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*Annual report 1991*



## Agenda

Agenda for the Annual Meeting of Stockholders of Akzo N.V. to be held in Musis Sacrum, Velperplein, Arnhem, the Netherlands, on Wednesday, April 29, 1992, at 2:00 p.m.

- 1 Opening

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- 2 Report of the Board of Management for the fiscal year 1991

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

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

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

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- 6 Any other business

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## Financial calendar 1992

Annual Meeting of Stockholders	April 29
Report for the 1st quarter 1992	April 29
Report for the 2nd quarter 1992	August 4
Report for the 3rd quarter 1992	November 3
Payment of the 1991 final dividend	May 18



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**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, coatings, and healthcare products. Altogether, the divisions comprise 40 business units, which possess sufficient autonomy to promote a prompt response to changes in market conditions.

It is 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 products 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.

It is a Company objective to increase sales volumes in the Far East.

	1991	1990
<i>Millions of guilders</i>		
Net sales	16,851	17,246
Operating income	1,156	1,261
Net income	580	663
Cash flow	1,446	1,519
Stockholders' equity	4,762	4,642
Property, plant and equipment		
- Expenditures	1,007	1,129
- Depreciation	878	867
Acquisitions	542	71
<i>Per common share of Hfl 20, in guilders</i>		
Net income	12.62	14.93
Cash flow	31.24	33.84
Dividend	6.50	6.50
Stockholders' equity	103.62	104.50
<i>Key financial statistics</i>		
Operating income, as % of net sales	6.9	7.3
Operating income, as % of average invested capital	12.7	13.7
Net income, as % of average stockholders' equity	12.3	14.5
Group equity/debt	0.57	0.55
Number of employees at year end	65,200	69,800



### **Supervisory Council**

G. Kraijenhoff, Chairman  
F.H. Fentener van Vlissingen,  
Deputy Chairman  
H. Kopper, Deputy Chairman  
A. Batenburg  
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  
C.J.A. van Lede  
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.

A.A. Loudon, Chairman  
C.J.A. van Lede, Deputy Chairman  
M.D. Westermann, Deputy Chairman

S. Bergsma, Financial Affairs  
R.M. Clarke, Akzo America  
F.A.G. Collot d'Escury, Chemicals  
Division  
A. van Es, Akzo Nederland  
F.W. Fröhlich, Fibers Division  
F.I.M. van Haaren, Research and  
Technology  
J. den Hoed, Corporate Control  
H.A. van Karnebeek, Coatings Division  
R.M.J. van der Meer, Salt and Basic  
Chemicals Division  
J.C.P. van Oosterom, Strategic  
Planning  
F.L. Vekemans, Human Resources  
A.G.J. Vermeeren, Pharma Division

After the reversal in the favorable conditions in 1990, the past year remained difficult for the chemical industry. The earnings squeeze was sustained by the failure of the U.S. economy to recover and the weakening economy in Europe and Japan as 1991 progressed. Primarily due to the excellent results of the Pharma Division and the steady performance of the Coatings Division after a dip in the first quarter, the decline in income before extraordinary items was limited. The balance of extraordinary items was negative, partly due to an additional provision made in the last quarter to cover the costs of the reorganization of our top structure and the merger of our chemicals divisions.

At the beginning of 1992, we announced proposals outlining major changes in the Company's top structure. These changes will complete a process that seeks to increase the unity of Akzo and to compensate for the weaknesses inherent in the Company's history of growth by merger and acquisition. In 1987, Akzo's Corporate Identity program was launched with a view to giving Akzo a clearer public profile and stimulating internal cultural change to advance unity within the Company. In 1989 this was followed by the introduction of the business unit organization in order to increase our ability to respond faster and more flexibly to market developments. The reorganization of our top structure now under way and to be completed by May 1, 1993, will merge the divisional and corporate levels into a single Corporate Management Holding, to be based in Arnhem. It should significantly increase overall effectiveness and efficiency, give wider scope to the greater responsibilities of the business units, shorten lines of communication, and optimize corporate synergies. Simultaneously with the reorganization plans, we announced our intention to merge the

Salt and Basic Chemicals Division and the Chemicals Division into a single Chemicals Division effective January 1, 1993. This merger has become possible through the implementation of the business unit organization: a variety of product-market combinations remotely controlled by one Board of Management and assisted by complementary disciplines and merged key service and staff departments. Our competitiveness should be greatly enhanced as a result.

Our product portfolio has also been subjected to critical analysis, which concluded that some 15% of our activities are structurally weak or outside the mainstream of Akzo's business. Divestment of these activities is the best solution; a major part has already been sold. Our other activities may be divided into two categories: those that are already strong, and those that are reasonably or potentially strong. With regard to the latter category, we will have to make choices: either build them up into structurally strong activities, or—where this is not possible—adopt other options, such as cooperation with third parties or, as a last resort, divestment. Key criteria in the exploration of these options are the attractiveness of the market, the prospects for growth, and the potential synergies with other business units. Our analysis of Akzo's portfolio has convinced us that we are in an excellent position to achieve a structural earnings improvement in the longer term.

The rapid developments in the environmental field are forcing companies desiring to maintain growth to adopt an integrated approach to the problems, from raw material to end use. Continued reduction and control of emissions and discharges from our manufacturing processes is an important element in this approach. For this purpose our Dutch sites adopted the Environmental Management System (EMS), which has been operational at practically all sites since January 1, 1992. The Akzo sites outside the Netherlands will implement the system over the next few years. The EMS provides relevant data for in-house reporting and for training purposes, as well as information to employees, customers, and society. Recently initiated, the internal audit program for safety, health, and the environment is an important aid to the efficiency of our environmental management activities. Environmentally responsible management of our operations is thus developing into a substantive quality attribute and one of the defining factors of our business performance.

We are increasingly concerned over the policy of various governments to regard the environment as a convenient source for tax levies, whose revenues are used to balance budgetary deficits rather than to solve environmental problems. A good illustration is the proposed energy levy in the Netherlands, which poses serious threats to the energy-intensive sectors of Dutch industry, industry suppliers, and employment. A European variation constitutes a similar threat, unless other industrialized countries, such as the United States and Japan, follow suit. Under GATT rules, European industry is not allowed protection against this erosion of its competitive strength. As things stand, the intended purpose—a reduction in energy consumption and carbon dioxide emissions—is not achievable.

The GATT negotiations have so far failed to yield results. Hopefully, the agricultural interests of both the United States and Europe will cease to bar the path to a new agreement. The ultimate failure of these negotiations would be bound to have an extremely negative impact on world trade and lead to growing protectionism. The ill effects would be particularly felt in Europe, given its strong dependence on international trade.

Under the present uncertain conditions it remains difficult to make a forecast on the development of our results in 1992. However, our proposal to pay an unchanged dividend for 1991 in a way reflects our confidence in Akzo's performance in the current fiscal year. This confidence is based on the assumptions that economic activity in the industrialized countries important to our business will not further weaken and that the U.S. economy will gain momentum during the year.

Our constant efforts to improve both the Company's organization and its product range support my conviction that we are in an increasingly better position to meet the challenges of the future. I am aware that we often draw heavily on our employees. I would like to thank them sincerely for their cooperation and dedication.



A handwritten signature in dark ink, appearing to read 'A.A. Loudon', written over a horizontal line.

A.A. Loudon







## General review

**Results of operations** Net income before extraordinary items was Hfl 691 million, against Hfl 729 million in 1990. Including extraordinary items, net income decreased from Hfl 663 million in 1990 to Hfl 580 million in 1991. Sales and income before extraordinary items achieved a satisfactory level in 1991, taking into account the uncertain political and economic climate resulting from the Persian Gulf War, the inability of the U.S. economy to recover after the war, and weakening business conditions in Europe and Japan.

Sales were down 2% to Hfl 16.9 billion. Operating income decreased from Hfl 1,261 million in 1990 to Hfl 1,156 million. Earnings of salt and basic chemicals lagged behind the prior year's level, while the results of specialty chemicals virtually equaled the 1990 earnings figure. Sales and operating income for fibers dropped sharply in the second half of the year because of lower shipments and downward pressure on selling prices.

Lower earnings of coatings were entirely attributable to the performance in the first quarter. The results in the other quarters were better than in 1990. Healthcare products achieved excellent results. Expenditures for property, plant and equipment were about Hfl 100 million lower than in 1990 (Hfl 1.1 billion). Ample liquidity was maintained, while the Group's equity/debt ratio improved from 0.55 to 0.57.

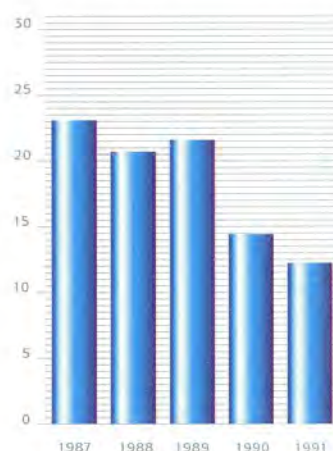
**Dividend proposal** Based on the number of shares outstanding as of December 31, 1991, net income per common share was Hfl 12.62, versus Hfl 14.93 in 1990. Before extraordinary items, net income per common share was Hfl 15.02, compared with Hfl 16.41 in 1990. Net income per common share on a current-value basis was Hfl 12.03 in 1991 and Hfl 13.96 in 1990.

We will propose at the Annual Meeting of Stockholders that the 1991 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 1991.

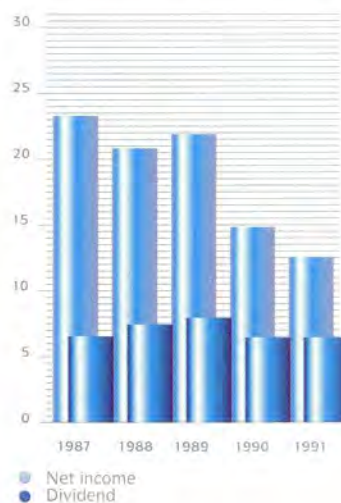
If the dividend proposal is adopted, Hfl 299 million (52%) of net income will be allocated for dividend payment (1990: 44%). In relation to net income before extraordinary items, the dividend payout is 43% in 1991 and 40% in 1990.

*Environmental regulations are an increasingly prominent factor in our research in the field of catalysts for the petroleum industry.*

Net income, as percentage of average stockholders' equity



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



**Outlook** The development of the Group in 1992 should be viewed in the light of very limited economic growth in Europe and the United States, boosts to inflation in Germany and the Netherlands, stagnating growth in Japan, and a weak U.S. dollar.

In view of the uncertainties in the economic situation, on which our results largely depend, we decline to make any projection respecting earnings in the current year. However, the proposal to pay an unchanged dividend expresses a measure of confidence in the performance of the business in 1992.

Expenditures for property, plant and equipment will be maintained at approximately the level of the past few years.

In 1992 we will seek fresh funds, principally for the repayment of borrowings. The structure of the financing will depend on interest rate trends.

Acquisitions and divestments excluded, the number of employees is expected to show a further decrease, largely due to further streamlining.

With the implementation of the proposed changes in our organization structure, the measures taken to curb costs, and the enhanced focus on core businesses, we will be well placed to strengthen our competitive position in the global marketplace and to better utilize opportunities such as those offered by a single European market. All these factors should help us to achieve a structural improvement in earnings in the longer term.

**Developments** In 1991, the business unit concept, which was introduced in 1989, was implemented in virtually all parts of the Company. Currently, forty business units are operational, which can respond quickly and flexibly to changes in the marketplace.

With the implementation of the proposed changes in the top structure of the Company, including amalgamation of the divisional and holding levels and a full merger of the Salt and Basic Chemicals Division with the Chemicals Division, we will complete a process of change which was initiated in 1987 with our corporate identity program, followed in 1989 by the introduction of the business unit organization. The proposed changes in Akzo's top structure will strengthen the autonomy of the business units, shorten communication lines, and make for a better utilization of potential corporate synergies. We will endeavor to complete the merger of the Salt and Basic Chemicals Division and the Chemicals Division by January 1, 1993. The proposed changes in Akzo's top structure should be in place before the end of May 1993.

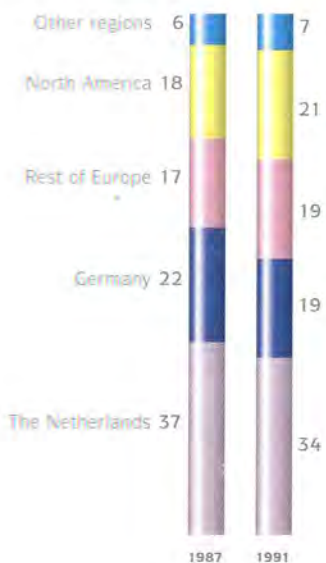
The increased focus on our core activities resulted in the divestment of our interests in Royal Talens B.V., MCN v.o.f. (formaldehyde and resins), and the engineering plastics business of the Fibers Division. During the year under review we also divested our participation in La Seda de Barcelona. By providing a substantial financial package we afforded this company the opportunity to carry on operations outside the Akzo Group after the implementation of a restructuring program.

Product mix, in net sales terms (as %)



\* Situation at December 31, 1991.

Geographic distribution, in invested capital terms (as %)





To further improve our product mix and the geographic distribution of our activities, we acquired Macpherson plc (decorative coatings) in the United Kingdom, the powder coatings business of DSM in Europe and the United States, as well as Goodyear's polyester tire yarn operations in the United States.

Since the start-up in 1986 of the Delesto combined heat and power (CHP) plant in Delfzijl, the Netherlands, we have actively pursued our policy of constructing CHP plants with a view to the conservation of energy. CHP units are currently under construction or planned at our Ede, Hengelo, and Arnhem, the Netherlands, sites. All of them are to be operated by joint ventures with local utility companies. Once these energy-saving projects become fully operational, the combined capacity of the CHP plants will be 365 MW, a production level sufficient to supply the power consumption needs of a city the size of Rotterdam.

In 1991, various cost-cutting programs were completed, such as the modernization of the salt processing plant in Hengelo, the concentration of coatings production in several European countries, the merger of research laboratories for specialty chemicals in the United States, and the integration of a number of staff departments in that country. Other projects directed at improving our cost structure were started, such as the renovation of the salt plant in Stade, Germany, the reduction of the number of production sites at the Chemicals Division and the Coatings Division, and the further streamlining of the staff and service departments of the Fibers Division.

Our R&D efforts were maintained at a high level. Increasingly, these efforts are aimed at the development of safe and environmentally acceptable products and processes.

We continue to place much emphasis on quality improvement. Certain divisions implemented quality control programs (Managing Total Quality) that combine controlled use of product components and equipment with care for the environment. As a result, our operations are better able to meet the highest quality standards. At year-end, Akzo plants in the Netherlands, Germany, and the United Kingdom had won twenty ISO 9000 series certificates, which confer an international distinction of quality assurance.

