | **1,152** | 1,069 | **152** | 121 | **66** | 57 | Pharmaceuticals |
| **1,974** | 2,079 | **122** | 205 | **913** | 751 | **157** | 171 | **86** | 65 | Miscellaneous products |
| **14,419** | 14,407 | **1,135** | 1,383 | **7,623** | 6,894 | **1,069** | 1,066 | **646** | 555 | |
| **(250)** | (245) | **(41)** | (9) | **(20)** | (143) | | | | | Intra-Group deliveries, nonallocated items |
| **14,169** | 14,162 | **1,094** | 1,374 | **7,603** | 6,751 | **1,069** | 1,066 | **646** | 555 | |
| **1,366** | 1,453 | **87** | 91 | | 310 | **26** | 40 | **22** | 22 | Consumer products |
| **15,535** | 15,615 | **1,181** | 1,465 | **7,603** | 7,061 | **1,095** | 1,106 | **668** | 577 | 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 1987 | 1986 | Operating income as % of average invested capital 1987 | 1986 | Net sales/av. invested capital ratio 1987 | 1986 | Expenditures/depreciation ratio 1987 | 1986 | Ratios |
|---|---|---|---|---|---|---|---|---|
| **10.1** | 9.7 | **18.2** | 17.6 | **1.81** | 1.81 | **1.3** | 1.6 | Chemical products |
| **1.6** | 8.0 | **3.0** | 16.8 | **1.90** | 2.10 | **1.7** | 1.9 | Man-made fibers |
| **6.8** | 5.7 | **15.2** | 13.4 | **2.24** | 2.36 | **2.1** | 2.2 | Coatings |
| **14.9** | 15.6 | **29.7** | 34.0 | **2.00** | 2.18 | **2.3** | 2.1 | Pharmaceuticals |
| **6.2** | 9.9 | **14.7** | 28.8 | **2.37** | 2.92 | **1.8** | 2.6 | Miscellaneous products |
| **7.7** | 9.7 | **15.2** | 20.8 | **1.97** | 2.14 | **1.7** | 1.9 | |
| **6.4** | 6.3 | **29.7** | 27.2 | **4.65** | 4.34 | **1.2** | 1.8 | Consumer products |
| **7.6** | 9.4 | **16.1** | 21.1 | **2.12** | 2.25 | **1.6** | 1.9 | Overall ratio |



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

## Chemical Products

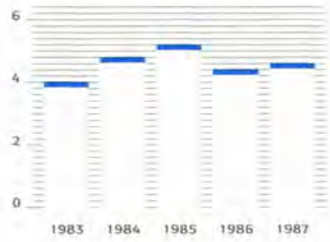
**General** Sales of chemical products aggregated Hfl 4,651 million, versus Hfl 4,332 million in 1986. This sales gain is mainly attributable to the companies acquired in 1987. Without these acquisitions, sales would have declined by 3%, principally due to the fall of the U.S. dollar.
At Hfl 470 million, operating income was up 12% from the previous year. Expressed as a percentage of sales, operating income increased from 9.7% in 1986 to 10.1% in 1987.

**Salt and Basic Chemicals** At Hfl 2,034 million, sales of salt and basic chemicals virtually equaled 1986 sales of Hfl 2,029 million. Volume increased by 8%. Translation of sales in the United States at a lower rate of the dollar resulted in a 5% decrease, while selling prices were on average below the level of 1986.

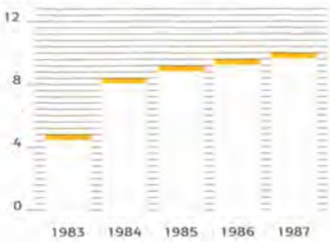
**Salt** Shipments of salt in Western Europe were sustained at a high level in 1987. Our position in this traditional market area remained strong as a result of ongoing efforts to improve product quality and the logistic service provided to customers.
Salt specialties faced keener competition resulting in downward pressure on prices.
Shipments of the U.S. salt company International Salt did not meet expectations, principally as a result of the mild winter season.
At mid-1987 an agreement in principle was signed concerning the takeover of the salt activities of Diamond Crystal Salt Company. In February 1988 this deal was approved by the U.S. Department of Justice, so that there are no further obstacles to its finalization.
The use of waste salt from the French potassium mines as road deicing salt in the Netherlands has received considerable media attention. However attractive the use of this waste product may seem, it does not offer a viable solution for the waste salt problem because of quality aspects and its limited scale.

**Chlor-Alkali Products** Both in the United States and in Western Europe the demand for PVC continued to increase, restoring the balance between supply and demand. As a result prices firmed. The strong demand for vinyl chloride monomer in the Far East and the decrease in exports from the United States to this area stimulated the production of VCM in Western Europe. On account of these developments ROVIN, the VCM/PVC joint venture with Shell Nederland Chemie, turned in a distinctly improved performance in 1987. In order to structurally improve the position of this joint venture plans are under way to modernize the PVC plant.
In the next few years the VCM/PVC industry may be expected to add some capacity within the scope of measures taken to protect the environment and improve efficiency because bottlenecks will be eliminated as well. However, in view of the supply and demand situation in the long term it is hoped that producers will exercise restraint in implementing projects that are primarily aimed at capacity increases.
Mainly as a result of increased PVC production, demand for chlorine was strong. The demand for caustic soda, a co-product of chlorine, grew consid-

*Net sales, in billions of guilders*




*Operating income, as percentage of net sales*




*Akzo's petroleum and petrochemical catalysts are produced in many shapes and sizes to meet refinery requirements.*

erably, resulting in depletion of inventories and limited availability. These developments brought improved revenues for caustic soda and lye, and further price increases may be expected.
The results of soda ash remained at a satisfactory level, despite limited export possibilities due to the lower U.S. dollar.

**Other Basic Chemicals** This year the results of industrial colloids were again unsatisfactory due to persistent overcapacity, the low dollar, and weak demand for this product as a drilling mud additive.
Cost savings were realized by modernization of the production process. Further measures to improve the situation are scheduled.
Early in 1987 the CMC activities were acquired from Montedison (Novara, Italy), which broadened the product range. Integration of these activities was successful.
Chlorinated hydrocarbons turned in an unsatisfactory performance. Due to vigorous competition the price level is too low.

**Joint Ventures** Sales of the nonconsolidated companies in the field of salt and basic chemicals amounted to Hfl 970 million, compared with Hfl 840 million in 1986.
The contribution to earnings by Dansk Salt I/S (salt, Denmark) was about the same as in 1986.
Results of Electro-Chemie Ibbenbüren GmbH (chlor-alkali products, Federal Republic of Germany) were depressed somewhat due to higher energy costs.
Denak Co. Ltd (monochloroacetic acid, Japan) posted higher earnings despite the fact that exports were hampered by the strong yen.
The position of Methanol Chemie Nederland v.o.f. (resins, Delfzijl/Rotterdam) in the market for resins with a low formaldehyde emission was strengthened by the granting of a patent. The Rotterdam formaldehyde plant will be modernized. The position will be further bolstered because formaldehyde can be delivered in a stabilized and concentrated form.
Shipments and prices at Methanor v.o.f. (methanol, Delfzijl) increased due to limited production possibilities of some worldwide operating methanol producers.
In the first half of 1987 the cogeneration plant of Delesto B.V. (Delfzijl) came on line without any major problems. The Delfzijl manufacturing complex now has a modern energy supply facility with a minimal environmental impact, which is in line with Dutch government policy to stimulate the cogeneration of heat and power.

*Surrounded by Government officials, company representatives, and reporters, HRH Prince Claus of the Netherlands opens the Delesto cogeneration facility.*

**Storage of Gas in Salt Cavities** In the Federal Republic of Germany work was started on leaching out salt deposits for the storage of gas by a third party. The resulting brine is processed into salt in the production facilities of Norddeutsche Salinen. In the Netherlands a study is being made in conjunction with Gasunie into the storage of gas in salt cavities to be specially prepared for this purpose in our salt concession near Veendam.

**Specialty Chemicals** Sales of specialty chemicals rose from Hfl 2,303 million to Hfl 2,617 million in 1987. Without acquisitions, sales declined by 5%, which is mainly due to the slide of the U.S. dollar, while sales volume showed a slight increase. The acquisition of Stauffer's specialty chemicals business makes it necessary to adjust the organization to the new situation. It will become primarily market-oriented. Depending on the way in which our customers operate, the sectors will be organized worldwide or by region. The new organization will become operational in 1988.

**Additives for the Manufacture and Processing of Plastics and Elastomers** The upswing in the plastics industry resulted in increased shipments of peroxides, which are used as initiators in the production process. Prices show an upward tendency. Through the purchase of the Stauffer activities the division was also able to acquire positions in polymerization catalysts and flame retardants for the plastics industry. In 1988 a new plant for the manufacture of polymerization catalysts will come on stream in Belgium.
The rubber chemicals business was strengthened by the acquisition of Vulnax International Ltd with operations in France and the United Kingdom. This business segment was further bolstered by the addition of *Crystex*®, which is included in Stauffer's specialty chemicals sector. This product is used in the processing of rubber, especially by the tire industry.
*Nouryset*® 200 organic glass monomer continued to face heavy competition in Europe. In the United States results improved because of the low dollar, which reduced imports into that country.
The pilot plant for *Elate*® diisocyanates was commissioned at year-end 1987. The pilot plant for polyurethane prepolymers will come on stream in 1988.

**Metal Carboxylates** Metal carboxylates again did very well, both in Europe and in the United States. The influence of competition is becoming noticeable, however, resulting in pressure on prices. The products in this sector are chiefly used in the PVC industry.

**Organic Chemicals** The construction of a new production facility and a new laboratory for paper chemicals in McCook, Illinois, marks the conclusion of the integration in the United States of Monsanto's paper chemicals, which were acquired in 1986. The paper chemicals business in Europe showed a healthy development, due in part to a new market approach.
Shipments of surfactants from the Düren plant (Federal Republic of Germany) for use in the cosmetics

*Caustic soda bag filling machine.*

industry exhibited gratifying growth, which was partly attributable to a significant quality improvement. Despite intense competition, shipments of fatty acids and oils remained stable, but prices came under pressure. Substantial growth was recorded for shipments to the liquid detergents industry.
Earnings for carbon disulfide and chlorofluorocarbons remained at a satisfactory level.

**Fatty Amines** Earnings in this business segment were depressed, particularly in Europe, due to keen price competition, caused by capacity expansions made over the past years and a slight decline in consumption. It was decided to enlarge the fatty amines capacity in the United States. Concentration of the production of thickeners in one location should bring cost savings.
The plant for powdered quaternary amines in the United States, which came on stream in 1986, is making contributions to earnings.

**Catalysts** Our market position in cracking catalysts in the United States was further strengthened. Great interest is being shown in octane-boosting cracking catalysts. In markets outside Europe the low dollar exerts a strong pressure on prices. The dominant feature of the market for desulfurization catalysts is strong price competition due to lower growth in consumption, resulting in overcapacity. This depressed results, notably in the United States and Japan. Our strong market position helped us achieve a satisfactory performance in Europe. In the long term we expect further sales growth, partly as a result of our research efforts in this field.
Reforming catalysts and catalysts for the chemical industry achieved reasonable results.

As a result of the acquisition of Stauffer's specialty chemicals, the range of catalysts for the oil and petrochemical industry was expanded.

**Other Chemical Products** Sulfuric acid, silicates, and sulfo products showed a favorable development.

**Joint Ventures** The joint ventures' sales in the specialty chemicals sector aggregated Hfl 780 million, as compared with Hfl 630 million in 1986. The 24% increase is mainly attributable to the joint ventures included in the acquisition of the Stauffer activities.
Earnings of Silenka B.V. (glass fibers, Hoogezand, the Netherlands) were depressed by persistent competition because of the low U.S. dollar and imports from the United States. However, due to the strongly increasing demand for glass fibers from the engineering plastics sector, capacity utilization improved considerably. This is expected to reduce pressure on margins. Meanwhile it has been decided to increase capacity.
Glucona v.o.f. (gluconates, Ter Apelkanaal, the Netherlands) did much better than in the previous year. The modernized production facility for sodium gluconate is planned to come on stream in the first quarter of 1988. The expansion of the fatty amines plant of Lion Akzo Co. Ltd (Japan) was completed. Earnings remained at a satisfactory level.
Kali-Chemie-Stauffer GmbH (insoluble

*Detail view of the maze of pipes in Bergen, Belgium, fatty amines plant.*


sulfur, Federal Republic of Germany) turned in a satisfactory performance. A capacity expansion has been scheduled.

Kayaku Noury Corp. (organic peroxides, Japan) showed a healthy development.

Nippon Ketjen Co. Ltd (desulfurization catalysts, Japan) was confronted with keen competition in the Japanese market and with reduced export possibilities due to the strong yen.

Earnings of Toyo-Stauffer Chemical Co. Ltd (metal catalysts etc., Japan) were at about the same level as in 1986.

Cyanamid-Ketjen Katalysator B.V. (platinum catalysts, Amsterdam) registered lower earnings than in the prior year.

Good progress was made on the construction of the cracking catalysts plant of FCC-Fábrica Carioca de Catalisadores S.A. (Brazil), which will be commissioned in 1988.

