ANNUAL REPORT 1990

ROBERT BOSCH GMBH

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Robert Bosch GmbH Stuttgart

> Annual Report 1990

Bosch Group Worldwide	1990	1989
Sales	31,824	30,588
Foreign sales as a percentage of sales	51	52
Expenditures for research and development as a percentage of sales	$2,042 \\ 6.4$	$1,803 \\ 5.9$
Additions to tangible fixed assets as a percentage of depreciation	2,790 162	2,064 128
Average number of employees	179,636	174,742
Total assets	23,544	22,205
Equity capital as a percentage of total assets	7,050 30	6,668 30
Net income for the year	560	626
Unappropriated earnings	43	43

Values stated in million DM.

References to equity interests in companies pertain to shares held directly or indirectly by Robert Bosch GmbH.

Highlights

Our business was affected by the political events of 1990. The accession of the five new German states into the German Federal Republic was of particular importance. In addition, the Gulf crisis as well as problems arising from the transition in Eastern Europe impacted the world's economic environment.

The economic and currency integration that took place in Germany during midyear 1990 had a beneficial effect on our business. While domestic sales growth was disproportionately strong, foreign sales were not satisfactory. Worldwide economic growth in 1990 slowed to approximately 2.5%. Economic progress was particularly unfavorable in Australia, Brazil, Great Britain, and the United States. Additional burdens arose from the decline of the exchange rate of the US dollar.

Overall growth of the Bosch Group slowed. Consolidated worldwide sales rose by 4.0% to 31.8 billion DM as compared to last year's growth rate of 10%. Domestic sales of the Bosch Group increased by 5.4%, while foreign sales of our Regional Subsidiaries increased by 1.6%. The average number of employees increased approximately 3% to almost 180,000.

Due to worldwide competition, our business sectors were, for the most part, unable to adjust prices as necessitated by rising costs. Since our customers were themselves pressured by competitive forces, we suffered price reductions in some important areas. Therefore, we have intensified efforts to improve our ability to compete successfully.

A significant part of our business strategy in 1990 was directed towards the new states. It involved all business sectors and included activities in development, manufacturing, sales and service. The most significant move was the formation of Robert Bosch Fahrzeugelektrik Eisenach GmbH. This company will contribute to recreating an efficient automotive industry in that part of Germany.

We are also participating in many ways in the construction of a modern communication system. At the end of 1990 we employed about 4,000 people in the new states. We are training and familiarizing these employees intensively in our factories in order to educate them in new technologies.

At the same time, we continued the internationalization of our business. We moved ahead with new cooperative engagements as well as with the expansion of our development and manufacturing network especially in Austria, Brazil, France, Great Britain, India, and the United States. We also added to the number of our purchasing offices in foreign countries. We consider it an important goal to reduce the export imparity with dollar-dominated areas in order to minimize currency exchange-rate risks. We opened liaison offices in Czechoslovakia, Hungary and Poland in order to gain access to the markets that are opening in Middle and Eastern Europe.

Another one of our focal points was the continuing improvement of the quality of our products in order to implement the 12 quality principles which were adopted and published last year, we completed a total of 46 projects with the target of "zero defects", and some first-time pilot projects for "Total Quality Management". With these, we aim to heighten the quality consciousness of our employees as well as to comply with customer demands pertaining to products and services. Our experience in these projects will be applied to all of our business sectors. Our customers acknowledged our products, service performance and quality assurance, and we received a total of 33 awards.

High motivation and professional qualification of our employees are preconditions for strengthening our competitive standing. The focal point of our personnel policy aims therefore at professional and personal improvement. Priority is given to education of management personnel with international interests. We are increasingly taking on graduates from foreign institutes of higher learning as trainees.

Together with Carnegie Mellon University, Pittsburgh, PA, we formed the Carnegie Bosch Institute for Applied Studies in International Management. It researches basic and current problems in the management of international enterprises. We support this institute with a foundation capital of US-S 15 million, the interest from which is used to finance its research work. Consolidated worldwide sales of the Bosch Group rose 4% to 31.8 billion DM. Adjusted for price and currency fluctuations, the increase amounted to 5.2%. Domestic growth was stronger than growth abroad.