## Sales, costs, and income

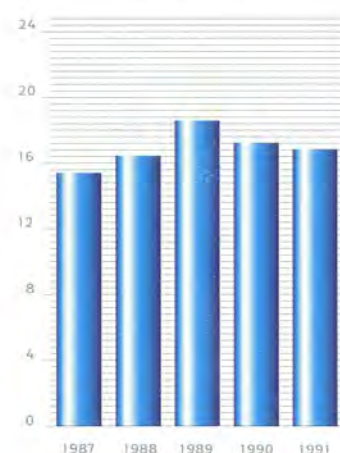
### Condensed statement of income

Millions of guilders	1991	1990
Net sales	16,851	17,246
Operating costs	(15,695)	(15,985)
Operating income	1,156	1,261
Financing charges	(277)	(368)
Operating income less financing charges	879	893
Taxes	(264)	(280)
Earnings of consolidated companies from normal operations, after taxes	615	613
Earnings from nonconsolidated companies	64	103
Extraordinary items	(111)	(64)
Group income	568	652
Minority interest	12	11
Net income	580	663

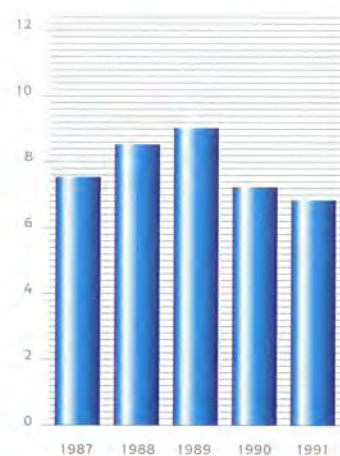
### Current-value information

Operating income	1,104	1,179
Net income	553	620

Net sales, in billions of guilders



Operating income, as percentage of net sales



**Sales** Net sales were Hfl 16.9 billion, down 2% from 1990 sales of Hfl 17.2 billion. This decline is attributable to 3% lower shipments, while selling prices were on average 1% higher. The net effect of divestments and acquisitions was a decrease of 1%; changes in exchange rates exerted a positive influence of 1%.

**Operating costs** Operating costs were about 2% lower than in 1990. After an increase in the prices of various oil-based feedstocks, prices decreased after the Gulf War.

Raw material costs as a percentage of sales aggregated 31%, versus 33% in 1990. Energy costs as a percentage of sales were practically unchanged.

Labor costs as a percentage of sales increased to 30.2% (1990: 29.4%). The high level of capital investments made in recent years is reflected in a further increase in depreciation from Hfl 867 million in 1990 to Hfl 878 million in 1991.

**Operating income** Operating income decreased by 8% from Hfl 1,261 million in 1990 to Hfl 1,156 million in 1991. As a percentage of sales, operating income fell from 7.3% to 6.9%.

**Financing charges** Financing charges decreased considerably from Hfl 368 million in 1990 to Hfl 277 million. This decrease was principally due to changes in the financing structure of our interests in Brazil and the deconsolidation of La Seda de Barcelona by mid-1991.

**Taxes** The average tax burden was 30.1%, against 31.4% in 1990.

**Earnings from nonconsolidated companies** Earnings from nonconsolidated companies declined from Hfl 103 million in 1990 to Hfl 64 million in 1991.

The principal factors in this decline are the poor performance of Century Enka Ltd, India, and the sale of interests in affiliated companies in 1990 and early 1991.

**Extraordinary items** Extraordinary items for 1991 on balance constituted a loss of Hfl 111 million.

Extraordinary losses in the aggregate amount of Hfl 383 million before taxes principally relate to costs associated with projects initiated in 1991 to rationalize structurally weak businesses, and to provisions for proposed projects having the same object, for the proposed changes in Akzo's top structure, and for merger of the chemicals divisions. Furthermore, an addition was made to provisions in respect of environmental costs. These extraordinary losses were in part offset by extraordinary gains in the amount of Hfl 188 million before taxes relating to book profits on divestments.

**Net income** Net income in 1991 was Hfl 580 million, down 13% from 1990. Net income as a percentage of stockholders' equity was 12.3% (1990: 14.5%).

**Net income on the basis of current value** Net income computed on the basis of current value was Hfl 553 million, against Hfl 620 million in 1990.

**Value added** Value added, defined as the aggregate amount of labor costs, financing charges, taxes, and Group income from normal operations, was Hfl 6,412 million, compared with Hfl 6,504 million in 1990. The share of labor costs in value added was 79.4% (1990: 77.9%).

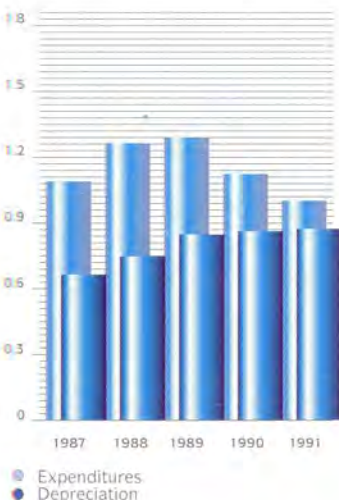
**Capital investments** Expenditures for property, plant and equipment totaled Hfl 1.0 billion (1990: Hfl 1.1 billion).

The total amount of project

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



Property, plant and equipment, in billions of guilders





authorizations was Hfl 0.9 billion, compared with Hfl 1.2 billion in 1990. Capital investments by nonconsolidated companies, with total sales of Hfl 3.1 billion on a full-ownership basis, amounted to Hfl 0.5 billion (1990: Hfl 0.6 billion).

## Financing

### Condensed statement of sources and applications of funds

Millions of guilders	1991	1990
<i>Sources of funds</i>		
Cash flow*	1,446	1,519
Other items	150	221
	<u>1,596</u>	<u>1,740</u>
<i>Applications of funds</i>		
Investments and acquisitions	1,668	1,426
Disposal of interests	(315)	(90)
	<u>1,353</u>	<u>1,336</u>
Change in working capital	308	(322)
Dividends paid	305	248
Other applications	-	8
	<u>1,966</u>	<u>1,270</u>
Balance	(370)	470

### Financing

Issuance of stock	179	
Drawdowns, etc.	657	360
Repayment of borrowings, etc.	(470)	(899)
	<u>366</u>	<u>(539)</u>

Change in cash and short-term investments	(4)	(69)
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Cash and short-term investments at December 31	812	816
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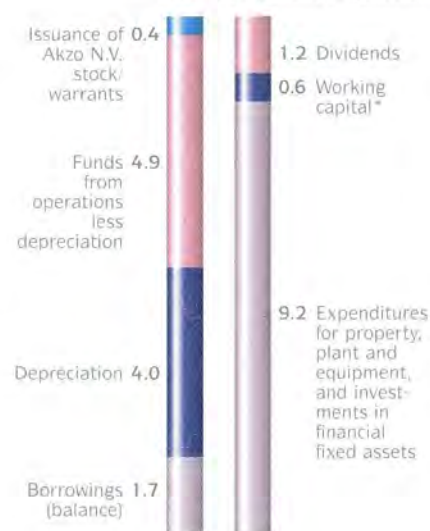
\* Group income and depreciation.

*Interest-bearing borrowings* In 1991, new, short- and long-term interest-bearing borrowings were contracted in the aggregate amount of Hfl 657 million. Substantial repayments of long-term borrowings were made. Ample liquidity was maintained. The Group's year-end equity/debt ratio improved from 0.55 to 0.57.

*Credit facilities* During 1991, we made active use of our U.S. commercial paper program. This financial instrument was also utilized in the Euromarket and the Dutch money market. We have ample access to these money markets and are able to negotiate attractive rates on the strength of our A1/P1 rating. In the United States, short-term interest rates showed a steady decline. We were able to take advantage of these lower interest rates by issuing commercial paper with a fairly short life. In order to protect ourselves against the risk of higher interest rates during the next five years, we concluded contracts guaranteeing us a maximum interest rate of 8½% for an amount of U.S.\$ 200 million. As in 1990, the amount of credit available under long-term standby facilities was U.S.\$ 550 million, with an average remaining life of more than four years.

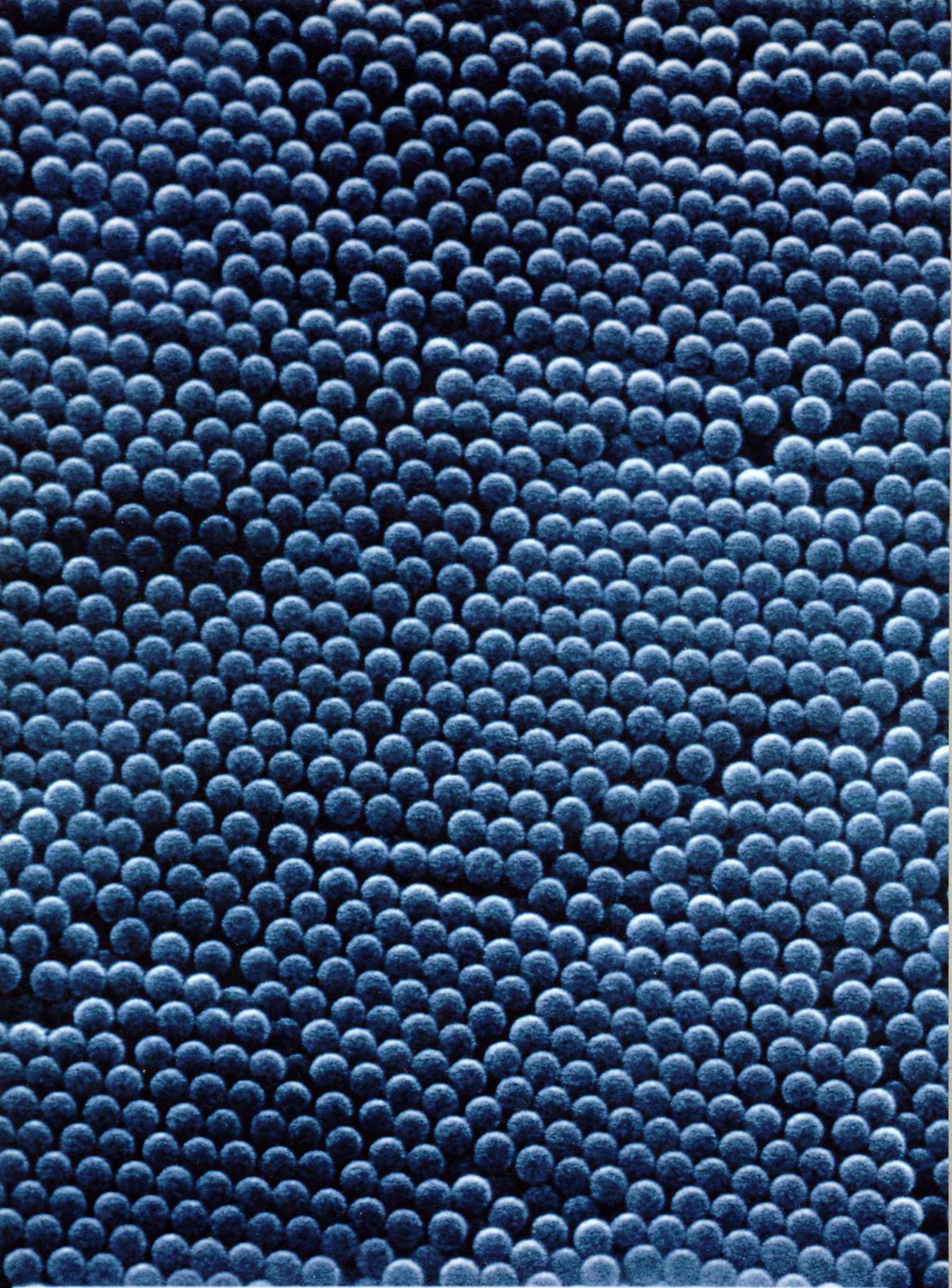
*Capital stock* In 1991, the number of outstanding shares of common stock increased by 1,540,012 as a result of the exercise of rights attached to the warrants issued in 1986. Each warrant entitled the holder to obtain one share of common stock at a predetermined price. Of the total number of warrants issued, more than 77% (1,543,640) were exercised before the expiration date of September 30, 1991. The total number of outstanding shares of common stock therefore increased to 45,960,972 at December 31, 1991: a 3.5% rise from the previous year.

Sources and applications of funds, 1987-1991 (billions of guilders)



\* Including cash and short-term investments.





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**Research and technology** Expenditures for research and development aggregated Hfl 896 million (1990: Hfl 891 million). As a percentage of sales, they were 5.3% in 1991, compared with 5.2% in 1990. The number of people employed in research fell by 290 to 6,450 at December 31, 1991.

The changes in the Company's organizational structure that were initiated in 1989 affect the manner in which research programs are being directed. Today, the business units are primarily responsible for the employment of the research function within the strategic context as defined at the corporate level. A study conducted in 1991 prompted actions to better match the new structure and the research programs. Additionally, the emphasis on R&D project management will be intensified.

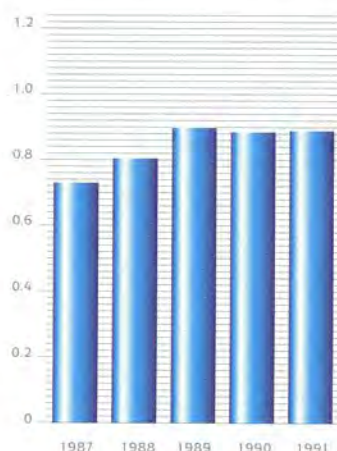
Our research and technology policy comprises three principal thrusts. The first and largest of these is support for existing operations, which accounts for well over half of our research efforts. These efforts are focused on improving existing products and technologies, and the better utilization of the Company's facilities. Ways to advance a cleaner environment increasingly constitute another focus of this research. This is borne out by developments in the field of crop protection products. The second thrust of research is focused on markets exhibiting low

growth but still permitting new product launches and expansion of market shares. High demands are made on our technological know-how in these markets, where a lead over the competition can be lost overnight on account of new developments in technology. A case in point is petroleum cracking catalysts. The third major thrust of our research efforts is in product sectors with high potential growth. These sectors include pharmaceutical products, materials for the electronics industry, and the superstrong Twaron® aramid fiber.

We believe that if the chemical industry wishes to secure long-term public acceptance of its products, not only do its manufacturing processes need to become more efficient, but the impact of its products on the environment must be minimized. Furthermore, we will have to ensure that nondegradable products are recyclable. Our commitment to this goal is evidenced by the fact that Akzo's research targeted at improving the health, safety, and environmental aspects of our products and processes currently accounts for about 10% of annual research expenditures.

Recent developments in science and computational power permit study of the behavior of matter at the molecular level. As a result, product characteristics can be foretold on the basis of molecular structure. We confidently predict that the application of this new tool, known as molecular modeling, will result in a more efficient use of funds for research and technology, because ideas and concepts can be tested before the experimental stage. Over the past three years we have invested heavily in manpower

Research and development expenditures, in billions of guilders



*Perfectly spherical latex particles of controlled size and composition, prepared by research for application in pregnancy tests developed by Organon Teknika (the white bar equals a line segment of 0.01 mm)*

and infrastructure for research utilizing molecular modeling. In various departments in Akzo, specialists in this field are now working with this technique, primarily in cooperation with leading universities in the Netherlands, Germany, and the United States. Applications of this very successful molecular modeling technique vary widely.

They include drugs, catalysts, polymers, coatings, and fibers.

Through research programs conducted jointly with universities in Europe and the United States, Akzo has gained stature in the academic world. These scientific alliances, which provide cost-effective stimuli to innovative research, are becoming increasingly popular.

A new process technology laboratory was opened in late 1991. Situated at the Akzo Center in Arnhem, this laboratory fosters better integration of research and engineering efforts in the field of process technology.

The Chemicals Division has given a boost to the efficiency of its fatty amine research activities by consolidating its laboratories in the United States and by working in conjunction with key customers for cationic surfactants. This division is also focusing R&D resources on polymeric surface-active agents, which are meeting with growing interest as a component of synthetic base stock for auto engines. They possess excellent lubricating properties, conferring low friction and wear. They are also biodegradable, which makes them environmentally friendly.

In the Fibers Division, the research efforts in the medical membranes field have yielded several new hemodialysis products. These products are now in the clinical research phase. A research project concentrating on the spinning of a nonderivatized cellulose solution has produced yarns with attractive properties.