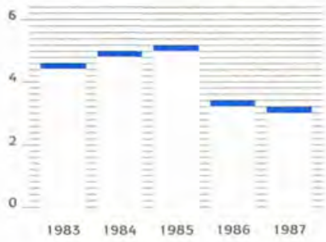
*The Le Moyne, Alabama, U.S.A., plant acquired from Stauffer manufactures such as carbon disulfide, and* Crystex® *insoluble sulfur which is used in tires.*

# Man-Made Fibers

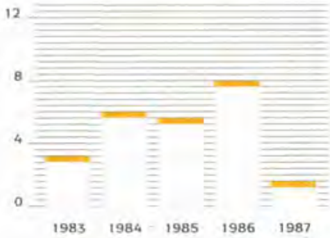
**General** At Hfl 3,161 million, sales were down 8% from the 1986 figure of Hfl 3,443 million. Volume was 2% higher than in the previous year. The decline in sales was primarily caused by substantially lower selling prices due to the low U.S. dollar. Operating income declined from Hfl 275 million in 1986 to Hfl 49 million in 1987. Expressed as a percentage of sales, operating income fell from 8.0% in 1986 to 1.6% in 1987.
The performance of La Seda de Barcelona (Spain) was significantly lower because of the weakness in the Spanish market for man-made fibers, caused by sharply increased imports from countries outside Europe and intensified competition in Europe. We believe that a restructuring of the fragmented Spanish man-made fiber industry is urgently needed.
The contribution to earnings of Polyenka (Brazil), a producer of polyester filament yarns, also declined considerably.
As in the previous year, earnings by the nonconsolidated companies were negatively affected by the start-up losses of the aramid plants.

**Man-Made Fibers for Textiles and Carpets** Sales of this product sector totaled Hfl 1,821 million, compared with Hfl 1,995 million in 1986. Operating income dropped sharply.
The weakening of the demand, which began in the second half of 1986, continued into 1987. With raw material inventories of the textile industry being materially reduced by mid-1987, demand began to firm up again after the vacation period.
The persistent downslide of the U.S. dollar resulted in a general deterioration of export markets. At the same time the pressure of imports increased. This applies to the imports of fibers, notably polyester, but especially to the imports of textiles and clothing from low-cost countries. Until mid-1987, strong pressure was exerted on prices, notably for polyester staple fiber and filament. In the spring of 1988 a decision is expected on the antidumping procedures which were instituted in 1986 for some fiber types against several countries.
The first phase of the modernization program for the production of polyester filament in Oberbruch (Federal Republic of Germany) was completed. Meanwhile, the second phase is in the process of implementation. This modernization aims at improvement of both quality and cost structure, thus strengthening the competitive position. Efforts to optimize the production facilities for polyester staple fiber in Emmen were continued. Work was also started on modernization of polyester staple fiber production at La Seda de Barcelona. During the year the division began to phase down the relatively small polyamide textile filament plant in Emmen.
Demand for viscose textile yarns both for outerwear and for lining fabrics remained at such a high level that it was not always possible to meet customers' needs.
The Western European market for carpet yarns for residential applications rallied from the slight downturn in 1986. The so-called contract market (carpet yarns for hotels, offices, etc.) shows a stable picture. Notwithstanding increased raw material costs and the negative influence of exchange rates, the results of the carpet yarns business improved.

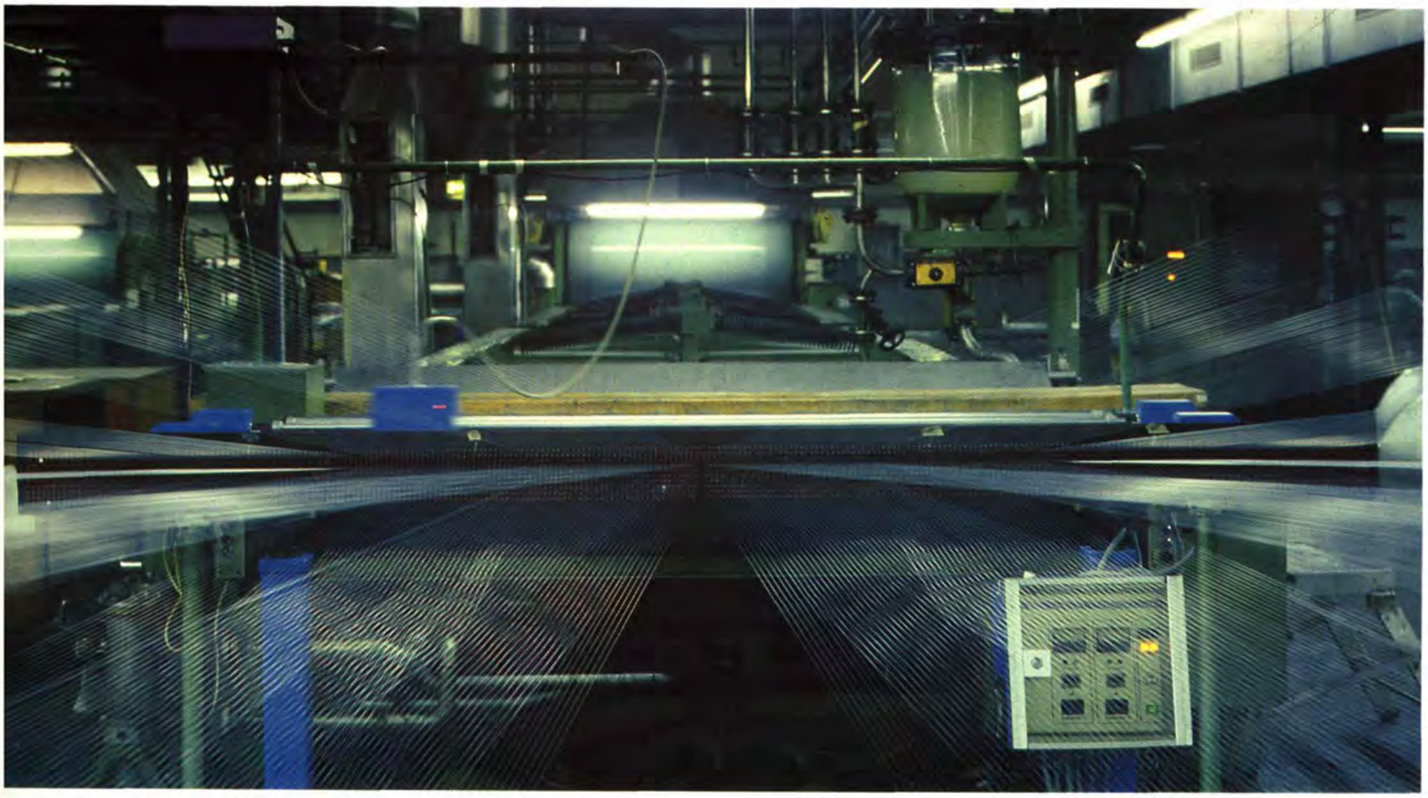
*Net sales, in billions of guilders*




*Operating income, as percentage of net sales*




*Textured* Diolen® *polyester filament yarn for apparel.*



*In the Oberbruch, Germany, plant, warp yarns are being run onto a section beam.*

The modernization of carpet yarn production in Emmen made good progress.

**Man-Made Fibers for Industrial Uses** Sales of industrial fibers were down from Hfl 1,448 million in 1986 to Hfl 1,340 million. This 7% decline was principally due to lower exchange rates. Notably the low rate of the U.S. dollar resulted in a strong pressure on prices. While shipments were up, operating income of this business segment fell sharply.

Using their new competitive edge, U.S. producers were able to further improve their market shares in Western Europe. This was especially evident for synthetic yarns.

By the end of the year the difficult export situation of polyamide yarns began to show signs of recovery.

Increased competition depressed earnings of polyester yarns.

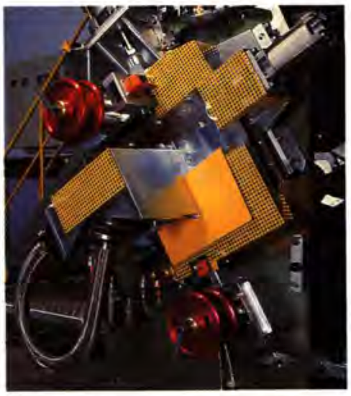
Earnings of viscose yarns improved over the previous year, chiefly as a result of lower raw material prices caused by the slide of the U.S. dollar.

The unsatisfactory performance of steelcord is primarily attributable to low revenue from large exports to the United States.

Shipments of viscose and polyamide yarns as well as steelcord for aircraft and automotive tires reached a satisfactory level in 1987.

Shipments of yarns for conveyor belts, V-ropes, and hoses failed to come up to expectations. The principal causes are increased imports from the United States and diminished direct and indirect export opportunities to Eastern Europe. Shipments of yarns for the production of ropes and nets were slightly up. The performance of sewing yarns was satisfactory.
There was an increase in the demand for *Diolen*® industrial polyester yarns for coated broad fabrics. These fabrics find application in such end uses as car panels, air-supported structures, and protective clothing. After a temporary drop in the second quarter the demand for synthetic yarns for narrow fabrics (seat belts) returned to a high level.
*Tenax*® high-performance carbon fibers were clearly affected by temporary overcapacity and keen competition from the United States. Good progress was made on the very comprehensive trials and approval procedures for application in the aerospace sector. In Oberbruch (Federal Republic of Germany) ground was broken for the construction of a pilot plant for specialty carbon fibers. In 1987, Fortafil Fibers Inc. (United States) was acquired, a comparatively small producer of heavy carbon fiber cables used in sectors other than aerospace. This acquisition is of strategic importance because it broadens the product mix and affords access to the important U.S. market.
The production of *Twaron*® aramid fibers has now advanced to the point where a consistently good quality is obtained, enabling market demand for these fibers to be met. Energetic efforts are being made to further expand market positions. The patent conflict with Du Pont remained unresolved in 1987.

**Joint Ventures** Sales of the nonconsolidated man-made fiber companies were up from Hfl 810 million in 1986 to Hfl 880 million.
Aramide Maatschappij v.o.f. (aramid fibers, Emmen, the Netherlands) is still suffering start-up losses.
Nippon Aramid Co. Ltd, the aramid fiber joint venture set up in 1986 together with the Japanese company Sumitomo Chemical Company, commenced its activities early in 1987.
Earnings of COBAFI S.A., a Brazilian-based producer of industrial yarns and fabrics, were restored to an acceptable level, partly as a result of price adjustments made during the year.
Enka de Colombia S.A. enjoyed a healthy development, resulting in satisfactory earnings. Capacity expansion projects are under way for several products.
Less satisfactory was the performance achieved by Enkador S.A. (Ecuador), principally due to the disruptive effects of the earthquake that occurred in early 1987.
Despite adverse market conditions, the situation at Fibras Químicas S.A. (Mexico) improved considerably, which was reflected in full capacity utilization and price increases.
At Century Enka Ltd (India) the planned additions to the existing production capacity were brought on stream. Earnings showed a healthy development, reflecting higher volume and stable prices. It was decided to enlarge the production capacity of polyester textile yarns.



*Experimental manufacturing unit for prepregs, to be used in composites.*

# Coatings

**General** Sales were up 4% from 1986, but an adverse influence was exerted by the unfavorable development of exchange rates. The use of innovative marketing concepts, continued integration, and the introduction of new products permitted the achievement of a higher operating income despite stiffer competition. Expressed as a percentage of sales, operating income increased from 5.7% in 1986 to 6.8%. Most countries contributed to this increase, with France and Brazil chief among them.
The Brazilian paint company Tintas Ypiranga Ltda was acquired at year-end 1987. The company's product range mainly consists of decorative coatings and coatings for industrial applications, products which fit in well with the existing activities of the coatings division in Brazil.

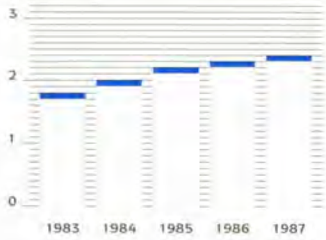
**Integration and Capital Expenditures** Great effort was expended on further integrating the companies acquired in 1985 and 1986 (Levis, Belgium; Blundell-Permoglaze and Sandtex, United Kingdom; Koninklijke Brink/Molyn, the Netherlands). In the United Kingdom the production of Sandtex was relocated by year end to the production plant in Hull, while the marketing activities of Sandtex, Permoglaze, and Sikkens were integrated. Most of the activities of Levis outside Belgium were integrated in existing country organizations.
The initial loss situation at Koninklijke Brink/Molyn was reversed as a result of a consistently implemented restructuring program and a selective market approach.

The high level of capital expenditures of previous years was maintained to strengthen our market position and protect the environment. The biggest single investment related to the new manufacturing complex in Orange County, California, the focal point for our activities on the west coast of the United States, which mainly concern aircraft finishes and car refinishes.

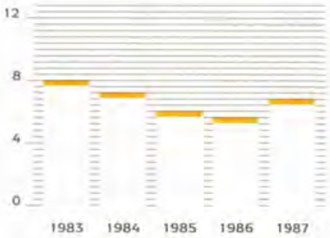
**Decorative Paints and D-I-Y Paints** In 1987, the stagnation in new construction activity persisted in most European countries, but the maintenance and renovation sector showed some improvement. By introducing new products, colors, and services, we succeeded in expanding our market position, in spite of strong competition. Decorative paints did particularly well in Brazil, Austria, and Italy. In the Netherlands an improved performance was registered in the D-I-Y sector.
A limited range of waterborne products for both professional and D-I-Y use was placed on the market in several European countries. Research efforts continued toward the development of products and systems that can comply with increasingly stringent environmental standards without sacrificing quality.
A nondrip wallpaint based on a solid paint concept was successfully launched in the D-I-Y sector.

**Automotive Finishes; Car Refinishes** In automotive finishes we were able to improve our position, both in Europe in the passenger car sector and in the United States in the truck and coach sector. Income remained at an unsatisfactory level due to sustained keen competition.
A satellite plant was built close to the plant of a major truck producer in the United States, so that several times per day a wide range of colors can be

*Net sales, in billions of guilders*




*Operating income, as percentage of net sales*




*An image from the colorful world of the coatings division.*

*Coatings for plastic auto body parts.*

supplied to the customer on a "just-in-time" basis.
Good results were obtained in the development of new technologies such as waterborne products.
In many countries our market leadership in car refinishes was maintained, with sales gains being achieved in such countries as the United States, Italy, Spain, and Brazil.
In the United States *Autonova*® was launched, a fully isocyanate-free system. Market acceptance of this system of fast drying, efficient two-component products for car repair is promising.
In Europe *Ketac*® filler was introduced. Also isocyanate-free and based on two components, this product fully meets expectations.
The number of Car Refinishes Information Centers (CRICs), where comprehensive training courses and information about car refinishes are provided, was increased. New CRICs were opened in Canada, the Federal Republic of Germany, Italy, and Indonesia. Mobile CRICs were commissioned in Japan and Spain; these centers can now be found all over the world.