Sales of the domestic Bosch Group rose 5.4% to 25.8 billion DM.

The export share of sales of the domestic divisions amounted to 38% (1989: 39%). Sales of the Robert Bosch GmbH rose 5.4% to 17.5 billion DM.

Percentage change in sales	1990	1989
Bosch Group Worldwide	+4.0	+10.5
Domestic Bosch Group	+5.4	+ 8.7
Robert Bosch GmbH	+5.4	+10.1

The share of foreign sales as a percentage of total worldwide sales amounted to 51% (1989: 52)%. The participation of regional subsidiaries amounted to 31 (34)%. Nominally, their sales grew 1.6% to 13 billion DM. Adjusted for price and currency fluctuations, the increase was 4.8%.

With the exception of Latin America, sales in real terms were higher than the year before. The largest increases were achieved by our companies in Asia, Africa and Australia and totalled 14%. Sales of our European companies in countries outside of the EC also grew at above-average rates.

The international automobile industry suffered production declines

The worsening economic factors impacted the world's automobile industry. After seven years of continuous growth, the international automobile industry suffered production reductions in 1990. Our automotive equipment business sector however was able to increase sales by 1.3% to 16.1 billion DM.

Sales of communications technology products increased 5.2% to 7.2 billion DM. Decisive factors were the sales of car radios, products in entertainment electronics, mobile radios, as well as private communications and security systems.

As in prior years, we achieved the largest growth rate with consumer goods. Sales rose 9.3% to 6.4 billion DM. In particular, continuing favorable economic trends in the building industry resulted in brisk business with electric power tools and thermotechnical products.

A favorable investment climate for capital goods at home and abroad led to a sales increase of 6.2% to 2.1 billion DM. Business in hydraulic and pneumatic products as well as in assembly equipment met with solid demand.

Numerous activities in the new German states

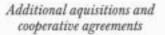
Together with FER Fahrzeugfabrik GmbH, we formed Robert Bosch Fahrzeugelektrik Eisenach GmbH. This company belongs to the automotive equipment sector, employs about 2,000 people and manufactures primarily headlamps and windshield-wiper systems in Brotterode and Eisenach. Capital investment of approximately 200 million DM will be spent for a new factory at Eisenach, which will go into operation by the end of 1992.

We added approximately 2,000 new retail outlets for aftermarket sales of automotive equipment. By the end of 1991 this number should increase to about 5,000. In 1990 we opened a total of 13 new Bosch Service Centers with the goal of increasing this number to 200 by the end of 1991. The owners and managers of these small and medium-sized enterprises all come from the new German states.

Telenorma GmbH, a division of the communications technology business sector, acquired NAL Telecom GmbH, Leipzig. The renamed company, Telenorma Leipzig GmbH employs about 850 people and will plan, sell, lease, assemble, repair, and service communication installations. Since then Telenorma has concluded 20 cooperation agreements with small and medium-sized electrical contractors who sell, service, and procure leasing contracts in the new states. The ANT Nachrichtentechnik Radeberg GmbH, an ANT subsidiary founded in December 1990, acquired the radio-relay and data-processing operating unit from Robotron Telecom GmbH, located in Radeberg near Dresden. The take-over was made effective retroactively as of January 1, 1991.

Robert Bosch Elektrowerkzeuge GmbH, a subsidiary of Robert Bosch GmbH, was established in November 1990. This company acquired significant operating units of Sebnitzer Elektrowerkzeuge GmbH. Located in Sebnitz, Saxony, it employs about 350 people and manufactures hammer drills, angle grinders, power tools for outdoor use, and motors for electric power tools. The company will invest about 50 million DM between now and 1995. We contracted a network of 1,400 specialist dealers for sales and service of electric power tools.

