Annual report 1990

AKZO

Contents

***Akzo**, headquartered in the Netherlands, is a worldwide group of companies with establishments in more than 50 countries.*
The Group's business is conducted by five divisions, which develop, manufacture, and sell salt and chemicals, fibers and polymers, coatings, and healthcare products.
Each division is composed of business units possessing sufficient autonomy to permit a prompt response to changes in market conditions.
It continues to be Akzo's objective to build a strong, well-balanced product mix.
In addition to efforts to strengthen its existing core businesses, Akzo focuses on the development of new activities in major growth sectors that draw on the Company's technological and marketing know-how.
Geographically, Akzo's operations are largely concentrated in the Netherlands, Germany, and the United States.
Akzo continues to assign a high priority to strengthening its position in the European Community, North America, East Asia, and Southeast Asia.
In the Netherlands, the United States, Belgium, Brazil, and Japan, Akzo has national organizations that have a coordinating function and render services to the divisions.

	1990	*1989*
Millions of guilders		
Net sales	17,246	18,736
Operating income	1,261	1,713
Net income	663	954
Cash flow	1,519	1,832
Stockholders' equity	4,642	4,499
Property, plant and equipment		
- Expenditures	1,129	1,297
- Depreciation	867	852
Acquisitions	71	1,120
Per common share of Hfl 20, in guilders		
Net income	14.93	22.02
Cash flow	33.84	41.08
Dividend	6.50	8.00
Stockholders' equity	104.50	103.84
Key financial statistics		
Operating income, as % of net sales	7.3	9.1
Operating income, as % of average invested capital	13.7	18.9
Net income, as % of average stockholders' equity	14.5	21.7
Group equity/debt	0.55	0.50
Number of employees at year end	69,800	70,900

The year 1990 brought a clear reversal of the favorable business conditions that benefited the chemical industry for several years. The weakening economy, the effects of the crisis in the Middle East, and the strong Dutch guilder have also depressed the results of Akzo. Only our healthcare products turned in a better performance than in 1989.

Early in 1990, we responded timely to these altered circumstances by placing greater emphasis on measures aimed at improvement of our earnings in the short term. These measures include general cost-cutting programs, and greater selectivity in hiring personnel and in making investments that will contribute to earnings sooner. After the comprehensive acquisitions program pursued in the past few years we have now reached a phase of consolidation in which we will be exercising greater restraint in making new acquisitions. In 1990 we placed more emphasis on the divestment of activities that were not part of our core businesses. In 1991 we will continue our policy aimed at consolidation, without excluding the possibility of making strategically important acquisitions.

In the years ahead we will be facing the challenge of accomplishing further decentralization of our operational activities. Such decentralization is a prerequisite for responding quickly to changes in the marketplace. The business units constitute the very backbone of our Company. Other organizational entities within Akzo derive their justification from the added value they provide. Their support of the primary activities will have to be organized with the greatest effectiveness. By assigning a central place to the business units, we hope to create better conditions for the Group's performance in terms of both revenues and costs.

The adoption of the business unit concept does not solely concern the structure of our organization, but also Akzo's entire business culture. One expression of this is the style of management, which may be regarded as a reflection of our culture. Akzo managers are expected first of all to concentrate on the interest of their units, but they should also keep in view the interests of Akzo as a whole. Striking the right balance between these two obligations is no easy task. Our human resources management will have to focus on developing the appropriate managerial attitude.

In the environmental field, major progress was made as we adopted an Environmental Management System which should be operational on all Dutch sites by December 1991. Additionally, we published a report entitled "Chlorine and Society" setting forth our views and plans regarding chlorine chemistry. In that report, we indicate ways of significantly reducing pollution in the entire chain of production, use, and waste processing.

It is impossible to predict how 1991 is going to develop. The uncertainties are great, in particular because of the events in the Middle East. The unfavorable factors that already exerted an influence on our performance in 1990 will probably continue to affect our results in 1991. But I am confident that its growing responsiveness will enable Akzo to more effectively cope with the difficult times ahead. This confidence is based in part on the perception, reaffirmed in the past year, that Akzo's employees are able and ready to meet new challenges and fulfill their tasks with great dedication. For this I wish to thank them.

A.A. Loudon

Agenda

Agenda of the Annual Meeting of Stockholders of Akzo N.V. to be held in Musis Sacrum, Velperplein, Arnhem, the Netherlands, on Wednesday, April 24, 1991, at 2:00 p.m.

1 Opening

2 Report of the Board of Management for the fiscal year 1990

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

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

5 Determination of the number of members of the Board of Management; appointment of C.J.A. van Lede to the Board of Management

6 Proposal to empower the Board of Management to issue shares and to restrict or disregard the preemptive rights of stockholders

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

8 Any other business

Financial calendar 1991

Annual Meeting of Stockholders	April 24
Report for the 1st quarter 1991	April 24
Report for the 2nd quarter 1991	August 2
Report for the 3rd quarter 1991	October 31
Payment of the 1990 final dividend	May 14

Supervisory Council

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

Board of Management

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

Secretary

Th.J.A.W. Schregardus

Management Committee

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

Members of the Board of Management:

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

Division presidents:

F.A.G. Collot d'Escury, Chemicals Division (effective March 1, 1991)
R.M.J. van der Meer, Salt and Basic Chemicals Division (effective March 1, 1991)
U.G. Stark, Fibers and Polymers Division
A.G.J. Vermeeren, Pharma Division
C. Zaal, Coatings Division

Functional members:

S. Bergsma, Financial Affairs
F.I.M. van Haaren, Research and Technology
J. den Hoed, Corporate Control
H.A. van Karnebeek, Human Resources
S. Minnema, Strategic Planning (until March 1, 1991)
J.C.P. van Oosterom, Strategic Planning (effective March 1, 1991)

Geographic members:

R.M. Clarke, Akzo America
A. van Es, Akzo Nederland

Changes in the Supervisory Council At the Annual Meeting of Stockholders held on April 26, 1990, A.G. van den Bos and F.H. Fentener van Vlissingen stepped down, as their terms of office had expired.
Mr. Fentener van Vlissingen was reappointed. Having reached the mandatory retirement age, Mr. van den Bos was not eligible for reappointment. The vacancies caused by the death of A. Herrhausen, the retirement of Mr. van den Bos, and the increase in the Council's membership were filled by the appointment of H. Kopper, A.R. Dragone, and H.H. van den Kroonenberg.
At the Annual Meeting of Stockholders of April 24, 1991, A. Batenburg, G. Kraijenhoff, E.G.G. Werner, and H.G. Zempelin will resign from the Council, as their terms of office are expiring. Messrs. Batenburg, Kraijenhoff, and Zempelin are proposed for reappointment.
As Mr. Werner has reached the mandatory retirement age, he is not eligible for reappointment. We will therefore bid him farewell at this meeting. In 1981, Mr. Werner was appointed a member of the Supervisory Council. We are greatly indebted to him for the important contributions he made to the development of Akzo. Mr. Werner will be remembered for his great business acumen and expertise.
Stockholders will be asked to fix membership of the Council at ten. Adoption of this proposal means that the vacancy caused by Mr. Werner's retirement will not be filled.

Changes in the Board of Management Having reached the mandatory retirement age, J. Veldman will step down from the Board of Management at the Annual Meeting of Stockholders on April 24, 1991.
Mr. Veldman entered the employment of Organon in 1950. In 1974, Mr. Veldman was appointed president of the Pharma Division and joined the Board of Management of Akzo N.V. He has played an important role in expanding and strengthening our activities in the fields of coatings and healthcare products. If these product groups now contribute so largely to earnings, this is due in part to his considerable efforts and capabilities. For this, we are very grateful to him.
J.W. Berghuis has expressed his wish to resign from the Board for personal reasons, effective April 1, 1991. Mr. Berghuis has a long record of service with Akzo. He joined the former AKU in 1961. From 1983 until 1987 he was president of the board of Akzo Nederland and in 1987 he was appointed a member of the Board of Management of Akzo N.V. We appreciate the great dedication he has shown in the performance of his duties.
At the Annual Meeting it will be proposed that membership of the Board of Management be fixed at three.
It will also be proposed that the vacancy caused by these changes be filled by the appointment of C.J.A. van Lede to the Board beginning May 1, 1991.

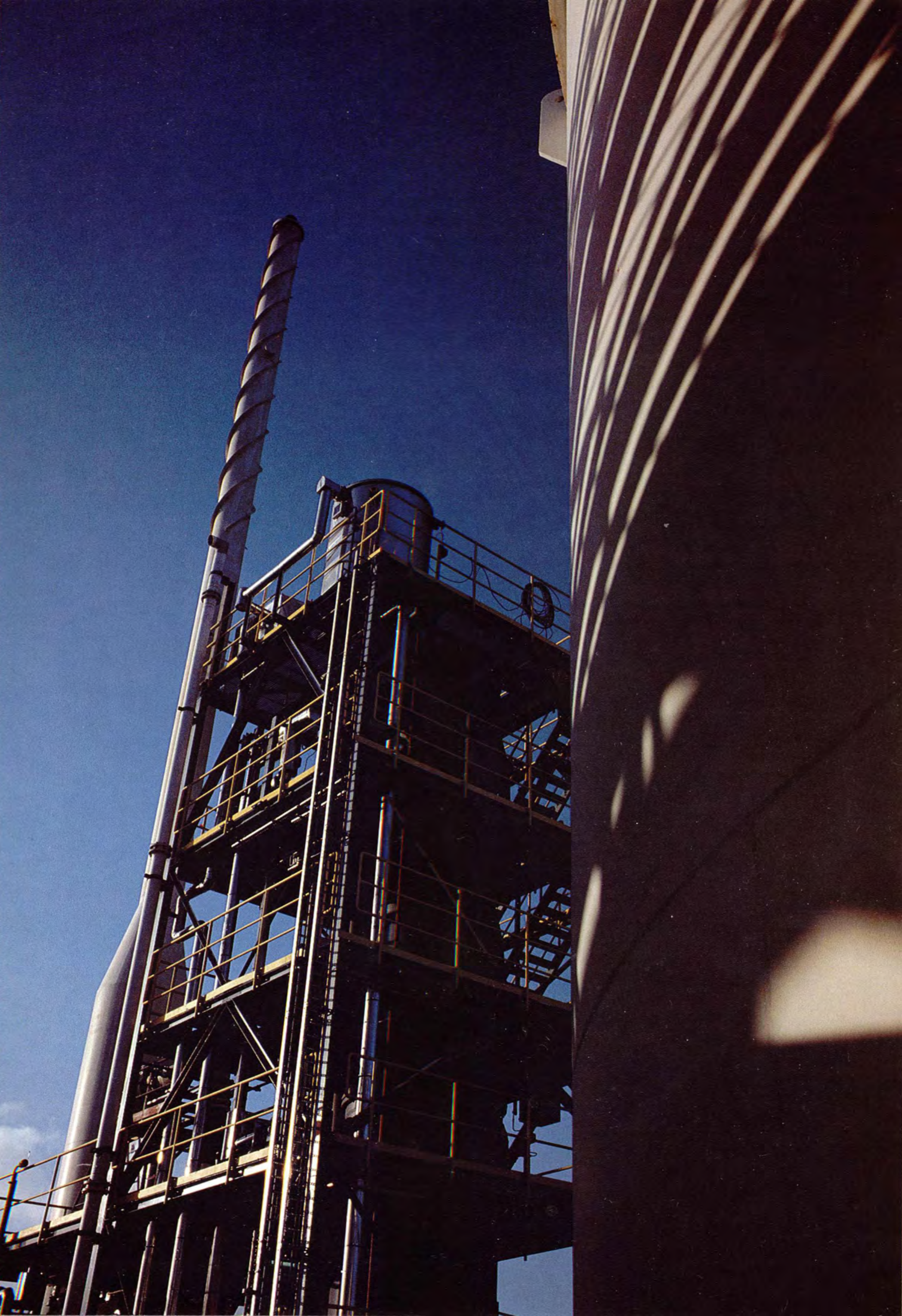
Changes in the Management Committee Having reached the mandatory retirement age, S. Minnema (Strategic Planning) will step down effective March 1, 1991. We thank him for his contribution to the development of the Group and for the way in which he directed Silenka from 1981 till 1989. As of March 1, 1991, Mr. Minnema will be succeeded by J.C.P. van Oosterom, who will relinquish his function as president of the Chemicals Division to F.A.G. Collot d'Escury. Mr. Collot d'Escury will be succeeded as president of the Salt and Basic Chemicals Division by R.M.J. van der Meer, also effective March 1, 1991. Mr. van der Meer will become a member of the Management Committee.

Supervision During 1990 the Council regularly received reports on the Company's business and consulted periodically with the Board of Management about such issues as planning, investments, acquisitions, divestments, and personnel.
In addition, committees from the Supervisory Council and the Board of Management met to discuss certain items, such as the financial statements and internal control.
We thank both the Board of Management and the Company's employees for the results achieved in 1990 in the face of adverse business conditions.

Financial statements and dividend proposal We herewith submit to you for approval at the Annual Meeting of April 24, 1991, the financial statements for 1990 as prepared by the Board of Management. These financial statements have been examined by KPMG Klynveld Accountants. Their report appears on page 58.
We have approved these financial statements as well as the Board of Management's proposal made therein with regard to the allocation of profit, and the dividend proposal as stated in the Report of the Board of Management on page 9.
We recommend that you also approve the financial statements, thus discharging the responsibility of the members of the Board of Management for their conduct of the business and the members of the Supervisory Council for their supervision.

Arnhem, February 26, 1991

The Supervisory Council



General review

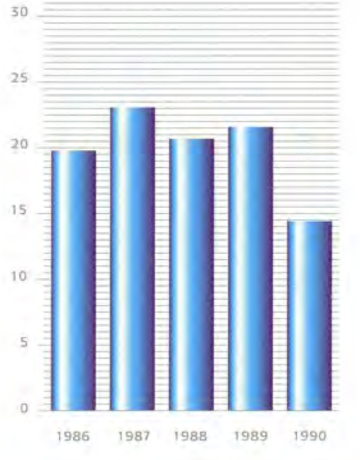
Results of operations Net income for 1990 was Hfl 663 million, against Hfl 954 million for the exceptionally good year 1989.
Without extraordinary items, net income was down 22% from Hfl 940 million in 1989 to Hfl 729 million. This drop in income should be seen in the light of the slide of the U.S. dollar, whose average rate fell 14% to Hfl 1.82.
Moreover, earnings of a number of product groups were adversely influenced by wildly fluctuating and, on balance, higher oil prices in the last few months of the year.
These changes in business conditions have speeded up measures to accomplish further cost savings by modernization and restructuring, as well as by termination of structurally unprofitable operations.
Sales were down 8% to Hfl 17.2 billion. Operating income decreased from Hfl 1,713 million in 1989 to Hfl 1,261 million. The decline was particularly evident in chemical products, and less so in fibers and polymers and in coatings. Sales and income of healthcare products continued to show a favorable development.
Expenditures for property, plant and equipment were reduced 13% from a 1989 figure of Hfl 1.3 billion to Hfl 1.1 billion.
We strengthened our financial position and maintained ample liquidity.

View of the installation, started up in the last quarter of 1990, that is used to burn chlorinated hydrocarbon emissions at Delfzijl, the Netherlands, location.

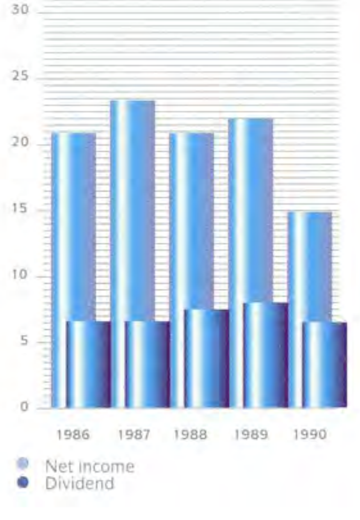
Dividend proposal Computed on the number of shares outstanding at December 31, 1990, net income per common share was Hfl 14.93, against Hfl 22.02 in 1989. Exclusive of extraordinary items, net income per common share was Hfl 16.41, compared with Hfl 21.71 in 1989. Net income per common share on a current-value basis was Hfl 13.96 in 1990 and Hfl 20.10 in 1989.

We will propose at the Annual Meeting of Stockholders that the 1990 dividend be fixed at Hfl 6.50 per common share. Of this amount, Hfl 1.50 was declared and made payable as an interim dividend in November 1990.
If the dividend proposal is adopted, Hfl 289 million (44%) of net income will be allocated for dividend payment (1989: 36%).