*Research into new chemical substances for the manufacture of detergents focuses on the use of natural raw materials with a lower environmental impact.*



The Coatings Division has made steady progress in water-based systems. The development of special polymers, with the associated production and application technologies, has absorbed a significant share of the available research capacity. Product development is tackled internationally, with specific adjustments being made for local markets. We expect that the research into more environmentally responsible paint systems will remain a priority for several more years.

In 1991, a relatively large number of Pharma Division research projects reached the stage where preparation of health registration dossiers can soon be taken in hand. Organon obtained two new registrations: one for a cardiovascular preparation, and one for a product modifying the immune response. In addition, it filed a dossier for a new antidepressant. Organon Teknika succeeded in strengthening its position in the market of diagnostics for infectious diseases by introducing new screening tests. Much of the available research capacity was employed in the development of new methods and technologies. Intervet (veterinary preparations) successfully completed the development work on several new vaccines.

Good progress was made in the field of electronic/photonic activities. The AMP-Akzo joint venture developed in line with expectations, in spite of the adverse business environment. New printed wiring board developments should give the joint venture a strong market position in the future.

In the photonics area, solid advances were made on a new class of polymers—some patented, some still to be patented—for use in information technology and data storage. These photonic polymers, which are used to make optical switches and films, have applications where electronics are unsuitable or where higher data densities are required. The products are currently being optimized in close cooperation with the electronics industry.

### **Health, safety, and the environment**

In preparation for the 1992 World Environmental Conference in Brazil, the second World Industrial Conference on Environmental Management (WICEM) was held in Rotterdam last year. There, industry introduced the Environmental Charter of the International Chamber of Commerce. Akzo is among the signatories of this charter, which we regard as an important contribution to the globalization of environmental policy.

In 1991 all Dutch sites adopted the environmental management system (EMS). This has given them a program of action which can be updated annually and which sets priorities and targets for the progressive reduction of waste streams and emissions. We are now implementing the environmental management system at our manufacturing sites in the other European countries.



*Experimental refrigeration system in Oss, the Netherlands, is to limit pollutant emissions into the atmosphere.*

*Scrubber installed at the Ede, the Netherlands, site reduces emissions of pollutants.*



Some examples of HSE actions taken in 1991 are:

- Construction of a unit that recycles carbon disulfide and achieves an 80% reduction in waste emissions (Chemicals Division: Monongahela, Pennsylvania, plant).
- Publication of an annual environmental report reviewing environmental steps taken in 1990, and accomplishment of a further reduction in solvent emissions at the Oss site (Pharma Division: Diosynth).
- Establishment of a goal to further reduce the time lost through accidents by approximately 20% annually, and accomplishment of that target for 1991 (Coatings Division).

Also in 1991, work was completed on a rating system for chlorine applications that will enable priorities to be set. The work was done jointly by the Dutch Ministries of the Environment and of Economic Affairs, the Association of the Dutch Chemical Industry, and environmentalist groups. This system rates applications of chlorine by comparing their environmental effects with those of alternative compounds—in both cases for their entire life spans, from raw material to waste processing. A system of this kind, which can also be used for other materials, is essential for promoting objectivity in the determination of priorities. We trust that it will be used consistently by the Dutch authorities.



*Asbestos diaphragms in the Delfzijl, the Netherlands, electrolysis plant are being replaced on trial by plastic diaphragms.*



In light of the major social significance of chlorine, we consider the promotion of public awareness to be essential to the use and applications of the product. We accordingly participated in several projects for the development of educational materials for schools.

In the past year, implementation was begun at Akzo's European sites of a systematic audit program in the health, safety, and environmental fields. In addition, fifty employees were provided with training and sufficient field experience to permit them to take charge of these audits.

At the Dutch sites we have worked hard during the past few years to produce occupational health surveys. Additionally, we initiated a training program to make the sites independent in this field. This program has produced some twenty occupational hygienists with the appropriate qualifications.

In addition to the Coatings Division, the other divisions registered substantially lower accident rates because of the increased emphasis on safety in the workplace.

### **Human resources management**

Akzo seeks to establish a corporate culture in which the interests of its business units are consistent with those of Akzo as a whole. This involves changes in modes of cooperation and organizational structure, such as the recently proposed reorganization of Akzo's top structure. In the final analysis, however, it is the human factor that will determine whether the process of change is successful. It was this very view that motivated our 1989 decision to intensify our efforts in the field of human resources.

Since then, the design and implementation of a corporate management development program has had the highest priority. In 1991 we continued our efforts to increase flexibility and mobility of our employees and enhance our managers' adeptness in handling the style of management we envisage. The ability to match terms and conditions of employment to individual performance, and to manage the resulting differences, continued to be stressed as the most important elements of the new style. Good progress was made on the production of a survey of key positions. Systematic appraisal of the manner in which the duties of these positions are being discharged was begun in 1991. This information should enable us to take timely action. We also continued systematic career planning for our potential managers. These efforts are often based on career development programs, which are increasingly being drawn up in close consultation with the responsible business unit management.







We cut back on our recruitment activities for senior positions during the year. Yet, even if economic conditions deteriorate, it is important that Akzo maintain its good reputation in, and relationship with, the labor market. In 1991, we therefore ran a successful experiment with international internships for university students.

The new format of Akzo's business course in the Netherlands was acclaimed by the prospective process engineers and economists who enrolled in it. Moreover, the fact that 10 of the 34 participants were female affords a modest illustration of Akzo's intentions to enhance the position of women in the company.

As we noted in our previous annual report, talented young people are attracted to Akzo as an employer because of its interdisciplinary and international career opportunities, as well as its educational programs.

In the year under review we completed an integrated program of international management courses. Together with other training courses provided elsewhere in the Group, this program should make a major contribution to our management development efforts in the years ahead.

The number of employees decreased by 4,600 in 1991 and stood at 65,200 at year's end. As a result of divestments and acquisitions, the number of employees on balance declined by 2,100. Restructuring measures accounted for 2,500 of the drop, with 1,500 attributable to the Fibers Division. The number of employees in the Coatings and Pharma Divisions showed a modest increase. The growth in the number of employees of the Coatings Division due to two acquisitions was almost entirely canceled out by the divestment of Royal Talens and by personnel reductions as a result of restructuring.

<i>Number of employees</i>	<i>Dec. 31, 1991</i>	<i>Dec. 31, 1990</i>
Fibers Division	21,000	25,500
Salt and Basic Chemicals Division	6,200	6,500
Chemicals Division	7,700	8,100
Coatings Division	15,300	15,100
Pharma Division	13,400	13,100
Other companies	1,600	1,500
<b>Total</b>	<b>65,200</b>	<b>69,800</b>

## Product groups

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

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

Net sales		Operating income		Invested capital*		Property, plant and equipment Expenditures		Depreciation		Millions of guilders
1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	
5,737	5,760	328	379	3,476	3,461	341	450	357	346	Chemical products
4,262	4,852	102	218	2,372	2,735	261	294	282	298	Fibers
3,851	3,929	221	251	1,879	1,683	169	170	113	104	Coatings
3,064	2,775	514	429	1,484	1,338	178	147	102	96	Healthcare products
										Miscellaneous products, intra-Group deliveries, and nonallocated items
(63)	(70)	(9)	(16)	(95)	(191)	58	68	24	23	
16,851	17,246	1,156	1,261	9,116	9,026	1,007	1,129	878	867	Total

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

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

Operating income, as % of net sales		Operating income, as % of average invested capital		Net sales/av. invested capital ratio		Expenditures/depreciation ratio		Ratios
1991	1990	1991	1990	1991	1990	1991	1990	
5.7	6.6	9.5	10.7	1.65	1.63	1.0	1.3	Chemical products
2.4	4.5	4.0	7.9	1.67	1.77	0.9	1.0	Fibers
5.7	6.4	12.4	14.8	2.16	2.32	1.5	1.6	Coatings
16.8	15.5	36.4	32.2	2.17	2.08	1.7	1.5	Healthcare products
6.9	7.3	12.7	13.7	1.86	1.87	1.1	1.3	Overall ratio

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







## Chemical products

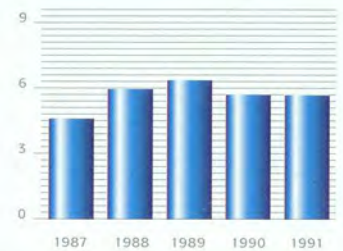
**General** Sales of chemical products aggregated Hfl 5,737 million, slightly down from the 1990 figure of Hfl 5,760 million. This modest decline was mainly due to lower volume. Operating income decreased from Hfl 379 million in 1990 to Hfl 328 million. As a percentage of sales, operating income was down from 6.6% in 1990 to 5.7% in 1991. Earnings of salt and basic chemicals were depressed, primarily due to the market conditions affecting VCM/PVC. Despite the uncertain economic situation, earnings of specialty chemicals remained at about the same level as in 1990.

**Salt and basic chemicals** Sales of salt and basic chemicals increased by 1% from Hfl 2,384 million in 1990 to Hfl 2,398 million in 1991.

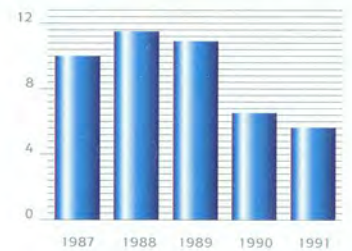
**Salt** The past year was marked by some important developments for this product sector. A dramatic decline in chlorine consumption in the pulp and paper sectors led to substantially reduced electrolysis salt shipments to Scandinavia. This decline was offset by a rise in demand for high-purity salt for chlorine production, particularly in Germany.

The renovation of the salt processing facility in Hengelo, the Netherlands, involving an investment of Hfl 100 million, was virtually completed. Furthermore, it was decided to carry out a similar modernization of the salt plant in Stade, Germany. These projects should provide a further boost to earnings for salt specialties. In the United States, business was adversely affected by low demand for deicing salt resulting from mild winter weather and by weak economic conditions. We were, however, able to bolster our position in the consumer-oriented market segments.

Net sales, in billions of guilders



Operating income, as percentage of net sales



*Yoghurt shake: a treat made with a CMC stabilizer specially developed for the food industry*



**Chlor-alkali products** In line with our declared policy on chlorine, we applied for a permit to expand our membrane electrolysis capacity in Rotterdam. Such expansion will radically reduce chlorine transports and their associated risks, minimal though they may be. Chlorine shipments fell short of the previous year's level, as some of our

**Other basic chemicals** By year-end 1991, the new D-MCPP plant came on stream. The optically active agricultural chemical produced in this facility permits halving of the effective dose for crop protection. In the course of 1991 the new carboxymethyl cellulose (CMC) plant in Arnhem achieved full capacity. Special investments and additional measures ensure that the very strict alcohol emission standard is being met.

The market for monochloroacetic acid was increasingly competitive, due in part to imports from former East bloc countries.

Delamine, the Netherlands (ethylene amines), completed a minor capacity expansion.

**Nonconsolidated companies** Sales of the nonconsolidated companies in the field of salt and basic chemicals aggregated Hfl 730 million in 1991. The sale of our 50% stake in MCN v.o.f. (formaldehyde and resins) to Neste Oy, Finland, as announced in our 1990 annual report, was finalized during the year.

The performance of Methanor v.o.f., the Netherlands (methanol), was appreciably better than in the previous year.

Denak Co. Ltd, Japan (monochloroacetic acid), increased its shipments. Earnings of Electro-Chemie Ibbenbüren GmbH, Germany (chlor-alkali products), were adversely affected by the drop in demand for chlorine.

Earnings of Dansk Salt I/S, Denmark (salt), were satisfactory.

**Specialty chemicals** Despite the uncertain economic situation, earnings of specialty chemicals remained at about the same level as in 1990, aided by a slight recovery that set in during the year.



*Akzo's silica products are used as fillers and reinforcers in running shoes and other articles.*

customers encountered technical problems. Progress was made on the modernization of the PVC plant of ROVIN, our VCM/PVC joint venture with Shell. The revamped plant will begin operations in March 1992. Additional production capacity in the Far East resulted in a decline in VCM exports from Western Europe. At the same time PVC exports from the United States and Eastern Europe increased. These developments had an adverse effect on PVC prices in Western Europe, and, to a lesser extent, on monomer prices.



*Salt lick for horses helps prevent deficiencies of salt and other minerals, such as selenium.*



*Dimethyl ether (DME) is an ozone-friendly propellant employed in aerosols, including this hairspray.*



At Hfl 3,339 million, sales of specialty chemicals were 1% below the preceding year's level.

**Chemicals for the plastics manufacturing industries** In 1991 the general developments were less favorable for the plastics industry, notably in the first six months. Adverse influences were especially noticeable in Europe on account of imports from other areas. However, profitability remained at a satisfactory level due to the business unit's strong global position.

In the third quarter of 1991, we acquired full ownership of the joint ventures in the area of metal alkyls (essential catalysts for the production of a number of plastics) in the United States, Belgium, and Brazil. Investments in the manufacturing facility in Deer Park, Texas, led to further improvement in the quality of these products.

In the fourth quarter, a new peroxide plant was started up by Centak Chemicals Ltd, India, in which company Akzo holds a minority interest.

**Chemicals for the plastics processing, coatings, and paper-making industries** Demand remained at an acceptable level, particularly for peroxide-based curing agents for polyester thermosets and PVC chemicals.

The markets for phosphorus-based flame retardants continued to develop favorably and several new products were introduced.

During the year, the production line was expanded to include additives for both engineering resin compounds and polyurethanes.

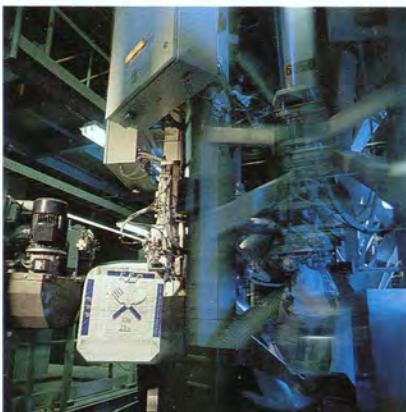
In India, Arjun Chemicals, a joint

venture producing paper chemicals, became operational.

**Chemicals for the rubber processing industries** The tire industry has so far not recovered from the recession that began in 1990. Sales volume was further depressed by the virtual eclipse of the Russian market. Both of these factors



*The optically active crop protection chemicals D-MCPP, D-2, and 4DP are produced in the reactor shown. These chemicals are 100% active and biodegradable.*



*Highly automated packaging lines in the new Hengelo, the Netherlands, salt processing plant*



contributed substantially to price declines in Europe and North America. The carbon disulfide plant in Delaware City, Delaware, was closed due to diminished demand.

The Crystex® insoluble sulfur plant in Itupeva, Brazil, is now fully operational. The Crystex® plant in Kashima, Japan, which produces for the Far East market, was



*The considerable growth of the flamingo population on the isle of Bonaire, Netherlands Antilles, demonstrates that industry—in this case solar salt producer Akzo—can live in harmony with its immediate environment.*

debottlenecked. The new, multipurpose plant built to make silica granulates for the Asian market was opened this past year by the Oriental Silica joint venture in Thailand.

#### **Catalysts for the petroleum and petrochemical industries**

Compared to 1990, earnings of this product sector strongly improved, notably as a result of higher productivity in the United States and Europe. Our quality control project "Managing Total Quality" was instrumental in this improvement. In addition to the efficiency gains, improved selling prices also contributed to the results. In response to changing regulatory requirements in the environmental field, efforts are

presently being intensified to develop and produce catalysts that will further improve the quality of the products and processes of petroleum refining.