**Industrial Coatings for Wood, Metals, and Plastics** Profitability in this market segment was generally improved. New products and technologies were applied in several fields, such as advanced coatings for plastics and one-layer cataphoresis. We were able to strengthen our market positions considerably, notably in France and Italy.
Our leading position in coatings for plastics was further expanded, especially for coatings sold to suppliers serving the automotive industry.

**Other Products** The coil coatings sector exhibited some growth due in part to the introduction of new products.
In aircraft finishes we held our ground as a supplier to major aircraft producers and airline companies.
A considerably lower sales volume was registered in the protective coatings sector, where we found ourselves facing changed market conditions.
*Zincromet*® showed further volume sales declines due to the increased use of galvanized steel in the automotive industry and significant shifts in the

*Satellite plant near a large U.S. producer of trucks.*


*Nondrip D-I-Y wall paint.*

market positions of U.S. car makers. Operating income of Talens, one of the leading producers in the sector of artists colors and supplies, was good. The distribution networks in the United States and Spain were strengthened.

**Synthetic Resins** Adoption of a selective market approach boosted earnings in the synthetic resins sector. Our important position in printing ink resins was strengthened by the introduction of these resins in the United States and by certain other factors. New printing ink resins and specialty resins for coatings and adhesives were launched.

**Joint Ventures** Industrias Quïmicas Procolor S.A. (coatings, Spain) turned in a healthy performance.
Positive development was recorded at Synthese (Malaysia) Sdn. Bhd. (synthetic resins), which started production at mid-1986.

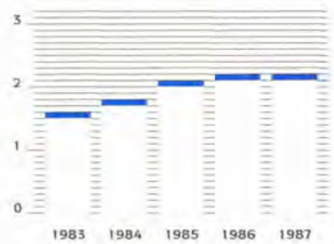
## Pharmaceuticals

**General** The 1987 sales figure, including the blood bank activities of Cooper Technicon Inc. acquired in late 1986, stood at Hfl 2,218 million and virtually equaled the 1986 figure. Internal volume growth was 2%. Changes in exchange rates again exerted downward pressure on sales (approximately 9%), with the rise in average selling prices providing only some compensation.
Operating income amounted to Hfl 330 million—6% lower than in the prior year. In terms of sales, operating income was 14.9% (1986: 15.6%).
In December 1987, a letter of intent was signed regarding the takeover by Akzo of the Animal Health Group of Gist-brocades. If the proposed transaction goes through, the activities in question will be integrated with those of Intervet.

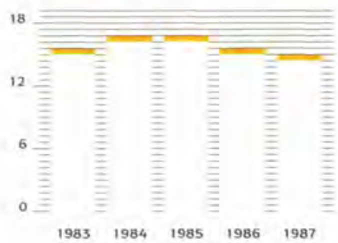
**Homonco Program** Under a joint Organon/Organon Teknika initiative in the field of cancer diagnosis and therapy known as the "Homonco Program," the first European ASI (Active Specific Immunotherapy) center was opened in the Academic Hospital of the Free University of Amsterdam. The center prepares patient-specific vaccines for the treatment of certain forms of cancer. The therapy in question is still in the research phase. Two similar centers were set up in the United States.
In an associated move the rights to Tice-BCG were acquired from the University of Illinois, Chicago. So far this product has been chiefly used to fight tuberculosis. A file was submitted to the U.S. Food and Drug Administration with a view to obtaining approval for the use of the product in treating cancer of the bladder.

**Ethical Drugs** Despite the adverse changes in exchange rates which hampered Organon in most of its markets, the 1986 sales figure was matched, with volume up slightly. This was due in large measure to the *Marvelon®* oral contraceptive whose excellent properties have now made it the European market leader.
Considerable effort was invested in the adaptation and modernization of the division's pharmaceutical manufacturing facilities. Particularly in the Netherlands major capital expenditures were made which removed certain bottlenecks in the execution of orders.
Organon research moved into higher gear, with some ten products now in the final phase of development. In terms of market potential these products range from small to big ones. Among them is *Livial®*, a preparation for the treatment of menopausal disorders which has already been approved by the health authorities in several countries, including the Netherlands. The first health registration for Organon's human insulin was received. In the field of fertility control, work is being done on a contraceptive intravaginal ring and a long-acting subcutaneous implant; both of these controlled-release products are now in the stage of clinical evaluation.
In a few other areas of research, such as those concerned with anticoagulants and drugs for the control of senile dementia, cooperation agreements were concluded with other scientific development teams.

*Net sales, in billions of guilders*




*Operating income, as percentage of net sales*




*Separation process in the preparation of a tumor vaccine. Products obtained by biotechnological means will in future make a significant contribution to better diagnosis and treatment of such diseases as cancer.*

*Preparation of the patient-specific* Oncostat *tumor vaccine.*

**Hospital Products** Organon Teknika achieved a volume growth of approximately 8%, due especially to the blood bank activities acquired from Cooper Technicon Inc. in December 1986. Reflecting the decline in exchange rates, money sales were up only slightly.
Following Organon Teknika's acquisitions in the previous period, 1987 was still very much a year of consolidation and integration.
The construction and equipping of new production and research facilities were a focus of attention. In the United States a new location was established at Durham, North Carolina, where substantially all of the U.S. activities are to be concentrated. The manufacturing installations in Dublin, Ireland, and in Boxtel, the Netherlands, were considerably expanded, as were the laboratories and offices at Turnhout, Belgium. Furthermore a new research group was set up in the United States for the development of diagnostics, especially for the American market. And finally it was decided to concentrate all Dutch diagnostics activities at Boxtel.
The HIV antigen test of the Belgian-based Innogenetics company was added to the line of Aids tests. Additionally a new version of the HIV-I test was launched, together with a line of tests for blood banks. Named UniForm, this line consists of an Aids test, a hepatitis test, and a hepatitis core antigen test, all three of which were designed to use the same procedure.
The line of hepatitis tests was further expanded through the addition of pre-S1 and pre-S2 markers. The range of Micro Elisa equipment employed to run enzyme immunoassay tests was completely redesigned.
Supplementing the package of hemostasis tests used to ascertain the risks of thrombosis, a new version of the *Simplastin*® Excel-test was launched, as was the *Fibrinostika*® line. Consisting of three products, this line constitutes the first result of Organon Teknika's cooperation with the TNO Gaubius research institute in the Netherlands.
The forerunner of a wide range of easy-to-read, easy-to-run tests, the first so-called dipstick was launched on the market. This new form of test utilizes the Organon Teknika-developed and worldwide-patented gold particle immunoassay technique.
In the nephrology sector the fifth generation of artificial kidneys was developed, based on a more patient-friendly *Hemophan*® membrane.

**Nonprescription Products** While Chefaro sales volume ran about even with the 1986 figure, money sales did not live up to the projections. This shortfall was caused by the adverse development of exchange rates, as well as by the lower-than-expected rate of market penetration and customer acceptance of the *Discretest*® ovulation test. Intended for women who have a fertility problem, the test was introduced in several Western European countries in late 1986 and in Japan in 1987.
Our market positions in painkillers and vitamins were further strengthened.
Additionally we expanded our important position in the European pregnancy tests market, achieving a volume growth of about 10% in the face of stiffening competition in this market segment which is of major

*In a new Organon development, an injector is used for the subcutaneous implantation of a controlled-release contraceptive.*

importance to Chefaro. In Japan our market position in pregnancy tests was also expanded, but no genuine breakthrough will be possible unless and until the Japanese government lifts its present ban on advertising for such tests to the general public.

**Raw Materials for the Pharmaceutical Industry** The continued depreciation of the U.S. dollar adversely impacted Diosynth's selling prices. In addition to this, supply significantly exceeded demand for most products, so that higher volume sales could not be achieved without further cuts in selling prices.
In the alkaloids sector, codeine shipments registered a drop on account of these developments. By contrast, sales of synthetic derivatives prospered.
Market shares for all biochemical products were held constant, but prices of heparin and insulin had to be reduced. The first phase of the new biotechnological products manufacturing facility at Oss, the Netherlands, was completed and occupied.
In chemical raw materials, a drop in sales of corticosteroids was the inevitable consequence of an upsurge in competition brought on by the lower U.S. dollar. All of the production capacity was being utilized.

**Generics** PBI, the U.S.-based company acquired in 1986, progressed as planned. The development and production departments were upgraded and now meet the rigorous standards applicable to the manufacture of pharmaceuticals.
Outside the United States, Verenigde Pharmaceutische Fabrieken focused on the commercialization—notably in developing countries—of products supplied by PBI and other sources. In the Netherlands, some thirty-five product registrations were obtained for this purpose. The scope for sales of generics in the Dutch and other EC markets is being investigated.

**Veterinary Products** In 1987, Intervet again accomplished substantial volume growth (up 12%). Money sales grew at a lower rate due to adverse foreign exchange effects. Operating income was again up. Intervet's fine performance is largely attributable to the introduction of many new products. Of these new products, the recombinant-DNA *Nobi-vac®* Aujeszky vaccine and the companion Elisa diagnostic test must be mentioned here because they constitute another world first in the field of biotechnology. The Elisa test furnishes a means of distinguishing antibodies formed in response to vaccination with the new vaccine from those formed after contact with the field virus.
The newly patented *Nobi-vac®* Parvo-C vaccine against virus-induced diarrhea in dogs has been so warmly welcomed by veterinarians around the world that a new, modern production laboratory was promptly built in the United Kingdom.
Intervet moved aggressively to broaden its base in the United States. Its efforts concern the development and registration of vaccines (for large and small domestic animals) and of pharmaceuticals to be added to the present range of poultry vaccines.
A study is now in progress to see whether cooperation is possible with one or more local partners in Japan. Intervet has no present operations in Japan, but the country could become a major market for the company.

Intertest Aujeszky *is the first commercially introduced test which makes it possible to tell field-infected pigs from pigs injected with Aujeszky $gI^-$ virus vaccine.*

## Miscellaneous Products

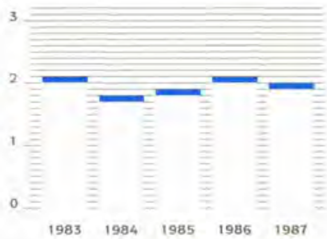
**General** The activities reported on in this chapter almost exclusively concern the nonfiber products of the fibers and polymers division, and the electronics industry materials made and marketed by a joint venture. Sales of miscellaneous products fell from Hfl 2,079 million in 1986 to Hfl 1,974 million in 1987. This decline is due primarily to Barmag sales returning to a more normal level following several years of exceptional growth of the company. Operating income from miscellaneous products showed a decline from Hfl 205 million to Hfl 122 million. As a percentage of sales, operating income was 6.2% (1986: 9.9%).

**Machinery and Other Engineering Products** Barmag group 1987 sales aggregated Hfl 730 million, versus Hfl 867 million in the prior year. After two years of record sales principally due to large exports of textile machinery to China, Barmag's activities are now back to normal. Earnings were also much reduced but remain at an acceptable level. Plastics machinery, auto parts, and hydraulic components, which together account for some 30% of sales, registered strong growth. Large amounts were invested to modernize and boost the efficiency of Barmag's manufacturing plant, its logistics, and its infrastructure. Barmag's subsidiaries developed positively. Amid very tough economic conditions, the Brazilian subsidiary is holding its own. The German-based Tiefenbach company, acquired at year-end 1986, is showing satisfactory growth despite a crisis in the mining industry, the largest user of its products.

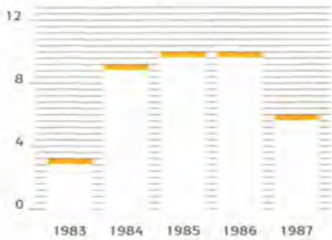
**Plastics** The plastics business on the whole registered a creditable performance. Sales amounted to Hfl 625 million, compared with Hfl 597 million in 1986. Business was adversely impacted by the low dollar and by much higher raw material costs in Europe.
Our position in the world market of engineering plastics became stronger. The best example of such greater strength was the rise in shipments of fiber-reinforced plastics. Volume sales of polymers for carbonated soft drink bottles were also up markedly.
Wilson-Fiberfil, acquired in 1986, has shown gratifying growth in the fields of both color concentrates and compounds. Good progress was made on its integration into the plastics segment.
The plastics business is increasingly looking for its further growth to the automotive industry, the electronic/electrical industry, and the packaging materials industry.

**Membranes** Sales of membranes were up from Hfl 222 million in 1986 to Hfl 226 million in 1987. Operating income was unchanged at a satisfactory figure.
The trend toward further product differentiation in the hemodialysis field continued. The latest new product, *Hemophan®* High Performance membrane, is now in the stage of clinical testing. Scheduled to be launched commercially some time during 1988, together with certain other modified membrane types, it should help consolidate our position in hemodialysis.
Shipments of plasmapheresis membranes for therapeutic applications were in line with projections. The market introduction of *Oxyphan®*

*Net sales, in billions of guilders*




*Operating income, as percentage of net sales*




Hemophan® *capillary membranes for hemodialysis.*

*The testing of new combinations of materials for five-layer blown film in Barmag's pilot plant.*

oxygenator membranes was successful.
Western European sales of the *Enka Microdyn*® crossflow microfiltration system for industrial uses made distinct advances, but U.S. sales fell short of projected levels. Current plans

are for the market introduction of an enlarged and improved line of industrial membranes some time during 1988.

**Industrial Nonwovens** The additions to production capacity completed in 1986 permitted a substantial increase in nonwoven shipments in the principal markets of roofings and floor coverings. Operating income showed commensurate growth.
The outlook in the market for polyester industrial nonwovens is fair, with further shipments growth likely. Plans are now being drafted for a further expansion of production capacity.
An agreement was concluded with BASF Corporation under which they are licensed to produce and sell *Colback*® nonwovens in the United States and Canada.