Net income, as percentage of average stockholders' equity



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



Outlook It is difficult, if not impossible, to make a meaningful pronouncement on the Group's development in 1991. The events in the Middle East have much increased the uncertainties. The unfavorable developments first apparent in 1990, such as the weakening of the economies in the Anglo-Saxon countries and in Brazil, and the strong guilder will presumably continue to exert their influence in 1991. There is thus no reason to expect earnings to recover in the short term. It may be expected, however, that both the measures adopted and our growing flexibility will help us cope adequately with the harsher economic climate.

As in 1990, expenditures for additions to property, plant and equipment in 1991 have been pegged at a lower level than in the foregoing years.

In 1991 we will attract a limited amount of fresh funds for the financing of existing activities and repayments. In what form we will do so depends on the way interest rates are going.

The effect of any acquisitions and divestitures apart, the number of employees in 1991 is likely to fall, due in part to further streamlining of our organizational structures and the termination of activities, such as steelcord production in Oberbruch, Germany.

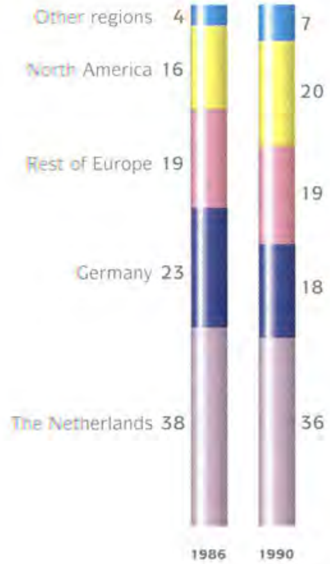
Developments Over the past few years we have basically achieved the objective formulated in the early eighties: a strong, well-balanced product mix. We are now focused on our core activities, which are mainly technology-based. While we strive for a greater stability in earnings, we must accept that a certain cyclicality will persist.
Early in 1990 we modified some elements of our strategy. We continue to focus primarily on maintaining — and where possible improving — a strong, well-balanced product portfolio and geographic mix. But more than in the past, we will also place emphasis on measures aimed at improvement of our results in the shorter term.

No major acquisitions were made in 1990. While maintaining the level of environmental expenditures, we reduced total capital investments. Some activities that did not form part of our core businesses were or will soon be divested. This typically concerns Silenka (33%), Methanol Chemie Nederland (50%), and Royal Talens.

With a view to the conservation of energy, we built several years ago a combined heat and power plant in Delfzijl, the Netherlands, in cooperation with the Groningen/Drenthe utility company. The excess power is fed to the public grid.
In 1990, we concluded a similar cooperation contract with the Gelderland/Flevoland utility company (N.V. PGEM) for the construction of a combined heat and power plant on our site in Ede, the Netherlands. Agreements for the joint construction of combined heat and power units on our site in Hengelo, the Netherlands, and on the Kleefse Waard site in Arnhem are currently being studied.

Product mix, in net sales terms (as %)

Geographic distribution, in invested capital terms (as %)



Many programs were initiated to achieve cost savings, such as the modernization of salt processing in Hengelo, and the concentration of the production and distribution of paints in various European countries. The modernization of the polyester plant in Oberbruch, Germany, was completed. In addition, we are streamlining the general and service departments of the Fibers and Polymers Division, consolidating the R&D activities of the Chemicals Division in the United States, and conducting inquiries into the functioning of staff departments at the divisional and corporate levels.

In those cases where operations do not yield adequate returns, we are exploring all options, including divestitures, to turn this situation around. Where the steps taken are unsuccessful and the activities are or tend to become structurally unprofitable, the consequences of terminating them will be investigated. This policy has, among other things, resulted in the decision to shut down the steelcord plant in Oberbruch, Germany.

Our R&D efforts were maintained at a high level, with more attention being devoted to the health, safety, and environmental aspects of our products and production processes.

An increased focus is being placed on quality improvement by enhancing quality consciousness among employees and by changing working methods. The "total quality" concept is being enriched through integration with similar activities, such as good housekeeping and environmental care. These efforts increasingly help us meet the highest international quality standards.

We also devoted much attention to further implementation of business units and to a critical assessment of the organization of the supporting functions.

We trust that the shift in emphasis in the Company's strategy and the measures taken on the basis thereof will structurally improve our earnings level and strengthen our competitive position. This latter point is particularly important with regard to the creation of a single European market, which is bound to intensify competition but will also offer new challenges.

Sales, costs, and income

Condensed statement of income

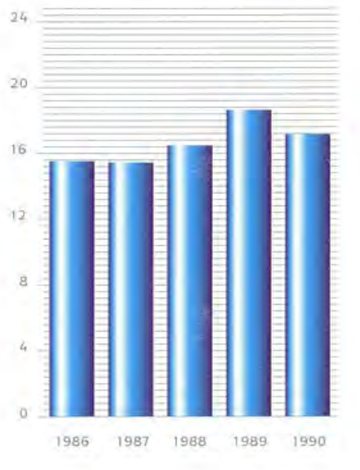
Millions of guilders	*1990*	*1989*
Net sales	17,246	18,736
Operating costs	(15,985)	(17,023)
Operating income	1,261	1,713
Financing charges	(368)	(324)
Operating income less financing charges	893	1,389
Taxes	(280)	(507)
Earnings of consolidated companies from normal operations, after taxes	613	882
Earnings from nonconsolidated companies	103	86
Extraordinary items	(64)	12
Group income	652	980
Minority interest	11	(26)
Net income	663	954

Current-value information

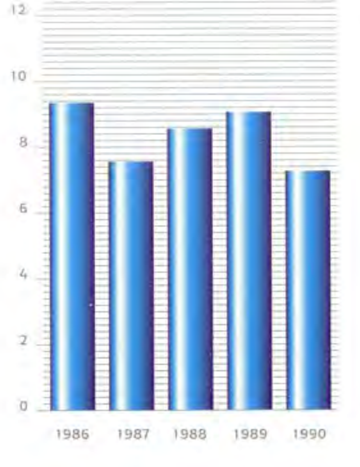
Operating income	1,179	1,556
Net income	620	871

Sales Net sales were Hfl 17.2 billion, down 8% from 1989 sales of Hfl 18.7 billion. This decline is attributable to 2% lower shipments, while selling prices were on average 1% higher. The net effect of divestitures and acquisitions was a decrease of 3%; changes in exchange rates caused a decrease of 4%.

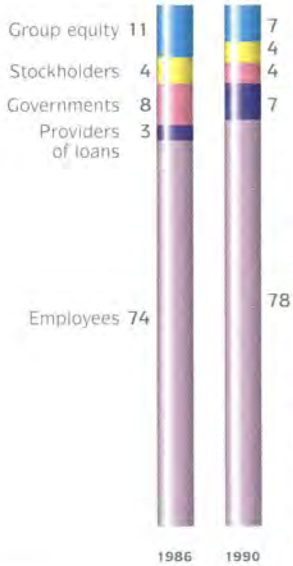
Net sales, in billions of guilders



Operating income, as percentage of net sales

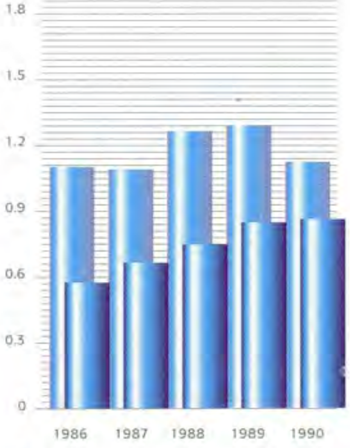


Shares in value added, exclusive of extraordinary items (as %)



Value added (millions of guilders) 6,018 6,504

Property, plant and equipment, in billions of guilders



Operating costs Operating costs were 6% lower than in 1989. The price decrease for several raw materials that began in the second half of 1989 continued until mid-1990. Energy prices remained fairly stable until August 1990. As a result of the crisis in the Middle East, the prices of energy and various raw materials surged.
In sales terms, the costs of raw materials were 33%, unchanged from 1989. Despite higher energy prices, our energy costs expressed as a percentage of sales decreased from 4.0% to 3.9% because of shifts in product mix.
Labor costs were 29.4% of sales, compared with 28.3% in 1989. The high level of capital investments made in recent years is reflected in a further increase in depreciation from Hfl 852 million in 1989 to Hfl 867 million in 1990.

Operating income Operating income was down 26% from Hfl 1,713 million in 1989 to Hfl 1,261 million. Expressed as a percentage of sales, operating income decreased from 9.1% in 1989 to 7.3%.

Financing charges Financing charges increased from Hfl 324 million in 1989 to Hfl 368 million, principally as a result of very high real interest rates in Brazil.

Taxes The average tax burden was 31.4%, against 36.5% in 1989. This decrease is due in part to lower taxes in Germany.

Earnings from nonconsolidated companies Earnings from nonconsolidated companies rose from Hfl 86 million in 1989 to Hfl 103 million in 1990. This earnings gain is principally due to a reduction in withholding taxes and to the improvement in performance of Aramide Maatschappij v.o.f.

Extraordinary items Extraordinary items — on balance an extraordinary loss of Hfl 64 million — mainly related to book profits on divestitures and extraordinary charges due to restructuring.

Net income Net income in 1990 was Hfl 663 million, down 31% from 1989. Net income as a percentage of stockholders' equity was 14.5% (1989: 21.7%).

Net income on the basis of current value Net income on the basis of current value was Hfl 620 million, compared with Hfl 871 million in 1989.

Value added Value added, defined as the aggregate amount of labor costs, interest charges, taxes, and Group income from normal operations, was Hfl 6,504 million, against Hfl 7,198 million in 1989. The share of labor costs in value added was 77.9% (1989: 73.7%).

Capital investments Expenditures for property, plant and equipment totaled Hfl 1.1 billion (1989: Hfl 1.3 billion).
The total amount of project authorizations was Hfl 1.2 billion, compared with Hfl 1.3 billion in 1989.
Capital investments by nonconsolidated companies, with total sales of Hfl 3.3 billion on a 100% basis, amounted to Hfl 0.6 billion (1989: Hfl 0.3 billion).

Financing

Condensed statement of sources and applications of funds

Millions of guilders		*1990*		*1989*
Sources of funds				
Cash flow*		1,519		1,832
Other items		221		343
		1,740		2,175
Applications of funds				
Investments and acquisitions	1,426		2,538	
Disposal of interests	(90)		(198)	
		1,336		2,340
Change in working capital		(322)		401
Dividends paid		248		106
Other applications		8		9
		1,270		2,856
Balance		470		(681)
Financing				
Issuance of stock, drawdowns, etc.	360		1,034	
Repayment of borrowings, etc.	(899)		(419)	
		(539)		615
Change in cash and short-term investments		(69)		(66)
Cash and short-term investments at December 31		816		885

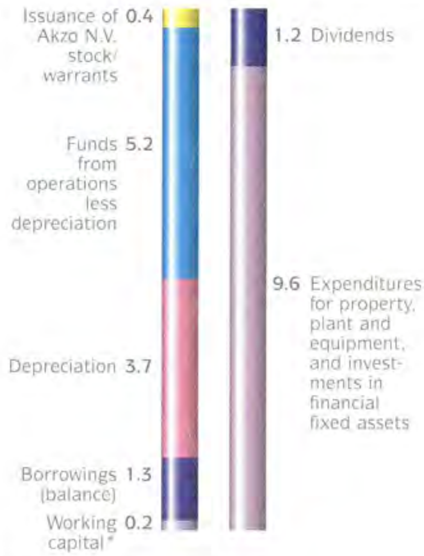
* Group income and depreciation.

Interest-bearing borrowings In 1990, only a limited amount of long-term borrowings was used toward improvement of our debt portfolio. The cash flow was sufficiently large to permit significant repayments of both long-term and short-term borrowings. The amount of interest-bearing borrowings outstanding at year end was down to Hfl 3,250 million (at the end of 1989: Hfl 3,960 million), with ample liquidity being maintained. The Group equity/debt ratio increased from 0.50 at December 31, 1989, to 0.55 at December 31, 1990.

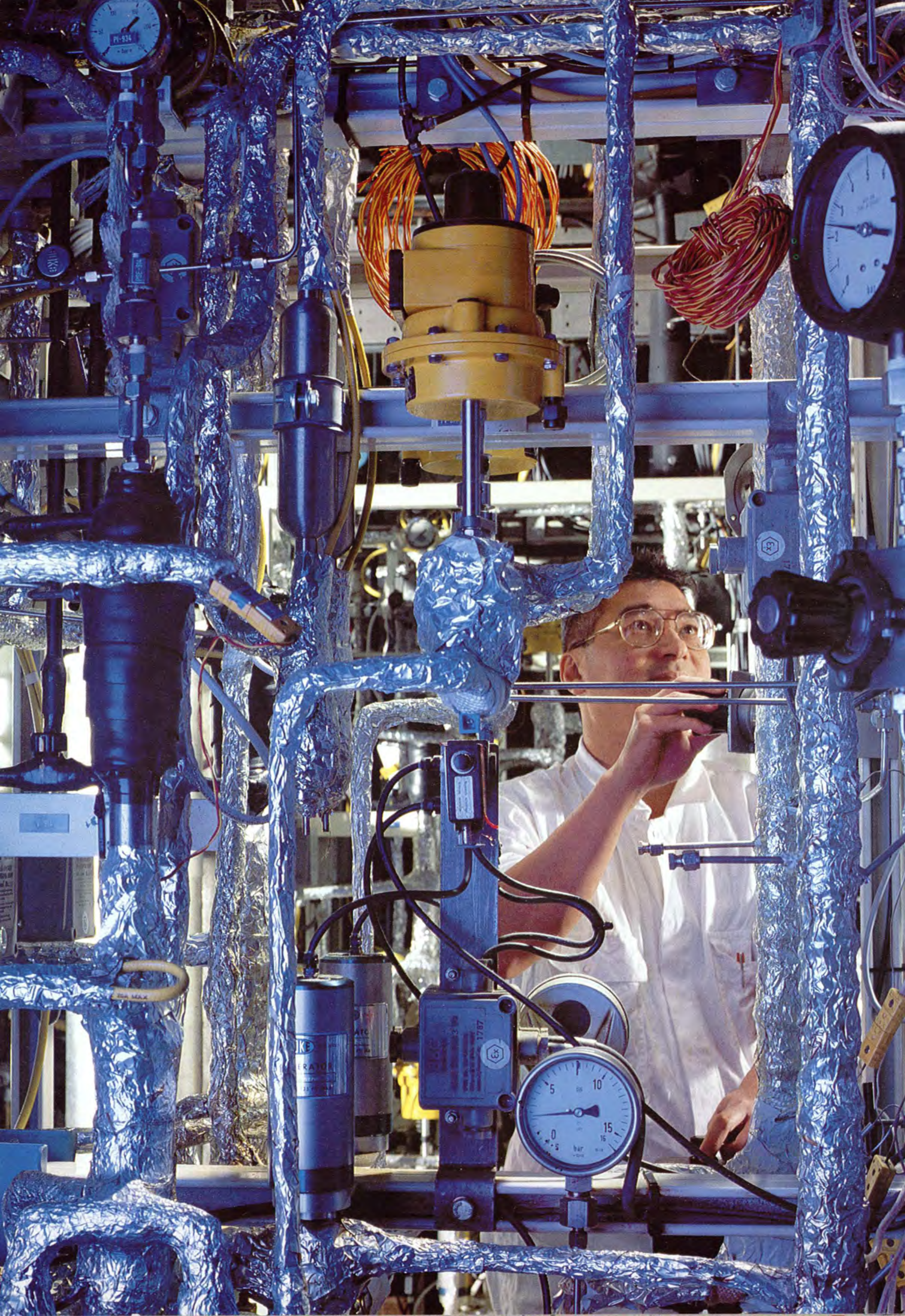
Credit facilities At year end, the amount of credit available under long-term standby facilities was unchanged at U.S.$ 550 million (Hfl 930 million). The average remaining life of the standby credit lines is more than 5 years.
During 1990, active use was made of our U.S. commercial paper program rated A1/P1. The limit of this program was raised from U.S.$ 300 million to U.S.$ 400 million. The limits of the Eurocommercial and the Dutch commercial paper programs remained unchanged at U.S.$ 200 million and Hfl 300 million, respectively.

Capital stock During 1990 the number of outstanding shares of common stock increased by 1,095,682 as a result of the 1989 stock dividend and by 1,040 as a result of warrants being exercised. Of the 2,001,513 warrants issued in 1986, a total number of 3,628 were exercised until year-end 1990, so that 1,997,885 warrants are still outstanding.
During 1990 the total number of outstanding shares of common stock therefore increased 1,096,722 (2.5%) to 44,420,960 at December 31, 1990.
At the Annual Meeting of Stockholders held on April 26, 1990, it was decided to retire the shares of cumulative preferred stock, which were all held by the Company.