#### **Chemicals for the detergent industry and other surfactants**

On a worldwide basis, business for this sector improved from 1990. Detergents and personal care products were less affected by downward economic trends than were industrial surfactants. Research is being concentrated on the development of new products utilizing natural raw materials that considerably reduce product impact on the environment. The combination of our research facilities in McCook, Illinois, with those in Dobbs Ferry, New York, will increase the efficiency of our research into new fatty amines. Close cooperation with major customers in early product development stages has proven to be extremely beneficial. Partly as a result of this, we expanded our leading position in the field of cationic surfactants.

Construction started on the extension of the fatty acid plant owned and operated jointly with the Lam Soon Group in Malaysia; completion is expected by mid-1992.

#### **Functional chemicals and miscellaneous activities**

The Ketjenlube® series of lubricants was expanded with new phosphate-ester based additives and fire resistant hydraulic fluids.

Efforts to synthesize biodegradable EDTA-type chelating agents are enhanced by our gluconates position. Earnings of lubricants and gluconates exceeded expectations.



Continued concern over the effects of CFCs on the environment has resulted in a rapid worldwide decline in demand for this product. As a result, our carbon tetrachloride plant and associated chlor-alkali plant in LeMoyne, Alabama, were shut down. Measures were taken to optimize the other manufacturing operations at this location.

Application possibilities in Europe for DME (dimethyl ether), an ozone friendly substitute for CFCs, continue to grow.

**Nonconsolidated companies** Sales of the nonconsolidated companies in the specialty chemicals field totaled Hfl 990 million (1990: Hfl 1,150 million).

Kayaku Akzo Corporation (organic peroxides) and Tosoh Akzo Corporation (Ziegler-Natta catalysts and metal alkyls), both in Japan, repeated the previous year's good earnings level.

Kali-Chemie Akzo GmbH, Germany (insoluble sulfur), registered lower sales and income as a result of the decline in demand for tires, particularly in the former East bloc countries.

The performance of our Japanese joint venture Nippon Ketjen Company Ltd (catalysts) was very satisfactory. Sales of Lion Akzo Company Ltd (industrial fatty amines) and Akzo & Pacific Oleochemicals Sdn. Bhd. (fatty acids) were reasonable.

Start-up problems at the Brazilian catalysts plant, FCC-Fábrica Carioca de Catalisadores S.A., were solved.

The plant is now producing according to expectations. Glucona v.o.f. (gluconates) turned in better results than in 1990. Akzo-PQ Silica (silica products) also achieved higher sales and earnings.

*Following an expansion of its production capacity, Delamine, Delfzijl, the Netherlands, enjoys a stronger position in the ethylene amines market.*



*Choline chloride is an indispensable animal feed supplement.*









## Fibers

**General** As a result of adverse economic developments in important markets, fibers were faced with a significantly lower demand in the second half of 1991. The resulting overcapacity put prices under high pressure. In addition, the low dollar exchange rate favored textile imports in Western Europe. At Hfl 4,262 million, sales of the fibers group were down 12% from 1990. Lower shipments, due in part to the deconsolidation of La Seda de Barcelona as of July 1, 1991, accounted for 9% of this decline. A further 3% was attributable to price and currency effects. Operating income decreased to Hfl 102 million (1990: Hfl 218 million).

As a percentage of sales, operating income decreased from 4.5% in 1990 to 2.4% in 1991.

The streamlining of staff and service departments, begun in 1989, continued. The business unit system became fully operational, and further

improvements and modernizations were realized in several manufacturing operations, resulting in reduced costs. In addition, lower prices for a number of important raw materials had a favorable effect on performance.

**Textile and carpet fibers** The growth in consumption of clothing and textiles in Western Europe was considerably lower than in 1990 and was more than covered by imports. This resulted in a reduced output of the Western European textile industry and a sharp decline in demand for our synthetic textile fibers.

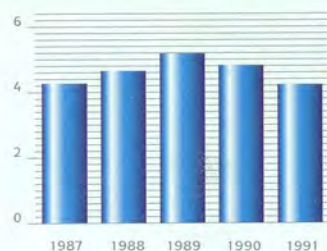
Demand for viscose yarns maintained a high level, apart from temporary fluctuations. We managed to retain our strong market position.

For the longer term, we expect to strengthen our leading position in the viscose sector on the strength of our energetic R&D efforts aimed at further improvement of the quality of our products and at reducing the environmental impact of our production methods.

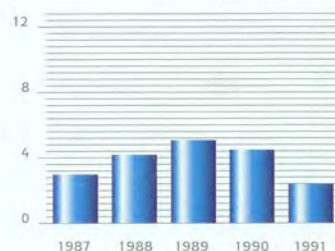
In April 1991, we concluded an agreement with the Treuhandanstalt, the Berlin agency charged with privatizing former East German companies. This agreement provides for the management of operations of a viscose textile yarn plant in Elsterberg, Germany, and includes the option of an eventual purchase of the plant.

Weakness in the ready-made clothing market had an adverse effect on volume sales of flat polyester filament. Polyester staple also showed a further decline in volume. Clothing imports and lower production capacity utilization considerably depressed prices. Business for textured polyester

Net sales, in billions of guilders



Operating income, as percentage of net sales



*Akzo produces specialty polyamide yarns for a new generation of air bags.*



yarns, however, continued to develop favorably in the year under review. Business in the market sector for our Sympatex® breathable membrane remained favorable. New market segments were opened for wind- and waterproof products with the capacity to breathe.

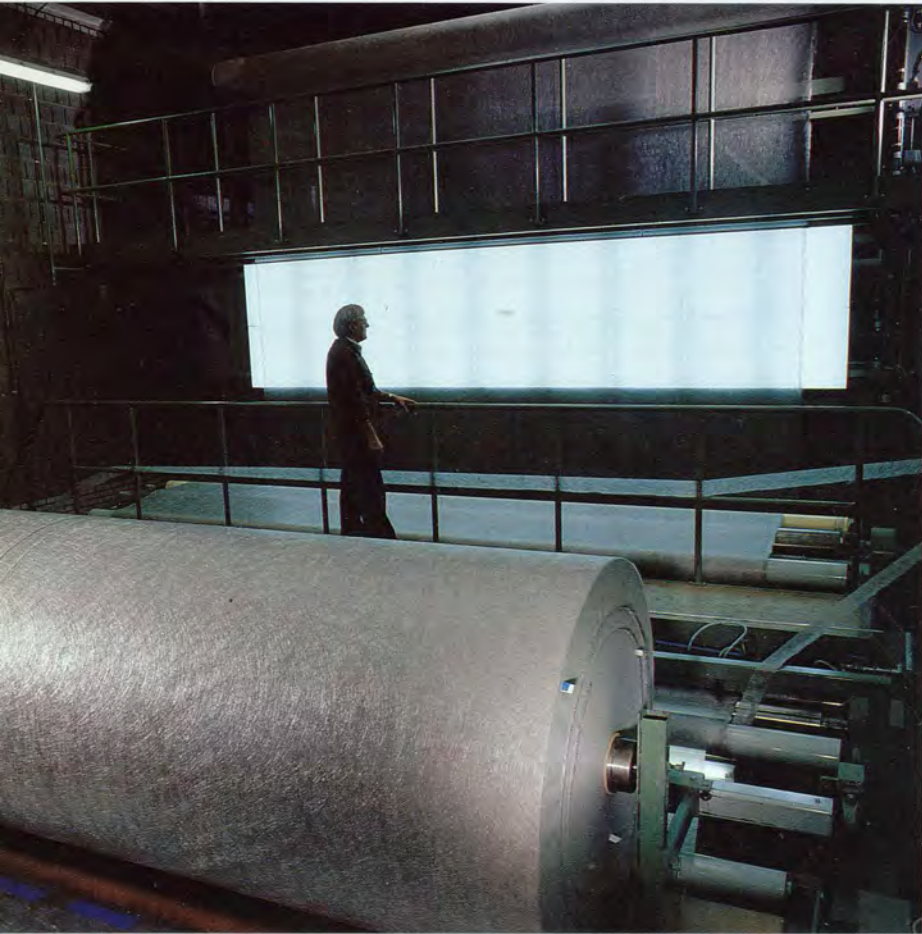
In the face of the critical economic situation in Brazil, our subsidiary

Polyenka S.A. achieved better results than in 1990.

Carpet fiber shipments did not meet expectations, due to unfavorable market conditions in Western and Eastern Europe. We anticipate that productivity improvements will turn around the disappointing results.

**Fibers for industrial uses** Sales in this sector were down considerably from 1990, due largely to developments in Eastern Europe, failure of the U.S. economy to stage a recovery, and the stagnant economy in many European countries. Shipments to the automotive market in Western Europe, vital to our business, almost equaled the 1990 figure because of strong growth in car sales in Germany as a result of the German unification. The stagnation in demand for original equipment tires was compensated for by a growing demand for replacement tires. Demand for rayon tire yarns is affected by the increasing popularity of polyester as a substitute. In addition, shipments to the Eastern European markets fell short of expectations. As a result, shipments of rayon tire yarns lagged behind the previous year's figure. Shipments of polyester tire yarn increased in 1991. The completion of an intensive research program focused on the parameters that determine the effectiveness of our production process should enable us to considerably enhance the performance of our polyester yarn. Exports of polyamide tire yarns were seriously depressed, primarily due to falling demand and increasing competition in our traditional export markets.

Volume sales of yarns for other rubber applications suffered from a significant downside in exports of rubber reinforcing fabrics to Eastern European markets.



*A new production line for Colback® industrial nonwovens has been taken into use at the Kleefse Waard site, Arnhem.*



Shipments of polyester for ropes, netting, and sewing yarns exhibited positive growth, in contrast to polyester fabrics for industrial use, coated fabrics in particular.

In 1991, steelcord production in our plant in Oberbruch, Germany, was discontinued.

Cobafi S.A., Brazil, closed the year with a loss, resulting from diminished demand and a radical drop in selling prices due to price controls of the government.

At year's end, we acquired Goodyear's polyester tire yarn plant in Scottsboro, Alabama. The transaction has considerably strengthened our strategic position, especially in polyester industrial yarns.

**High-performance fibers** Business for Akzo's Tenax® carbon fiber developed positively, most notably in the aircraft construction industry. The steep decline in carbon fiber prices that began at the end of 1990 in response to significant overcapacity was not reversed in 1991. As a result of the timely implementation of cost-saving measures, progress was made, but results remained unsatisfactory. Despite adverse market conditions, Aramide Maatschappij N.V., our joint venture with the government development corporation Noordelijke Ontwikkelingsmaatschappij N.V., again realized substantial sales growth for Twaron® aramid yarn. On the strength of solid sales gains in North America and Japan, the geographic spread in sales also improved. Europe, however, continued to be the principal market, especially for optical-fiber cables, for brake pads and clutch linings (where aramid serves as a substitute for asbestos), as well as for protective clothing and

headgear. For 1992 we are expecting further growth, fueled by growing demand for Twaron® in the United States and Japan. In the year under review, process optimization yielded a superstrong aramid fiber, Twaron®-CT. We also developed Twaron® wire, an epoxy resin-impregnated bundle of aramid fibers for the reinforcement of auto tires. The capacity expansions



*In an industrial dialysis process, Akzo membranes remove alcohol from beer while leaving the taste in.*



begun in 1990 will be completed in 1992.

**Plastics** In this sector we more or less duplicated the previous year's performance. Following the agreement with DSM, reached in mid-October, our engineering plastics activities were transferred effective December 31, 1991. The color concentrates and additives, as well as the products for the packaging industry, were not included in this transfer. Subsequently, we reached an agreement in principle on the sale of our activities in the field of color concentrates and additives to a U.S.-based company.

**Membranes** While business in the sector for hemodialysis membranes for artificial kidneys was generally reasonable, selling prices were depressed. Sales turned out to be lower than in the previous year, but the decline in earnings was limited due to the implementation of cost-cutting measures and productivity improvements. Our position as the foremost membrane producer remained unchanged. Our improved-biocompatibility Hemophan® membrane, which complements the tried and tested

Cuprophan® membrane, has secured solid market positions in Europe and Japan.

The market segment of high-flux and high-performance dialysis continued to grow. We stepped up our efforts to develop new membranes for this market segment, which will enable us to launch these products in 1992. Shipments of membranes for artificial lungs were increased and Oxyphan®, our high-performance membrane that supplies oxygen to blood during open-heart surgery, is increasingly being used in the manufacture of oxygenators.

#### **Nonwovens and geosynthetics**

Earnings for the high-grade polyester nonwovens in our extensive product range, sold under the trademarks Colback®, Coltron®, and Colbond®, were maintained at a good level despite declining shipments in some countries. We concluded an agreement with Mitsubishi Rayon to market—and perhaps at a later stage to produce—Colback® in Japan. Akzo Industrial Systems B.V., chiefly active in the field of road construction, hydraulic engineering, and landscape management, failed to reach the previous year's level of earnings. This was the result of downward economic trends in the United States and in a number of Western European countries. Nevertheless, expectations for further growth in this product sector remain positive.

**Development products** Keen interest was shown in the new composite products of our joint venture with Alcoa (aluminum and

Auto upholstery fabrics  
from textured polyester  
yarns



Sympatex® membrane:  
for waterproof, windtight,  
"breathing" garments



plastic laminates), especially by the aircraft construction industry. The poor prospects for the heat-resistant silica fiber prompted us to discontinue our activities in this field.

**Nonconsolidated companies** Sales of nonconsolidated companies were up Hfl 70 million to Hfl 1,110 million. Earnings were lower than in the previous year, chiefly due to the considerably lower results of Century Enka Ltd, India.

For a discussion of the developments at Aramide Maatschappij v.o.f., the Netherlands, please refer to the section on high-performance fibers. Enka de Colombia S.A., a producer of polyamide and polyester filament and staple, reported further growth in shipments, although the expanded capacity for polyester staple and spinning chips was not yet fully utilized.

Fibras Químicas S.A., Mexico, increased its market shares in all product sectors (yarns for textile and industrial uses). Earnings for 1991 were good.

At Enkador S.A., a producer of textile filament in Ecuador, the favorable development of the previous years was sustained.

Our nonconsolidated companies in Latin America are modernizing their technologies and organizations in preparation for further liberalization of regional trade relations modeled on the Free Trade Association between the United States, Canada, and Mexico.

Sweeping political and economic

changes in India have upset the market balance and caused a deterioration in earnings of Century Enka Ltd. The investment projects announced for this company and the new joint venture Rajashree Polyfil Ltd have been postponed for the time being. Our expectations for the medium and the long term nevertheless remain positive.

*Snowboards are among products benefiting from the use of Tenax® high-strength, low-weight composites.*



*Twaron® aramid strands armor optical fiber cables, protecting the glass core.*

*Spundyed Trilenka® carpet fibers*









## Coatings

**General** The decline in sales and income for coatings was limited to the first quarter. Some of the ground lost was recovered in the other quarters. At Hfl 3,851 million, sales were 2% lower than in 1990 (Hfl 3,929 million). Operating income was Hfl 221 million versus Hfl 251 million in 1990, a decrease of 12%. As a percentage of sales, operating income was 5.7% against 6.4% in 1990.

Earnings in 1991 were largely determined by disappointing income in the first quarter, which was primarily attributable to the precarious situation in Brazil. Subsequently, the decline in earnings in Brazil bottomed out. Starting from the second quarter,

earnings in Europe improved slightly, despite a drop in volume. In addition to fairly stable selling prices, cost-reducing and restructuring measures significantly contributed to this earnings gain. In the United States and Canada, cost-cutting programs and integration of the companies acquired in 1989 enabled us to limit the fall in earnings caused by the recessionary economy.