**Cleaning Supplies** In the aggregate, sales in this sector were down. Against a shipments gain for chamois there was a drop in shipments of sponges, as exports to countries outside Europe were halted by the downslide of the U.S. dollar.


*Production line for* Colback® *nonwovens.*

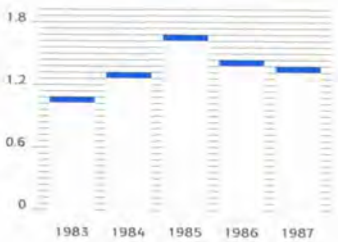
**New Products** Introduced in 1986, *Sympatex*® garment and shoe liner—a material which is water- and windproof yet permeable to water vapor—demonstrated gratifying market performance in Western Europe, particularly in the shoe sector. Its introduction in the U.S. market is now being undertaken, and preparations are under way for its market launch in Japan, together with a local partner.
The *Accurel*® system is another example of a new product. One application of this system which holds out great promise is the microencapsulation of liquid additives for the plastics industry. Its development is being pursued jointly with the chemical division.

**Materials for the Electronics Industry** Around the middle of the year, the formation of Akzo Electronic Materials Company, a U.S.-based joint venture of Kollmorgen Corporation (35%) and Akzo (65%), marked the beginning of production of materials for the electronics industry. This industry is showing strong growth, with the rate of expansion clearly above average.
The first activities of this joint venture, based on Kollmorgen's and Akzo's expert knowledge in the field, concern the manufacture of polyimide-metal laminates and of gallium arsenide wafers.

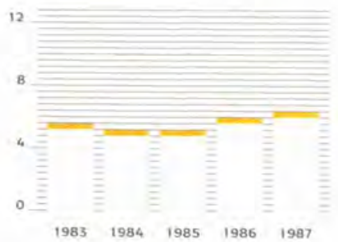

*Polyimide-metal laminates are among the materials for the electronics industry that are already being produced commercially.*

# Consumer Products

*Net sales, in billions of guilders*




*Operating income, as percentage of net sales*




**General** At December 1, 1987, the ownership of the consumer products division was transferred to the Dutch food company Douwe Egberts. In January 1985 Akzo had already reduced its stake in this division to 51%.
The sale included the Rhône-Poulenc household products division, with plants at Lyons and Rémalard (France), acquired in 1987.
The consumer products division has now joined an international group with substantial interests in its field.
This should give it better guarantees for its long-term development.
As the transfer did not become effective until December 1, the results for the first 11 months of 1987 are still recognized in Akzo's figures.

**Results of Operations** Sales for the period January through November aggregated Hfl 1,366 million, compared with Hfl 1,453 million for all of 1986. Operating income for the first 11 months was Hfl 87 million (full year 1986: Hfl 91 million). As a percentage of sales, 1987 operating income worked out at 6.4% (1986: 6.3%).
Sales in the food sector trailed the prior year's level, largely due to strong competition in the market for nuts and mayonnaises. Poor summer weather also depressed sales of dressings and sauces. Soups and bouillon products performed well.
Nonfood products did better than in 1986, with laundry detergents standing out.
Business in institutional and industrial cleaning systems made satisfactory 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.

The consumer products division was sold to Douwe Egberts effective December 1, 1987. The following compilations therefore adopt a separate presentation of geographic statistics and statistics pertaining to that division.

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.

| *Net sales by destination* | | *Net sales by origin* | | *Operating income* | | *Invested capital** | | *Expenditures for property, plant and equipment* | | *Number of employees, December 31* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***1987*** | *1986* | ***1987*** | *1986* | ***1987*** | *1986* | ***1987*** | *1986* | ***1987*** | *1986* | ***1987*** | *1986* | *Millions of guilders* |
| **1,540** | 1,468 | **5,223** | 5,145 | **462** | 509 | **2,783** | 2,514 | **445** | 426 | **22,500** | 22,300 | The Netherlands |
| **2,597** | 2,594 | **3,959** | 4,251 | **240** | 433 | **1,714** | 1,651 | **232** | 273 | **19,600** | 19,400 | Federal Republic of Germany |
| **5,497** | 5,643 | **2,268** | 2,179 | **213** | 249 | **1,291** | 1,194 | **143** | 133 | **11,600** | 11,200 | Rest of Europe |
| **2,332** | 2,223 | **2,014** | 1,918 | **86** | 84 | **1,367** | 1,102 | **209** | 207 | **7,500** | 6,200 | North America |
| **2,203** | 2,234 | **705** | 669 | **93** | 99 | **448** | 290 | **40** | 27 | **6,200** | 5,700 | Other regions |
| **14,169** | 14,162 | **14,169** | 14,162 | **1,094** | 1,374 | **7,603** | 6,751 | **1,069** | 1,066 | **67,400** | 64,800 | |
| **1,366** | 1,453 | **1,366** | 1,453 | **87** | 91 | | 310 | **26** | 40 | | 3,600 | Consumer products |
| **15,535** | 15,615 | **15,535** | 15,615 | **1,181** | 1,465 | **7,603** | 7,061 | **1,095** | 1,106 | **67,400** | 68,400 | Total |

RATIOS OF CONSOLIDATED COMPANIES

| | *Operating income as % of net sales* | | *Operating income as % of average invested capital* | |
|---|---|---|---|---|
| | ***1987*** | *1986* | ***1987*** | *1986* |
| The Netherlands | **8.8** | 9.9 | **17.4** | 20.8 |
| Federal Republic of Germany | **6.1** | 10.2 | **14.3** | 26.0 |
| Rest of Europe | **9.4** | 11.4 | **17.1** | 22.2 |
| North America | **4.3** | 4.4 | **7.0** | 7.8 |
| Other regions** | **13.2** | 14.8 | **25.2** | 33.6 |
| | **7.7** | 9.7 | **15.2** | 20.8 |
| Consumer products | **6.4** | 6.3 | **29.7** | 27.2 |
| Overall ratio | **7.6** | 9.4 | **16.1** | 21.1 |

NONCONSOLIDATED COMPANIES

| | *Net sales by origin* | | *Invested capital** | | *Number of employees December, 31* | |
|---|---|---|---|---|---|---|
| *Millions of guilders* | ***1987*** | *1986* | ***1987*** | *1986* | ***1987*** | *1986* |
| Europe | **1,605** | 1,378 | **1,188** | 1,031 | **2,800** | 2,400 |
| North America | **63** | 34 | **15** | 16 | **200** | 200 |
| Latin America | **667** | 670 | **615** | 642 | **6,000** | 5,700 |
| Other regions | **608** | 497 | **493** | 399 | **3,200** | 2,700 |
| Total | **2,943** | 2,579 | **2,311** | 2,088 | **12,200** | 11,000 |

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

** 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.

*Part of the assets involved in the Stauffer transaction, the Kashima, Japan, plant manufactures a range of products including* Crystex® *insoluble sulfur.*

**Europe** The Netherlands and the Federal Republic of Germany are Akzo's main centers of activity. Together these countries employ 59% of the Group's total invested capital and 62% of the total work force. Sales of the consolidated companies based in these countries aggregated Hfl 9.2 billion in 1987; exports accounted for 55% of that figure (1986: 57%).

Sales in *the Netherlands* increased 2% to Hfl 5.2 billion. Operating income as a percentage of sales was down from 9.9% in 1986 to 8.8% in 1987.

Invested capital in the Netherlands increased, mainly as a result of the high level of capital investments. Expenditures for property, plant and equipment in the Netherlands totaled Hfl 445 million.

Sales of Group companies in the *Federal Republic of Germany* were down 7% to Hfl 4.0 billion, which was primarily due to man-made fibers and Barmag.
Operating income expressed as a percentage of sales declined from 10.2% in 1986 to 6.1% in 1987. This strong decline is also chiefly caused by man-made fibers and Barmag.
Invested capital was up 4%.

Capital investments in the Federal Republic of Germany aggregated Hfl 232 million.

Our companies in the *rest of Europe* registered higher sales than in 1986, but operating incomes were lower. Especially the Spanish fiber company La Seda de Barcelona turned in a disappointing performance. Our interests in France, Belgium, and the United Kingdom were considerably expanded through the acquisitions of the Stauffer activities and Vulnax.

**North America** The sales gain in North America over the previous year was primarily due to acquisitions. Its effect was largely offset by translation losses due to the strongly declined rate of the dollar. Operating income increased, despite the unfavorable influence of costs associated with the integration of newly acquired activities. Operating income in terms of sales was 4.3% (1986: 4.4%). Because of the mild winter season shipments of deicing salt were disappointing, resulting in considerably lower income for International Salt. Specialty chemicals achieved a considerable earnings gain as a result of the acquisition of the Stauffer activities. Mainly due to lower shipments, earnings of the North American coatings operations lagged behind the previous year's level. Pharmaceuticals registered an improved performance, because the integration of the diagnostics activities in North America began to pay off.

The acquisition of Fortafil provided access to the carbon fiber market. In mid-1987 the activities in the field of materials for the electronics industry were incorporated in a joint venture.

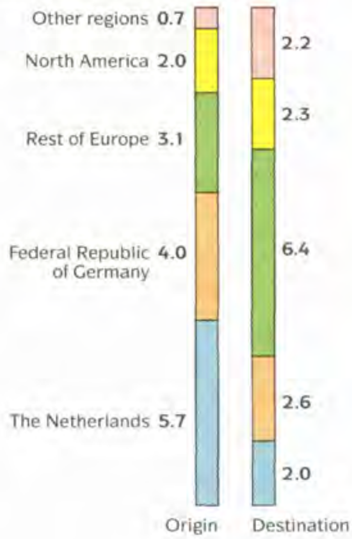
**Latin America** Both sales and income of our Latin American business showed, in general, a favorable development in 1987. Specialty chemicals registered a stable performance. Considerable earnings gains were achieved by nonconsolidated fiber companies. Our position in the field of coatings was strengthened through the acquisition of Tintas Ypiranga, a Brazilian-based paint company.

**Other Regions** As in the preceding year, the Japanese affiliates did well, with the exception of Nippon Ketjen (desulfurization catalysts). Our position in *Japan* was expanded through the acquisition of the Stauffer activities in that country. Currently, Akzo has some 13 operations in Japan, of which 9 in the form of a joint venture with a Japanese partner. The strong growth of our interests in Japan occasioned us to change the national office there into a national organization.
At Century Enka, *India*, the first part of a major modernization plan was completed. The results of this affiliated fiber company developed favorably.

Arnhem, March 11, 1988

The Board of Management

*1987 net sales (including the consumer products division), by origin and by destination (billions of guilders)*



# Organization of the Akzo Group

March 1988

Akzo N.V.
Arnhem
Netherlands

Central staff departments
and service organizations

| Divisions | Product groups | Products | Management |
|---|---|---|---|
| **Fibers and polymers division** Wuppertal Federal Republic of Germany | Man-made fibers | *Man-made fibers for industrial uses and textile uses, including carpets, advanced fibers for composites* | J.R. Hutter, President<br>U.G. Stark, Deputy President<br>J.H. Katgert<br>W.H. Meyberg<br>C.M. Vermeulen (from January 1, 1988)<br>H.G. Zengel<br><br>R. van den Berg<br>M. Schütze |
| | Miscellaneous products | *Machinery, engineering plastics, membranes, nonwovens, various industrial products* | |
| **Salt and basic chemical division** Hengelo Netherlands | Chemical products | *Salt, chlorine, alkali products, VCM, methanol, urea formaldehyde resins, industrial colloids, organochlor compounds, organic amines, and raw materials for herbicides* | F.A.G. Collot d'Escury, President<br>F.I.M. van Haaren<br>H.A. van Karnebeek<br><br>J.L. Ryon |
| **Chemical division** Amersfoort Netherlands | Chemical products | *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* | J.C.P. van Oosterom, President<br>J.C.E. Fuller<br>E. Snoeck<br><br>C.S. Kent (from January 1, 1988) |
| **Coatings division** Hoofddorp Netherlands | Coatings | *Paints, stains, synthetic resins for industrial, professional, and consumer uses* | C. Zaal, President<br>H.C. Bijvank<br>H.C. Ekker<br>J.D. Remijnse<br>M.R. Rooseboom<br>K.G. Schultze |
| **Pharma division** Oss Netherlands | Pharmaceuticals | *Ethical drugs, nonprescription products, hospital supplies, diagnostics, raw materials for the pharmaceutical industry, veterinary products* | A.G.J. Vermeeren, President<br>P.K. Brons<br>B.H.M. van Dommelen<br>T. Kalff<br>F.L. Vekemans |

*National Organizations*

| | | |
|---|---|---|
| **Akzo Nederland** | Arnhem, the Netherlands | A. van Es, President |
| **Akzo America** | New York, United States | A.R. Dragone, President |
| **Akzo België** | Brussels, Belgium | F.C.L. De Deken, President |
| **Akzo do Brasil** | São Paulo, Brazil | J.W. Bootz, President |
| **Akzo Japan** | Tokyo, Japan | S. Matsubayashi, President |

*National Office*

| | | |
|---|---|---|
| **Akzo Korea** | Seoul, Republic of Korea | W.E. Kulsdom |

# 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 47 through 54 are based on historical cost. Current-value data are furnished by way of supplementary information on page 55.