Sources and applications of funds, 1986-1990 (billions of guilders)



* Including cash and short-term investments.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Research and technology In 1990, we spent an amount of Hfl 891 million on research and development (1989: Hfl 904 million). R&D expenditures as a percentage of sales were 5.2%, compared with 4.8% in 1989.
In 1990 the number of research employees increased 250 to 6,740 at December 31.

The research activities in the field of specialty chemicals in McCook, Illinois, United States, are to be transferred to Dobbs Ferry, New York.

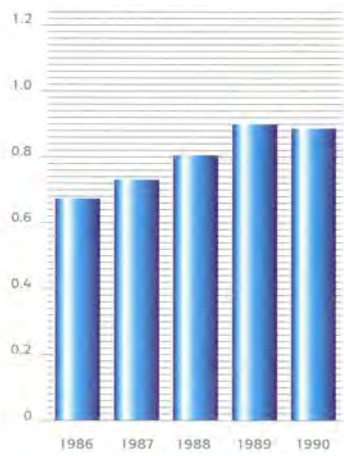
During the year, the manufacturing processes for a number of products were upgraded, resulting in lower emissions and lower manufacturing costs as well as product improvement and innovation.

In chemical products, quality improvement of electrolysis salt and a reduction in the chloride content of soda ash were focuses of attention. Other developments included new catalyst types used to lower sulfur and aromatics levels in diesel fuel, and new waterborne epoxy curing agents providing enhanced resistance to corrosion and chemical attack.
Building on our know-how and experience, we developed systems for the safe handling of hazardous compounds such as peroxides and metal alkyls in production, transportation, storage, and use. We have assisted customers with these systems in the construction of new storage and dosing facilities.
Research work in fibers and polymers is concerned with environmental and quality aspects of rayon production, biodegradable textile auxiliaries, new fibers for nonwovens, and gas separation membranes for nitrogen production.

We are giving special attention to process optimization and product differentiation of the high-performance fibers Twaron®, Tenax®, and Silica. We are also working on a new process for the manufacture of viscose fibers, whose properties are different from those obtained by the established production route.
In the coatings field, most of the research effort remains centered on environmentally sound paint systems. Both medium- and high-solids paints and water-based paint systems are currently being marketed. We are pursuing integrated development of the polymer, paint, and application technologies needed for this purpose, thereby producing unique systems. We are further engaged in developing new color ranges and effect coatings, as well as in extending the life of our coatings.
Biotechnology is now well established in our Company, as well as in the research programs for healthcare products. A joint R&D project of the Chemicals Division and Organon seeks to develop a biotechnology-based process for the manufacture of certain products, beginning with the biotechnological production of surfactants.

Our research in the field of materials for the electronics industry has led us to conclude that the additive process for printed wiring board manufacture is the most appropriate choice for the surface mount technology. Work on the optimization of the additive process for this application is continuing. This is particularly important because the additive process is by far the cleanest one for the production of printed wiring boards.

Research and development expenditures, in billions of guilders



Catalysts are tested in laboratory-scale apparatus simulating refinery conditions.

Research on nonlinear optical polymers also made good progress. We have reached the stage of pilot production for optical waveguides and switches.

Enhanced control of production processes is necessary to meet increasingly stringent quality standards for our products. We have devised an integral approach for this purpose, which is based on the development of relationships between product quality and process variables by means of process analysis. This approach is currently being tested in our carbon fiber plant in Oberbruch, Germany. The manufacturing process in this plant is electronically monitored on the basis of a constant flow of statistical data; in the event of deviations occurring, remedial action can at once be taken via a computerized expert system.

Specific developments and projects are dealt with in the product chapters concerned.

Exhaust air treatment plant at the Kelsterbach, Germany, location.

Health, safety, and the environment In the past year, we further expanded the arsenal of tools for a dynamic, anticipatory policy in the field of health, safety, and the environment (HSE).
A total of ten guidelines respecting the HSE aspects of our products, processes, and research were distributed to all parts of the organization and declared applicable to all our activities worldwide.
We are currently designing a guideline to aid in structuring health monitoring systems. It is based on the experiences we accumulated in recent years in analyzing occupational hygiene-related situations in several major manufacturing sites in the Netherlands.
The product ranges are being systematically screened for opportunities and threats arising from the rapid developments in the HSE field. The HSE aspects of products and production processes are increasingly assuming decisive importance. The results of the screenings are used to make appropriate changes in the research effort where these are called for.
As part of an integral approach, we have developed a basic model for environmental management systems (EMS) that are to achieve control and planned reduction of the environmental impact of manufacturing operations. At all Dutch sites, environmental management systems should be in place by the end of 1991. Taking into account our experiences in

the Netherlands, we propose to introduce the EMS model at the other Western European locations sometime during 1991. Implementation is scheduled to be complete in 1994. In the intervening years, the EMS concept will be launched at the manufacturing sites outside Western Europe. These steps are in line with activities concerning environmental management in the chemical industry initiated by CEFIC, the European Chemical Industry Federation. In the United States, we are an active participant in the Chemical Manufacturers Association's "Responsible Care" program, which pursues similar objectives.

We intend to gradually add safety and health elements to the environmental management system, to end up with an integrated HSE management system. Actions currently being taken by certain divisions to intensify care for on-the-job safety and make its place among management concerns more secure are in line with this intention. We also plan to devote considerable effort to making the system mesh with total quality management.

In the context of operational planning, we will annually review the results and plans regarding implementation of the guidelines, the product range screenings, and the environmental management systems of the individual manufacturing sites.

The arsenal of tools was completed by audits in the HSE field, which are an essential part of the environmental management system. These audits will be intensified in 1991.

In 1990, our increased focus on HSE again resulted in some actions with a public impact. They included:

- Organization of meetings in the Netherlands, intended for decorative paints customers, which emphasized health and environmental issues. These meetings were part of an effort to promote waterborne paints, in conformity with a government control target requiring hydrocarbon emissions to be halved by the year 2000.
- Publication of a report entitled "Chlorine and Society" setting forth positions and plans regarding chlorine chemistry. The plans envisage integral chain management and reduction of hazards. In open consultation with government and other constituencies, we are proposing to work out clear, factual criteria against which the HSE aspects of the use of chlorine and its derivatives can be tested.

New biofilter installed at the Sassenheim, the Netherlands, location absorbs the greater part of the hydrocarbon emissions passed through it.

Human resources management and organizational development

In the past year we devoted significant time and energy to the continued implementation of business units and reconsidered the support functions.
We intensified our efforts to mold a style of management that is appropriate to this organizational structure. One of the facets of this management style is that it strikes the right balance between commitment to the interests of the unit served and those of Akzo as a whole.
We expect our employees to possess a high degree of flexibility and mobility. In addition, our managers must have the freedom (which we would expect them to use with discretion) to match individual terms and conditions of employment to performance.
These issues will determine the direction of our human resources management in the years to come.
We are assigning high priorities to completion of an inventory of key positions in our organization, early recognition and subsequent development of management talent, and adoption of incentive terms of employment.
Notably in the Netherlands, Germany, and the United States, significant advances have been made in career planning and management development.
Our organization is increasingly using Career Development Programs.
These programs are developed jointly with the divisions and specify for each functional area what career paths are eligible and what the associated training requirements are.

We are concerned with enhancing our attraction as an employer, particularly regarding women. In various locations we are already offering the option of modified working hours and child care facilities as part of our commitment to promote employment of women with families.
Another category of people we particularly wish to recruit are young university and college graduates. Apparently they often choose employment with Akzo because of the considerable interdivisional, interdisciplinary, and international career opportunities they expect this to give them. We intend to honor these expectations.

Number of employees	***Dec. 31 1990***	*Dec. 31 1989*
Fibers and Polymers Division	**25,500**	26,900
Salt and Basic Chemicals Division	**6,500**	6,500
Chemicals Division	**8,100**	8,300
Coatings Division	**15,100**	15,200
Pharma Division	**13,100**	12,600
Other companies	**1,500**	1,400
Total	**69,800**	70,900

The number of employees at December 31, 1990, was 69,800, down 1,100 relative to December 31, 1989. Acquisitions and divestments on balance resulted in an increase of 200 persons.
Much of the drop in employment took place in the Fibers and Polymers Division and notably reflected the effects of restructuring. Employment in the Pharma Division was up.

Product groups

The statistics presented below illustrate the relative importance of the individual product groups in terms of net sales, operating income, invested capital, and expenditures/depreciation in respect of property, plant and equipment.

Net sales 1990	Net sales 1989	Operating income 1990	Operating income 1989	Invested capital* 1990	Invested capital* 1989	Property, plant and equipment Expenditures 1990	Expenditures 1989	Depreciation 1990	Depreciation 1989	Millions of guilders
5,760	6,420	**379**	703	**3,461**	3,607	**450**	516	**346**	340	Chemical products
4,852	5,210	**218**	268	**2,735**	2,750	**294**	368	**298**	284	Fibers and polymers
3,929	3,659	**251**	281	**1,683**	1,708	**170**	170	**104**	92	Coatings
2,775	2,647	**429**	383	**1,338**	1,330	**147**	149	**96**	89	Healthcare products
(70)	(137)	**(16)**	14	**(191)**	(337)	**68**	54	**23**	20	Miscellaneous products, intra-Group deliveries, and nonallocated items
17,246	17,799	**1,261**	1,649	**9,026**	9,058	**1,129**	1,257	**867**	825	
	937		64		352		40		27	Barmag
17,246	18,736	**1,261**	1,713	**9,026**	9,410	**1,129**	1,297	**867**	852	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 1990	1989	Operating income as % of average invested capital 1990	1989	Net sales/av. invested capital ratio 1990	1989	Expenditures/depreciation ratio 1990	1989	Ratios
6.6	11.0	**10.7**	19.9	**1.63**	1.82	**1.3**	1.5	Chemical products
4.5	5.1	**7.9**	10.3	**1.77**	2.00	**1.0**	1.3	Fibers and polymers
6.4	7.7	**14.8**	18.7	**2.32**	2.44	**1.6**	1.8	Coatings
15.5	14.5	**32.2**	28.2	**2.08**	1.95	**1.5**	1.7	Healthcare products
7.3	9.3	**13.9**	18.9	**1.91**	2.04	**1.3**	1.5	
	6.8		19.3		2.82		1.5	Barmag
7.3	9.1	**13.7**	18.9	**1.87**	2.06	**1.3**	1.5	Overall ratio

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

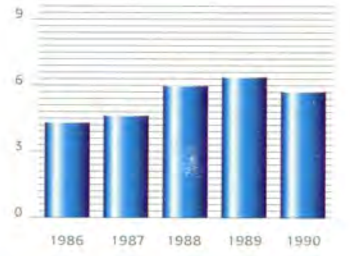
Chemical products

General Total sales of chemical products were Hfl 5,760 million, down 10% from 1989, when they were Hfl 6,420 million. This decline in sales was primarily due to lower volume (5%) and currency translation effects (5%).
Operating income decreased from Hfl 703 million in 1989 to Hfl 379 million. Expressed as a percentage of sales, operating income was down from 11.0% in 1989 to 6.6% in 1990. Lower earnings were registered both for salt and basic chemicals, and for specialty chemicals.

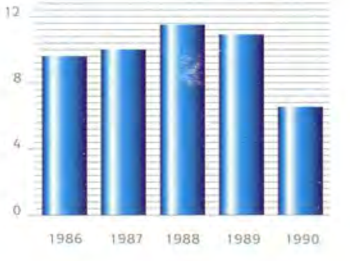
Salt and basic chemicals Sales of salt and basic chemicals were Hfl 2,384 million, down 8% from the 1989 figure of Hfl 2,592 million. Changes in exchange rates accounted for 4% of this decline in sales. Operating income decreased, compared with the exceptionally good year 1989, notably as a result of the market development for VCM/PVC. As the year drew on, the influence of the economic downturn in the United States became perceptible. During the last months of the year earnings were also affected by the crisis in the Middle East, which forced up prices for ethylene and energy. Overall, profit margins decreased due in part to adverse currency exchange rates.

Salt We were able to maintain the level of shipments in Europe, but shipments of electrolysis salt were adversely affected by lower demand, in part attributable to environmental measures in Scandinavia relating to the use of chlorine as a bleaching agent in the papermaking industry. The chlorine industry is showing increased interest in our evaporated salt, which is in part due to the fact that the high quality of our product results in cleaner production. Integration of our salt operations in the United States was completed, so that the synergy potential is now fully utilized. Earnings of the newly created company Akzo Salt Inc. increased substantially because of cost control measures and a higher price level.

Net sales, in billions of guilders

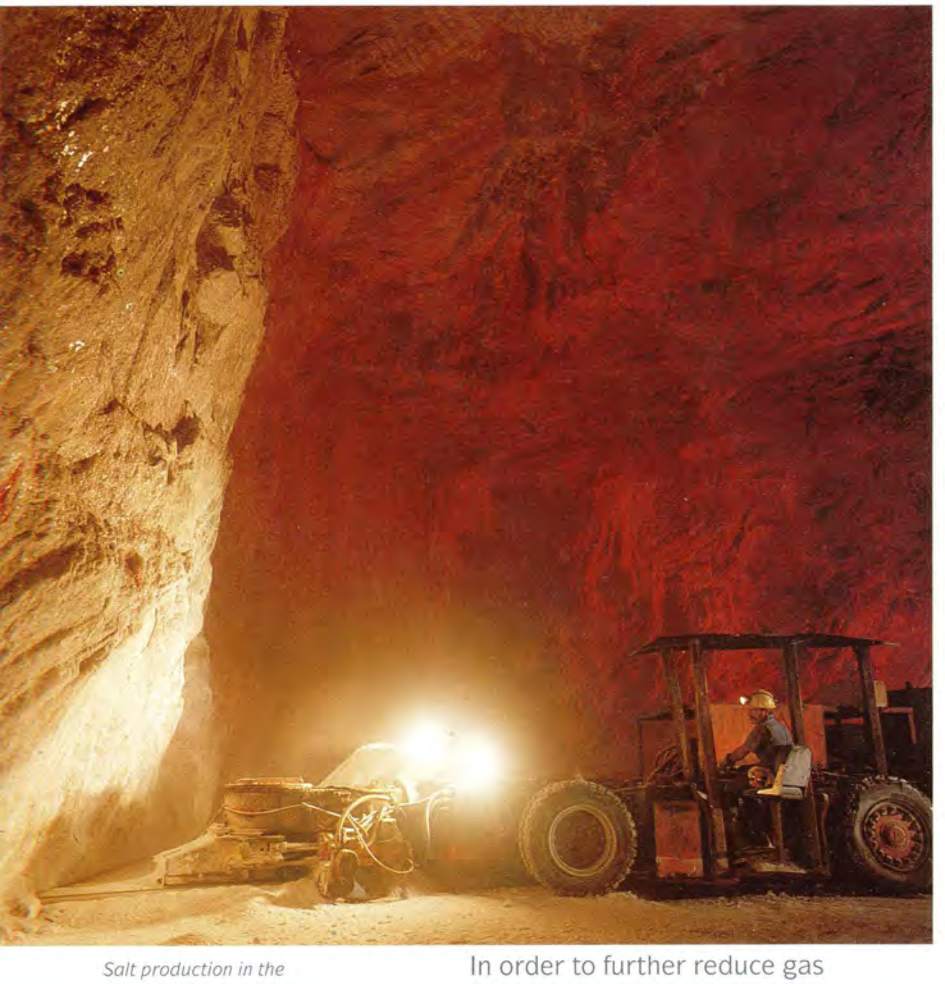


Operating income, as percentage of net sales



Ketjenlube® *lubricant additives minimize wear and friction.*

Chlor-alkali products European demand for PVC grew in 1990. Imports, in particular from the United States, increased and depressed the price level. Later during the year, ethylene shortages resulted in substantially higher feedstock costs, which could only partially be passed along to customers. With favorable shipments but a lower profit margin, earnings of ROVIN — our VCM/PVC joint venture — trailed the prior year's level.



Salt production in the Avery Island, Louisiana, mine.

In order to further reduce gas emissions of the vinyl chloride monomer plant, work was started on the construction of a waste gas incinerator. This Hfl 46 million project is expected to be completed by the end of 1991.

High demand for caustic soda, a co-product of chlorine, resulted in price rises, due in part to supply being proportional to the production of chlorine. Our production level for chlorine and caustic soda remained virtually unchanged. We see a gradual shift in chlorine applications because of growing shipments of chlorine to the plastics industry.
Akzo has openly entered into the public debate over chlorine. The report "Chlorine and Society" published in October 1990 emphasizes the vital role of chlorine in society. It sets forth our plans for chlorine-related environmental investments of approximately Hfl 500 million in the nineties. It also proposes an investigation to be conducted jointly by government and industry into a method for evaluating chlorine cycles. This proposal has been accepted by the organizations involved.
Soda sales showed a healthy development. Shipments clearly exceeded the previous year's level, aided by higher output levels in the glass and detergent industries.