The Junkers division formed a sales and service organization for room and warm-water heaters in the new states.

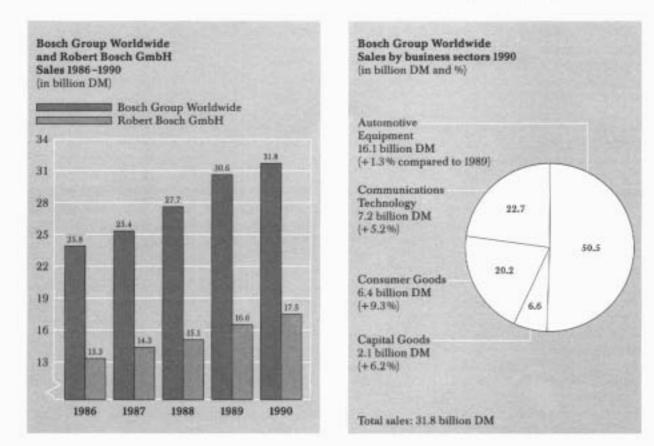


Together with the Japanese company TDK Corporation we founded BT Magnet-Technologie GmbH, Herne. We transferred our magnet and sintered-metal product areas to this company, which commenced business effective January 1, 1991.

Our United States subsidiary, Robert Bosch Corporation, acquired Airflow Research and Manufacturing Corporation. This company develops, manufactures and sells in North America fans for engine cooling and is developing fans for motor-vehicle heaters and ventilators for home air conditioning. The company employs about 200 people.

In Austria, Robert Bosch AG acquired Voest-Alpine Automotive GmbH. The company develops equipment for Diesel engines in Linz and Vienna.

Robert Bosch Ltda, Brazil, acquired 49% of



Telemulti Ltda. Telemulti is active in the area of communications transmission technology and with the support of our Public Communications Division will partake in the expected growth potential when the communications networks are changed over to digital technology.

Together with Ishida Scales Mfg Co Ltd, Kyoto, Japan, our subsidiary Robert Bosch Máquinas de Embalagem Ltda formed a production and distribution company for multiple-head scales in Brazil.

We strengthened our presence on the American markets and in Europe

In order to reinforce its presence in the North American market, Scintilla AG acquired a 50% share in Vermont American Corporation, Louisville, KY. Emerson Electric Co, St. Louis, MO also holds a share in this company, which is an important manufacturer of accessories for electric power tools.

In the area of gas heaters, we strengthened our market position by acquiring a 40% share in Atag Verwarming BV, Lichtenvoorde, Netherlands. Together with this company we are developing gas heaters with far less environmentally harmful emissions.

Together with Elginkan Holding AS, Istanbul, Turkey we formed a joint venture company for the production of gas-fired heaters, gas-fired water heaters and heater controls. This company, called ELBO Gas Appliances and Control Units Manufacturing and Trading Company, in which both partners hold a 50% share, will build a plant at Manisa near Izmir. Production is planned to begin early 1992.

We restructured our Mexican holdings by increasing our share in Automagneto SA de CV to 78.5%. Also, effective January 1, 1991, Automagneto aquired our sales company Robert Bosch SA de CV, and changed its own name to Robert Bosch SA de CV.

Together with Grundig AG, Fürth, we formed a manufacturing alliance for car radios in Braga, Portugal. Industrial leadership remains with Blaupunkt.

In order to start business activities as a service company in the area of digital mobile radio networks (D-Network), we founded the Bosch Telecom Service GmbH, Karlsruhe, in February 1991.

We reduced our interest in BTS Broadcast Television Systems GmbH from 50% to 25%. Our partner Philips GmbH, Hamburg acquired these shares.

Production and development capacities were further expanded

Investments in tangible fixed assets reached 2.8 billion DM and were 62% above depreciation for tangible fixed assets.

About 81% of such investments were for machinery and equipment mainly for the expansion of production facilities. Substantial investments were also made for development purposes. The share of investments in foreign countries remained at 39%, the same as in the previous year.