## 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:

| | | Balance sheet | | Statement of income | |
|---|---|---|---|---|---|
| | Unit | **1987** | 1986 | **1987*** | 1986* |
| U.S. $ | 1 | **1.78** | 2.19 | **2.03** | 2.44 |
| DM | 1 | **1.13** | 1.13 | **1.13** | 1.13 |
| £ stg | 1 | **3.33** | 3.23 | **3.31** | 3.59 |
| Fr. fr. | 1 | **0.33** | 0.34 | **0.34** | 0.35 |
| Sw. fr. | 1 | **1.39** | 1.35 | **1.36** | 1.36 |
| Belg. fr. | 100 | **5.37** | 5.43 | **5.43** | 5.48 |
| Sp. pes. | 100 | **1.65** | 1.67 | **1.63** | 1.75 |
| Braz. cruz. | 100 | **2.46** | 14.80 | **4.77** | 17.90 |

* 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.
The 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 received 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 50 through 53.

after allocation of profit

| *Millions of guilders, December 31* | | *1987* | | *1986* |
|---|---|---|---|---|
| ASSETS | | | | |
| *Fixed assets* | | | | |
| Property, plant and equipment | | 4,795.2 | | 4,329.6 |
| Financial fixed assets | | | | |
| – Nonconsolidated companies | 629.8 | | 534.7 | |
| – Other financial fixed assets | 162.3 | | 125.4 | |
| | | 792.1 | | 660.1 |
| | | 5,587.3 | | 4,989.7 |
| *Current assets* | | | | |
| Inventories | 2,567.8 | | 2,586.1 | |
| Receivables | 2,732.8 | | 2,768.2 | |
| Cash and short-term investments | 926.2 | | 1,084.1 | |
| | | 6,226.8 | | 6,438.4 |
| Total | | 11,814.1 | | 11,428.1 |
| GROUP EQUITY AND LIABILITIES | | | | |
| *Group equity* | | | | |
| Akzo N.V. stockholders' equity | 3,811.6 | | 4,311.2 | |
| Minority interest | 217.3 | | 353.6 | |
| | | 4,028.9 | | 4,664.8 |
| *Provisions* | | 2,266.6 | | 2,004.7 |
| *Long-term debt* | | | | |
| Subordinated loans | 145.4 | | 166.5 | |
| Other long-term borrowings | 1,193.7 | | 1,438.3 | |
| | | 1,339.1 | | 1,604.8 |
| *Current liabilities* | | | | |
| Short-term borrowings | 1,524.7 | | 405.5 | |
| Other current liabilities | 2,654.8 | | 2,748.3 | |
| | | 4,179.5 | | 3,153.8 |
| Total | | 11,814.1 | | 11,428.1 |

# Consolidated Statement of Income of the Akzo Group

See notes on pages 53 and 54.

| *Millions of guilders* | | *1987* | | *1986* |
|---|---|---|---|---|
| *Net sales* | | **15,535.1** | | 15,614.8 |
| Cost of sales | | **(9,880.2)** | | (9,894.1) |
| *Gross margin* | | **5,654.9** | | 5,720.7 |
| Selling expenses | **(2,953.6)** | | (2,878.8) | |
| Research and development expenses | **(735.4)** | | (676.7) | |
| General and administrative expenses | **(806.1)** | | (772.2) | |
| Other revenue from operations | **21.4** | | 71.5 | |
| | | **(4,473.7)** | | (4,256.2) |
| *Operating income* | | **1,181.2** | | 1,464.5 |
| Financing charges | | **(147.3)** | | (105.5) |
| *Operating income less financing charges* | | **1,033.9** | | 1,359.0 |
| Taxes | | **(366.4)** | | (477.9) |
| *Earnings of consolidated companies from normal operations, after taxes* | | **667.5** | | 881.1 |
| Earnings from nonconsolidated companies | | **52.7** | | 16.8 |
| *Group income from normal operations, after taxes* | | **720.2** | | 897.9 |
| Extraordinary items after taxes | | **273.3** | | 23.3 |
| *Group income* | | **993.5** | | 921.2 |
| Minority interest | | **(51.5)** | | (79.7) |
| *Net income* | | **942.0** | | 841.5 |

## Consolidated Statement of Changes in Financial Position of the Akzo Group

See notes on page 54.

| Millions of guilders | 1987 | 1986 |
|---|---|---|
| **SOURCES OF FUNDS** | | |
| Group income | 994 | 921 |
| Depreciation | 668 | 577 |
| Cash flow | 1,662 | 1,498 |
| Nonconsolidated companies | 35 | 44 |
| Changes in provisions | 258 | 48 |
| Other sources | – | 28 |
| | 1,955 | 1,618 |
| **APPLICATIONS OF FUNDS** | | |
| Expenditures for property, plant and equipment | 1,095 | 1,106 |
| Investments in nonconsolidated companies | 160 | 169 |
| Acquisition of consolidated interests | 1,402 | 599 |
| Changes in other financial fixed assets | 45 | (10) |
| Disposal of interests | (177) | (66) |
| | 2,525 | 1,798 |
| Changes in working capital* | 157 | (130) |
| Dividends paid | 297 | 294 |
| Other applications | 50 | 16 |
| | 3,029 | 1,978 |
| **BALANCE** | | |
| Balance of funds provided and funds used | (1,074) | (360) |
| **FINANCING** | | |
| Issuance of stock/warrants | 8 | 135 |
| Drawdowns | 307 | 268 |
| Repayment of long-term debt | (526) | (409) |
| Changes in short-term borrowings | 1,127 | (35) |
| | 916 | (41) |
| *Changes in cash and short-term investments* | (158) | (401) |



* 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, 1987, are listed on pages 67 and 68.
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, has been filed at the Trade Registry of Arnhem.

### CHANGES IN CONSOLIDATED INTERESTS

From August 1, 1987, the specialty chemicals business of Stauffer Chemical Company, United States, was included in the consolidated financial statements. Furthermore, Tintas Ypiranga Ltda, Brazil, and Vulnax International Ltd, United Kingdom, were acquired.
At the end of November 1987 the 51% Akzo interest in the consumer products division was sold; consequently this division is no longer included in the consolidated balance sheet at December 31, 1987.
There were no other changes of significance to the financial statements.

## CONSOLIDATED BALANCE SHEET

### PROPERTY, PLANT AND EQUIPMENT

| *Millions of guilders* | *Total* | *Buildings and land* | *Plant equipment and machinery* | *Other equipment* | *Construction in progress and prepaid projects* | *Assets not used in the production process* |
|---|---|---|---|---|---|---|
| *Situation at December 31, 1986* | | | | | | |
| Cost of acquisition | 11,389.7 | 2,330.3 | 7,376.8 | 938.9 | 569.4 | 174.3 |
| Depreciation | (7,060.1) | (1,151.8) | (5,175.2) | (601.2) | | (131.9) |
| Book value | 4,329.6 | 1,178.5 | 2,201.6 | 337.7 | 569.4 | 42.4 |
| *Changes in book value* | | | | | | |
| Acquisitions and disposal of interests | 201.2 | 37.9 | 160.3 | (6.6) | | 9.6 |
| Capital expenditures | 1,095.4 | 153.7 | 819.8 | 166.9 | (52.7) | 7.7 |
| Depreciation | (668.2) | (80.8) | (469.6) | (110.4) | | (7.4) |
| Disinvestments | (41.3) | (5.6) | (24.3) | (5.9) | | (5.5) |
| Changes in exchange rates | (136.0) | (49.2) | (79.8) | (6.1) | | (0.9) |
| Other changes | 14.5 | (2.1) | 13.3 | 1.6 | | 1.7 |
| Total changes in 1987 | 465.6 | 53.9 | 419.7 | 39.5 | (52.7) | 5.2 |
| *Situation at December 31, 1987* | | | | | | |
| Cost of acquisition | 12,199.5 | 2,416.0 | 8,036.2 | 1,020.2 | 516.7 | 210.4 |
| Depreciation | (7,404.3) | (1,183.6) | (5,414.9) | (643.0) | | (162.8) |
| Book value | **4,795.2** | **1,232.4** | **2,621.3** | **377.2** | **516.7** | **47.6** |

The book value of property, plant and equipment financed by installment buying and leasing was approximately Hfl 38 million at December 31, 1987 (at December 31, 1986: approximately Hfl 41 million).

Given their comparatively slight magnitude, preparation and start-up expenses, carried at Hfl 12.4 million at December 31, 1987 (at December 31, 1986: Hfl 5.6 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, 1986 | 660.1 | 509.1 | 25.6 | 125.4 |
| Investments | 244.1 | 151.1 | 8.7 | 84.3 |
| Disinvestments | (40.8) | | (1.4) | (39.4) |
| Equity in 1987 earnings | 19.8 | 19.8 | | |
| Dividends received | (54.4) | (54.4) | | |
| Changes in exchange rates | (36.7) | (27.7) | (1.0) | (8.0) |
| Situation at December 31, 1987 | **792.1** | **597.9** | **31.9** | **162.3** |

## INVENTORIES

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Raw materials and supplies | **612.6** | 640.1 |
| Work in process | **632.5** | 607.7 |
| Finished products and goods for resale | **1,313.3** | 1,331.4 |
| Inventory prepayments | **9.4** | 6.9 |
| | **2,567.8** | 2,586.1 |

## RECEIVABLES

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Trade receivables | **2,341.1** | 2,337.9 |
| Receivables from nonconsolidated companies | **81.9** | 65.1 |
| Other receivables | **525.8** | 547.2 |
| | **2,948.8** | 2,950.2 |
| Discounted portion | **(216.0)** | (182.0) |
| | **2,732.8** | 2,768.2 |

## CASH AND SHORT-TERM INVESTMENTS

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Short-term investments | **743.1** | 920.2 |
| Cash on hand and in banks | **183.1** | 163.9 |
| | **926.2** | 1,084.1 |

The short-term investments include cash loans, time deposits, marketable private borrowings, and debentures, which are virtually all listed on stock exchanges.

## CREDIT FACILITIES

The total amount of long-term credit facilities arranged by Akzo but not yet utilized was approximately Hfl 625 million at December 31, 1987 (at December 31, 1986: approximately Hfl 540 million).

## GROUP EQUITY

| *Millions of guilders* | *Group equity* | *Minority interest* |
|---|---|---|
| Situation at December 31, 1986 | 4,664.8 | 353.6 |
| Issuance of stock | 8.4 | |
| Cumulative preferred stock purchases | (0.4) | |
| Retained earnings | 696.1 | 19.5 |
| Changes in minority interest in Group companies | (139.2) | (139.2) |
| Goodwill | (958.8) | (4.5) |
| Changes in exchange rates | (242.0) | (12.1) |
| Situation at December 31, 1987 | **4,028.9** | **217.3** |

For details on changes in Akzo N.V. stockholders' equity see the note to the Akzo N.V. balance sheet on page 58.

## PROVISIONS

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Deferred taxes | **316.4** | 378.7 |
| Pension rights | **1,070.8** | 918.3 |
| Other provisions | **879.4** | 707.7 |
| | **2,266.6** | 2,004.7 |

The current portion of provisions amounted to approximately Hfl 355 million (at December 31, 1986: approximately Hfl 201 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, 1987, as at December 31, 1986, the accumulated pension benefits were on balance 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 Zout Chemie Nederland B.V.
Akzo N.V. has agreed to be jointly and severally liable for these loans. They are subordinated to all third-party debts of the companies named.
The interest rate averaged 11.0% (1986: 11.2%). Repayment is scheduled to be made in 1988 (Hfl 30.6 million), and in 1989 through 1992 (Hfl 114.8 million).

## OTHER LONG-TERM BORROWINGS

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Convertible debentures | **4.3** | 13.1 |
| Other debentures | | |
| – Issued by Akzo N.V. | **408.7** | 348.8 |
| – Issued by consolidated companies | **38.7** | 55.5 |
| Private borrowings | **394.7** | 475.7 |
| Debt to credit institutions | **224.0** | 426.2 |
| Other borrowings | **123.3** | 119.0 |
| | **1,193.7** | 1,438.3 |

Aggregate maturities are as follows:

| *Millions of guilders* | *1988* | *1989/ 1992* | *after 1992* |
|---|---|---|---|
| Convertible debentures | 0.1 | 4.2 | |
| Other debentures | | | |
| – Issued by Akzo N.V. | 27.0 | 277.4 | 104.3 |
| – Issued by consolidated companies | 0.1 | 4.2 | 34.4 |
| Private borrowings | 22.0 | 317.6 | 55.1 |
| Debt to credit institutions | 64.9 | 128.3 | 30.8 |
| Other borrowings | 33.1 | 39.9 | 50.3 |
| | 147.2 | 771.6 | 274.9 |

The average interest rate was 7.2% (1986: 8.1%).
Private borrowings and debt to credit institutions have been secured to an aggregate amount of Hfl 103 million (at December 31, 1986: Hfl 88 million) by means of mortgages, etc.
For details on convertible debentures and other debentures issued by Akzo N.V. see the notes to the Akzo N.V. balance sheet on pages 58 and 59.

## SHORT-TERM BORROWINGS

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Commercial paper | **508.4** | |
| Debt to credit institutions | **1,016.3** | 405.5 |
| | **1,524.7** | 405.5 |

## OTHER CURRENT LIABILITIES

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Prepayments by customers | **111.9** | 100.9 |
| Debt to suppliers | **1,244.6** | 1,188.3 |
| Debt to non-consolidated companies | **27.0** | 26.5 |
| Taxes and social security contributions | **318.7** | 406.8 |
| Dividends | **207.0** | 206.6 |
| Pensions | **18.6** | 59.9 |
| Other liabilities | **727.0** | 759.3 |
| | **2,654.8** | 2,748.3 |

## COMMITMENTS AND CONTINGENT LIABILITIES

There are pending against companies of the Akzo Group a number of claims and lawsuits arising in the normal course of business with respect to commercial matters and governmental regulations. All such claims are contested. While the results of litigation cannot be predicted with certainty, management believes, in part 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 and similar commitments arising from signed letters of intent concerning the acquisition of the salt business of Diamond Crystal Salt Company, United States, and the veterinary business of Gist-brocades, the Netherlands, aggregated Hfl 403 million at December 31, 1987 (at December 31, 1986: Hfl 230 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 1988, these liabilities will require total payments of Hfl 70 million.

Guarantees in behalf of nonconsolidated companies and third parties totaled Hfl 254 million (at December 31, 1986: Hfl 237 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 374 million (at December 31, 1986: Hfl 394 million).