Other basic chemicals The modernization of the industrial colloids plant in Arnhem was completed by the end of 1990, which should result in substantially lower costs and a better competitive position.
The perchloroethylene and carbon tetrachloride manufacturing plant in Delfzijl, the Netherlands, was shut down in the spring of 1990. The reasons for this plant closure were a stagnating market for these products and the high costs of meeting environmental legislation. At year-end 1990, an incinerator was commissioned to handle emissions of chlorinated hydrocarbons.

Earnings of Delamine, the Netherlands (ethylene amines), were satisfactory, if lower than in 1989. During the year, work was started on expansion of the production capacity by approximately 25%. An investment program aimed at further quality improvement was also completed.

Nonconsolidated companies Sales of the nonconsolidated companies in the field of salt and basic chemicals aggregated Hfl 870 million.

Both Dansk Salt I/S, Denmark (salt), and Elektro-Chemie Ibbenbüren GmbH, Germany (chlor-alkali), did well in 1990.
Results of Denak Co. Ltd, Japan (monochloroacetic acid), were negatively influenced, notably by much lower exports to the Soviet Union.
Performance of Methanor v.o.f., the Netherlands (methanol), was about the same as in 1989.
We are conducting negotiations with Neste Oy, Finland, about the sale of our share in Methanol Chemie Nederland v.o.f., the Netherlands (formaldehyde and resins).

Specialty chemicals The performance of most specialty chemicals was very disappointing. Major factors in the lower performance were the low rates of the U.S. dollar and the yen, economic problems in South America, production problems in some plants, and higher energy and feedstock costs in the last few months of the year. Sales of specialty chemicals decreased 12% from Hfl 3,828 million in 1989 to Hfl 3,376 million. This decrease in sales is due to lower shipments (6%), particularly for chlorofluorocarbons (CFCs) and carbon tetrachloride (a CFC raw material), and to changes in exchange rates (6%).

Catalysts for the petroleum and petrochemical industries The performance of catalysts was negatively influenced by the low rate of the U.S. dollar and resulting strong competition from U.S. producers. The price level for these products, which require high R&D expenditures and large capital investments, is too low, particularly in the United States. In the third quarter, prices in the United States showed signs of firming up and expectations are that prices will improve over time. Production problems were encountered in the catalysts plant in Pasadena, Texas, United States, which were in part due to an unexpected hard freeze early in the year.

Lead-free gasolines with clean burning properties are realized through the use of Akzo catalysts and petroleum additives.

Many shampoos and hair rinses are made with Akzo cosmetic raw materials.

Chemicals for the plastics manufacturing industries The demand for organic peroxides in Europe did not come up to expectations because of lower PVC production due to U.S. imports. Overall, the situation in this product sector improved over the previous year, spurred by a good performance in the United States. Demand for metal alkyls continued to show good strength. The world market position of these products will be bolstered by the construction of a new plant in Cologne, Germany. It will be operated by Texas Alkyls Europe, a joint venture in which we have a 50% interest.

Fabric conditioners are based on Akzo's fatty amine surfactants and are used to impart softness and antistatic protection both commercially and in home laundries.

Chemicals for the plastics processing, coatings, and paper-making industries Demand remained high for virtually all products in this sector.

In Europe the development of paper chemicals was healthy, as is reflected in an improvement in earnings of this product sector over the previous year. In the United States the production of rosin sizes was terminated because of the dismal performance of these particular paper chemical products.

Chemicals for the rubber processing industries With competition becoming more vigorous partly because of the lower dollar, shipments of most rubber chemicals decreased as a result of diminished demand for tires. Crystex® insoluble sulfur was an exception, as demand for this product remained at a high level. This prompted the decision to expand production capacity by constructing a new plant in France. The new production facility in Brazil was completed.

Chemicals for the detergent industry and other surfactants More stringent environmental legislation in Germany and the Netherlands concerning fabric softeners based on fatty amines is causing a slowdown in volume growth of these products. Competition intensified partly as a result of these developments. A new series of products for fabric softeners is now being tested.

In the United States, our fatty amines for detergents and other applications, as in the mining and petroleum industries, continued their healthy performance.

We are also investigating new bleaching agents for the detergents industry. Based on organic peroxides, these bleaches are active at lower temperatures than conventional products.

Functional chemicals and miscellaneous activities The rapidly diminished use of chlorofluorocarbons (CFCs) caused a substantial decrease in shipments of these products and their raw materials, such as carbon tetrachloride. This negative development was partially offset by shipments of dimethylether (DME) aerosol propellant from the new Rotterdam plant, which was commissioned in mid-1990.

A shift in demand to other grades and the low rate of the U.S. dollar squeezed margins of sulfo products.

Our sequestering agents turned in a satisfactory performance. The development for photochemicals and pharmaceutical intermediates was less favorable.
In Japan, competition in the field of electromagnetic compatibility testing intensified, which had a negative impact on results. An adverse influence was also exerted by the low rate of the yen. Testing activities in Europe showed healthy growth.

Nonconsolidated companies
Sales of the nonconsolidated companies in the field of specialty chemicals totaled Hfl 1,150 million.

Kayaku Akzo Corporation (organic peroxides) and Tosoh Akzo Corporation (Ziegler-Natta catalysts and metal alkyls), both in Japan, were able to maintain their good earnings level.
Although Kali-Chemie Akzo GmbH, Germany (insoluble sulfur), achieved good results, they were somewhat lower than in 1989.
Lion Akzo Co. Ltd, Japan (fatty amines), and Nippon Ketjen Co. Ltd, Japan (desulfurization catalysts), failed to meet expectations.

The results of the catalysts plant of FCC-Fábrica Carioca de Catalisadores S.A. in Brazil did not come up to expectations, which was in part due to start-up problems.
Glucona v.o.f., the Netherlands (gluconates), continued its satisfactory performance.
Earnings of the Texas Alkyls companies in the United States and Belgium, and of Alkyls do Brasil Ltda in Brazil trailed the prior year's level.
Operational since early 1990, the joint venture Akzo-PQ Silica (silica products) achieved fair results. Integration of our activities and those of our partner, PQ Corporation, into the joint venture made good progress.
The expansion of the specialty fatty acids plant of Akzo & Pacific Oleochemicals Sdn. Bhd., Malaysia, will be commissioned in the first half of 1992.

Akzo's phosphorus-based flame retardants are used to produce safer urethane-cushioned auto seats.

One of the upcoming shuttle flights will conduct experiments on thin-film crystal structures using trimethyl gallium, a metal alkyl.

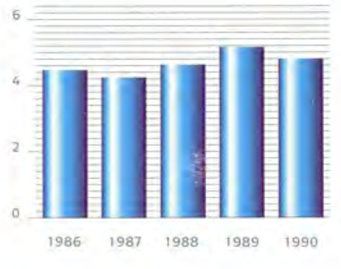
Fibers and polymers

General Earnings of this product group did not attain the previous year's level. Sales aggregated Hfl 4,852 million (1989: Hfl 5,210 million), down 7% from 1989, primarily because of lower shipments. Operating income dropped from Hfl 268 million to Hfl 218 million in 1990. Expressed as a percentage of sales, operating income was 4.5% (1989: 5.1%).

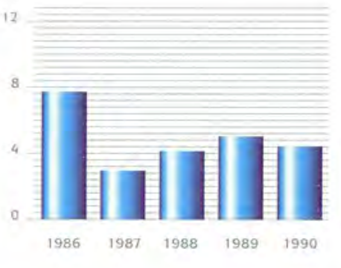
The measures taken in recent years to improve the organization had a positive effect. Thus, the streamlining of the central and service departments begun in 1989 substantially reduced overheads.
In the field of advanced materials, some minor activities not belonging to our core business were further reduced or brought into joint ventures.
The modernization of the production facilities, especially those for textile polyester yarns, not only resulted in quality improvements and productivity increases, but also in cost reductions.
Viscose filament yarns, primarily those for textile uses, remained an important contributor to income.
Developments for industrial polyester yarns and nonwovens had a positive influence on overall results.
Earnings were strongly affected by losses of our German steelcord operations and of our Spanish subsidiary La Seda de Barcelona.
Income in Brazil was also much depressed.
The crisis in the Middle East caused falling raw material prices to reverse course and rise in the fourth quarter of 1990. Because of sensitive market conditions, higher selling prices did not fully offset this effect in that quarter.
Non-European competitors benefited from the lower U.S. dollar.

Textile and carpet fibers Except for La Seda de Barcelona, Spain, operating income for textile fibers improved as a result of stable prices and further specialization.

Net sales, in billions of guilders



Operating income, as percentage of net sales



Heat-resistant garments from Twaron® aramid fiber.

Akzo's textile fibers respond flexibly to the trends in fashion.

Despite a continued rise in the consumption of textiles and clothing in Western Europe, demand for man-made textile fibers fell short of the prior year figure, as the downward trend of the U.S. dollar favored imports of clothing and textiles. Sales in this sector were lower than in 1989. Trading conditions for viscose yarns were favorable. We managed to maintain our outstanding market position, as demand continues to exceed our ability to supply this fiber.

During 1990 our new polyester spinning plant in Oberbruch, Germany, the most advanced in

Tenax® *carbon fiber is set to grow fast.*

Europe, came on stream. This not only made for better quality, but also for a substantial cost reduction and an appreciable improvement in earnings. Similar effects were achieved in the polyester staple fiber plant in Emmen, the Netherlands, which was modernized in 1989.
In textured polyester yarns, we benefited from the favorable development in the field of automotive and home textiles and from organizational improvements.

Akzo's industrial fibers are also used in conveyor belts.

Sympatex®, the breathable membrane that keeps out wind and water, continued the previous year's fine performance. We have become a market leader in Western Europe for this product. In 1991 we will extend our product range through the addition of a high-performance garment lining laminate composed of Sympatex® membrane and a specially developed Diolen® microfiber, which is marketed under the name of Sympatex Micro Liner®.
The results of Polyenka, Brazil, are under pressure from the economic problems in that country.
A further deterioration of the Spanish domestic market led to lower sales and to losses for textile filament and staple at La Seda de Barcelona.
An action plan has been drawn up to streamline the product range, improve the cost structure, and cut staffing levels.
The loss of carpet yarn exports to Eastern Europe combined with the pressure on the Western European market to significantly depress results for carpet yarns. Through a further increase in productivity and product innovation, we will safeguard our strong position in the contract sector (offices, etc.). The market introduction of our newly developed Trilenka yarn is running smoothly.

Fibers for industrial uses Sales in 1990 returned to a more normal level, after the excellent performance in 1989.
Despite softness in the tire market, we successfully defended the strong position of our viscose and polyester tire yarns.
Revenue from sales of yarns for hoses, transmission belts, and ropes and nets was positive.

With shipments of polyester yarns for coated fabrics and car seat belts continuing at the same high level, our production capacities were well utilized. Sales and earnings developed accordingly.
The situation of the European conveyor belt industry again failed to improve. Shipments in this sector remained low, in part as a result of market problems in Eastern Europe. Business for polyamide yarns suffered from heavy competition from the United States, fueled by the problems in the automotive industry and the low U.S. dollar rate. The persistent foreign currency shortage of the Eastern European countries and a global drop in demand also had a negative effect. COBAFI S.A., Brazil, encountered head winds. A stagnation of shipments to the Brazilian automotive industry occasioned losses.
The problems in the U.S. automotive industry had grave consequences for steelcord shipments. Overcapacity and plummeting prices led to heavy losses. It was therefore decided to discontinue steelcord production in Oberbruch during 1991.

High-performance fibers

Shipments of Tenax® carbon fiber showed steady growth. We were able to increase our market share.
The capacity of our plant in Oberbruch was expanded to more than 500 tons a year. Preparations are under way for construction of a second production facility. The aerospace industry showed keen interest in our product. The situation for our carbon fiber activities in the United States has also brightened. Earnings remain under pressure from the costs of development and commercialization.

Shipments of Twaron® aramid fiber produced by Aramide Maatschappij v.o.f. were substantially ahead. Compared with 1989, the product mix and geographic spread of shipments improved. Sales showed significant growth outside Europe, especially in the protective clothing and headgear sector and in friction materials, where aramid serves as a substitute for asbestos. Further progress was made on the application of aramid in tires, conveyor belts, and rubber hoses. Through close cooperation with our customers, we wish to strengthen our position as a supplier of high-performance fibers. We further seek to open up new application fields, such as in the aerospace, automotive, and optical cable industries. In view of anticipated market growth, we started expanding production capacity.

Viscose production modernized: a combination of tradition and progress.

Plastics Shipments and sales of this product sector went up. Earnings gained appreciably. Products for the packaging industry registered a sharp rise in volume and an appreciable improvement in margins. In other market sectors (such as the automotive industry, which is one of our principal customers), shipments growth weakened somewhat. In addition, exports to the Far East were under pressure from the low U.S. dollar.
Business for color concentrates and additives was satisfactory, both in Europe and in North America.
The plant constructed for these products in Bendorf, Germany, began operations in late 1990.

Geosynthetic materials for soil stabilization.

Applications of Colback® *sound-absorbing nonwoven include trucks.*

Membranes In medical membranes we continue to hold our position as the leading supplier in the global marketplace, although the number of producers has increased and, consequently, the pressure on prices. Sales were down from the previous year.
The low rates for the U.S. dollar and the yen and the global efforts to cut costs of medical care were the chief causes. Nevertheless, operating income was satisfactory, as measures taken to reduce costs and improve productivity, took hold.
With Hemophan®, our new membrane for artificial kidneys, we met the demand for product differentiation. We have meanwhile established positions for this product in the European and Japanese markets.
The high flux dialysis sector continued to grow in 1990.
We stepped up our efforts for the development and market introduction of synthetic membranes. We expect new opportunities will be available for our hemodialysis membranes in Eastern Europe.
Performance of our Oxyphan® membrane for oxygenators was gratifying. We expanded the production capacity for this product. Our industrial membranes business measured up to expectations.

Nonwovens and geosynthetics
The favorable market development for certain polyester nonwovens, such as carriers for bituminous roofing and sealing materials, and backings for carpet tiles and automotive carpeting, continued. As a consequence, this product sector again achieved good sales and earnings levels. Production capacities were expanded to meet the high demand. Our principal product, Colback®, a nonwoven based on a bicomponent filament yarn, with diverse possibilities of application in the technical sector, now meets the highest international quality standards.

The Industrial Systems sector, which sells the Enkamat®, Enkadrain®, and Stabilenka® materials for road construction, hydraulic engineering, and landscape management, can look back on a successful year in which earnings improved substantially.

Development products Our fiber-reinforced metal and plastic laminates — a new class of materials for the aerospace industry — are in the final testing phase. The activities of this sector will be pursued in a joint venture with U.S. aluminum producer Alcoa, which will commercialize this promising class of products worldwide. As a reinforcing material for optical cables we developed Aracore®, a product consisting of bundled, resin-bonded aramid yarns. The first field tests, some of them large-scale, were successful.
Interest in silica yarn is growing fast. This high-performance product, which is spun from water glass, possesses an extremely high heat resistance. The pilot plant was improved and expanded.

Nonconsolidated companies
Business of the nonconsolidated companies in the fibers and polymers sector was by and large favorable. Aggregate sales were Hfl 1,040 million in 1990.

The progress of Aramide Maatschappij v.o.f., the Netherlands, was already discussed in the section on high-performance fibers.
At Enka de Colombia S.A., a producer of polyamide and polyester filament and staple, shipments registered further growth. The major capacity expansion for polyester staple and spinning chips came on stream. The company managed to repeat the prior year's fine earnings performance in the face of difficult political conditions.
Despite its home market being opened to imports, Fibras Químicas S.A., a Mexico-based producer of yarns for textile and industrial uses, slightly exceeded the previous year's shipments level and achieved a satisfactory operating income.
Enkador S.A., a producer of synthetic textile filament in Ecuador, recorded a substantial rise in earnings, with shipments and sales ahead.
In India, Century Enka Ltd sustained the high growth of recent years and posted another earnings increase. This producer of synthetic textile and industrial fibers began work on a considerable capacity expansion for polyester filament. In view of the favorable long-term market prospects in India, Akzo decided in mid-1990 to join the Birla Group in a new venture named Rajashree Polyfil Ltd. The company is to build a new plant for polyester textile filament in the state of Gujarat.

Akzo's medical membranes are prominent in the world market.

Engineering plastics tailor-made for special applications.