While economic growth in Southeast Asia also slowed down, earnings in the region were satisfactory. In October 1991, our new manufacturing complex in Singapore commenced operations.

In the course of 1991, our interests in Senegal and Cameroon were sold. Our operation in Morocco again achieved good results in 1991.

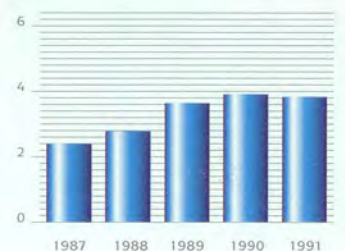
In December 1991 we signed an agreement with Beijing Red Lion Coatings Corporation to establish a joint venture in the People's Republic of China that will engage in the marketing of automotive finishes and related products produced locally with Akzo technology.

### **Decorative and do-it-yourself paints**

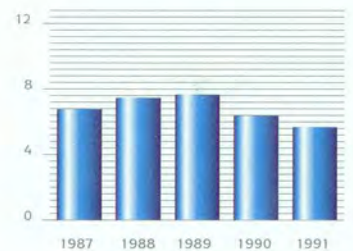
The decline in shipments that began in 1990, did not persist in the second half of 1991. There were signs of a recovery in the third quarter. Nevertheless, shipments in Europe fell short of the 1990 level. An exception was Germany, where the new federal states caused volume gains.

We maintained our market position in this sector. Due to strict cost controls and the positive effects of synergy, earnings were on a par with 1990, in spite of the drop in volume. The acquisition of Macpherson plc in

Net sales, in billions of guilders



Operating income, as percentage of net sales



*Rembrandt exhibition, Rijksmuseum, Amsterdam. Akzo's Coatings Division has developed a special paint system to finish walls in museums.*



*Historic Norwich, United Kingdom, is another city where, under Sikkens' European color restoration project, a color scheme has been established for the exterior surfaces of its buildings.*



*The new package design for decorative paints gives a new face to some 900 products.*



*In the United States, the interiors of several new car models sport our Durasoft® leatherlook finish.*

the fourth quarter will substantially strengthen our market position in the United Kingdom.

In the context of our endeavors to improve logistics in Europe and restructure production, we broke ground for the construction of a wall paint manufacturing facility in France. Distribution centers were built in Italy and Switzerland; another one is under construction in Germany.

The integration of our activities in Belgium was completed with the inauguration of a new office in Vilvoorde.

The opening of the Decorative Information and Training Centers in three countries underscores our commitment to offer, in addition to our high-grade products, services that give our customers a competitive edge.

**Car refinishes** Despite a decline in overall demand for these products in the highly developed markets—North America, Western Europe, and Japan—our share in these markets increased. We made advances in Japan, although our position there is still very modest.

Our new Autoclear® MS program was successfully launched worldwide. This program permits customers to use clearcoats at various levels of automation.

Our Autonova® technology also met with high acclaim, especially for its primers. We will expand our activities in this field.

Research primarily focused on waterborne and high-solids (low-solvent) products to anticipate developments in the market.

In 1991, our customers continued to show interest in our Mixit® computer-controlled paint mixing system. We are working on the integration of this system with other information systems.

By dint of stringent cost control, we maintained our profitability at a reasonable level.

**Industrial coatings** Sales and earnings of industrial coatings were affected by falling auto sales in the United States and Europe. Customers' interest in waterborne paints for industrial use is ever increasing. In this field, we launched a number of new products, including a surfacer and a clearcoat. In 1991 we maintained strong sales growth for our paint systems for plastics, especially by offering good technical services.

One of the year's highlights was the conclusion of a supply contract with a foreign car manufacturer in Hungary through our local joint venture.

In spite of unfavorable economic conditions we sustained our volume in the coil coatings market.

The market for aircraft coatings was depressed in the first six months of 1991 on account of the lower level of airline activity resulting from the Gulf War. Later in the year a distinct recovery set in.

The use of low-solvent products shows an increasingly large growth.

The acquisition at year-end of DSM's powder coatings activities has solidified our position in this market. We are now able to supply a complete range of high-grade coatings for industrial use.



**Synthetic resins** Despite lower volume, earnings in the synthetic resins sector in Europe and the United States were ahead as a result of improvements in efficiency and lower raw material prices.

In developing new resins for the coatings industry, we continue to devote significant attention to waterborne and high-solids resins with low impact on the environment. One area of special attention is UV-curing resins. New types were introduced featuring accelerated curing.

In addition, we introduced a new product with excellent adhesion to plastics.

We began to market a resin with improved lithographic properties for UV-curing printing inks.

We considerably improved efficiency in the production of alkyd resins for printing inks.

**Other activities** Akzo Kemipol A.S., our joint venture in Turkey, suffered heavily during the Gulf War but experienced a distinct recovery in the second half of 1991.

As announced in last year's annual report, we sold Royal Talens B.V., including all of its subsidiaries and operations, in April 1991.

**Nonconsolidated companies**

Earnings of the joint venture Synthese Malaysia Sdn. Bhd. (synthetic resins) were satisfactory. The planned capacity expansion was delayed.

Akzo-TVK, our joint venture in Hungary, was able to maintain earnings at about the previous year's level, despite strongly fluctuating business conditions.

*The new Meeting & Conference Center at the Sassenheim, the Netherlands, site includes the exhibition area pictured.*



*Control room of the acrylate resin facility operated by Akzo Resins in Bergen op Zoom, the Netherlands. The facility is one of the world's most advanced resin manufacturing units.*

*The new powder coatings complete our line of high-grade coatings for industrial use.*







упы на стол  
после урока!  
не забывать!





## Healthcare products

**General** The favorable development for healthcare products continued through 1991. Sales were up by more than 10% to Hfl 3,064 million, principally as a result of volume growth. Nearly all product sectors contributed to this growth. Operating income was Hfl 514 million, 20% higher than in the previous year, while R&D expenditures were maintained at the previous years' high level. Operating income as a percentage of sales was 16.8% (1990: 15.5%).

**Ethical drugs** The distinct increase in international acceptance of our products caused a surge in sales and operating income. Organon's prominent position in the market for oral contraceptives was underscored by Marvelon® becoming the most prescribed contraceptive pill in the world. The new, uniquely low-dose Mercilon® oral contraceptive also contributed substantially to the higher international sales figures. With the anticipated approval of products such as Marvelon® in the United States and Japan in response to applications made at the end of 1990, Organon hopes to strengthen its base for further growth. The Food and Drug Administration approved Organon's production facilities in the Netherlands for exports to the United States.

The successful introduction in several European countries of Livial®, the new preparation for the treatment of menopausal disorders, also contributed substantially to our growth. Clinical development was started on the recombinant gonadotrophin FSH, a product that is expected to bolster Organon's excellent position in the

market of preparations for the treatment of infertility.

Organon also broadened its base for preparations for the treatment of central nervous system disorders. In May 1991, a dossier for Org. 3770, Organon's second company-developed antidepressant, was submitted to the health authorities.

The new Orgaran® antithrombotic was registered in the Netherlands. Registrations in other European countries are expected to follow shortly.

In response to the changes taking place in Eastern Europe, Akzo expanded its pharmaceutical activities by opening an Organon office in Hungary.

In Brazil, the pharmaceutical industry suffers from a partial price control, rendering it impossible to meet hyperinflation with compensating price measures.

Free trade within the European Community, combined with government interference in medicine prices, is creating parallel imports. If this situation persists, it will eventually cause innovation-oriented pharmaceutical industries to withdraw their products from the cheapest EC countries.

The system by which prices for contraceptives are officially standardized, as applied in the United Kingdom and the Netherlands, ignores the enormous cost involved in product innovation.

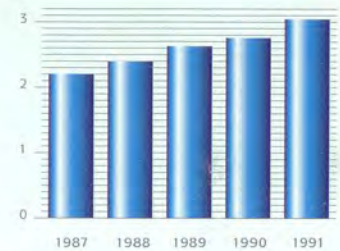
**Hospital supplies** Both sales and operating income of Organon Teknika surpassed the previous year's figures, with exchange rate effects being practically neutral.

Sales of OncoTICE®, a product for the treatment of bladder cancer, developed satisfactorily in the face of increasing price competition.

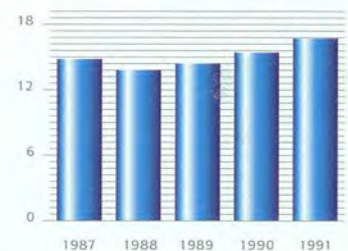
Construction of a special production facility for this product in Durham, North Carolina, is under way.

Organon Teknika's leading position in

Net sales, in billions of guilders



Operating income, as percentage of net sales



*Organon launched an educational project on the theme of safe sex.*



Livial® helps women take the change of life in their stride.

muscle relaxants was further bolstered by the strong growth of Norcuron® sales and maintenance of our market share for Pavulon®. The new muscle relaxant Arduan® was recently approved by health registration authorities in the Netherlands, New Zealand, and South Korea. Through re-registration procedures we obtained approval for



the scope of the NASBA® technology license, including sublicenses. This nucleic acid amplification method greatly enhances diagnostic sensitivity and gives access to a new generation of tests for infectious diseases, genetic defects, and cancers. Development was recently started of the first AIDS diagnostic based on this technology. In the nephrology sector, earnings of artificial kidney producers were depressed by stiff competition. Various strategic alliances are being considered to achieve product differentiation and a larger manufacturing scale.

**Nonprescription products** Chefaro realized another substantial rise in both sales and operating income. The rise in sales is largely attributable to diagnostics.

An increase in sales was also recorded for vitamins and minerals in the Netherlands and Belgium.

Chefaro is looking for ways to expand its marketing activities in Europe, notably in France and Italy. Since continuous innovation is vital to the protection and expansion of the diagnostics product group, much effort was devoted to innovative research and development in cooperation with both Organon Teknika and third parties.

**Raw materials for the pharmaceutical industry** Given further increases in captive sales, especially in the chemicals sector, and the associated claims on production capacity, we adopted a more selective approach in sales to external customers.

Sales of chemical products to these customers were therefore down slightly; even so higher profit margins were attained.

the entire German market. In addition to new registrations for Arduan®, our muscle relaxants range will be extended in the coming years to include a product now in the final clinical development phase. Sales of BacT/Alert®, an automated blood culture system for rapid detection of bacterial infections of the blood, progressed as expected.

Recently, approval for this system was obtained in Japan. Two new tests were introduced to screen donor blood for the presence of the hepatitis C virus, to meet increasingly stringent government requirements. One of these tests was developed in-house; for the other we acquired global distribution rights from United Biochemical Inc. Their introduction strengthened our position in the market for hepatitis tests.

We reached an agreement with Cangene, Canada, on an expansion of



Davitamon® Total, Chefaro's multivitamin preparation



Several important positions in biochemicals were under pressure. Heparin sales continued to face fierce competition from China. Nevertheless, it proved possible to increase prices slightly, with only a modest decrease in volume.

For our human chorionic gonadotrophin, a hormonal preparation used to counter infertility, declining demand coincided with increasing competition from China and Japan. Insulin shipments equaled the previous year's average.

The improved price level of alkaloids was sustained for the first six months. However, in the second half of the year, some pressure on prices was again felt, primarily as a result of a more abundant supply of raw materials.

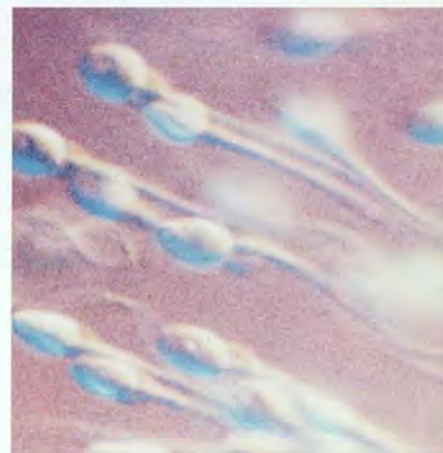
Negotiations are under way with Dutch authorities over the construction of a new chemical production facility for pharmaceutical raw materials in the immediate vicinity of Oss, the Netherlands. These talks are expected to be finalized in 1992.

**Generics** In the United States, government interference severely checked the market development of these products, with our affiliate PBI experiencing its adverse effects. Present prospects are that these effects will diminish in the course of 1992.

**Veterinary products** As in 1990, sales and operating income surged ahead. Our market positions were reinforced, particularly in Canada, the United States, and Mexico. The acquisition of Nordisk Droge in Denmark substantially increased our share in the Northern European market for hog vaccines. Our first biological product—also a vaccine for hogs—was introduced in the Japanese market. In other countries in the Far East, notably China, Thailand, and Taiwan, we realized further sales gains.

New disease control preparations for poultry, hogs, dogs, and cats have emerged from the research stage. Our research activities in the United States were expanded. Furthermore, the final stage of a major investment program for the commercialization of new products was concluded. Our research efforts of the past five years have proven to be very successful: on the average, eight new products and combinations thereof have been introduced annually.

We are aiming at a further increase in our market share in North America and the Far East over the next few years. In Western Europe we will continue to maintain a strong position. The former German Democratic Republic, Poland, and Hungary are emerging markets.



*Spermatozoa*

*Organon Teknika's  
BacTAlert® fully  
automated blood culture  
system*





## Activities by geographic area

The statistics presented below covering sales, income, invested capital, expenditures for property, plant and equipment, and number of employees of the *consolidated companies* illustrate the geographic distribution of Group operations. Certain significant ratios are presented in 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		Net sales, by origin		Operating income		Invested capital*		Expenditures for property, plant and equipment		Number of employees, December 31	
	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990
The Netherlands	1,517	1,532	5,720	5,809	430	411	3,115	3,185	499	524	20,500	22,100
Germany	2,867	2,957	3,446	3,602	169	209	1,726	1,651	165	195	14,800	15,300
Rest of Europe	6,135	6,375	2,854	3,095	190	233	1,700	1,744	146	172	10,700	12,500
North America	3,783	3,700	3,577	3,446	242	277	1,943	1,805	142	160	10,600	10,500
Other regions	2,549	2,682	1,254	1,294	125	131	632	641	55	78	8,600	9,400
<b>Total</b>	<b>16,851</b>	<b>17,246</b>	<b>16,851</b>	<b>17,246</b>	<b>1,156</b>	<b>1,261</b>	<b>9,116</b>	<b>9,026</b>	<b>1,007</b>	<b>1,129</b>	<b>65,200</b>	<b>69,800</b>

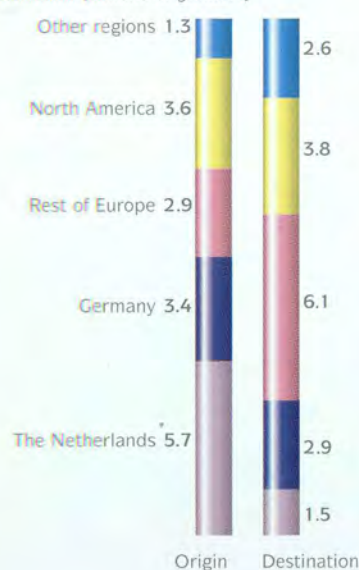
### Ratios of consolidated companies

	Operating income, as % of net sales**		Operating income, as % of average invested capital	
	1991	1990	1991	1990
The Netherlands	7.5	7.1	13.7	13.6
Germany	4.9	5.8	10.0	12.6
Rest of Europe	6.7	7.5	11.0	13.4
North America	6.8	8.0	12.9	14.1
Other regions	10.0	10.1	19.6	20.1
<b>Overall ratio</b>	<b>6.9</b>	<b>7.3</b>	<b>12.7</b>	<b>13.7</b>

### Nonconsolidated companies

Millions of guilders	Net sales, by origin		Invested capital*		Number of employees, December 31	
	1991	1990	1991	1990	1991	1990
Europe	1,250	1,590	1,150	940	1,000	1,100
North America	150	190	80	160	700	900
Latin America	800	640	630	630	5,300	5,500
Other regions	930	920	600	650	4,500	3,900
<b>Total</b>	<b>3,130</b>	<b>3,340</b>	<b>2,460</b>	<b>2,380</b>	<b>11,500</b>	<b>11,400</b>

1991 net sales, by origin and by destination (billions of guilders)



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

\*\* By origin.