# CONSOLIDATED STATEMENT OF INCOME

## NET SALES

*Product groups*

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Chemical products | **4,651** | 4,332 |
| Man-made fibers | **3,161** | 3,443 |
| Coatings | **2,415** | 2,314 |
| Pharmaceuticals | **2,218** | 2,239 |
| Consumer products | **1,366** | 1,453 |
| Miscellaneous products | **1,974** | 2,079 |
| | **15,785** | 15,860 |
| Intra-Group deliveries | **(250)** | (245) |
| | **15,535** | 15,615 |

*Areas of destination*

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| The Netherlands | **1,948** | 1,902 |
| Federal Republic of Germany | **2,613** | 2,602 |
| Rest of Europe | **6,404** | 6,617 |
| North America | **2,333** | 2,224 |
| Other regions | **2,237** | 2,270 |
| | **15,535** | 15,615 |

## FINANCING CHARGES

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Interest received and similar income | **85.7** | 108.7 |
| Interest paid and similar expenses | **(233.0)** | (214.2) |
| | **(147.3)** | (105.5) |

Interest paid decreased by Hfl 31 million (1986: Hfl 33 million) due to the capitalization of financing expenses of capital investment projects under construction.

## TAXES ON OPERATING INCOME LESS FINANCING CHARGES

Taxes averaged 35% (1986: 35%). Because of loss compensation facilities a portion of income was not included in taxable income.

## EARNINGS FROM NONCONSOLIDATED COMPANIES

Earnings from nonconsolidated companies include tax benefits of Hfl 20.3 million in 1987 and of Hfl 10.2 million in 1986.

## EXTRAORDINARY ITEMS AFTER TAXES

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Extraordinary gains | **466.7** | 44.6 |
| Extraordinary losses | **(298.1)** | (29.2) |
| Extraordinary items before taxes | **168.6** | 15.4 |
| Taxes | **104.7** | 7.9 |
| | **273.3** | 23.3 |

On balance, extraordinary items showed a gain after taxes of Hfl 273.3 million, which was largely attributable to the divestiture of the 51% Akzo interest in the consumer products division and to the creation of various provisions, mainly relating to restructuring of activities and the start-up costs of Aramide Maatschappij.

SALARIES, WAGES, AND SOCIAL CHARGES

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Salaries and wages | **3,581.2** | 3,464.3 |
| Pension costs | **362.4** | 365.8 |
| Other social charges | **682.9** | 608.4 |
| | **4,626.5** | 4,438.5 |

EMPLOYEES

| *Average number of employees* | ***1987*** | *1986* |
|---|---|---|
| Fibers and polymers division | **30,200** | 29,300 |
| Salt and basic chemical division | **5,700** | 5,600 |
| Chemical division | **6,300** | 5,400 |
| Coatings division | **10,800** | 10,200 |
| Pharma division | **11,800** | 11,200 |
| Consumer products division | **3,400** | 3,600 |
| Other companies | **1,300** | 1,500 |
| | **69,500** | 66,800 |
| Number of employees at December 31 | **67,400** | 68,400 |

## 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 1987 balance sheet items | 40 | 261 | (266) | 1,120 |
| Eliminations: | | | | |
| Changes in exchange rates | 125 | 49 | 96 | 14 |
| Changes in investments in affiliated companies | (8) | (52) | (49) | (7) |
| Changes in 1987 financial position | 157 | 258 | (219)** | 1,127 |



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

** Balance of repayments (Hfl 526 million) and drawdowns (Hfl 307 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 charged against net income.

CONDENSED CONSOLIDATED BALANCE SHEET

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| *Assets* | | |
| Fixed assets on the basis of historical cost | **5,587** | 4,990 |
| Revaluation of fixed assets | **1,294** | 1,370 |
| Fixed assets on the basis of current value | **6,881** | 6,360 |
| Current assets | **6,227** | 6,438 |
| Total | **13,108** | 12,798 |
| *Group equity and liabilities* | | |
| Stockholders' equity | **4,624** | 5,058 |
| Minority interest | **261** | 407 |
| Group equity | **4,885** | 5,465 |
| Provisions | **2,704** | 2,575 |
| Debt | **5,519** | 4,758 |
| Total | **13,108** | 12,798 |

SUMMARIZED CONSOLIDATED INCOME DATA

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Net sales | **15,535** | 15,615 |
| Operating income on the basis of historical cost | **1,181** | 1,465 |
| Adjustment of operating income to current value | | |
| – Inventory results | **5** | 146 |
| – Additional depreciation | **(129)** | (129) |
| Operating income on the basis of current value | **1,057** | 1,482 |
| As percentage of net sales | **6.8** | 9.5 |
| Net income on the basis of historical cost | **942** | 842 |
| Adjustment of operating income to current value | **(124)** | 17 |
| Gearing adjustment | **54** | (6) |
| Adjustments for non-consolidated companies and minority interest | **(5)** | (7) |
| Net income on the basis of current value | **867** | 846 |

## Akzo N.V. Balance Sheet

See notes on pages 57 through 59.

after allocation of profit

| *Millions of guilders, December 31* | | *1987* | | *1986* |
|---|---|---|---|---|
| ASSETS | | | | |
| *Fixed assets* | | | | |
| Financial fixed assets | | **6,108.0** | | 5,832.2 |
| *Current assets* | | | | |
| Receivables | **66.0** | | 88.1 | |
| Cash and short-term investments | **340.7** | | 405.9 | |
| | | **406.7** | | 494.0 |
| Total | | **6,514.7** | | 6,326.2 |
| STOCKHOLDERS' EQUITY AND LIABILITIES | | | | |
| *Stockholders' equity* | | | | |
| Subscribed stock | **804.3** | | 803.1 | |
| Additional paid-in capital | **1,254.2** | | 1,247.4 | |
| Statutory reserves | **–** | | 437.6* | |
| Other reserves | **1,753.1** | | 1,823.1* | |
| | | **3,811.6** | | 4,311.2 |
| *Long-term debt* | | **1,661.9** | | 1,669.2 |
| *Current liabilities* | | **1,041.2** | | 345.8 |
| Total | | **6,514.7** | | 6,326.2 |

## Akzo N.V. Statement of Income

See notes on page 59.

| *Millions of guilders* | *1987* | *1986* |
|---|---|---|
| Net income from affiliated companies | **970.6** | 854.6 |
| Other net income | **(28.6)** | (13.1) |
| Net income for the fiscal year | **942.0** | 841.5 |



* Restated for comparison.

## 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 45 and 46.
Thus stockholders' equity and net income are equal to stockholders' equity and net income as shown in the consolidated financial statements on pages 47 and 48.
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* *Share in capital* | *Consolidated companies* *Loans** | *Nonconsolidated companies* *Share in capital* | *Nonconsolidated companies* *Loans* | *Other financial fixed assets* |
|---|---|---|---|---|---|---|
| Situation at December 31, 1986 | 5,832.2 | 3,773.4 | 1,924.0 | 133.9 | – | 0.9 |
| Investments/ disinvestments | 478.8 | 478.9 | | | | (0.1) |
| Equity in 1987 earnings | 970.6 | 935.9 | | 34.7 | | |
| Dividends received | (464.2) | (453.9) | | (10.3) | | |
| Loans granted | 867.5 | | 867.5 | | | |
| Repayment of loans | (392.7) | | (392.7) | | | |
| Changes in exchange rates | (229.9) | (181.4) | (25.6) | (22.9) | | |
| Goodwill | (954.3) | (954.3) | | | | |
| Situation at December 31, 1987 | **6,108.0** | **3,598.6** | **2,373.2** | **135.4** | – | **0.8** |

#### RECEIVABLES

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Receivables from consolidated companies | **49.1** | 47.9 |
| Receivables from nonconsolidated companies | **0.2** | 0.1 |
| Other receivables | **16.7** | 40.1 |
| | **66.0** | 88.1 |

#### CASH AND SHORT-TERM INVESTMENTS

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Short-term investments | **338.2** | 394.6 |
| Cash on hand and in banks | **2.5** | 11.3 |
| | **340.7** | 405.9 |

* Loans to consolidated companies have no fixed repayment schedule.

## STOCKHOLDERS' EQUITY

| *Millions of guilders* | *Subscribed stock* | *Additional paid-in capital* | *Statutory reserves* | *Other reserves* | *Stock-holders' equity* |
|---|---|---|---|---|---|
| Situation at December 31, 1986 | 803.1 | 1,247.4 | 437.6 | 1,823.1 | 4,311.2 |
| Issuance of common stock due to conversion of conv. debentures | 1.4 | 7.0 | | | 8.4 |
| Cum. pref. stock purchases | (0.2) | (0.2) | | | (0.4) |
| Retained earnings | | | 235.0 | 441.6 | 676.6 |
| Goodwill | | | (672.6) | (281.7) | (954.3) |
| Changes in exchange rates in respect of affiliated companies | | | | (229.9) | (229.9) |
| Situation at December 31, 1987 | **804.3** | **1,254.2** | **–** | **1,753.1** | **3,811.6** |

*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, 51 shares of cumulative preferred stock, and 40,208,142 shares of common stock.

*Warrants*
In 1986, Akzo N.V. issued 2,001,513 warrants to bearer. From May 1, 1988 through September 30, 1991 each warrant entitles the holder thereof to obtain, at the price of Hfl 120, one share of Akzo N.V. common stock. Akzo N.V. has the right to shorten the exercise period of the warrants to any date after November 1, 1988, with due observance of a period of prior notice of at least three months.

*Purchases of own stock*
In 1987 a total of 275 cumulative preferred shares of Hfl 1,000 were offered to the Company. They were purchased for an amount of Hfl 333,000.

*Additional paid-in capital*
At least Hfl 824 million of additional paid-in capital (at December 31, 1986: Hfl 817 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 now deducted from the statutory reserve. Therefore the statutory reserve amounts for 1984 through 1986 have been recomputed.

The statutory reserve has been calculated by the so-called collective method.

## LONG-TERM DEBT

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Convertible debentures | **4.3** | 13.1 |
| Other debentures | **408.7** | 348.8 |
| Debt to consolidated companies | **1,055.1** | 1,090.1 |
| Private borrowings | **177.1** | 207.4 |
| Other borrowings | **16.7** | 9.8 |
| | **1,661.9** | 1,669.2 |

*Convertible debentures*
4¾% debentures Akzo N.V. 1969 convertible into Akzo N.V. common stock, payable 1988/1989. The amount outstanding at December 31, 1987, was U.S.$ 1.2 million. The conversion price is Hfl 121.60 per share of Hfl 20, based on an exchange rate of U.S.$ 1 = Hfl 3.60.

*Other debentures*

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| 9½% 1982/1989 (DM 100 million) | | 113.0 |
| 10¾% 1982 due 1988/1992 | **100.0** | 100.0 |
| 5⅝% 1983/1993 (Sfr 100 million) | **139.3** | 135.1 |
| 14% 1987 due 1990 (A$ 50 million) | **73.5** | |
| 9¾% 1987 due 1990 (Can. $ 60 million) | **95.3** | |
| Employee debentures | **0.6** | 0.7 |
| | **408.7** | 348.8 |

The issue of A$ 50 million 14% bonds 1987 due 1990 was swapped to a Hfl 73.5 milion AIBOR-related floating rate loan.

The issue of Can.$ 60 million 9¾% notes 1987 due 1990 was swapped via a U.S.$ 45.2 million loan to a Hfl 95.3 milion LIBOR-related floating rate loan.

*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 6.3% in 1987 (1986: 6.5%).

*Private and other borrowings*
Aggregate maturities are as follows:

| *Millions of guilders* | *1988* | *1989/ 1992* | *after 1992* |
|---|---|---|---|
| Private borrowings | 8.7 | 167.8 | 0.6 |
| Other borrowings | 11.8 | 0.4 | 4.5 |

The average rate of interest was 7.1% (1986: 7.6%).

## CURRENT LIABILITIES

| *Millions of guilders* | ***1987*** | *1986* |
|---|---|---|
| Debt to credit institutions | **446.3** | 41.9 |
| Commercial paper | **152.4** | |
| Debt to consolidated companies | **177.1** | 22.6 |
| Taxes and social security contributions | **5.1** | 5.2 |
| Dividend | **207.0** | 206.6 |
| Other liabilities | **53.3** | 69.5 |
| | **1,041.2** | 345.8 |

## 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, 1987 aggregating approximately Hfl 1.6 billion (at December 31, 1986: approximately Hfl 1.5 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 0.8 billion (1986: likewise Hfl 0.8 billion), and in behalf of nonconsolidated companies and third parties in the amount of Hfl 118 million (1986: Hfl 101 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 1987, remuneration including pension expense amounted to Hfl 4,594,000 (1986: Hfl 4,551,000) for members and former members of the Board of Management, and to Hfl 638,000 (1986: Hfl 607,000) for members and former members of the Supervisory Council. These amounts were charged to Akzo Group income.

Arnhem, March 11, 1988

The Board of Management

A.A. Loudon
J.W. Berghuis
J. Veldman
H.J.J. van der Werf

The Supervisory Council

G. Kraijenhoff
A. Herrhausen
E.G.G. Werner
A. Batenburg
A.G. van den Bos
F.H. Fentener van Vlissingen
H.A. van Stiphout
C. van Veen
O. Wolff von Amerongen
H.G. Zempelin

## AUDITORS' REPORT

We have examined the foregoing 1987 financial statements of Akzo N.V.
In our opinion, these financial statements present fairly the financial position of Akzo N.V. at December 31, 1987, and the results of its operations for the year then ended.

Arnhem, March 11, 1988

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* | | *1987* |
|---|---|---|
| Net income | | 942,000,000 |
| 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 cumulative preferred stock | 3,060 | |
| dividend on common stock | 265,373,737 | |
| | | 265,379,677 |
| To be retained: | | 676,620,323 |
| for addition to statutory reserves | | 235,000,000 |
| for addition to other reserves | | 441,620,323 |

Following the acceptance of this proposal, the holders of common stock will receive a final dividend of Hfl 5.10 per share of Hfl 20, while Hfl 1.50 was paid earlier as an interim dividend.
The final dividend will be made available on dividend coupon No. 30 from May 16, 1988.