Coatings

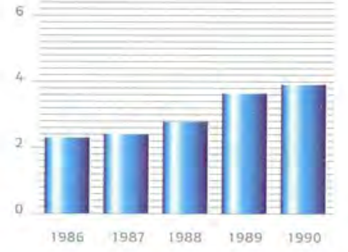
General On balance, the results of operations were lower than in the previous year. While shipments of decorative and do-it-yourself paints in Europe were stagnating, volume gains were registered for specialty products for the industrial market. The developments in Brazil in the second half of the year particularly exerted a substantial negative influence compared with 1989.
Sales were up 7% from Hfl 3,659 million in 1989 to Hfl 3,929 million. This sales gain was notably due to acquisitions (9%), with Reliance chief among them.
Operating income decreased 11% to Hfl 251 million, compared with Hfl 281 million in 1989. Expressed as a percentage of sales, operating income was 6.4%, against 7.7% in 1989.
In the pursuit of further consolidation of our coatings activities we are reducing the number of sites and concentrating production and distribution.
Integration of Reliance, acquired in 1989, into our U.S. coatings activities made good progress. Despite a faltering economy in North America, this acquisition achieved the anticipated results (in U.S. dollars).

At year-end 1989 we reached agreement on cooperation with a Hungarian paints producer, which resulted in the establishment of the joint venture Akzo-TVK effective May 1, 1990. It achieved a positive operating income in 1990.

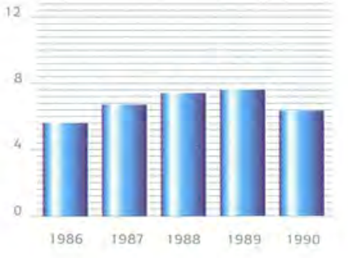
On August 1, 1990, we acquired a 51% interest in Akzo Kemipol AS, Izmir, Turkey. This company has modern production facilities and supplies coatings for industrial applications, including automotive finishes, for the Turkish market.
In the context of our attempts to strengthen our presence in Southeast Asia, we acquired a paint factory in Singapore. In addition to the production of finishes mainly for furniture, this facility is to serve as a know-how center for the region.

Decorative and do-it-yourself paints In decorative and do-it-yourself paints, we were confronted with a stagnating market. While activities in the new construction sector were at a lower level, the maintenance sector showed a positive development because of the renovation of old buildings.
This picture is not uniform for all markets. In Southern Europe the market expanded, particularly in Spain, where growth is spurred by a construction boom in connection with the Olympic Games and the 1992 World Exhibition. A strong decline occurred in the United Kingdom. Stagnating growth in France, Belgium, and the Netherlands is primarily due to cuts in government spending, fewer people moving, and restraint in starting new construction projects.
In Brazil the market slumped in the second half of the year, which had a strong negative impact on earnings.

Net sales, in billions of guilders



Operating income, as percentage of net sales



The new generation Aviox® HS *(High Solids) aircraft finishes, with significantly improved properties, meet the highest U.S. environmental standards.*

We are currently intensifying programs to rationalize recipes and raw material supplies in an attempt to alleviate the pressure on margins in a stagnating market.
Growing environmental concern resulted in further volume growth for waterborne products in such sectors as the joinery industry. A new series of waterborne products was also launched in the do-it-yourself sector.
For the professional sector we introduced Alphadecor®, a waterborne effect wallpaint.
We made our expertise available to a machine producer for the development of a machine for cleaning and compacting used paint containers in an environmentally safe manner.
For a growing number of European cities, we are developing color schemes. For Barcelona we produced a color scheme for the old city center.
In Morocco, where we have a strong presence, we commissioned a new plant mainly for the production of decorative paints for the North African market.

The new Sikkens waterborne outdoor paint systems are used on the historic Binnenhof, seat of the Dutch government.

Reactor in the resin synthesis plant in East St. Louis, Illinois.

Car refinishes The market for car refinishes stagnated in 1990; in some European countries demand even began to decline. Yet we increased our market share in most European countries. In North America, growth continued unabated. Profitability in Brazil improved despite the economic problems in that country. Our modest presence in Japan was also strengthened considerably.
In order to curtail costs we began to restructure our comprehensive services package.
Following introduction in the United States, our Autonova® isocyanate-free refinish system has now been launched in most European countries.
Considering the great concern over the health aspects of using car refinishes, we expect further market penetration of this system.
We developed an integrated information system for the computerized mixing of paint, which is incorporated in the information package for customers of car refinishes.
In the eastern part of Germany we started to build up a market position.

Industrial coatings Competition in the automotive finishes sector is fierce. New technologies are beginning to break through, as is reflected by our waterborne basecoat, which is now being used by major auto makers on their production lines. New waterborne products, such as clearcoats and primers, are being developed.
To strengthen our position in the European automotive market, we began to set up an application center in Stuttgart, which will help us to better serve our customers. The center will also have facilities to carry out fundamental research into new application methods on a realistic scale.
Strong growth in paint systems for plastics continued in 1990. We are one of the leaders in this market

segment of industrial coatings systems on the strength of our painstaking product development and technical service.
We were able to increase shipments of our acrylic one-coat cataphoresis finishes.
Quality inspections carried out by a large number of industrial customers confirm that the quality program implemented in our plants has been successful.
We are beginning to reap the fruits of the restructuring of our coil coatings in Europe, including preprimed coil for the automotive industry. Good progress was made in production and in product development.

In the European aircraft coatings sector, we made great strides forward in the development of coatings and primers with high durability that meet strict environmental requirements. Market introduction of these new products will take place in 1991.
We also introduced Aviox® HS, a high solids topcoat with a unique combination of curing and spraying characteristics. This product complies with stringent California regulations enforcing reduced solvent emissions as of mid-1991.
In the field of chromate-free primers, we achieved improvements of corrosion-resistant primers and of a primer for composite materials.

The selective removal of paint layers is now made possible by the introduction of a sealer coat. This intermediate layer permits removal of the topcoat with much reduced impact on the environment.

Miscellaneous products Early in 1991 an agreement in principle was reached on the sale of Royal Talens B.V. to Sakura Color Products Corp., Osaka, Japan. We decided to sell this company because the product range of Talens did not form part of our core business.

Sales of synthetic resins were satisfactory in 1990. During the year we introduced various coatings resins that have less impact on the environment. In printing ink resins we bolstered our position both in the United States and in Europe.
In the synthetic resins plant in Bergen op Zoom, the Netherlands, we completed a comprehensive automation project, making us one of the most advanced producers of acrylate resins. Synthese Malaysia, our synthetic resins joint venture in Malaysia, registered a substantial gain in earnings. In 1991, additional production capacity will come on stream to adequately serve the growing market in Southeast Asia.

Reliance® *finishes are electrodeposited in a kitchen furniture factory in Adkins, Virginia.*

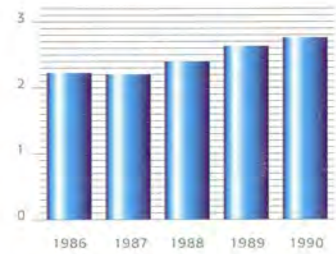
The efficient Autonova® *car refinishing system contains no harmful isocyanate.*

Healthcare products

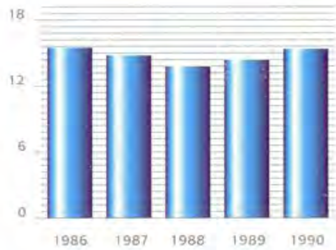
General We were able to sustain our favorable performance through 1990. Despite the adverse impact of changes in exchange rates (approximately 6%), sales were up 5% to Hfl 2,775 million, largely as a result of higher volume. Sales growth was particularly pronounced for human medicinal drugs and veterinary products.
Operating income totaled Hfl 429 million: a rise of 12% over the prior year, while the high level of expenditures for research and development was maintained. Operating income as a percentage of sales was 15.5% (1989: 14.5%).

Ethical drugs Once again, Organon achieved a distinct increase in sales and operating income. Significant growth was registered for Marvelon®, for years now Europe's favorite oral contraceptive, and for the low-dose oral contraceptive Mercilon® introduced in 1988.
We applied for health registration of Marvelon® in the United States.
We concluded an agreement with a leading American producer of oral contraceptives, Ortho Pharmaceutical Corp., covering the joint U.S. market launch and further development of Organon's oral contraceptives and related products. Subject to approval of the products by the Food and Drug Administration, this agreement should bring us a prominent and profitable position in this field in North America. At the same time we acquired selling rights for certain products of Janssen Pharmaceutica, a company associated with Ortho, for the treatment of disorders of the central nervous system. The transaction will enable Organon to strengthen its position in this field, notably in Europe.
In anticipation of changes in Eastern Europe, Organon has stepped up its activities there.
For several products, some stemming from our own research, some acquired on licenses, the development phase was completed. Among the products in the first category is Lomoparan®, a new and highly effective antithrombotic, for which European health registration according to the multistate procedure is now under way. Also coming from our own research, Livial®, a preparation for the treatment of menopausal disorders that has already been launched in a few countries, would appear to have good prospects for further international sales growth on the strength of its novel product profile.

Net sales, in billions of guilders



Operating income, as percentage of net sales



Intervet developed its Nobi®-Equenza-T *vaccine to protect horses against influenza and tetanus.*

A dossier for the Marvelon® oral contraceptive, specially compiled to meet Japanese standards, was filed for registration of the product. Expectations are that its eventual approval will make Organon one of the first producers to place an oral contraceptive on the Japanese market.

Hospital supplies Organon Teknika's operating income exhibited a slight upturn relative to 1989 despite lower sales as a result of adverse changes in exchange rates.
Fine progress is being made on the introduction of OncoTICE®, a product for the treatment of bladder cancer. During the year, health registration was obtained in the United States, Germany, and Finland.
Vironostika® HIV MIXT, a combined HIV-1 and HIV-2 AIDS diagnostic, has now been introduced in several countries.
Our market share in clotting tests and fibrinolysis agents was under pressure from heavy competition, particularly in the United States.
In a major new move, we introduced into the United States and Canada our automated BacT/Alert® device for faster detection of bacterial infections of the blood.
We bolstered our strong position in muscle relaxants, whose range was expanded with the registration of Arduan® in the United States and the Netherlands.
Sales of hepatitis tests increased in line with expectations, despite keener competition. Given the growing need for screening for the presence in the blood of the hepatitis C virus, we are assigning a high priority to ensuring timely availability of tests that can compete with rival products on both sensitivity and specificity.
Clinical tests with the Micro Plate Processor now in progress should lead to market introduction some time this year of this Micro Elisa-based system for blood banks. Consistent with the exchange of diagnostic technologies with Ortho, a research program for the development of a new, automated system for clinical laboratories was launched.
We made good progress on the application of the NASBA® technology, licensed to us in 1989, in a new generation of diagnostics for infectious diseases.

Press in Chefaro's Rotterdam plant molds Davitamon® vitamin tablets.

Nonprescription products Sales and operating income of Chefaro were both up markedly from 1989. Sales growth was a feature of almost all product sectors. Stiff competition notwithstanding, sales of pregnancy tests (mainly Predictor®) were fractionally ahead.
A favorable development of business in the vitamins sector in the Netherlands and Belgium, continued sales growth for Ibutop® analgesic cream in Germany, and strong growth of sales in Spain, in part attributable to the Multidermol® line of medicated skincare products, were the chief contributors to the higher performance for the year.
We invested considerably in the development of new tests in order to safeguard our leading role in the home diagnostics market. A much simplified pregnancy test was placed on the market.

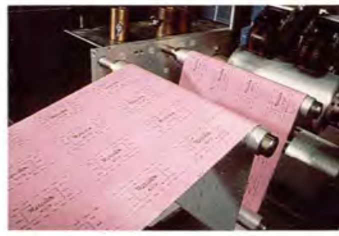
Raw materials for the pharmaceutical industry Diosynth noncaptive sales equaled the figure for the prior year, as a result of positive price effects offset by negative changes in exchange rates.

Vibrating screen removes dust from tablets at Chefaro.

Prices in the alkaloids sector firmed, reflecting market shortages of basic raw materials. In the biochemical products sector, imports of Chinese heparin continued to present formidable competition; even so, sales were held steady at the 1989 level. The volume of insulin sales was up, and prices improved somewhat. Business in the chemical products sector showed a slight setback, principally attributable to a dip in estrogen and androgen shipments, which would appear to be temporary. We did not relax our efforts to mitigate the effect of our operations on the environment. The emissions to air and water are now down to less than one third the 1986 level. Essentially the targets imposed in the revised environmental permit granted in 1990 are already being met, or will be within the timeframe specified. On some counts we believe compliance to be impossible, however, and these are being appealed with the Dutch Council of State. A ruling is expected some time this year.

Generics PBI in the United States invested considerable effort in quality optimization.
RP Drugs, a 1989 acquisition based in the United Kingdom, is shaping up well. Proper coordination of the research programs in the United States, the United Kingdom, and the Netherlands was a central concern. Proprietary developments and cooperation with third parties should bring further expansion of the product range in the years to come.

Veterinary products Once again, sales and operating income gains were achieved, which more than canceled out adverse effects of changes in exchange rates. Market shares were increased for the three principal product segments, vaccines, fertility products, and antibiotics.
Exports to more than 100 countries advanced significantly. Increasing activities in the United States and the Far East, including Japan, make Intervet one of the veterinary companies with worldwide operations.
The research organization developed several new products. Chief among these were a vaccine — now patented — against infectious bronchitis in poultry and a new cocktail shot with six active ingredients that confers protection against the principal canine diseases.
In 1990, Intervet was among the first European companies to obtain registrations from the Committee for Veterinary Medical Products in Brussels.



Production and visual inspection of Mercilon® *oral contraceptive.*

Microinjection of RNA (nucleic acids) into ova of clawed frogs as part of genetic research at Organon, Oss, the Netherlands.

Bacterial cultures in Organon's microbiological laboratory in Oss.

Activities by geographic area

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

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

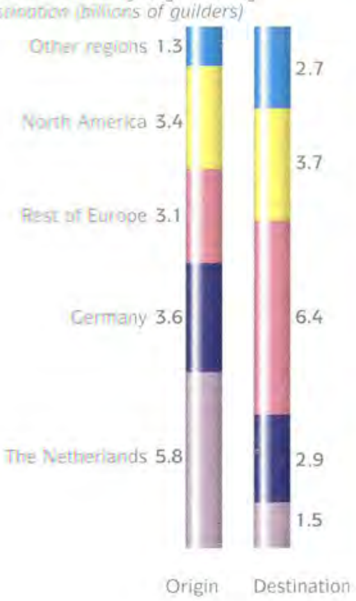
Consolidated companies

Millions of guilders	*Net sales by destination* 1990	*1989*	*Net sales by origin* 1990	*1989*	*Operating income* 1990	*1989*	*Invested capital** 1990	*1989*	*Expenditures for property, plant and equipment* 1990	*1989*	*Number of employees, December 31* 1990	*1989*
The Netherlands	**1,532**	1,603	**5,809**	6,156	**411**	605	**3,185**	2,853	**524**	493	**22,100**	22,300
Germany	**2,957**	2,758	**3,602**	3,792	**209**	300	**1,651**	1,670	**195**	273	**15,300**	16,000
Rest of Europe	**6,375**	6,570	**3,095**	2,970	**233**	268	**1,744**	1,740	**172**	172	**12,500**	12,700
North America	**3,700**	3,809	**3,446**	3,418	**277**	248	**1,805**	2,133	**160**	195	**10,500**	10,500
Other regions	**2,682**	3,059	**1,294**	1,463	**131**	228	**641**	662	**78**	124	**9,400**	9,400
	17,246	17,799	**17,246**	17,799	**1,261**	1,649	**9,026**	9,058	**1,129**	1,257	**69,800**	70,900
Barmag		937		937		64		352		40		
Total	**17,246**	18,736	**17,246**	18,736	**1,261**	1,713	**9,026**	9,410	**1,129**	1,297	**69,800**	70,900

Ratios of consolidated companies

	*Operating income as % of net sales*** 1990	*1989*	*Operating income as % of average invested capital* 1990	*1989*
The Netherlands	**7.1**	9.8	**13.6**	21.0
Germany	**5.8**	7.9	**12.6**	18.8
Rest of Europe	**7.5**	9.0	**13.4**	16.6
North America	**8.0**	7.3	**14.1**	12.1
Other regions***	**10.1**	15.6	**20.1**	37.4
	7.3	9.3	**13.9**	18.9
Barmag		6.8		19.3
Overall ratio	**7.3**	9.1	**13.7**	18.9

1990 net sales, by origin and by destination (billions of guilders)



Nonconsolidated companies

Millions of guilders	*Net sales by origin* 1990	*1989*	*Invested capital** 1990	*1989*	*Number of employees December 31* 1990	*1989*
Europe	**1,590**	1,910	**940**	1,040	**1,100**	2,000
North America	**190**	220	**160**	160	**900**	800
Latin America	**640**	720	**630**	560	**5,500**	5,100
Other regions	**920**	950	**650**	590	**3,900**	3,600
Total	**3,340**	3,800	**2,380**	2,350	**11,400**	11,500

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

** By origin.

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

Aggregate 1990 sales of the consolidated companies located in *Europe* were Hfl 12.5 billion, down 3% from the 1989 figure of Hfl 12.9 billion, exclusive of Barmag. Operating income as a percentage of sales was 6.8% (1989: 9.1%). Operations in Europe account for more than 70% of the Group's total invested capital and workforce.
Dollar sales of our companies in *North America* increased further (17%), principally because the year's figures of the Reliance coatings company, acquired in August 1989, are now fully included in the consolidated statements. Operating income was substantially higher, despite the economic downturn in the United States. As a percentage of sales , it was ahead from 7.3% in 1989 to 8.0%.
A substantial part of our consolidated activities in the *other regions* is located in Brazil. Local economic conditions had a major adverse impact on business.