Aggregate 1991 sales of the consolidated companies located in *Europe* were Hfl 12 billion, down 4% from 1990. Operating income as a percentage of sales decreased from 6.8% to 6.6% in 1991. Operations in Europe still account for more than 70% of Akzo's total invested capital and workforce.

Dollar sales of our companies in *North America*, which account for 21% of total Akzo sales, were practically unchanged. Here, operating income as a percentage of sales went down, from 8.0% in 1990 to 6.8% in 1991.

A significant part of our consolidated operations in the *other regions* is located in Brazil. As in 1990, business in that country was strongly impacted by the unfavorable economic conditions.

Arnhem, February 25, 1992

The Board of Management



*The acquisition of full ownership in Texas Alkyls bolstered Akzo's position as a producer of plastics industry catalysts.*



**Changes in the Supervisory**

**Council** At the Annual Meeting of Stockholders held on April 24, 1991, the membership of the Supervisory Council was fixed at ten. At this meeting A. Batenburg, G. Kraijenhoff, E.G.G. Werner, and H.G. Zempelín stepped down, as their terms of office had expired. Messrs. Batenburg, Kraijenhoff, and Zempelín were reappointed. As Mr. Werner had reached the mandatory retirement age, he was not eligible for reappointment. F.H. Fentener van Vlissingen took over from him as a Deputy Chairman.

A.R. Dragone resigned from the Council on October 1, 1991, because of delicate health. Mr. Dragone had been a member of the Council since 1990. Prior to that he served as president and CEO of Akzo America; as such he also sat on the Management Committee from 1986 to 1990. We acknowledge our indebtedness to him for his major contributions to the development of Akzo, particularly in the United States.

At the Annual Meeting of Stockholders of April 29, 1992, stockholders will be asked to fix membership of the Supervisory Council at eleven. At this meeting, H.A. van Stiphout, C. van Veen, and J.G.A. Gandois will resign from the Council as their terms of office are expiring. We will seek their reappointment. To fill the vacancies we are nominating L.C. van Wachem and A.E. Cohen.

**Changes in the Board of**

**Management** Having reached the mandatory retirement age, J. Veldman stepped down from the Board of Management at the Annual Meeting of Stockholders on April 24, 1991. Also at that meeting, the membership of the Board of Management was fixed at three. C.J.A. van Lede was appointed to the Board beginning May 1, 1991.



**Changes in the Management**

**Committee** We regret that U.G. Stark resigned as president of the Fibers Division with effect from June 30, 1991, having accepted a position outside the Company. As of the same date, Mr. Stark was succeeded by F.W. Fröhlich.

For health reasons, C. Zaal resigned the presidency of the Coatings Division on July 1, 1991. A man of great energy, Mr. Zaal has for many years contributed significantly to the growth and efficiency of the Coatings Division. We acknowledge a debt of gratitude to him. He will continue to be associated with this division in an advisory capacity. Effective July 1, 1991, Mr. Zaal was succeeded by H.A. van Karnebeek, who prior to that date sat on the Management Committee as the member responsible for human resources policy. F.L. Vekemans was appointed to succeed Mr. Van Karnebeek; he joined the Management Committee on July 1, 1991.

**Supervision** During 1991 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, various committees met to discuss such items as the financial statements and internal control. We thank both the Board of Management and the Company's employees for the results achieved in 1991 in the face of changeable and, in many cases, adverse business conditions.

**Financial statements and dividend proposal**

We herewith submit to you for approval at the Annual Meeting of April 29, 1992, the financial statements for 1991 as prepared by the Board of Management. These financial statements have been examined by KPMG Klynveld Accountants. Their report appears on page 60.

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 7. 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 25, 1992

The Supervisory Council



Akzo N.V., Arnhem, the Netherlands

February 1992

*Divisions*

*Products*

*Management*

**Fibers Division**

Wuppertal  
Germany

*Fibers for industrial uses and textile uses, including carpets; high performance fibers; membranes; nonwovens; various industrial products*

F.W. Fröhlich, president  
J.H. Katgert  
T. Kuipers  
W.H. Meyberg (till February 1, 1992)  
M. Schütze (till December 31, 1991)  
G. von Sengbusch

**Salt and Basic Chemicals Division**

Hengelo  
The Netherlands

*Salt, chlorine, alkali products, VCM, methanol, industrial colloids, organochlor compounds, organic amines; raw materials for herbicides*

R.M.J. van der Meer, president  
L.J. Boone  
S.J. Vogelaar

**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*

F.A.G. Collot d'Escury, president  
C.S. Kent  
A. Moolenburgh  
E. Snoeck

**Coatings Division**

Hoofddorp  
The Netherlands

*Paints, stains, and synthetic resins for industrial, professional, and consumer uses*

H.A. van Karnebeek, president  
H.C. Bijvank  
J.D. Remijnse  
M. Rooseboom

**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  
P.K. Brons  
B.H.M. van Dommelen  
T. Kalff  
J.F. Sistermans



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

### Translation of foreign currencies

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

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

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

However, before being translated into guilders, the financial statements of affiliated companies established in hyperinflationary countries are adjusted to reflect the effects of changing prices.

### Exchange rates of key currencies

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

	Unit	Balance sheet		Statement of income	
		1991	1990	1991*	1990*
U.S.S	1	1.71	1.69	1.87	1.82
DM	1	1.13	1.13	1.13	1.13
£ stg	1	3.20	3.26	3.30	3.25
Fr. fr.	1	0.33	0.33	0.33	0.34
Sw. fr.	1	1.26	1.32	1.30	1.32
Belg. fr.	100	5.47	5.46	5.47	5.46
Sp. pes.	100	1.77	1.77	1.80	1.79
Yen	100	1.37	1.25	1.40	1.26

\* 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.

Purchased goodwill is charged directly against Group equity.

Other intangibles are likewise not capitalized but are charged against operating income.

#### 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 are stated at face value, except for provisions in respect of pension rights and other such rights, which are generally computed on an actuarial basis.

Nonrefundable dividend taxes are taken into account in the determination of provisions for deferred taxes to the extent of earnings expected to be transferred by affiliated companies.

#### *Long-term debt and current liabilities*

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

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#### Principles of determination of income

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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 50 through 53.

after allocation of profit

<i>Millions of guilders, December 31</i>	<i>1991</i>	<i>1990</i>
<b>Assets</b>		
<i>Fixed assets</i>		
Property, plant and equipment	5,864.4	5,883.9
Financial fixed assets		
– Nonconsolidated companies	862.1	779.0
– Other financial fixed assets	139.9	179.7
	<u>1,002.0</u>	<u>958.7</u>
	6,866.4	6,842.6
<i>Current assets</i>		
Inventories	2,788.9	2,865.1
Receivables	3,117.3	3,157.3
Cash and short-term investments	811.5	815.8
	<u>6,717.7</u>	<u>6,838.2</u>
<b>Total</b>	<b>13,584.1</b>	<b>13,680.8</b>
<b>Group equity and liabilities</b>		
<i>Group equity</i>		
Akzo N.V. stockholders' equity	4,762.3	4,642.1
Minority interest	141.9	191.5
	<u>4,904.2</u>	<u>4,833.6</u>
<i>Provisions</i>	2,426.3	2,536.6
<i>Long-term debt</i>		
Subordinated loans	23.0	53.5
Other long-term borrowings	1,794.4	2,030.1
	<u>1,817.4</u>	<u>2,083.6</u>
<i>Current liabilities</i>		
Short-term borrowings	1,642.4	1,166.6
Other current liabilities	2,793.8	3,060.4
	<u>4,436.2</u>	<u>4,227.0</u>
<b>Total</b>	<b>13,584.1</b>	<b>13,680.8</b>



## Consolidated statement of income of the Akzo Group

See notes on pages 53 and 54.

<i>Millions of guilders</i>	<i>1991</i>	<i>1990</i>
<i>Net sales</i>	16,851.2	17,245.6
<i>Cost of sales</i>	(10,770.0)	(11,074.2)
<i>Gross margin</i>	6,081.2	6,171.4
<i>Selling expenses</i>	(3,116.3)	(3,095.1)
<i>Research and development expenses</i>	(895.5)	(890.7)
<i>General and administrative expenses</i>	(955.2)	(951.2)
<i>Other revenue from operations</i>	41.3	26.7
	(4,925.7)	(4,910.3)
<i>Operating income</i>	1,155.5	1,261.1
<i>Financing charges</i>	(276.4)	(367.9)
<i>Operating income less financing charges</i>	879.1	893.2
<i>Taxes</i>	(264.2)	(280.4)
<i>Earnings of consolidated companies from normal operations, after taxes</i>	614.9	612.8
<i>Earnings from nonconsolidated companies</i>	64.4	103.2
<i>Group income from normal operations, after taxes</i>	679.3	716.0
<i>Extraordinary items after taxes</i>	(111.1)	(64.4)
<i>Group income</i>	568.2	651.6
<i>Minority interest</i>	11.7	11.4
<i>Net income</i>	579.9	663.0



## Consolidated statement of changes in financial position of the Akzo Group

See notes on page 54.

<i>Millions of guilders</i>	<i>1991</i>	<i>1990</i>
<b>Sources of funds</b>		
Group income	568	652
Depreciation	878	867
Cash flow	1,446	1,519
Nonconsolidated companies	6	(7)
Changes in provisions	84	122
Other items	60	106
	<u>1,596</u>	<u>1,740</u>
<b>Applications of funds</b>		
Expenditures for property, plant and equipment	1,007	1,129
Investments in and acquisition of nonconsolidated companies	157	243
Acquisition of consolidated interests	542	23
Changes in other financial fixed assets	(38)	31
Disposal of interests	(315)	(90)
	<u>1,353</u>	<u>1,336</u>
Changes in working capital*	308	(322)
Dividends paid	305	248
Other applications	-	8
	<u>1,966</u>	<u>1,270</u>
<i>Balance of funds provided and funds used</i>	<i>(370)</i>	<i>470</i>
<b>Financing</b>		
Issuance of stock	179	-
Drawdowns	98	360
Repayment of long-term debt	(470)	(635)
Changes in short-term borrowings	559	(264)
	<u>366</u>	<u>(539)</u>
<i>Changes in cash and short-term investments</i>	<i>(4)</i>	<i>(69)</i>

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



## Notes to the consolidated financial statements of the Akzo Group

### General

#### Affiliated companies

The principal affiliated companies at December 31, 1991, are listed on pages 67 through 69.

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 1991, Macpherson plc in the United Kingdom, the powder coatings activities of DSM (both Coatings Division) and the tire yarn interests of Goodyear (Fibers Division) were acquired.

Koninklijke Talens B.V. (Coatings Division) in the Netherlands, La Seda de Barcelona S.A. (Fibers Division) in Spain, and the engineering plastics business of the Fibers Division were divested.

### Consolidated balance sheet

#### Property, plant and equipment

<i>Millions of guilders</i>	<i>Total</i>	<i>Buildings and land</i>	<i>Plant equipment and machinery</i>	<i>Other equipment</i>	<i>Con- struction in progress and prepaid projects</i>	<i>Assets not used in the production process</i>
<i>Situation at December 31, 1990</i>						
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
<i>Changes in book value</i>						
Acquisitions and disposal of interests	(113.2)	(4.9)	(94.3)	(12.8)		(1.2)
Capital expenditures	1,007.1	265.3	615.0	158.2	(37.1)	5.7
Depreciation	(877.8)	(116.9)	(602.6)	(152.1)		(6.2)
Additional write-offs	(34.2)	(5.7)	(27.5)	(1.0)		
Disinvestments	(37.1)	(12.0)	(12.0)	(5.3)		(7.8)
Changes in exchange rates	22.5	11.0	9.7	1.4		0.4
Other changes	13.2	(13.4)	(7.9)	7.0		27.5
Total changes in 1991	(19.5)	123.4	(119.6)	(4.6)	(37.1)	18.4
<i>Situation at December 31, 1991</i>						
Cost of acquisition	14,452.3	3,213.8	9,106.6	1,357.7	562.6	211.6
Depreciation	(8,587.9)	(1,438.3)	(6,080.9)	(924.1)		(144.6)
Book value	<b>5,864.4</b>	<b>1,775.5</b>	<b>3,025.7</b>	<b>433.6</b>	<b>562.6</b>	<b>67.0</b>

The book value of property, plant and equipment financed by installment buying and leasing was approximately Hfl 26 million at December 31, 1991 (at December 31, 1990: approximately Hfl 28 million).

Given their comparatively slight magnitude, preparation and start-up expenses, carried at Hfl 0.2 million at December 31, 1991 (at December 31, 1990: Hfl 3.1 million), were included in property, plant and equipment.



## Financial fixed assets

<i>Millions of guilders</i>	<i>Total</i>	<i>Non-consolidated companies</i>	<i>Loans to non-consolidated companies</i>	<i>Other financial fixed assets</i>
Situation at December 31, 1990	958.7	686.0	93.0	179.7
Investments	195.0	108.2	48.5	38.3
Disinvestments	(92.4)	(11.4)	(5.1)	(75.9)
Consolidation/deconsolidation due to changes in participation	(25.5)	(25.5)		
Equity in 1991 earnings	74.1	74.1		
Dividends received	(80.2)	(80.2)		
Changes in exchange rates	(27.7)	(26.1)	0.6	(2.2)

Situation at December 31, 1991 **1,002.0** **725.1** **137.0** **139.9**

## Inventories

<i>Millions of guilders</i>	<b>1991</b>	<i>1990</i>
Raw materials and supplies	<b>736.2</b>	741.8
Work in process	<b>529.9</b>	532.4
Finished products and goods for resale	<b>1,519.6</b>	1,588.7
Inventory prepayments	<b>3.2</b>	2.2
	<b>2,788.9</b>	2,865.1

## Receivables

<i>Millions of guilders</i>	<b>1991</b>	<i>1990</i>
Trade receivables	<b>2,375.0</b>	2,585.7
Receivables from nonconsolidated companies	<b>292.8</b>	171.2
Other receivables	<b>580.7</b>	626.0
	<b>3,248.5</b>	3,382.9
Discounted portion	<b>(131.2)</b>	(225.6)
	<b>3,117.3</b>	3,157.3

## Cash and short-term investments

<i>Millions of guilders</i>	<b>1991</b>	<i>1990</i>
Short-term investments	<b>607.1</b>	668.3
Cash on hand and in banks	<b>204.4</b>	147.5
	<b>811.5</b>	815.8

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

## Group equity

<i>Millions of guilders</i>	<i>Akzo N.V. stockholders' equity</i>	<i>Minority interest</i>
Situation at December 31, 1990	4,642.1	191.5
Issuance of stock	178.6	
Retained earnings	281.1	(25.6)
Changes in minority interest in Group companies		(21.9)
Goodwill	(278.3)	
Changes in exchange rates	(61.2)	(2.1)

Situation at December 31, 1991 **4,762.3** **141.9**

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

## Provisions

<i>Millions of guilders</i>	<b>1991</b>	<i>1990</i>
Deferred taxes	<b>373.7</b>	419.3
Pension rights	<b>1,165.5</b>	1,291.6
Other provisions	<b>887.1</b>	825.7
	<b>2,426.3</b>	2,536.6

The current portion of provisions amounted to approximately Hfl 335 million (at December 31, 1990: approximately Hfl 269 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, 1991, as at December 31, 1990, 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; environmental costs; and guarantees.