## 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.

## 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.

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

| *Millions of guilders* | ***1987*** | *1986* | *1985* | *1984* | *1983* | *1982* | *1981* | *1980* | *1979* | *1978* |
|---|---|---|---|---|---|---|---|---|---|---|
| Property, plant and equipment | **4,795** | 4,330 | 3,843 | 4,208 | 3,840 | 3,911 | 3,673 | 3,441 | 3,273 | 3,360 |
| Financial fixed assets | **792** | 660 | 622 | 610 | 611 | 499 | 532 | 525 | 493 | 537 |
| Fixed assets | **5,587** | 4,990 | 4,465 | 4,818 | 4,451 | 4,410 | 4,205 | 3,966 | 3,766 | 3,897 |
| Inventories | **2,568** | 2,586 | 2,691 | 2,653 | 2,457 | 2,542 | 2,506 | 2,454 | 2,233 | 1,902 |
| Receivables | **2,733** | 2,768 | 3,114 | 2,893 | 2,701 | 2,339 | 2,587 | 2,308 | 2,225 | 1,993 |
| Cash and short-term investments | **926** | 1,084 | 1,485 | 1,067 | 1,206 | 778 | 898 | 883 | 805 | 598 |
| Current assets | **6,227** | 6,438 | 7,290 | 6,613 | 6,364 | 5,659 | 5,991 | 5,645 | 5,263 | 4,493 |
| Total assets | **11,814** | 11,428 | 11,755 | 11,431 | 10,815 | 10,069 | 10,196 | 9,611 | 9,029 | 8,390 |
| Subscribed capital | **804** | 803 | 796 | 789 | 664 | 593 | 593 | 593 | 593 | 593 |
| Additional paid-in capital | **1,254** | 1,247 | 1,120 | 1,087 | 740 | 658 | 658 | 658 | 658 | 658 |
| Statutory reserves | **–** | 438* | 372* | 300* | – | – | – | – | – | – |
| Other reserves | **1,754** | 1,823* | 1,854* | 1,838* | 1,563 | 1,237 | 1,198 | 1,015 | 1,074 | 980 |
| Stockholders' equity | **3,812** | 4,311 | 4,142 | 4,014 | 2,967 | 2,488 | 2,449 | 2,266 | 2,325 | 2,231 |
| Minority interest | **217** | 354 | 353 | 170 | 120 | 122 | 407 | 393 | 408 | 397 |
| Group equity | **4,029** | 4,665 | 4,495 | 4,184 | 3,087 | 2,610 | 2,856 | 2,659 | 2,733 | 2,628 |
| Provisions | **2,266** | 2,005 | 2,003 | 1,729 | 1,535 | 1,427 | 1,335 | 1,329 | 1,147 | 1,054 |
| Subordinated loans | **145** | 167 | 184 | 203 | 221 | 175 | 75 | 25 | – | – |
| Other long-term borrowings | **1,194** | 1,438 | 1,678 | 2,169 | 3,132 | 3,227 | 3,114 | 3,072 | 2,842 | 2,645 |
| Long-term debt | **1,339** | 1,605 | 1,862 | 2,372 | 3,353 | 3,402 | 3,189 | 3,097 | 2,842 | 2,645 |
| Short-term borrowings | **1,525** | 405 | 439 | 430 | 349 | 571 | 613 | 574 | 453 | 386 |
| Other current liabilities | **2,655** | 2,748 | 2,956 | 2,716 | 2,491 | 2,059 | 2,203 | 1,952 | 1,854 | 1,677 |
| Current liabilities | **4,180** | 3,153 | 3,395 | 3,146 | 2,840 | 2,630 | 2,816 | 2,526 | 2,307 | 2,063 |
| Total Group equity and liablities | **11,814** | 11,428 | 11,755 | 11,431 | 10,815 | 10,069 | 10,196 | 9,611 | 9,029 | 8,390 |
| *Invested capital*** | | | | | | | | | | |
| Of consolidated companies | **7,603** | 7,061 | 6,832 | 7,203 | 6,666 | 6,881 | 6,744 | 6,418 | 6,074 | 5,777 |
| In nonconsolidated companies | **630** | 535 | 482 | 445 | 452 | 351 | 351 | 357 | 297 | 338 |
| Total | **8,233** | 7,596 | 7,314 | 7,648 | 7,118 | 7,232 | 7,095 | 6,775 | 6,371 | 6,115 |
| *Property, plant and equipment* | | | | | | | | | | |
| Capital expenditures | **1,095** | 1,106 | 1,008 | 784 | 625 | 730 | 693 | 645 | 461 | 434 |
| Depreciation | **668** | 577 | 608 | 576 | 584 | 533 | 527 | 504 | 506 | 486 |
| *Ratios* | | | | | | | | | | |
| Net sales : invested capital | **2.12** | 2.25 | 2.57 | 2.38 | 2.23 | 2.08 | 2.20 | 1.99 | 2.03 | 1.81 |
| Group equity : debt | **0.52** | 0.69 | 0.62 | 0.58 | 0.40 | 0.35 | 0.39 | 0.38 | 0.43 | 0.46 |
| Group equity : fixed assets | **0.72** | 0.93 | 1.01 | 0.87 | 0.69 | 0.59 | 0.68 | 0.67 | 0.73 | 0.67 |
| Inventories and receivables : other current liabilities | **2.00** | 1.95 | 1.96 | 2.04 | 2.07 | 2.37 | 2.31 | 2.44 | 2.40 | 2.32 |

* Restated for comparison.

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

## CONSOLIDATED STATEMENT OF INCOME

| *Millions of guilders* | ***1987*** | *1986* | *1985* | *1984* | *1983* | *1982* | *1981* | *1980* | *1979* | *1978* |
|---|---|---|---|---|---|---|---|---|---|---|
| Net sales | **15,535** | 15,615 | 18,010 | 16,520 | 15,085 | 14,154 | 14,476 | 12,453 | 12,015 | 10,666 |
| Operating income | **1,181** | 1,465 | 1,465 | 1,340 | 843 | 493 | 564 | 416 | 689 | 421 |
| Financing charges | **(147)** | (106) | (185) | (285) | (341) | (297) | (329) | (261) | (259) | (248) |
| Taxes on operating income less financing charges | **(367)** | (478) | (465) | (369) | (73) | (28) | (79) | (48) | (136) | (113) |
| Equity in earnings of nonconsolidated companies | **53** | 17 | 98 | 123 | 110 | 59 | 83 | 72 | 32 | 28 |
| Group income from normal operations, after taxes | **720** | 898 | 913 | 809 | 539 | 227 | 239 | 179 | 326 | 88 |
| Extraordinary items after taxes | **273** | 23 | 3 | (35) | (102) | (49) | 7 | (246) | (60) | (25) |
| Group income | **993** | 921 | 916 | 774 | 437 | 178 | 246 | (67) | 266 | 63 |
| Minority interest | **(51)** | (79) | (73) | (22) | (9) | (13) | (7) | (3) | (36) | (39) |
| Net income | **942** | 842 | 843 | 752 | 428 | 165 | 239 | (70) | 230 | 24 |
| Common stock, in thousands of shares of Hfl 20 | **40,208** | 40,138 | 39,755 | 39,427 | 33,151 | 29,594 | 29,594 | 29,594 | 29,594 | 29,594 |
| Dividend | **265** | 265 | 262 | 236 | 133 | 47* | 59 | – | 71 | – |
| *Per common share of Hfl 20, in guilders* | | | | | | | | | | |
| Net income | **23.43** | 20.96 | 21.21 | 19.06 | 12.91 | 5.56 | 8.07 | (2.35) | 7.74 | 0.82 |
| Dividend | **6.60** | 6.60 | 6.60 | 6.00 | 4.00 | 1.60 | 2.00 | – | 2.40 | – |
| Stockholders' equity | **94.80** | 107.40 | 104.16 | 101.80 | 89.48 | 84.06 | 82.72 | 76.56 | 78.55 | 75.35 |
| Adjusted for common stock issues | | | | | | | | | | |
| Net income | **23.43** | 20.96 | 21.21 | 19.06 | 12.85 | 5.29 | 7.67 | (2.23) | 7.36 | 0.78 |
| Dividend | **6.60** | 6.60 | 6.60 | 6.00 | 3.98 | 1.52 | 1.90 | – | 2.28 | – |
| Stockholders' equity | **94.80** | 107.40 | 104.16 | 101.80 | 89.03 | 79.94 | 78.67 | 72.81 | 74.70 | 71.66 |
| Number of employees at December 31 | **67,400** | 68,400 | 65,000 | 66,100 | 66,300 | 73,700 | 77,800 | 83,100 | 83,000 | 83,200 |
| Salaries, wages, and social charges | **4,627** | 4,439 | 4,641 | 4,292 | 4,303 | 4,229 | 4,182 | 3,789 | 3,572 | 3,395 |
| Salaries, wages, and social charges, as percentage of net sales | **29.8** | 28.4 | 25.8 | 26.0 | 28.5 | 29.9 | 28.9 | 30.4 | 29.7 | 31.8 |
| *Ratios* | | | | | | | | | | |
| Operating income, as percentage of net sales | **7.6** | 9.4 | 8.1 | 8.1 | 5.6 | 3.5 | 3.9 | 3.3 | 5.7 | 3.9 |
| Operating income, as percentage of invested capital | **16.1** | 21.1 | 20.9 | 19.3 | 12.4 | 7.2 | 8.6 | 6.7 | 11.6 | 7.1 |
| Net income, as percentage of stockholders' equity | **23.2** | 19.9 | 20.7 | 21.5 | 15.7 | 6.7 | 10.1 | (3.0) | 10.1 | 1.1 |

## FIGURES ON A CURRENT-VALUE BASIS

| | ***1987*** | *1986* | *1985* | *1984* | *1983* | *1982* | *1981* | *1980* | *1979* | *1978* |
|---|---|---|---|---|---|---|---|---|---|---|
| *Per common share of Hfl 20, in guilders* | | | | | | | | | | |
| Net income | **21.56** | 21.08 | 18.49 | 16.36 | 9.26 | 2.20 | 2.74 | (5.98) | 3.01 | (1.89) |
| Stockholders' equity | **115.00** | 126.00 | 123.41 | 123.50 | 113.40 | 110.74 | 110.51 | 100.84 | 96.99 | 96.11 |

* Of which Hfl 30 million in cash.

## PRODUCT GROUP STATISTICS

| *Millions of guilders* | ***1987*** | *1986* | *1985* | *1984* | *1983* | *1982* | *1981* | *1980* | *1979* | *1978* |
|---|---|---|---|---|---|---|---|---|---|---|
| *Net sales* | | | | | | | | | | |
| Chemical products: | | | | | | | | | | |
| Salt and basic chemicals | **2,034** | 2,029 | 2,482 | 2,302 | 2,001 | 1,872 | 1,924 | 1,729 | 1,797 | 1,388 |
| Specialty chemicals | **2,617** | 2,303 | 2,673 | 2,498 | 2,096 | 1,945 | 2,087 | 1,820 | 1,684 | 1,528 |
| | **4,651** | 4,332 | 5,155 | 4,800 | 4,097 | 3,817 | 4,011 | 3,549 | 3,481 | 2,916 |
| Man-made fibers: | | | | | | | | | | |
| Textile uses | **1,821** | 1,995 | 3,577 | 3,528 | 3,223 | 3,105 | 3,427 | 2,663 | 2,817 | 2,633 |
| Industrial uses | **1,340** | 1,448 | 1,649 | 1,507 | 1,303 | 1,254 | 1,251 | 1,119 | 1,035 | 934 |
| | **3,161** | 3,443 | 5,226 | 5,035 | 4,526 | 4,359 | 4,678 | 3,782 | 3,852 | 3,567 |
| Coatings | **2,415** | 2,314 | 2,171 | 1,973 | 1,796 | 1,572 | 1,513 | 1,432 | 1,221 | 1,049 |
| Pharmaceuticals | **2,218** | 2,239 | 2,138 | 1,849 | 1,647 | 1,563 | 1,484 | 1,320 | 1,274 | 1,211 |
| Consumer products | **1,366** | 1,453 | 1,677 | 1,302 | 1,080 | 1,055 | 1,013 | 869 | 725 | 696 |
| Miscellaneous products | **1,974** | 2,079 | 1,903 | 1,826 | 2,142 | 1,976 | 1,959 | 1,670 | 1,595 | 1,349 |
| | **7,973** | 8,085 | 7,889 | 6,950 | 6,665 | 6,166 | 5,969 | 5,291 | 4,815 | 4,305 |
| Total | **15,785** | 15,860 | 18,270 | 16,785 | 15,288 | 14,342 | 14,658 | 12,622 | 12,148 | 10,788 |
| Intra-Group deliveries | **(250)** | (245) | (260) | (265) | (203) | (188) | (182) | (169) | (133) | (122) |
| Net sales | **15,535** | 15,615 | 18,010 | 16,520 | 15,085 | 14,154 | 14,476 | 12,453 | 12,015 | 10,666 |
| *Operating income* | | | | | | | | | | |
| Chemical products | **470** | 421 | 474 | 403 | 193 | 89 | 125 | 183 | 253 | 122 |
| Man-made fibers | **49** | 275 | 291 | 302 | 151 | (19) | 33 | (170) | 74 | 10 |
| Coatings | **164** | 132 | 130 | 144 | 143 | 97 | 110 | 110 | 98 | 64 |
| Pharmaceuticals | **330** | 350 | 355 | 306 | 260 | 233 | 190 | 145 | 134 | 140 |
| Consumer products | **87** | 91 | 87 | 69 | 59 | 47 | 50 | 40 | 31 | 31 |
| Miscellaneous products | **122** | 205 | 191 | 168 | 65 | 51 | 88 | 116 | 132 | 107 |
| Total | **1,222** | 1,474 | 1,528 | 1,392 | 871 | 498 | 596 | 424 | 722 | 474 |
| Not allocated | **(41)** | (9) | (63) | (52) | (28) | (5) | (32) | (8) | (33) | (53) |
| Operating income | **1,181** | 1,465 | 1,465 | 1,340 | 843 | 493 | 564 | 416 | 689 | 421 |
| *Invested capital* | | | | | | | | | | |
| Chemical products | **2,765** | 2,386 | 2,393 | 2,362 | 2,025 | 1,895 | 1,851 | 1,749 | | |
| Man-made fibers | **1,704** | 1,618 | 1,662 | 2,446 | 2,364 | 2,477 | 2,328 | 2,123 | | |
| Coatings | **1,089** | 1,070 | 894 | 738 | 653 | 598 | 569 | 585 | | |
| Pharmaceuticals | **1,152** | 1,069 | 987 | 809 | 772 | 701 | 714 | 733 | | |
| Consumer products | | 310 | 359 | 366 | 315 | 295 | 289 | 261 | | |
| Miscellaneous products | **913** | 751 | 675 | 605 | 604 | 1,007 | 1,058 | 973 | | |
| Total | **7,623** | 7,204 | 6,970 | 7,326 | 6,733 | 6,973 | 6,809 | 6,424 | | |
| Not allocated | **(20)** | (143) | (138) | (123) | (67) | (92) | (65) | (6) | | |
| Invested capital | **7,603** | 7,061 | 6,832 | 7,203 | 6,666 | 6,881 | 6,744 | 6,418 | 6,074 | 5,777 |