Arnhem, February 26, 1991

The Board of Management

View of Monongahela, Pennsylvania, plant where Crystex® *insoluble sulfur is produced.*

Akzo N.V., Arnhem, The Netherlands — February 1991

Divisions	*Products*	*Management*
Fibers and Polymers Division Wuppertal Germany	*Fibers for industrial uses and textile uses, including carpets; high performance fibers; engineering plastics; membranes; nonwovens; various industrial products*	U.G. Stark, president J.H. Katgert W.H. Meyberg C.M. Vermeulen G. von Sengbusch T. Kuipers M. Schütze
Salt and Basic Chemicals Division Hengelo The Netherlands	*Salt, chlorine, alkali products, VCM, methanol, urea formaldehyde resins, industrial colloids, organochlor compounds, organic amines; raw materials for herbicides*	F.A.G. Collot d'Escury, president (until March 1, 1991) R.M.J. van der Meer, president (effective March 1, 1991) L.J. Boone (effective April 1, 1991) S.J. Vogelaar (eff. March 1, 1991)
Chemicals Division Amersfoort The Netherlands	*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, fabric softeners and other surfactants, and nonflammable hydraulic fluids; catalysts for the oil, petrochemical, and chemical industries*	J.C.P. van Oosterom, president (until March 1, 1991) F.A.G. Collot d'Escury, president (effective March 1, 1991) J.C.E. Fuller (until July 1, 1990) A. Moolenburgh (eff. July 1, 1990) E. Snoeck C.S. Kent
Coatings Division Hoofddorp The Netherlands	*Paints, stains, and synthetic resins for industrial, professional, and consumer uses*	C. Zaal, president H.C. Bijvank H.J. Groen J.D. Remijnse M. Rooseboom T.M. Tieleman
Pharma Division Oss The Netherlands	*Ethical drugs, nonprescription products, hospital supplies, diagnostics, raw materials for the pharmaceutical industry, veterinary products*	A.G.J. Vermeeren, president P.J. Baart (effective Jan. 1, 1991) P.K. Brons B.H.M. van Dommelen T. Kalff J.F. Sistermans F.L. Vekemans

National organizations

Akzo Nederland	Arnhem, the Netherlands	A. van Es, president
Akzo America	New York, United States	R.M. Clarke, president
Akzo België	Brussels, Belgium	K. van Nierop, president
Akzo do Brasil	São Paulo, Brazil	J.W. Bootz, president
Akzo Japan	Tokyo, Japan	S. Matsubayashi, president

National offices

Akzo China	Beijing, Dalian, Guangzhou, Shanghai, People's Republic of China	R. Develing
Akzo Korea	Seoul, Republic of Korea	D. van der Linden
Akzo U.S.S.R.	Moscow, U.S.S.R.	R. Bennema

Accounting policies used in preparing the consolidated financial statements

Consolidation

The consolidated financial statements include the accounts of Akzo N.V. and its Group companies; Group companies are subsidiaries of which Akzo N.V. directly and/or indirectly has control.
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 45 through 52 are based on historical cost. Current-value data are furnished by way of supplementary information on page 53.

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	***1990***	*1989*	***1990****	*1989**
U.S.$	1	**1.69**	1.92	**1.82**	2.12
DM	1	**1.13**	1.13	**1.13**	1.13
£ stg	1	**3.26**	3.08	**3.25**	3.45
Fr. fr.	1	**0.33**	0.33	**0.34**	0.33
Sw. fr.	1	**1.32**	1.24	**1.32**	1.30
Belg. fr.	100	**5.46**	5.37	**5.46**	5.38
Sp. pes.	100	**1.77**	1.74	**1.79**	1.79
Yen	100	**1.25**	1.33	**1.26**	1.53

* Period averages.

Principles of valuation of assets and liabilities

Intangible fixed assets
Preparation and start-up expenses of large investment projects are capitalized and charged against operating income in not more than five equal annual installments after the facilities concerned have been put into service.
Other intangibles are not capitalized but are charged against operating income.
Purchased goodwill is charged directly against Group equity.

Property, plant and equipment
Property, plant and equipment are valued at cost less depreciation.
Cost includes the financing charges of capital investment projects under construction. Capital investment grants are deducted from property, plant and equipment.
Depreciation is computed by the straight-line method based on estimated life, which in the majority of cases is 10 years for plant equipment and machinery, and which ranges from 20 to 30 years for buildings. In cases where the book value so computed exceeds the value to the business additional write-offs are made.

Financial fixed assets
Investments in nonconsolidated companies are stated at the amount of Akzo's share in stockholders' equity. The calculation of stockholders' equity is based as much as possible on the Akzo principles of valuation.
Loans to nonconsolidated companies are carried at face value less such provisions as are deemed necessary.
Other financial fixed assets are stated at face value, at cost, or at lower market value.

Inventories
Inventories are stated at the lower of cost or net realizable value. Cost is defined as the full manufacturing cost related to the stage of processing.
Cost is determined by the first-in first-out (FIFO) method. Provisions are made for obsolescence.
In the valuation of inventories, profits arising from transactions between consolidated companies are eliminated.

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

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

Provisions
Provisions for deferred taxes are stated at face value.
Dividend taxes for which no compensation is available are taken into account to the extent of earnings expected to be transferred by affiliated companies in the new fiscal year.
The provisions in respect of pension rights are generally computed on an actuarial basis.
Provisions for commitments and risks whose extent is uncertain but which can reasonably be estimated, and provisions made to equalize expenses among several fiscal years are shown in the aggregate under "Other provisions." The amounts of these provisions are fixed in relation to the liabilities and risks concerned and are stated at face value.

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

Principles of determination of income

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

Consolidated balance sheet of the Akzo Group

See notes on pages 48 through 51.

after allocation of profit

Millions of guilders, December 31		*1990*		*1989*
Assets				
Fixed assets				
Property, plant and equipment		5,883.9		5,911.0
Financial fixed assets				
– Nonconsolidated companies	779.0		699.0	
– Other financial fixed assets	179.7		153.2	
		958.7		852.2
		6,842.6		6,763.2
Current assets				
Inventories	2,865.1		2,952.2	
Receivables	3,157.3		3,683.9	
Cash and short-term investments	815.8		884.6	
		6,838.2		7,520.7
Total		13,680.8		14,283.9
Group equity and liabilities				
Group equity				
Akzo N.V. stockholders' equity	4,642.1		4,498.9	
Minority interest	191.5		231.6	
		4,833.6		4,730.5
Provisions		2,536.6		2,302.9
Long-term debt				
Subordinated loans	53.5		84.1	
Other long-term borrowings	2,030.1		2,341.2	
		2,083.6		2,425.3
Current liabilities				
Short-term borrowings	1,166.6		1,534.6	
Other current liabilities	3,060.4		3,290.6	
		4,227.0		4,825.2
Total		13,680.8		14,283.9

Consolidated statement of income of the Akzo Group

See notes on pages 51 and 52.

Millions of guilders		*1990*		*1989*
Net sales		17,245.6		18,736.2
Cost of sales		(11,074.2)		(12,068.6)
Gross margin		6,171.4		6,667.6
Selling expenses	(3,095.1)		(3,135.3)	
Research and development expenses	(890.7)		(903.5)	
General and administrative expenses	(951.2)		(963.3)	
Other revenue from operations	26.7		47.2	
		(4,910.3)		(4,954.9)
Operating income		1,261.1		1,712.7
Financing charges		(367.9)		(323.8)
Operating income less financing charges		893.2		1,388.9
Taxes		(280.4)		(507.1)
Earnings of consolidated companies from normal operations, after taxes		612.8		881.8
Earnings from nonconsolidated companies		103.2		85.8
Group income from normal operations, after taxes		716.0		967.6
Extraordinary items after taxes		(64.4)		12.2
Group income		651.6		979.8
Minority interest		11.4		(25.6)
Net income		663.0		954.2

Consolidated statement of changes in financial position of the Akzo Group

See notes on page 52.

Millions of guilders	*1990*	*1989*
Sources of funds		
Group income	652	980
Depreciation	867	852
Cash flow	1,519	1,832
Nonconsolidated companies	(7)	58
Changes in provisions	122	198
Other items	106	87
	1,740	2,175
Applications of funds		
Expenditures for property, plant and equipment	1,129	1,297
Investments in and acquisition of nonconsolidated companies	243	167
Acquisition of consolidated interests	23	1,080
Changes in other financial fixed assets	31	(6)
Disposal of interests	(90)	(198)
	1,336	2,340
Changes in working capital*	(322)	401
Dividends paid	248	106
Other applications	8	9
	1,270	2,856
Balance of funds provided and funds used	470	(681)
Financing		
Issuance of stock, exclusive of stock dividend		225
Drawdowns	360	677
Repayment of long-term debt	(635)	(419)
Changes in short-term borrowings	(264)	132
	(539)	615
Changes in cash and short-term investments	(69)	(66)

* 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, 1990, are listed on pages 65 and 66.
A list of affiliated companies, drawn up in conformity with sections 379 and 414 of Book 2 of the Dutch Civil Code, has been filed at the Trade Registry of Arnhem.

Changes in consolidated interests

In 1990 there were no 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, 1989						
Cost of acquisition	13,959.3	2,917.2	9,048.3	1,185.0	669.4	139.4
Depreciation	(8,048.3)	(1,301.1)	(5,888.4)	(763.6)		(95.2)
Book value	5,911.0	1,616.1	3,159.9	421.4	669.4	44.2
Changes in book value						
Acquisitions and disposal of interests	5.7	2.6	(7.6)	10.7		
Capital expenditures	1,128.6	200.0	829.5	160.0	(69.7)	8.8
Depreciation	(866.6)	(106.7)	(612.5)	(141.9)		(5.5)
Additional write-offs	(85.0)	(1.4)	(83.0)	(0.6)		
Disinvestments	(52.4)	(5.8)	(38.2)	(6.7)		(1.7)
Changes in exchange rates	(159.1)	(58.8)	(96.3)	(2.6)		(1.4)
Other changes	1.7	6.1	(6.5)	(2.1)		4.2
Total changes in 1990	(27.1)	36.0	(14.6)	16.8	(69.7)	4.4
Situation at December 31, 1990						
Cost of acquisition	14,467.5	3,025.1	9,412.1	1,285.0	599.7	145.6
Depreciation	(8,583.6)	(1,373.0)	(6,266.8)	(846.8)		(97.0)
Book value	**5,883.9**	**1,652.1**	**3,145.3**	**438.2**	**599.7**	**48.6**

The book value of property, plant and equipment financed by installment buying and leasing was approximately Hfl 28 million at December 31, 1990 (at December 31, 1989: approximately Hfl 29 million).

Given their comparatively slight magnitude, preparation and start-up expenses, carried at Hfl 3.1 million at December 31, 1990 (at December 31, 1989: Hfl 3.1 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, 1989	852.2	659.2	39.8	153.2
Investments	295.3	176.1	67.2	52.0
Disinvestments	(116.5)	(88.1)	(7.4)	(21.0)
Consolidation/deconsolidation due to changes in participation	(9.8)	(5.3)	(4.5)	
Equity in 1990 earnings	93.7	93.7		
Dividends received	(86.5)	(86.5)		
Changes in exchange rates	(69.7)	(63.1)	(2.1)	(4.5)
Situation at December 31, 1990	**958.7**	**686.0**	**93.0**	**179.7**

Inventories

Millions of guilders	***1990***	*1989*
Raw materials and supplies	**741.8**	816.4
Work in process	**532.4**	599.2
Finished products and goods for resale	**1,588.7**	1,532.3
Inventory prepayments	**2.2**	4.3
	2,865.1	2,952.2

Receivables

Millions of guilders	***1990***	*1989*
Trade receivables	**2,585.7**	2,782.8
Receivables from nonconsolidated companies	**171.2**	127.5
Other receivables	**626.0**	988.8
	3,382.9	3,899.1
Discounted portion	**(225.6)**	(215.2)
	3,157.3	3,683.9

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

Cash and short-term investments

Millions of guilders	***1990***	*1989*
Short-term investments	**668.3**	754.7
Cash on hand and in banks	**147.5**	129.9
	815.8	884.6

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

Group equity

Millions of guilders	*Akzo N.V. stockholders' equity*	*Minority interest*
Situation at December 31, 1989	4,498.9	231.6
Issuance of stock	124.5	
Retained earnings	374.3	(34.8)
Changes in minority interest in Group companies		2.5
Goodwill	(118.6)	
Changes in exchange rates	(177.0)	(7.8)
Other changes	(60.0)	
Situation at December 31, 1990	**4,642.1**	**191.5**

For details on changes in Akzo N.V. stockholders' equity see the notes to the Akzo N.V. balance sheet on page 56.

Provisions

Millions of guilders	***1990***	*1989*
Deferred taxes	**419.3**	391.0
Pension rights	**1,291.6**	1,227.1
Other provisions	**825.7**	684.8
	2,536.6	2,302.9

The current portion of provisions amounted to approximately Hfl 269 million (at December 31, 1989: approximately Hfl 212 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, 1990, as at December 31, 1989, the accumulated pension benefits were fully covered by these provisions and by contributions paid into independent pension funds or to third parties.

Other provisions
Other provisions primarily relate to the restructuring of activities; coverage for losses, not otherwise insured, contingent upon the outcome of litigation; guarantees; and an additional provision for early retirement of employees.

Subordinated loans

This item is composed of the amounts borrowed in respect of subordinated loans arranged by Akzo Nederland B.V., together with either Enka B.V. or Akzo Salt and Basic Chemicals Nederland B.V.
Akzo N.V. has accepted joint and several liability for these loans. They are subordinated to all third-party debts of the companies named.
The interest rate averaged 11.0% (1989: 11.0%). Repayment is scheduled to be made in 1991 (Hfl 30.5 million) and in 1992 (Hfl 23.0 million).

Other long-term borrowings

Millions of guilders	***1990***	*1989*
Debentures		
– Issued by Akzo N.V.	**1,234.1**	1,393.2
– Issued by consolidated companies	**56.1**	170.2
Private borrowings	**114.6**	317.9
Debt to credit institutions	**536.0**	316.5
Other borrowings	**89.3**	143.4
	2,030.1	2,341.2

Aggregate maturities are as follows:

Millions of guilders	*1991*	*1992/ 1995*	*after 1995*
Debentures			
– Issued by Akzo N.V.	221.3	680.9	331.9
– Issued by consolidated companies	22.7	10.4	23.0
Private borrowings	12.7	49.8	52.1
Debt to credit institutions	55.9	458.5	21.6
Other borrowings	40.5	42.8	6.0
	353.1	1,242.4	434.6

The average interest rate was 8.0% (1989: 7.7%).
Private borrowings and debt to credit institutions have been secured to an aggregate amount of Hfl 93 million (at December 31, 1989: Hfl 110 million) by means of mortgages, etc.
The total amount of long-term credit facilities arranged by Akzo but not yet utilized was approximately Hfl 930 million at December 31, 1990 (at December 31, 1989: approximately Hfl 1,056 million).
For details on debentures issued by Akzo N.V. see the notes to the Akzo N.V. balance sheet on page 56.

Short-term borrowings

Millions of guilders	***1990***	*1989*
Commercial paper	**371.0**	576.0
Debt to credit institutions	**795.6**	958.6
	1,166.6	1,534.6

Other current liabilities

Millions of guilders	***1990***	*1989*
Prepayments by customers	**12.4**	9.9
Debt to suppliers	**1,475.9**	1,572.8
Debt to non-consolidated companies	**36.7**	30.9
Taxes and social security contributions	**374.0**	588.1
Dividends	**224.5**	284.1
Pensions	**86.6**	57.7
Other liabilities	**850.3**	747.1
	3,060.4	3,290.6

Commitments and contingent liabilities

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

Purchase commitments for property, plant and equipment aggregated Hfl 209 million at December 31, 1990. At December 31, 1989, these commitments totaled Hfl 192 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 1991, these liabilities will require total payments of Hfl 81 million.

Guarantees in behalf of nonconsolidated companies totaled Hfl 110 million (at December 31, 1989: Hfl 125 million).