Subordinated loans

This item is composed of the amounts borrowed in respect of subordinated loans arranged by Akzo Nederland B.V., together with either Akzo Fibers 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% (1990: 11.0%). Repayment is scheduled to be made in 1992.

Other long-term borrowings

<i>Millions of guilders</i>	1991	1990
Debentures		
– Issued by Akzo N.V.	1,016.5	1,234.1
– Issued by consolidated companies	38.3	56.1
Private borrowings	305.8	114.6
Debt to credit institutions	294.4	536.0
Other borrowings	139.4	89.3
	<b>1,794.4</b>	2,030.1

Aggregate maturities are as follows:

<i>Millions of guilders</i>	1992	1993/ 1996	after 1996
Debentures			
– Issued by Akzo N.V.	197.9	491.9	326.7
– Issued by consolidated companies	10.3	12.6	15.4
Private borrowings	19.5	243.9	42.4
Debt to credit institutions	108.0	173.2	13.2
Other borrowings	54.4	73.0	12.0
	390.1	994.6	409.7

In 1991 the average interest rate was 7.3% (1990: 8.0%).

Private borrowings and debt to credit institutions have been secured to an aggregate amount of Hfl 78 million (at December 31, 1990: Hfl 93 million) by means of mortgages, etc.

The total amount of long-term credit facilities arranged by Akzo but not yet utilized was approximately Hfl 940 million at December 31, 1991 (at December 31, 1990: approximately Hfl 930 million).

For details on debentures issued by Akzo N.V. see the notes to the Akzo N.V. balance sheet on page 58.

Short-term borrowings

<i>Millions of guilders</i>	1991	1990
Commercial paper	744.1	371.0
Debt to credit institutions	898.3	795.6
	<b>1,642.4</b>	1,166.6

Other current liabilities

<i>Millions of guilders</i>	1991	1990
Prepayments by customers	3.5	12.4
Debt to suppliers	1,433.1	1,475.9
Debt to non-consolidated companies	34.4	36.7
Taxes and social security contributions	372.6	374.0
Dividends	232.0	224.5
Pensions	14.2	86.6
Other liabilities	704.0	850.3
	<b>2,793.8</b>	3,060.4



### 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 162 million at December 31, 1991. At December 31, 1990, these commitments totaled Hfl 209 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 1992, these liabilities will require total payments of Hfl 103 million (1991: Hfl 81 million).

Guarantees in behalf of nonconsolidated companies totaled Hfl 108 million (at December 31, 1990: Hfl 110 million).

As general partners of several partnerships, companies of the Akzo Group are liable for obligations incurred by the partnerships. At December 31, 1991, the risk ensuing from these liabilities was Hfl 66 million (at December 31, 1990: Hfl 85 million).

### Consolidated statement of income

Net sales			Financing charges		
<i>Product groups</i>			<i>Millions of guilders</i>		
<i>Millions of guilders</i>	1991	1990		1991	1990
Chemical products	5,737	5,760	Interest received and similar income	90.6	81.0
Fibers	4,262	4,852	Interest paid and similar expenses	(367.0)	(448.9)
Coatings	3,851	3,929			
Healthcare products	3,064	2,775		(276.4)	(367.9)
Miscellaneous products and intra-Group deliveries*	(63)	(70)	Interest paid decreased by Hfl 41 million (1990: Hfl 51 million) due to the capitalization of financing expenses of capital investment projects under construction.		
	16,851	17,246			
<i>Areas of destination</i>			<i>Taxes on operating income less financing charges</i>		
<i>Millions of guilders</i>	1991	1990	Taxes averaged 30.1% (1990: 31.4%). Because of loss compensation facilities a portion of income was not included in taxable income.		
The Netherlands	1,517	1,532			
Germany	2,867	2,957			
Rest of Europe	6,135	6,375			
North America	3,783	3,700			
Other regions	2,549	2,682			
	16,851	17,246			

### Earnings from nonconsolidated companies

Earnings from nonconsolidated companies include a tax charge of Hfl 9.8 million in 1991 and a tax gain of Hfl 9.1 million in 1990.

\* Given the minor importance of miscellaneous products (1991 sales: Hfl 143 million; 1990 sales: Hfl 128 million), they have been combined with intra-Group deliveries.



Extraordinary items after taxes			Employees		
Millions of guilders	1991	1990	Average number of employees	1991	1990
Extraordinary gains	187.7	143.8	Fibers Division	23,500	26,200
Extraordinary losses	(382.6)	(224.8)	Salt and Basic Chemicals Division	6,400	6,500
Extraordinary items	(194.9)	(81.0)	Chemicals Division	8,000	8,200
Taxes	83.8	16.6	Coatings Division	14,500	15,300
	(111.1)	(64.4)	Pharma Division	13,200	12,800
			Other companies	1,600	1,500
				67,200	70,500

The 1991 extraordinary items mainly relate to book profits on divestments and extraordinary charges due to restructuring.

#### Salaries, wages, and social charges

Millions of guilders	1991	1990
Salaries and wages	4,150.9	4,125.6
Pension costs	294.4	331.0
Other social charges	646.2	610.9
	5,091.5	5,067.5

Number of employees at December 31

65,200 69,800

### Consolidated statement of changes in financial position

This statement provides data on sources and applications of funds and on the associated financing arrangements. 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 1991 balance sheet items	158	(111)	(265)	475
Eliminations:				
Changes in exchange rates	(6)	(2)	(23)	(8)
Changes in consolidation	156	(1)	114	92
Other eliminations		198**	(198)**	
Changes in 1991 financial position	308	84	(372)***	559

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

\*\* Conversion of a provision into a private borrowing from the pension fund in the Netherlands.

\*\*\* Balance of drawdowns (Hfl 98 million) and repayments (Hfl 470 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	1991	1990
<i>Assets</i>		
Fixed assets on the basis of historical cost	6,866	6,843
Revaluation of fixed assets	862	996
Fixed assets on the basis of current value	7,728	7,839
Current assets	6,718	6,838
<b>Total</b>	<b>14,446</b>	<b>14,677</b>
<i>Group equity and liabilities</i>		
Stockholders' equity	5,328	5,273
Minority interest	149	228
Group equity	5,477	5,501
Provisions	2,715	2,866
Debt	6,254	6,310
<b>Total</b>	<b>14,446</b>	<b>14,677</b>

### Summarized consolidated income data

Millions of guilders	1991	1990
Net sales	16,851	17,246
Operating income on the basis of historical cost	1,156	1,261
Adjustment of operating income to current value		
– Inventory results	16	6
– Additional depreciation	(68)	(88)
Operating income on the basis of current value	1,104	1,179
As percentage of net sales	6.6	6.8
Net income on the basis of historical cost	580	663
Adjustment of operating income to current value	(52)	(82)
Gearing adjustment	26	40
Adjustments for non-consolidated companies and minority interest	(1)	(1)
Net income on the basis of current value	553	620



## Akzo N.V. balance sheet

See notes on pages 57 through 59.

after allocation of profit

<i>Millions of guilders, December 31</i>	<i>1991</i>	<i>1990</i>
<b>Assets</b>		
<i>Fixed assets</i>		
Financial fixed assets	7,104.4	6,575.6
<i>Current assets</i>		
Receivables	145.5	397.9
Cash and short-term investments	347.8	374.5
	493.3	772.4
<b>Total</b>	<b>7,597.7</b>	<b>7,348.0</b>
<b>Stockholders' equity and liabilities</b>		
<i>Stockholders' equity</i>		
Subscribed stock	919.3	888.5
Additional paid-in capital	1,569.5	1,421.7
Statutory reserves	-	-
Other reserves	2,273.5	2,331.9
	4,762.3	4,642.1
<i>Long-term debt</i>	1,774.4	1,844.0
<i>Current liabilities</i>	1,061.0	861.9
<b>Total</b>	<b>7,597.7</b>	<b>7,348.0</b>

## Akzo N.V. statement of income

See notes on page 59.

<i>Millions of guilders</i>	<i>1991</i>	<i>1990</i>
Net income from affiliated companies	620.2	706.2
Other net income	(40.3)	(43.2)
<i>Net income</i>	<b>579.9</b>	<b>663.0</b>



## Notes to Akzo N.V. balance sheet and statement of income

### General

Foreign currency has been translated, assets and liabilities have been valued, and net income has been determined, in accordance with the principles of valuation and determination of income set forth on pages 45 and 46.

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

income as shown in the consolidated financial statements on pages 47 and 48. As the financial data of Akzo N.V. are included in the consolidated financial statements of the Akzo Group, the statement of income of Akzo N.V. is condensed in conformity with Book 2 of the Dutch Civil Code, section 402.

### Balance sheet

#### Financial fixed assets

Millions of guilders	Total	Consolidated companies		Nonconsolidated companies		Other financial fixed assets
		Share in capital	Loans*	Share in capital	Loans	
Situation at December 31, 1990	6,575.6	4,168.2	2,249.1	151.9	3.4	3.0
Investments/ disinvestments	4.3	6.5				(2.2)
Equity in 1991 earnings	620.2	599.0		21.2		
Dividends received	(311.6)	(291.9)		(19.7)		
Loans granted	621.3		621.3			
Repayment of loans	(65.9)		(62.5)		(3.4)	
Changes in exchange rates	(61.2)	(13.9)	(19.4)	(27.9)		
Goodwill	(278.3)	(278.3)				
Situation at December 31, 1991	<b>7,104.4</b>	<b>4,189.6</b>	<b>2,788.5</b>	<b>125.5</b>	<b>-</b>	<b>0.8</b>

Receivables			Cash and short-term investments		
Millions of guilders	1991	1990	Millions of guilders	1991	1990
Receivables from consolidated companies	40.9	325.8	Short-term investments	323.0	367.1
Taxes	65.2	36.9	Cash on hand and in banks	24.8	7.4
Other receivables	39.4	35.2		347.8	374.5
	145.5	397.9			

\* Loans to consolidated companies have no fixed repayment schedule.



Stockholders' equity					
Millions of guilders	Subscribed stock	Additional paid-in capital	Statutory reserves	Other reserves	Stockholders' equity
Situation at December 31, 1990	888.5	1,421.7	-	2,331.9	4,642.1
Issuance of common stock due to exercise of warrants	30.8	147.8			178.6
Retained earnings				281.1	281.1
Goodwill				(278.3)	(278.3)
Changes in exchange rates in respect of affiliated companies				(61.2)	(61.2)
Situation at December 31, 1991	<b>919.3</b>	<b>1,569.5</b>	-	<b>2,273.5</b>	<b>4,762.3</b>

#### 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 45,960,972 shares of common stock. In 1991, a total of 1,540,012 shares of common stock were issued as the rights attached to the warrants issued by Akzo N.V. in 1986 were exercised.

On October 1, 1991, the warrants expired. Until that date, 1,543,640 of the 2,001,513 warrants issued were presented to be exercised. The average exercise price was Hfl 117.50 per share.

#### 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. The options granted in 1991 expire on April 29, 1996, and entitle the holders to acquire shares at a price of Hfl 115.10 per share. At December 31, 1991, there were options outstanding for 122,596 shares of Akzo N.V. common stock (1990: 80,150).

#### Additional paid-in capital

At least Hfl 942 million of additional paid-in capital (at December 31, 1990: Hfl 793 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	1991	1990
Debentures	1,016.5	1,234.1
Debt to consolidated companies	711.3	585.9
Private borrowings	0.7	0.8
Other borrowings	45.9	23.2
	<b>1,774.4</b>	<b>1,844.0</b>

#### Debentures

Millions of guilders	1991	1990
10 <sup>3</sup> / <sub>4</sub> % 1982/88-92	20.0	40.0
6 <sup>1</sup> / <sub>4</sub> % 1988/95	200.0	200.0
4% 1988/98 (Sfr)	126.2	131.3
6% 1988/96	200.0	200.0
5% 1988/93 (DM)	225.4	225.6
11% 1988/91 (Can.\$)	-	104.2
7% 1988/91 (ECU)	-	97.1
14% 1989/92 (AS)	104.5	103.3
14% 1989/92 (AS)	73.4	72.6
8% 1990/93 (Sfr)	66.5	59.4
Employee debentures	0.5	0.6
	<b>1,016.5</b>	<b>1,234.1</b>

The liabilities arising from the AS 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.



#### 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 9.4% in 1991 (1990: 9.8%).

#### Private and other borrowings

Aggregate maturities are as follows:

Millions of guilders	1992	1993/ 1996	after 1996
Private borrowings	0.1	0.4	0.2
Other borrowings	40.3	0.4	5.2

The average rate of interest was 8.4% (1990: 5.2%).

#### Current liabilities

Millions of guilders	1991	1990
Debt to credit institutions	573.3	93.8
Commercial paper	146.1	-
Debt to consolidated companies	31.5	448.9
Dividend	232.0	224.5
Other liabilities	78.1	94.7
	<b>1,061.0</b>	861.9

#### 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, 1991 aggregating approximately Hfl 1.7 billion (at December 31, 1990: approximately Hfl 1.7 billion), are included in the consolidated balance sheet of the Akzo Group. Additionally, guarantees were issued in behalf of consolidated companies in the amount of Hfl 1.5 billion (1990: Hfl 1.3 billion) and in behalf of nonconsolidated companies in the amount of Hfl 108 million (1990: Hfl 110 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 1991, remuneration including pension expense amounted to Hfl 4,797,000 (1990: Hfl 7,960,000) for members and former members of the Board of Management, and to Hfl 685,000 (1990: Hfl 668,000) for members and former members of the Supervisory Council. These amounts were charged to Akzo Group income.

Arnhem, February 25, 1992

#### The Board of Management

A.A. Loudon  
C.J.A. van Lede  
M.D. Westermann

#### The Supervisory Council

G. Kraijenhoff  
F.H. Fentener van Vlissingen  
H. Kopper  
A. Batenburg  
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 1991. 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, 1991, and of the results for the year then ended, and are also otherwise in compliance with Dutch legal requirements for financial statements.

Arnhem, February 25, 1992

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 carried 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

1991

Net income	579,900,000
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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	<u>298,746,318</u>	

298,749,198

To be carried to "other reserves"		281,150,802
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Following the acceptance of this proposal, the holders of common stock will receive a dividend of Hfl 6.50 per 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. 38 from May 18, 1992.