## REGIONAL STATISTICS

| *Millions of guilders* | **1987** | *1986* | *1985* | *1984* | *1983* | *1982* | *1981* | *1980* | *1979* | *1978* |
|---|---|---|---|---|---|---|---|---|---|---|
| *The Netherlands* | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| destination | **1,948** | 1,902 | 1,988 | 1,836 | 1,675 | 1,561 | 1,460 | 1,454 | 1,419 | 1,289 |
| origin | **5,763** | 5,721 | 6,234 | 5,772 | 5,106 | 4,528 | 4,699 | 4,255 | 4,212 | 3,623 |
| Operating income | **496** | 546 | 568 | 453 | 229 | 75 | 133 | 117 | | |
| Expenditures for property, plant and equipment | **451** | 442 | 424 | 286 | 283 | 338 | 303 | 246 | 170 | 180 |
| Invested capital | **2,783** | 2,657 | 2,560 | 2,414 | 2,293 | 2,288 | 2,143 | 2,095 | 2,069 | 1,983 |
| Number of employees | **22,500** | 23,900 | 23,100 | 22,400 | 22,000 | 22,600 | 23,000 | 23,600 | 23,700 | 24,300 |
| *Federal Republic of Germany* | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| destination | **2,613** | 2,602 | 2,605 | 2,493 | 2,340 | 2,168 | 2,266 | 2,198 | 2,243 | 1,966 |
| origin | **3,959** | 4,251 | 4,419 | 4,130 | 3,580 | 3,395 | 3,385 | 3,106 | 3,087 | 2,825 |
| Operating income | **240** | 433 | 384 | 370 | 178 | 128 | 105 | 66 | | |
| Expenditures for property, plant and equipment | **232** | 273 | 191 | 157 | 110 | 136 | 138 | 130 | 100 | 96 |
| Invested capital | **1,714** | 1,651 | 1,679 | 1,562 | 1,694 | 1,688 | 1,660 | 1,578 | 1,613 | 1,576 |
| Number of employees | **19,600** | 19,400 | 19,000 | 18,400 | 18,700 | 19,400 | 20,200 | 21,000 | 21,200 | 21,300 |
| *Rest of Europe* | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| destination | **6,404** | 6,617 | 6,739 | 5,902 | 5,131 | 5,137 | 5,276 | 4,716 | 4,523 | 3,732 |
| origin | **3,094** | 3,056 | 3,063 | 2,470 | 2,226 | 2,392 | 2,458 | 2,216 | 1,998 | 1,734 |
| Operating income | **266** | 303 | 299 | 215 | 174 | 164 | 109 | 83 | | |
| Expenditures for property, plant and equipment | **163** | 157 | 124 | 100 | 77 | 68 | 95 | 99 | 60 | 47 |
| Invested capital | **1,291** | 1,361 | 1,246 | 1,052 | 892 | 909 | 933 | 941 | 912 | 795 |
| Number of employees | **11,600** | 13,200 | 12,500 | 11,100 | 11,000 | 12,700 | 14,000 | 16,000 | 15,900 | 16,200 |
| *North America* | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| destination | **2,333** | 2,224 | 3,923 | 3,781 | 3,744 | 3,241 | 3,375 | 2,362 | 2,413 | 2,315 |
| origin | **2,014** | 1,918 | 3,510 | 3,353 | 3,462 | 3,048 | 3,210 | 2,253 | 2,224 | 2,027 |
| Operating income (loss) | **86** | 84 | 95 | 166 | 123 | (24) | 99 | 45 | 113 | 99 |
| Expenditures for property, plant and equipment | **209** | 207 | 231 | 217 | 136 | 148 | 139 | 150 | 117 | 93 |
| Invested capital | **1,367** | 1,102 | 1,047 | 1,853 | 1,510 | 1,695 | 1,721 | 1,542 | 1,291 | 1,188 |
| Number of employees | **7,500** | 6,200 | 5,400 | 8,800 | 9,100 | 13,400 | 14,900 | 16,000 | 16,200 | 15,600 |
| *Other regions* | | | | | | | | | | |
| Net sales by: | | | | | | | | | | |
| destination | **2,237** | 2,270 | 2,755 | 2,508 | 2,195 | 2,047 | 2,099 | 1,723 | 1,417 | 1,364 |
| origin | **705** | 669 | 784 | 795 | 711 | 791 | 724 | 623 | 494 | 457 |
| Operating income | **93** | 99 | 119 | 136 | 139 | 150 | 118 | 105 | 79 | 86 |
| Expenditures for property, plant and equipment | **40** | 27 | 38 | 24 | 19 | 40 | 18 | 20 | 14 | 18 |
| Invested capital | **448** | 290 | 300 | 322 | 277 | 301 | 287 | 262 | 189 | 235 |
| Number of employees | **6,200** | 5,700 | 5,000 | 5,400 | 5,500 | 5,600 | 5,700 | 6,500 | 6,000 | 5,800 |

# Principal Companies of the Akzo Group

(other than holding companies and national organizations)

December 31, 1987

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) |
| Enka AG, Wuppertal | D | |
| Barmag AG, Remscheid-Lennep with establishments in Switzerland*, U.S.A., Brazil*, and Hong Kong | D | |
| Tiefenbach GmbH, Essen | D | |
| Kuaggarn Textil GmbH, Wuppertal | D | |
| La Seda de Barcelona S.A., Barcelona | Spain | (58) |
| Wilson-Fiberfil International Inc., Neshanic Station, New Jersey with establishments in Canada, France, Belgium, and Sweden | U.S.A. | |
| Enka America Inc., Asheville, North Carolina | U.S.A. | |
| Fortafil Fibers Inc., Rockwood, Tennessee | U.S.A. | |
| Fibras Químicas S.A., Monterrey | Mexico | (40) |
| Polyenka S.A., São Paulo | Brazil | (51) |
| COBAFI Companhia Bahiana de Fibras S.A., Camaçari | Brazil | (36) |
| 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) |

**Salt and basic chemical division**

(Hengelo (O), the Netherlands)

| | | |
|---|---|---|
| Akzo Zout Chemie Nederland 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) |
| Konezo, Brussels | Belgium | |
| Dansk Salt I/S, Mariager | Denmark | (50) |
| Akzo Zout Chemie Svenska A.B., Göteborg | Sweden | |
| Denak Co. Ltd, Tokyo | Japan | (50) |
| International Salt Co., Clarks Summit, Pennsylvania with establishments in Canada and the Netherlands Antilles | U.S.A. | |

**Chemical division**

(Amersfoort, the Netherlands)

| | | |
|---|---|---|
| Akzo Chemie Nederland B.V., Amersfoort | Netherlands | |
| Cyanamid-Ketjen Katalysator B.V., Amsterdam | Netherlands | (50) |
| Glucona v.o.f., Ter Apelkanaal | Netherlands | (50) |
| Silenka B.V., Hoogezand | Netherlands | (33) |
| Akzo Chemie GmbH, Düren | D | |
| Carbosulf Chemische Werke GmbH, Cologne | D | (67) |
| Rhodanid Chemie GmbH, Cologne | D | (67) |
| Kali-Chemie-Stauffer GmbH, Hanover | D | (50) |
| Akzo Chemie Belge S.A., Mons | Belgium | |
| Akzo Chemie Danmark A/S, Hørsholm | Denmark | |
| Akzo Chemie France S.à.r.l., Venette | France | |
| Akzo Chemie Norge A.S., Oslo | Norway | |
| Akzo Chemie Italia S.p.A., Arese | Italy | |
| Bertelli S.p.A., Porcari | Italy | |
| Akzo Chemie Española S.A., Barcelona | Spain | |
| Akzo Chemie U.K. Ltd, Gillingham | U.K. | |
| Vulnax International Ltd, Gillingham with establishments in France and the Federal Republic of Germany | U.K. | |
| Akzo Chemie America, Chicago, Illinois with establishments in Canada | U.S.A. | |
| Stauffer Specialty Chemicals and Food Products Inc., Westport, Connecticut with establishments in the Netherlands, Belgium*, France, Canada*, and Australia* | U.S.A. | |
| Peroxidos Argentinos S.A.I.C.F. y A., Buenos Aires | Argentina | (82) |
| Akzo Chemie Brasil, São Paulo | Brazil | |
| FCC-Fábrica Carioca de Catalisadores S.A., Rio de Janeiro | Brazil | (40) |
| Akzo Chemie Singapore Pte. Ltd, Singapore | Singapore | |
| Nippon Ketjen Co. Ltd, Tokyo | Japan | (50) |
| Kayaku Noury Corp., Tokyo | Japan | (50) |
| Lion Akzo Co. Ltd, Tokyo | Japan | (50) |
| Stauffer Japan Ltd, Tokyo | Japan | |
| Toyo-Stauffer Chemical Co., Ltd, Tokyo | Japan | (50) |
| Kashima Industries Co., Tokyo | Japan | (70) |
| Malaysian Oleo Chemicals Sdn. Bhd., Selangor | Malaysia | (50) |

* Participation less than 95%.

**Coatings division**

(Hoofddorp, the Netherlands)

| | | |
|---|---|---|
| Sikkens B.V., Sassenheim | Netherlands | |
| Koninklijke Brink/Molyn B.V., Groot-Ammers | Netherlands | |
| Koninklijke Talens B.V., Apeldoorn | Netherlands | |
| Synthese B.V., Bergen op Zoom | Netherlands | |
| Akzo Coatings GmbH, Stuttgart | D | |
| Akzo Coatings Ges.mbH, Salzburg | Austria | |
| Akzo Coatings, Ternat | Belgium | |
| S.A. Levis N.V., Vilvoorde | Belgium | |
| Akzo Coatings S.A., Paris with establishments in Morocco*, Senegal*, Ivory Coast*, and Cameroon* | France | |
| Dacral S.A., Paris | France | (50) |
| Akzo Coatings PLC, London | U.K. | |
| Permoglaze Paints Ltd, London | U.K. | |
| Sikkens Ltd, London | U.K. | |
| Akzo Coatings S.p.A., Milan | Italy | |
| Akzo Coatings S.A., Barcelona | Spain | |
| Industrias Químicas Procolor S.A., San Adrián de Besós | Spain | (50) |
| Akzo Coatings America Inc., Troy, Michigan with establishment in Canada | U.S.A. | |
| Morilla Inc., Holyoke, Massachusetts | U.S.A. | (30) |
| Miluz S.A.I.C.I. y F., Buenos Aires | Argentina | |
| Akzo Coatings, São Paulo | Brazil | |
| Tintas Ypiranga Ltda, Rio de Janeiro | Brazil | |
| PT Akzo Coatings Indonesia, Jakarta | Indonesia | (37) |
| Synthese (Malaysia) Sdn. Bhd., Kuala Lumpur | Malaysia | (43) |
| Akzo Coatings Thailand Ltd, Bangkok | Thailand | |

**Pharma division**

(Oss, the Netherlands)

| | |
|---|---|
| Organon International B.V., Oss | Netherlands |
| 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 |

Sales offices or production plants of one or more of the above companies are established in:

- the Netherlands, Federal Republic of Germany, Belgium, France, Italy, United Kingdom, Republic of Ireland, Denmark, Norway, Sweden, Finland, Switzerland, Spain, Portugal, Greece, Turkey
- United States, Canada
- Mexico, Argentina, Brazil, Chile, Colombia, Ecuador, Venezuela
- Cyprus, Bangladesh*, India*, Malaysia, Pakistan*, Thailand, Republic of Korea*, Indonesia*, Hong Kong, Japan*, Taiwan*
- Australia
- Morocco, Nigeria*

**Other companies**

| | | |
|---|---|---|
| Akzo Engineering B.V., Arnhem | Netherlands | |
| Akzo Systems B.V., Velp | Netherlands | |
| Akzo Electronic Materials Co., New York | U.S.A. | (65) |



* Participation less than 95%.

*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
Bank für Handel und Industrie
Berliner Handels- und Frankfurter Bank
Dresdner Bank
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

**Luxembourg**

Banque Générale du Luxembourg, Luxembourg

**United Kingdom**

Barclays Bank
Midland Bank
at their offices in London

**France**

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

**Austria**

Creditanstalt-Bankverein, Vienna

**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

*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) |
| Switzerland: | Zurich, Basel, and Geneva |
| France: | Paris |
| Belgium: | Brussels and Antwerp |
| United Kingdom: | London |
| Austria: | Vienna |

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