As general partners of several partnerships, companies of the Akzo Group are liable for obligations incurred by the partnerships. At December 31, 1990, the risk ensuing from these liabilities was Hfl 85 million (at December 31, 1989: Hfl 66 million).

Consolidated statement of income

Net sales

Product groups

Millions of guilders	***1990***	*1989*
Chemical products	**5,760**	6,420
Fibers and polymers	**4,852**	5,210
Coatings	**3,929**	3,659
Healthcare products	**2,775**	2,647
Miscellaneous products and intra-Group deliveries*	**(70)**	(137)
	17,246	17,799
Barmag		937
	17,246	18,736

Areas of destination

Millions of guilders	***1990***	*1989*
The Netherlands	**1,532**	1,603
Germany	**2,957**	2,758
Rest of Europe	**6,375**	6,570
North America	**3,700**	3,809
Other regions	**2,682**	3,059
	17,246	17,799
Barmag		937
	17,246	18,736

Financing charges

Millions of guilders	***1990***	*1989*
Interest received and similar income	**81.0**	83.3
Interest paid and similar expenses	**(448.9)**	(407.1)
	(367.9)	(323.8)

Interest paid decreased by Hfl 51 million (1989: Hfl 43 million) due to the capitalization of financing expenses of capital investment projects under construction.

Taxes on operating income less financing charges

Taxes averaged 31.4% (1989: 36.5%). Because of loss compensation facilities a portion of income was not included in taxable income.

Earnings from nonconsolidated companies

Earnings from nonconsolidated companies include a tax gain of Hfl 9.1 million in 1990 and a tax charge of Hfl 8.3 million in 1989.

* Given the minor importance of miscellaneous products (1990 sales: Hfl 128 million; 1989 sales: Hfl 120 million), they have been combined with intra-Group deliveries.

Extraordinary items after taxes

Millions of guilders	*1990*	*1989*
Extraordinary gains	**143.8**	274.8
Extraordinary losses	**(224.8)**	(249.3)
Extraordinary items	**(81.0)**	25.5
Taxes	**16.6**	(13.3)
	(64.4)	12.2

The 1990 extraordinary items mainly relate to book profits on divestitures and extraordinary charges due to restructuring.

Salaries, wages, and social charges

Millions of guilders	*1990*	*1989*
Salaries and wages	**4,125.6**	4,154.4
Pension costs	**331.0**	339.7
Other social charges	**610.9**	814.2
	5,067.5	5,308.3

Employees

Average number of employees	*1990*	*1989*
Fibers and Polymers Division	**26,200**	31,100
Salt and Basic Chemicals Division	**6,500**	6,500
Chemicals Division	**8,200**	8,000
Coatings Division	**15,300**	14,000
Pharma Division	**12,800**	12,500
Other companies	**1,500**	1,400
	70,500	73,500
Number of employees at December 31	**69,800**	70,900

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 1990 balance sheet items	(444)	234	(342)	(368)
Eliminations:				
Changes in exchange rates	112	33	67	107
Changes in consolidation	10	(85)		(3)
Other eliminations		(60)		
Changes in 1990 financial position	(322)	122	(275)**	(264)

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

** Balance of drawdowns (Hfl 360 million) and repayments (Hfl 635 million).

Supplementary information on the basis of current value

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

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

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

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

Condensed consolidated balance sheet

Millions of guilders	***1990***	*1989*
Assets		
Fixed assets on the basis of historical cost	**6,843**	6,763
Revaluation of fixed assets	**996**	1,146
Fixed assets on the basis of current value	**7,839**	7,909
Current assets	**6,838**	7,521
Total	**14,677**	15,430
Group equity and liabilities		
Stockholders' equity	**5,273**	5,238
Minority interest	**228**	274
Group equity	**5,501**	5,512
Provisions	**2,866**	2,668
Debt	**6,310**	7,250
Total	**14,677**	15,430

Summarized consolidated income data

Millions of guilders	***1990***	*1989*
Net sales	**17,246**	18,736
Operating income on the basis of historical cost	**1,261**	1,713
Adjustment of operating income to current value		
– Inventory results	**6**	(39)
– Additional depreciation	**(88)**	(118)
Operating income on the basis of current value	**1,179**	1,556
As percentage of net sales	**6.8**	8.3
Net income on the basis of historical cost	**663**	954
Adjustment of operating income to current value	**(82)**	(157)
Gearing adjustment	**40**	77
Adjustments for non-consolidated companies and minority interest	**(1)**	(3)
Net income on the basis of current value	**620**	871

Akzo N.V. balance sheet

See notes on pages 55 through 57.

after allocation of profit

Millions of guilders, December 31		*1990*		*1989*
Assets				
Fixed assets				
Financial fixed assets		**6,575.6**		7,019.8
Current assets				
Receivables	**397.9**		56.5	
Cash and short-term investments	**374.5**		270.8	
		772.4		327.3
Total		**7,348.0**		7,347.1
Stockholders' equity and liabilities				
Stockholders' equity				
Subscribed stock	**888.5**		866.5	
Additional paid-in capital	**1,421.7**		1,435.2	
Statutory reserves	**–**		–	
Other reserves	**2,331.9**		2,197.2	
		4,642.1		4,498.9
Long-term debt		**1,844.0**		2,189.0
Current liabilities		**861.9**		659.2
Total		**7,348.0**		7,347.1

Akzo N.V. statement of income

See notes on page 57.

Millions of guilders	*1990*	*1989*
Net income from affiliated companies	**706.2**	962.6
Other net income	**(43.2)**	(8.4)
Net income	**663.0**	954.2

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 43 and 44.
Thus stockholders' equity and net income are equal to stockholders' equity and net income as shown in the consolidated financial statements on pages 45 and 46.
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, 1989	7,019.8	3,957.7	2,908.2	147.8	5.0	1.1
Investments/ disinvestments	356.6	354.7				1.9
Equity in 1990 earnings	706.2	657.5		48.7		
Dividends received	(492.1)	(471.6)		(20.5)		
Loans granted	512.2		510.8		1.4	
Repayment of loans	(1,171.5)		(1,168.5)		(3.0)	
Changes in exchange rates	(177.0)	(151.5)	(1.4)	(24.1)		
Goodwill	(118.6)	(118.6)				
Other changes	(60.0)	(60.0)				
Situation at December 31, 1990	**6,575.6**	**4,168.2**	**2,249.1**	**151.9**	**3.4**	**3.0**

Receivables

Millions of guilders	*1990*	*1989*
Receivables from consolidated companies	**325.8**	20.6
Receivables from nonconsolidated companies		0.1
Taxes	**36.9**	
Other receivables	**35.2**	35.8
	397.9	56.5

Cash and short-term investments

Millions of guilders	*1990*	*1989*
Short-term investments	**367.1**	268.6
Cash on hand and in banks	**7.4**	2.2
	374.5	270.8

* 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, 1989	866.5	1,435.2	–	2,197.2	4,498.9
Issuance of common stock due to:					
– exercise of warrants	0.0	0.1			0.1
– 1989 stock dividend	22.0	(13.6)		116.0	124.4
Retained earnings				374.3	374.3
Goodwill				(118.6)	(118.6)
Changes in exchange rates in respect of affiliated companies				(177.0)	(177.0)
Other changes				(60.0)	(60.0)
Situation at December 31, 1990	**888.5**	**1,421.7**	–	**2,331.9**	**4,642.1**

Subscribed stock
Authorized capital stock of Akzo N.V. is Hfl 2,000,048,000 and consists of 48 shares of priority stock of Hfl 1,000 each, and 100 million shares of common stock of Hfl 20 each.
Subscribed stock consists of 48 shares of priority stock and 44,420,960 shares of common stock. During 1990, a total of 1,095,682 shares of common stock were issued in respect of the 1989 stock dividend.

Warrants
In 1986, Akzo N.V. issued 2,001,513 warrants to bearer. At December 31, 1990, a total of 1,997,885 warrants were still outstanding.
Until September 30, 1991, each warrant entitles the holder thereof to obtain, at the price of Hfl 117.50, one share of Akzo N.V. common stock. Akzo N.V. has the right to shorten the exercise period of the warrants with due observance of a period of prior notice of at least three months.

Stock options
Options to purchase shares of Akzo N.V. common stock have been granted to key employees under a stock option plan introduced in 1990. Until May 4, 1995, these options are exercisable at a price of Hfl 120.40 per share. At December 31, 1990, there were outstanding options for 80,150 shares of Akzo N.V. common stock.

Additional paid-in capital
At least Hfl 793 million of additional paid-in capital (at December 31, 1989: Hfl 813 million) can be considered free from income tax within the meaning of the Dutch 1964 Income Tax Law (Wet op de Inkomstenbelasting 1964).

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

Long-term debt

Millions of guilders	***1990***	*1989*
Debentures	**1,234.1**	1,393.2
Debt to consolidated companies	**585.9**	573.7
Private borrowings	**0.8**	159.6
Other borrowings	**23.2**	62.5
	1,844.0	2,189.0

Debentures

Millions of guilders	***1990***	*1989*
10¾% 1982/88-92	**40.0**	60.0
14% 1987/90 (A$)		73.5
9¾% 1987/90 (Can.$)		95.3
6¼% 1988/95	**200.0**	200.0
4⅝% 1988/98 (Sfr)	**131.3**	123.7
6% 1988/96	**200.0**	200.0
5⅜% 1988/93 (DM)	**225.6**	225.8
11% 1988/91 (Can.$)	**104.2**	104.2
7⅝% 1988/91 (ECU)	**97.1**	110.3
14⅝% 1989/92 (A$)	**103.3**	117.3
14⅜% 1989/92 (A$)	**72.6**	82.5
8⅛% 1990/93 (Sfr)	**59.4**	
Employee debentures	**0.6**	0.6
	1,234.1	1,393.2

The liabilities arising from the A$, ECU, and Sfr (1990/93) debenture issues were swapped to liabilities in U.S. dollars on which interest is payable at a floating rate related to LIBOR.

The liability arising from the Can.$ debenture issue was swapped to a liability in guilders on which interest is payable at a floating rate related to AIBOR.

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 9.8% in 1990 (1989: 7.6%).

Private and other borrowings
Aggregate maturities are as follows:

Millions of guilders	*1991*	*1992/ 1995*	*after 1995*
Private borrowings	0.1	0.4	0.3
Other borrowings	17.8	0.4	5.0

The average rate of interest was 5.2% (1989: 7.7%).

Current liabilities

Millions of guilders	***1990***	*1989*
Debt to credit institutions	**93.8**	141.9
Debt to consolidated companies	**448.9**	52.9
Taxes and social security contributions		71.7
Dividend	**224.5**	284.1
Other liabilities	**94.7**	108.6
	861.9	659.2

Liabilities not shown in the balance sheet

Joint and several liability; guarantees
Akzo N.V. has declared in writing that it accepts joint and several liability for contractual debts of Dutch consolidated companies.
These debts, at December 31, 1990 aggregating approximately Hfl 1.7 billion (at December 31, 1989: approximately Hfl 1.6 billion), are included in the consolidated balance sheet of the Akzo Group. Additionally, guarantees were issued in behalf of consolidated companies in the amount of Hfl 1.3 billion (1989: Hfl 1.2 billion) and in behalf of nonconsolidated companies in the amount of Hfl 110 million (1989: Hfl 125 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 1990, remuneration including pension expense amounted to Hfl 7,960,000 (1989: Hfl 4,933,000) for members and former members of the Board of Management, and to Hfl 668,000 (1989: Hfl 687,000) for members and former members of the Supervisory Council. These amounts were charged to Akzo Group income.

Arnhem, February 26, 1991

The Board of Management

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

The Supervisory Council

G. Kraijenhoff
H. Kopper
E.G.G. Werner
A. Batenburg
A.R. Dragone
F.H. Fentener van Vlissingen
J.G.A. Gandois
H.H. van den Kroonenberg
H.A. van Stiphout
C. van Veen
H.G. Zempelin

Auditors' report

We have audited the foregoing financial statements of Akzo N.V. for the year 1990. We conducted our audit in accordance with auditing standards generally accepted in the Netherlands.

In our opinion, these financial statements give a true and fair view of the financial position of the Company at December 31, 1990, and of the results for the year then ended, and are also otherwise in compliance with Dutch legal requirements for financial statements.

Arnhem, February 26, 1991

KPMG Klynveld

Provisions of the articles of association with regard to profit allocation

Article 37

1

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

2

The remaining profit shall, to the extent possible, be allocated as follows:

a

to the holders of priority stock:
six percent per share or the statutory interest referred to in article 8, paragraph 1, whichever is lower, plus any accrued and unpaid dividends;

b

to the holders of common stock:
a dividend of such an amount per share as the remaining profit, less the aforesaid payment and less such amounts as the general meeting of stockholders may decide to carry to reserves, shall permit.

3

The holders of common stock are, to the exclusion of everyone else, entitled to allocations made from reserves accrued by virtue of the provision of paragraph 2b.

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		*1990*
Net income		663,000,000
With due observance of article 37, paragraph 2, of the articles of association, it is proposed that this amount be allocated as follows:		
To be distributed:		
dividend on priority stock	2,880	
dividend on common stock	288,736,240	
		288,739,120
To be added to "other reserves"		374,260,880

Following the acceptance of this proposal, the holders of common stock will receive a dividend of Hfl 6.50 per common share of Hfl 20, of which Hfl 1.50 was paid earlier as an interim dividend.

The final dividend of Hfl 5.00 will be made available on dividend coupon No. 36 from May 14, 1991.

Special rights to holders of priority stock

The priority stock is held by "Akzo-stichting" (Akzo Foundation), which is controlled by the members of the Supervisory Council and the Board of Management.
The meeting of holders of priority stock has the right to draw up binding lists of nominees for appointment to the Supervisory Council and the Board of Management. Amendments of the Articles of Association are subject to the approval of this meeting.

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	***1990***	*1989*	*1988*	*1987*	*1986*	*1985*	*1984*	*1983*	*1982*	*1981*
Property, plant and equipment	**5,884**	5,911	5,558	4,795	4,330	3,843	4,208	3,840	3,911	3,673
Financial fixed assets	**959**	852	847	792	660	622	610	611	499	532
Fixed assets	**6,843**	6,763	6,405	5,587	4,990	4,465	4,818	4,451	4,410	4,205
Inventories	**2,865**	2,952	2,997	2,568	2,586	2,691	2,653	2,457	2,542	2,506
Receivables	**3,157**	3,684	3,125	2,733	2,768	3,114	2,893	2,701	2,339	2,587
Cash and short-term investments	**816**	885	951	926	1,084	1,485	1,067	1,206	778	898
Current assets	**6,838**	7,521	7,073	6,227	6,438	7,290	6,613	6,364	5,659	5,991
Total assets	**13,681**	14,284	13,478	11,814	11,428	11,755	11,431	10,815	10,069	10,196
Subscribed capital	**888**	867	805	804	803	796	789	664	593	593
Additional paid-in capital	**1,422**	1,435	1,257	1,254	1,247	1,120	1,087	740	658	658
Statutory reserves	**–**	–	–	–	438*	372*	300*	–	–	–
Other reserves	**2,332**	2,197	2,228	1,754	1,823*	1,854*	1,838*	1,563	1,237	1,198
Stockholders' equity	**4,642**	4,499	4,290	3,812	4,311	4,142	4,014	2,967	2,488	2,449
Minority interest	**192**	232	235	217	354	353	170	120	122	407
Group equity	**4,834**	4,731	4,525	4,029	4,665	4,495	4,184	3,087	2,610	2,856
Provisions	**2,537**	2,303	2,207	2,266	2,005	2,003	1,729	1,535	1,427	1,335
Subordinated loans	**53**	84	115	145	167	184	203	221	175	75
Other long-term borrowings	**2,030**	2,341	2,114	1,194	1,438	1,678	2,169	3,132	3,227	3,114
Long-term debt	**2,083**	2,425	2,229	1,339	1,605	1,862	2,372	3,353	3,402	3,189
Short-term borrowings	**1,167**	1,535	1,436	1,525	405	439	430	349	571	613
Other current liabilities	**3,060**	3,290	3,081	2,655	2,748	2,956	2,716	2,491	2,059	2,203
Current liabilities	**4,227**	4,825	4,517	4,180	3,153	3,395	3,146	2,840	2,630	2,816
Total Group equity and liabilities	**13,681**	14,284	13,478	11,814	11,428	11,755	11,431	10,815	10,069	10,196
*Invested capital***										
Of consolidated companies	**9,026**	9,410	8,743	7,603	7,061	6,832	7,203	6,666	6,881	6,744
In nonconsolidated companies	**779**	699	703	630	535	482	445	452	351	351
Total	**9,805**	10,109	9,446	8,233	7,596	7,314	7,648	7,118	7,232	7,095
Property, plant and equipment										
Capital expenditures	**1,129**	1,297	1,270	1,095	1,106	1,008	784	625	730	693
Depreciation	**867**	852	751	668	577	608	576	584	533	527
Ratios										
Net sales : invested capital	**1.87**	2.06	2.03	2.12	2.25	2.57	2.38	2.23	2.08	2.20
Group equity : debt	**0.55**	0.50	0.51	0.52	0.69	0.62	0.58	0.40	0.35	0.39
Group equity : fixed assets	**0.71**	0.70	0.71	0.72	0.93	1.01	0.87	0.69	0.59	0.68
Inventories and receivables : other current liabilities	**1.97**	2.02	1.99	2.00	1.95	1.96	2.04	2.07	2.37	2.31

* Restated for comparison.