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

<i>Millions of guilders</i>	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Property, plant and equipment	5,864	5,884	5,911	5,558	4,795	4,330	3,843	4,208	3,840	3,911
Financial fixed assets	1,002	959	852	847	792	660	622	610	611	499
Fixed assets	6,866	6,843	6,763	6,405	5,587	4,990	4,465	4,818	4,451	4,410
Inventories	2,789	2,865	2,952	2,997	2,568	2,586	2,691	2,653	2,457	2,542
Receivables	3,117	3,157	3,684	3,125	2,733	2,768	3,114	2,893	2,701	2,339
Cash and short-term investments	812	816	885	951	926	1,084	1,485	1,067	1,206	778
Current assets	6,718	6,838	7,521	7,073	6,227	6,438	7,290	6,613	6,364	5,659
Total assets	13,584	13,681	14,284	13,478	11,814	11,428	11,755	11,431	10,815	10,069
Subscribed capital	919	888	867	805	804	803	796	789	664	593
Additional paid-in capital	1,570	1,422	1,435	1,257	1,254	1,247	1,120	1,087	740	658
Statutory reserves	-	-	-	-	-	438*	372*	300*	-	-
Other reserves	2,273	2,332	2,197	2,228	1,754	1,823*	1,854*	1,838*	1,563	1,237
Stockholders' equity	4,762	4,642	4,499	4,290	3,812	4,311	4,142	4,014	2,967	2,488
Minority interest	142	192	232	235	217	354	353	170	120	122
Group equity	4,904	4,834	4,731	4,525	4,029	4,665	4,495	4,184	3,087	2,610
Provisions	2,426	2,537	2,303	2,207	2,266	2,005	2,003	1,729	1,535	1,427
Subordinated loans	23	53	84	115	145	167	184	203	221	175
Other long-term borrowings	1,795	2,030	2,341	2,114	1,194	1,438	1,678	2,169	3,132	3,227
Long-term debt	1,818	2,083	2,425	2,229	1,339	1,605	1,862	2,372	3,353	3,402
Short-term borrowings	1,642	1,167	1,535	1,436	1,525	405	439	430	349	571
Other current liabilities	2,794	3,060	3,290	3,081	2,655	2,748	2,956	2,716	2,491	2,059
Current liabilities	4,436	4,227	4,825	4,517	4,180	3,153	3,395	3,146	2,840	2,630
Total Group equity and liabilities	13,584	13,681	14,284	13,478	11,814	11,428	11,755	11,431	10,815	10,069
<i>Invested capital**</i>										
Of consolidated companies	9,116	9,026	9,410	8,743	7,603	7,061	6,832	7,203	6,666	6,881
In nonconsolidated companies	862	779	699	703	630	535	482	445	452	351
Total	9,978	9,805	10,109	9,446	8,233	7,596	7,314	7,648	7,118	7,232
<i>Property, plant and equipment</i>										
Capital expenditures	1,007	1,129	1,297	1,270	1,095	1,106	1,008	784	625	730
Depreciation	878	867	852	751	668	577	608	576	584	533
<i>Ratios</i>										
Net sales : invested capital	1.86	1.87	2.06	2.03	2.12	2.25	2.57	2.38	2.23	2.08
Group equity : debt	0.57	0.55	0.50	0.51	0.52	0.69	0.62	0.58	0.40	0.35
Group equity : fixed assets	0.71	0.71	0.70	0.71	0.72	0.93	1.01	0.87	0.69	0.59
Inventories and receivables : other current liabilities	2.11	1.97	2.02	1.99	2.00	1.95	1.96	2.04	2.07	2.37

\* Restated for comparison.

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



Consolidated statement of income										
<i>Millions of guilders</i>	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
Net sales	16,851	17,246	18,736	16,581	15,535	15,615	18,010	16,520	15,085	14,154
Operating income	1,156	1,261	1,713	1,424	1,181	1,465	1,465	1,340	843	493
Financing charges	(277)	(368)	(324)	(255)	(147)	(106)	(185)	(285)	(341)	(297)
Taxes on operating income less financing charges	(264)	(280)	(507)	(409)	(367)	(478)	(465)	(369)	(73)	(28)
Equity in earnings of nonconsolidated companies	64	103	86	123	53	17	98	123	110	59
Group income from normal operations, after taxes	679	716	968	883	720	898	913	809	539	227
Extraordinary items after taxes	(111)	(64)	12	(11)	273	23	3	(35)	(102)	(49)
Group income	568	652	980	872	993	921	916	774	437	178
Minority interest	12	11	(26)	(29)	(51)	(79)	(73)	(22)	(9)	(13)
Net income	580	663	954	843	942	842	843	752	428	165

Common stock, in thousands of shares of Hfl 20	45,961	44,421	43,324	40,241	40,208	40,138	39,755	39,427	33,151	29,594
Dividend	299	289	347*	302*	265	265	262	236	133	47*

*Per common share of Hfl 20, in guilders*

Net income	12.62	14.93	22.02	20.94	23.43	20.96	21.21	19.06	12.91	5.56
Dividend	6.50	6.50	8.00	7.50	6.60	6.60	6.60	6.00	4.00	1.60
Stockholders' equity	103.62	104.50	103.84	106.61	94.80	107.40	104.16	101.80	89.48	84.06

Adjusted for common stock issues

Net income	12.62	14.93	21.97	20.83	23.31	20.85	21.10	18.96	12.78	5.26
Dividend	6.50	6.50	7.98	7.46	6.57	6.57	6.57	5.97	3.96	1.51
Stockholders' equity	103.62	104.50	103.62	106.06	94.31	106.85	103.62	101.28	88.57	79.53

Number of employees at December 31	65,200	69,800	70,900	71,100	67,400	68,400	65,000	66,100	66,300	73,700
Salaries, wages, and social charges	5,092	5,068	5,308	4,889	4,627	4,439	4,641	4,292	4,303	4,229
Ditto, as % of net sales	30.2	29.4	28.3	29.5	29.8	28.4	25.8	26.0	28.5	29.9

*Ratios*

Operating income, as percentage of net sales	6.9	7.3	9.1	8.6	7.6	9.4	8.1	8.1	5.6	3.5
Operating income, as percentage of invested capital	12.7	13.7	18.9	17.4	16.1	21.1	20.9	19.3	12.4	7.2
Net income, as percentage of stockholders' equity	12.3	14.5	21.7	20.8	23.2	19.9	20.7	21.5	15.7	6.7

Figures on a current-value basis

	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
<i>Per common share of Hfl 20, in guilders</i>										
Net income	12.03	13.96	20.10	18.07	21.56	21.08	18.49	16.36	9.26	2.20
Stockholders' equity	115.92	118.71	120.90	127.83	115.00	126.00	123.41	123.50	113.40	110.74

\* 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	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
<i>Net sales</i>										
Chemical products:										
Salt and basic chemicals	2,398	2,384	2,592	2,618	2,034	2,029	2,482	2,302	2,001	1,872
Specialty chemicals	3,339	3,376	3,828	3,402	2,617	2,303	2,673	2,498	2,096	1,945
	5,737	5,760	6,420	6,020	4,651	4,332	5,155	4,800	4,097	3,817
Fibers	4,262	4,852	5,210	4,678	4,291	4,513	4,835	4,587	3,982	4,006
Coatings	3,851	3,929	3,659	2,794	2,415	2,314	2,171	1,973	1,796	1,572
Healthcare products	3,064	2,775	2,647	2,412	2,218	2,239	2,138	1,849	1,647	1,563
Miscellaneous products and intra-Group deliveries	(63)	(70)	(137)	(107)	(136)	(103)	(66)	(62)	(14)	(9)
	16,851	17,246	17,799	15,797	13,439	13,295	14,233	13,147	11,508	10,949
Divested operations**			937	784	2,096	2,320	3,777	3,373	3,577	3,205
Net sales	16,851	17,246	18,736	16,581	15,535	15,615	18,010	16,520	15,085	14,154
<i>Operating income</i>										
Chemical products	328	379	703	700	470	421	474	403	193	89
Fibers	102	218	268	195	129	350	404	372	146	87
Coatings	221	251	281	210	164	132	130	144	143	97
Healthcare products	514	429	383	335	330	350	355	306	260	233
Miscellaneous products and nonallocated items	(9)	(16)	14	(56)	(57)	(8)	(60)	(58)	(37)	(18)
	1,156	1,261	1,649	1,384	1,036	1,245	1,303	1,167	705	488
Divested operations**			64	40	145	220	162	173	138	5
Operating income	1,156	1,261	1,713	1,424	1,181	1,465	1,465	1,340	843	493
<i>Invested capital</i>										
Chemical products	3,476	3,461	3,607	3,455	2,765	2,386	2,393	2,362	2,025	1,895
Fibers	2,372	2,735	2,750	2,464	2,329	2,149	2,082	1,978	1,969	2,151
Coatings	1,879	1,683	1,708	1,291	1,089	1,070	894	738	653	598
Healthcare products	1,484	1,338	1,330	1,390	1,152	1,069	987	809	772	701
Miscellaneous products and nonallocated items	(95)	(191)	(337)	(169)	3	(151)	(86)	(73)	(14)	(40)
	9,116	9,026	9,058	8,431	7,338	6,523	6,270	5,814	5,405	5,305
Divested operations**			352	312	265	538	562	1,389	1,261	1,576
Invested capital	9,116	9,026	9,410	8,743	7,603	7,061	6,832	7,203	6,666	6,881

\* Figures for 1982 through 1988 restated for comparison.

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



## Regional statistics

<i>Millions of guilders</i>	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982
<i>The Netherlands</i>										
Net sales by:										
– destination	1,517	1,532	1,612	1,706	1,948	1,902	1,988	1,836	1,675	1,561
– origin	5,720	5,809	6,156	6,022	5,763	5,721	6,234	5,772	5,106	4,528
Operating income	430	411	605	601	496	546	568	453	229	75
Expenditures for property, plant and equipment	499	524	493	465	451	442	424	286	283	338
Invested capital*	3,115	3,185	2,853	2,902	2,783	2,657	2,560	2,414	2,293	2,288
Number of employees*	20,500	22,100	22,300	22,700	22,500	23,900	23,100	22,400	22,000	22,600
<i>Germany</i>										
Net sales by:										
– destination	2,867	2,957	2,894	2,692	2,613	2,602	2,605	2,493	2,340	2,168
– origin	3,446	3,602	4,595	4,179	3,959	4,251	4,419	4,130	3,580	3,395
Operating income	169	209	341	261	240	433	384	370	178	128
Expenditures for property, plant and equipment	165	195	309	282	232	273	191	157	110	136
Invested capital*	1,726	1,651	2,022	1,785	1,714	1,651	1,679	1,562	1,694	1,688
Number of employees*	14,800	15,300	16,000	19,700	19,600	19,400	19,000	18,400	18,700	19,400
<i>Rest of Europe</i>										
Net sales by:										
– destination	6,135	6,375	6,831	6,125	6,404	6,617	6,739	5,902	5,131	5,137
– origin	2,854	3,095	3,008	2,566	3,094	3,056	3,063	2,470	2,226	2,392
Operating income	190	233	270	263	266	303	299	215	174	164
Expenditures for property, plant and equipment	146	172	174	209	163	157	124	100	77	68
Invested capital*	1,700	1,744	1,740	1,504	1,291	1,361	1,246	1,052	892	909
Number of employees*	10,700	12,500	12,700	11,700	11,600	13,200	12,500	11,100	11,000	12,700
<i>North America</i>										
Net sales by:										
– destination	3,783	3,700	4,016	3,128	2,333	2,224	3,923	3,781	3,744	3,241
– origin	3,577	3,446	3,487	2,664	2,014	1,918	3,510	3,353	3,462	3,048
Operating income (loss)	242	277	258	150	86	84	95	166	123	(24)
Expenditures for property, plant and equipment	142	160	197	251	209	207	231	217	136	148
Invested capital*	1,943	1,805	2,133	1,983	1,367	1,102	1,047	1,853	1,510	1,695
Number of employees*	10,600	10,500	10,500	8,900	7,500	6,200	5,400	8,800	9,100	13,400
<i>Other regions</i>										
Net sales by:										
– destination	2,549	2,682	3,383	2,930	2,237	2,270	2,755	2,508	2,195	2,047
– origin	1,254	1,294	1,490	1,150	705	669	784	795	711	791
Operating income	125	131	239	149	93	99	119	136	139	150
Expenditures for property, plant and equipment	55	78	124	63	40	27	38	24	19	40
Invested capital*	632	641	662	569	448	290	300	322	277	301
Number of employees*	8,600	9,400	9,400	8,100	6,200	5,700	5,000	5,400	5,500	5,600

\* At December 31.



## Principal companies of the Akzo Group

(other than holding companies and national organizations)

December 31, 1991

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 Division

(Wuppertal, Germany)

Akzo Fibers B.V., Arnhem with establishments in the Netherlands, France, the United States	Netherlands	
Akzo Industrial Systems B.V., Velp with establishments in the Netherlands, Germany, France	Netherlands	
Akzo Faser AG, Wuppertal	Germany	
Kuagtextil GmbH, Konz	Germany	
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, Bombay	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, the United States, Canada, the Netherlands Antilles	Netherlands	
Delamine B.V., Delfzijl	Netherlands	(50)
Nonconsolidated companies:		
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, Mexico, 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)
Texas Alkyls Inc., Deer Park, Texas	United States	

Nonconsolidated companies:

Glucona v.o.f., Ter Apelkanaal	Netherlands	(50)
Kali-Chemie Stauffer GmbH & Co., Hanover	Germany	(50)
Eurecat S.A., La Voulte-sur-Rhône	France	(42)
Société Européenne de Soufres Industriels S.A., Marseilles	France	(45)
Cornwall Chemicals Ltd, Cornwall, Ontario	Canada	(50)
FCC-Fábrica Carioca de Catalisadores S.A., Rio de Janeiro	Brazil	(40)
Centak Chemicals Ltd, Calcutta	India	(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)

## Coatings Division

(Hoofddorp, the Netherlands)

Akzo Coatings International, Hoofddorp with establishments in the Netherlands, Germany, Austria, Belgium, Denmark, Norway, France, Switzerland, Greece, the United Kingdom, Italy, Spain, the United States, Canada, Argentina, Brazil, Thailand, Japan, Singapore, Morocco*, Ivory Coast*	Netherlands	
Koninklijke Brink/Molyn B.V., Groot-Amers	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	
Macpherson plc, Bury	U.K.	

Nonconsolidated companies:

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

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



## 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

## Other companies

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

### Nonconsolidated companies:

AMP-Akzo Corporation, Hauppauge, New York	United States (50)
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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\*, Hungary
- the United States, Canada
- Mexico, Argentina, Brazil, Chile, Colombia, Ecuador, Venezuela
- Cyprus, Bangladesh\*, China\*, India\*, Malaysia, Pakistan\*, Thailand, the Republic of Korea\*, Indonesia\*, Hong Kong, Japan\*, Taiwan\*
- Australia
- Morocco, Nigeria\*

\* 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: NASDAQ

*Dividends are paid through the following banks:*

**The Netherlands**

ABN AMRO Bank  
Bank Mees & Hope  
Internationale Nederlanden Bank  
(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  
Berliner Handels- und Frankfurter Bank  
Dresdner Bank  
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

Per share data and number of shares



	1991	1990	1989	1988	1987
Dividend, in % of net income	52%	44%	36%	36%	28%
Dividend, in % of net income, before extraordinary items	43%	40%	37%	35%	40%

*in Hfl per share*

Quarter	1991				1990			
	IV	III	II	I	IV	III	II	I
Income per share*	0.78	3.51	4.15	4.18	2.03	3.73	4.63	4.54
Highest price	134.60	122.80	118.20	109.40	85.70	124.60	135.70	141.90
Lowest price	114.10	111.70	107.00	70.90	63.20	83.30	116.70	112.80
Closing price	133.40	117.90	113.10	107.50	74.70	84.70	123.30	130.80

Stockholders' equity per share, Dec. 31  
Do., on the basis of current value

1991	103.62	104.50
1990	115.92	118.71

Shares of common stock outstanding at Dec. 31

1991	45,960,972
1990	44,420,960
1989	43,324,238

\* On the basis of number of shares of common stock outstanding at year-end 1991 and 1990, respectively.



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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,"  
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