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

Consolidated statement of income

Millions of guilders	***1990***	*1989*	*1988*	*1987*	*1986*	*1985*	*1984*	*1983*	*1982*	*1981*
Net sales	**17,246**	18,736	16,581	15,535	15,615	18,010	16,520	15,085	14,154	14,476
Operating income	**1,261**	1,713	1,424	1,181	1,465	1,465	1,340	843	493	564
Financing charges	**(368)**	(324)	(255)	(147)	(106)	(185)	(285)	(341)	(297)	(329)
Taxes on operating income less financing charges	**(280)**	(507)	(409)	(367)	(478)	(465)	(369)	(73)	(28)	(79)
Equity in earnings of nonconsolidated companies	**103**	86	123	53	17	98	123	110	59	83
Group income from normal operations, after taxes	**716**	968	883	720	898	913	809	539	227	239
Extraordinary items after taxes	**(64)**	12	(11)	273	23	3	(35)	(102)	(49)	7
Group income	**652**	980	872	993	921	916	774	437	178	246
Minority interest	**11**	(26)	(29)	(51)	(79)	(73)	(22)	(9)	(13)	(7)
Net income	**663**	954	843	942	842	843	752	428	165	239
Common stock, in thousands of shares of Hfl 20	**44,421**	43,324	40,241	40,208	40,138	39,755	39,427	33,151	29,594	29,594
Dividend	**289**	347*	302*	265	265	262	236	133	47*	59
Per common share of Hfl 20, in guilders										
Net income	**14.93**	22.02	20.94	23.43	20.96	21.21	19.06	12.91	5.56	8.07
Dividend	**6.50**	8.00	7.50	6.60	6.60	6.60	6.00	4.00	1.60	2.00
Stockholders' equity	**104.50**	103.84	106.61	94.80	107.40	104.16	101.80	89.48	84.06	82.72
Adjusted for common stock issues										
Net income	**14.93**	21.97	20.83	23.31	20.85	21.10	18.96	12.78	5.26	7.63
Dividend	**6.50**	7.98	7.46	6.57	6.57	6.57	5.97	3.96	1.51	1.89
Stockholders' equity	**104.50**	103.62	106.06	94.31	106.85	103.62	101.28	88.57	79.53	78.26
Number of employees at December 31	**69,800**	70,900	71,100	67,400	68,400	65,000	66,100	66,300	73,700	77,800
Salaries, wages, and social charges	**5,068**	5,308	4,889	4,627	4,439	4,641	4,292	4,303	4,229	4,182
Ditto, as % of net sales	**29.4**	28.3	29.5	29.8	28.4	25.8	26.0	28.5	29.9	28.9
Ratios										
Operating income, as percentage of net sales	**7.3**	9.1	8.6	7.6	9.4	8.1	8.1	5.6	3.5	3.9
Operating income, as percentage of invested capital	**13.7**	18.9	17.4	16.1	21.1	20.9	19.3	12.4	7.2	8.6
Net income, as percentage of stockholders' equity	**14.5**	21.7	20.8	23.2	19.9	20.7	21.5	15.7	6.7	10.1

Figures on a current-value basis

	1990	*1989*	*1988*	*1987*	*1986*	*1985*	*1984*	*1983*	*1982*	*1981*
Per common share of Hfl 20, in guilders										
Net income	**13.96**	20.10	18.07	21.56	21.08	18.49	16.36	9.26	2.20	2.74
Stockholders' equity	**118.71**	120.90	127.83	115.00	126.00	123.41	123.50	113.40	110.74	110.51

* Of which Hfl 222 million in cash in 1989, Hfl 82 million in 1988, and Hfl 30 million in 1982.

Product group statistics*

Millions of guilders	***1990***	*1989*	*1988*	*1987*	*1986*	*1985*	*1984*	*1983*	*1982*	*1981*
Net sales										
Chemical products:										
Salt and basic chemicals	**2,384**	2,592	2,618	2,034	2,029	2,482	2,302	2,001	1,872	1,924
Specialty chemicals	**3,376**	3,828	3,402	2,617	2,303	2,673	2,498	2,096	1,945	2,087
	5,760	6,420	6,020	4,651	4,332	5,155	4,800	4,097	3,817	4,011
Fibers and polymers	**4,852**	5,210	4,678	4,291	4,513	4,835	4,587	3,982	4,006	4,139
Coatings	**3,929**	3,659	2,794	2,415	2,314	2,171	1,973	1,796	1,572	1,513
Healthcare products	**2,775**	2,647	2,412	2,218	2,239	2,138	1,849	1,647	1,563	1,484
Miscellaneous products and intra-Group deliveries	**(70)**	(137)	(107)	(136)	(103)	(66)	(62)	(14)	(9)	59
	17,246	17,799	15,797	13,439	13,295	14,233	13,147	11,508	10,949	11,206
Divested operations**		937	784	2,096	2,320	3,777	3,373	3,577	3,205	3,270
Net sales	**17,246**	18,736	16,581	15,535	15,615	18,010	16,520	15,085	14,154	14,476
Operating income										
Chemical products	**379**	703	700	470	421	474	403	193	89	125
Fibers and polymers	**218**	268	195	129	350	404	372	146	87	51
Coatings	**251**	281	210	164	132	130	144	143	97	110
Healthcare products	**429**	383	335	330	350	355	306	260	233	190
Miscellaneous products and nonallocated items	**(16)**	14	(56)	(57)	(8)	(60)	(58)	(37)	(18)	(33)
	1,261	1,649	1,384	1,036	1,245	1,303	1,167	705	488	443
Divested operations**		64	40	145	220	162	173	138	5	121
Operating income	**1,261**	1,713	1,424	1,181	1,465	1,465	1,340	843	493	564
Invested capital										
Chemical products	**3,461**	3,607	3,455	2,765	2,386	2,393	2,362	2,025	1,895	1,851
Fibers and polymers	**2,735**	2,750	2,464	2,329	2,149	2,082	1,978	1,969	2,151	2,042
Coatings	**1,683**	1,708	1,291	1,089	1,070	894	738	653	598	569
Healthcare products	**1,338**	1,330	1,390	1,152	1,069	987	809	772	701	714
Miscellaneous products and nonallocated items	**(191)**	(337)	(169)	3	(151)	(86)	(73)	(14)	(40)	(16)
	9,026	9,058	8,431	7,338	6,523	6,270	5,814	5,405	5,305	5,160
Divested operations**		352	312	265	538	562	1,389	1,261	1,576	1,584
Invested capital	**9,026**	9,410	8,743	7,603	7,061	6,832	7,203	6,666	6,881	6,744

* Figures for 1981 through 1988 restated for comparison.

** Relates to Consumer Products Division, American Enka, Brand-Rex, and Barmag.

Regional statistics

Millions of guilders	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
The Netherlands										
Net sales by:										
– destination	**1,532**	1,612	1,706	1,948	1,902	1,988	1,836	1,675	1,561	1,460
– origin	**5,809**	6,156	6,022	5,763	5,721	6,234	5,772	5,106	4,528	4,699
Operating income	**411**	605	601	496	546	568	453	229	75	133
Expenditures for property, plant and equipment	**524**	493	465	451	442	424	286	283	338	303
Invested capital*	**3,185**	2,853	2,902	2,783	2,657	2,560	2,414	2,293	2,288	2,143
Number of employees*	**22,100**	22,300	22,700	22,500	23,900	23,100	22,400	22,000	22,600	23,000
Germany										
Net sales by:										
– destination	**2,957**	2,894	2,692	2,613	2,602	2,605	2,493	2,340	2,168	2,266
– origin	**3,602**	4,595	4,179	3,959	4,251	4,419	4,130	3,580	3,395	3,385
Operating income	**209**	341	261	240	433	384	370	178	128	105
Expenditures for property, plant and equipment	**195**	309	282	232	273	191	157	110	136	138
Invested capital*	**1,651**	2,022	1,785	1,714	1,651	1,679	1,562	1,694	1,688	1,660
Number of employees*	**15,300**	16,000	19,700	19,600	19,400	19,000	18,400	18,700	19,400	20,200
Rest of Europe										
Net sales by:										
– destination	**6,375**	6,831	6,125	6,404	6,617	6,739	5,902	5,131	5,137	5,276
– origin	**3,095**	3,008	2,566	3,094	3,056	3,063	2,470	2,226	2,392	2,458
Operating income	**233**	270	263	266	303	299	215	174	164	109
Expenditures for property, plant and equipment	**172**	174	209	163	157	124	100	77	68	95
Invested capital*	**1,744**	1,740	1,504	1,291	1,361	1,246	1,052	892	909	933
Number of employees*	**12,500**	12,700	11,700	11,600	13,200	12,500	11,100	11,000	12,700	14,000
North America										
Net sales by:										
– destination	**3,700**	4,016	3,128	2,333	2,224	3,923	3,781	3,744	3,241	3,375
– origin	**3,446**	3,487	2,664	2,014	1,918	3,510	3,353	3,462	3,048	3,210
Operating income (loss)	**277**	258	150	86	84	95	166	123	(24)	99
Expenditures for property, plant and equipment	**160**	197	251	209	207	231	217	136	148	139
Invested capital*	**1,805**	2,133	1,983	1,367	1,102	1,047	1,853	1,510	1,695	1,721
Number of employees*	**10,500**	10,500	8,900	7,500	6,200	5,400	8,800	9,100	13,400	14,900
Other regions										
Net sales by:										
– destination	**2,682**	3,383	2,930	2,237	2,270	2,755	2,508	2,195	2,047	2,099
– origin	**1,294**	1,490	1,150	705	669	784	795	711	791	724
Operating income	**131**	239	149	93	99	119	136	139	150	118
Expenditures for property, plant and equipment	**78**	124	63	40	27	38	24	19	40	18
Invested capital*	**641**	662	569	448	290	300	322	277	301	287
Number of employees*	**9,400**	9,400	8,100	6,200	5,700	5,000	5,400	5,500	5,600	5,700

* At December 31.

Principal companies of the Akzo Group

(other than holding companies and national organizations)

December 31, 1990

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, Germany)

Enka B.V., Arnhem with establishments in the Netherlands, France, the United States	Netherlands	
Akzo Industrial Systems B.V., Arnhem with establishments in the Netherlands, Germany	Netherlands	
Enka AG, Wuppertal	Germany	
Kuaggarn Textil GmbH, Wuppertal	Germany	
Akzo Engineering Plastics Belgium S.A., Assesse	Belgium	
Akzo Engineering Plastics France S.A., Ceyzeriat	France	
La Seda de Barcelona S.A., Barcelona	Spain	(58)
Akzo Engineering Plastics Inc., Neshanic Station, New Jersey with establishments in the United States, Canada	United States	
Fortafil Fibers Inc., Rockwood, Tennessee	United States	
Polyenka S.A., São Paulo	Brazil	(51)
COBAFI Companhia Bahiana de Fibras S.A., Camaçari	Brazil	(82)

Nonconsolidated companies:

Aramide Maatschappij v.o.f., Emmen	Netherlands	(50)
Fibras Químicas S.A., Monterrey	Mexico	(40)
Enka de Colombia S.A., Medellín	Colombia	(49)
Enkador S.A., Quito	Ecuador	(49)
Century Enka Ltd, Calcutta	India	(39)

Salt and Basic Chemicals Division

(Hengelo (O), the Netherlands)

Akzo Salt and Basic Chemicals, Hengelo with establishments in the Netherlands, Germany, Belgium, Sweden, Italy, the United States, Canada, the Netherlands Antilles	Netherlands	
Delamine B.V., Delfzijl	Netherlands	(50)

Nonconsolidated companies:

Methanol Chemie Nederland v.o.f., Delfzijl	Netherlands	(50)
Methanor v.o.f., Delfzijl	Netherlands	(30)
Delesto B.V., Delfzijl	Netherlands	(50)
ROVIN Rotterdamse Vinylunie v.o.f., Amsterdam	Netherlands	(50)
Elektro-Chemie Ibbenbüren GmbH, Ibbenbüren	Germany	(50)
Dansk Salt I/S, Mariager	Denmark	(50)
Denak Co. Ltd, Tokyo	Japan	(50)

Chemicals Division

(Amersfoort, the Netherlands)

Akzo Chemicals, Amersfoort with establishments in the Netherlands, Germany, Belgium, Denmark, Norway, Finland, France, Italy, Spain, the United Kingdom, the United States, Canada, Argentina*, Brazil, Singapore, Japan, Australia	Netherlands	
Carbosulf Chemische Werke GmbH, Cologne	Germany	(67)
Rhodanid Chemie GmbH, Cologne	Germany	(67)
Produits Chimiques Auxiliaires et de Synthèse S.A., Longjumeau	France	
Filtrol Corporation, Vernon, California	United States	
Akzo Kashima Ltd, Tokyo	Japan	(70)

Nonconsolidated companies:

Glucona v.o.f., Ter Apelkanaal	Netherlands	(50)
Kali-Chemie-Stauffer GmbH, Hanover	Germany	(50)
Texas Alkyls Belgium S.A., Seneffe	Belgium	(50)
Eurecat S.A., La Voulte-sur-Rhône	France	(42)
Société Européenne de Soufres Industriels S.A., Marseilles	France	(45)
Texas Alkyls Inc., Deer Park, Texas	United States	(50)
Cornwall Chemicals Ltd, Cornwall, Ontario	Canada	(50)
Alkyls do Brasil Ltda, São Paulo	Brazil	(50)
FCC-Fábrica Carioca de Catalisadores S.A., Rio de Janeiro	Brazil	(40)
Nippon Ketjen Company Ltd, Tokyo	Japan	(50)
Kayaku Akzo Corporation, Tokyo	Japan	(50)
Lion Akzo Company Ltd, Tokyo	Japan	(50)
Tosoh Akzo Corporation, Tokyo	Japan	(50)
Akzo & Pacific Oleochemicals Sdn. Bhd., Selangor	Malaysia	(50)
Pacific Chemical Industries Pty Ltd, Camellia	Australia	(50)

* In this country Akzo has a participation of less than 95% in one or more companies.

Coatings Division

(Hoofddorp, the Netherlands)

Akzo Coatings International, Hoofddorp with establishments in the Netherlands, Germany, Austria, Belgium, Denmark, France, Greece, the United Kingdom, Italy, Spain, the United States, Canada, Argentina, Brazil, Thailand, Morocco*, Senegal*, Ivory Coast*	Netherlands	
Koninklijke Brink/Molyn B.V., Groot-Ammers	Netherlands	
Koninklijke Talens B.V., Apeldoorn	Netherlands	
Akzo Resins B.V., Bergen op Zoom	Netherlands	
Akzo Kemipol A.S., Izmir	Turkey	(51)
General Paint Company de Mexico S.A. de C.V., Tlalnepantla	Mexico	

Nonconsolidated companies:

Dacral S.A., Paris	France	(50)
Akzo-TVK rt, Leninváros	Hungary	(51)
Synthese (Malaysia) Sdn. Bhd., Kuala Lumpur	Malaysia	(43)

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

Other companies

Akzo Engineering B.V., Arnhem	Netherlands
Akzo Systems B.V., Ede	Netherlands

Nonconsolidated companies:

AMP/Akzo JV, Inc., Melville, New York	United States	(50)

* In this country Akzo has a participation of less than 95% in one or more companies.

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

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

Dividends are paid through the following banks:

The Netherlands

Algemene Bank Nederland
Amsterdam-Rotterdam Bank
Bank Mees & Hope
NMB-Postbank Groep
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

Germany

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

Belgium

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

France

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

Luxembourg

Banque Générale du Luxembourg, Luxembourg

Austria

Creditanstalt-Bankverein, Vienna

United Kingdom

Barclays Bank
Midland Bank
at their offices in London

Switzerland

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

United States

Morgan Guaranty Trust Company, New York

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

The collective terms "Akzo," "the Group," or "the Company" are sometimes used for convenience in contexts where reference is made to the consolidated companies of Akzo N.V. in general.
These terms are also used if no useful purpose is served by identifying the particular company or companies.

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