We invested 522 (1989: 353) million DM in land and buildings. Of this amount, 225 million (167) DM were spent in Germany and 297 (186) million DM abroad.

In order to meet the increasing demand for ABS, we constructed a production facility and a logistics center at Ansbach-Brodswinden. Additional major domestic construction projects were at Bamberg, Bühl, Hildesheim, İmmenstadt, and Schwieberdingen.

We enlarged the facilities of our technical research center at Gerlingen-Schillerhöhe to accommodate research on micro-structures and thin films. Due to increasing requirements for measuring accuracy, we constructed a laboratory for precision measurement in vibrationfree test cells.

In Backnang, with an investment of 50 million DM, we constructed a laboratory for the development of optoelectronic modules in indium-phosphide technology. These modules are key elements for future communication systems.

In order to concentrate our distribution activities in the new states, we expanded our distribution center in Berlin.

Building projects in Cardiff and Rodez proceeded according to plan

Our building project in Cardiff, South Wales progressed according to plan. The factory, with a floor space of 34,000 square meters, will house the manufacturing of compact alternators for the European market. Production started January 7, 1991.

In Rodez, Southern France we completed the first construction phase of a factory building for the production of the central injection unit of the Mono-Jetronic. At the same time, we began to expand the facilities at Mondeville/Caen, with the construction of a building to house the production of electronic control units for gasoline fuel injection.

Other manufacturing facilities are being built by our regional subsidiaries in Australia, Brazil, Malaysia, Spain, Switzerland, Turkey, and the United States.

Expenditures for research and development rose 13.3 %

Expenditures for research and development amounting to 2 billion DM exceeded last year's total by 13.3%. As a percentage of sales, they amounted to 6.4 (1989: 5.9)%.

As of January 1, 1991, the Bosch Group Worldwide employed 13,483 people in research and development, 855 more than in the year before. At the end of 1990, our regional subsidiaries employed 1,622 (1989: 1,473) people in research and development.

Within our communications technology business sector, we combined the institutions at Darmstadt, Hildesheim, and Lonay, Switzerland, under one management.

The number of employees abroad grew faster again

On average in 1990, the Bosch Group Worldwide employed 179,636 people, 4,894 or 2.8% more than in 1989. As in prior years, the number of employees in our regional subsidiaries (6.9%) grew faster than in Germany (0.8%).

Personnel increases were mainly in the automotive equipment and consumer goods business sectors. In contrast, the communications technology and capital goods sectors reduced employment.

Annual average of employees	1990	1989
Robert Bosch GmbH Domestic subsidiaries and affiliated companies	75,950 41,599	74,199 42,445
Domestic Bosch Group Regional subsidiaries	$117,549 \\ 62,087$	$116,644 \\ 58,098$
Bosch Group Worldwide	179,636	174,742

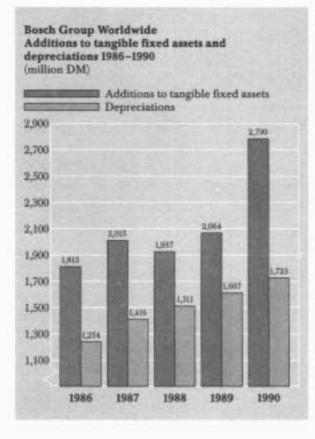
Profits were less favorable

Profits did not meet expectations. The receding economy in the most important world markets resulted in lower volume growth and reduced profits. Competition and price pressures increased. Costs grew disproportionately compared to sales, mainly as a result of rising personnel costs which we could not offset through efficiency measures. Thus, operating profits declined significantly.

We propose to our stockholders that the net income of Robert Bosch GmbH in the amount of 267.5 (1989: 267.5) million DM be distributed as follows:

Transfer of 225 (1989: 225) million DM to surplus accounts. Payment of dividends in the amount of 42.5 (1989: 42.5) million DM or 5.3% of shareholder's par capital.

Stated equity capital at Robert Bosch GmbH

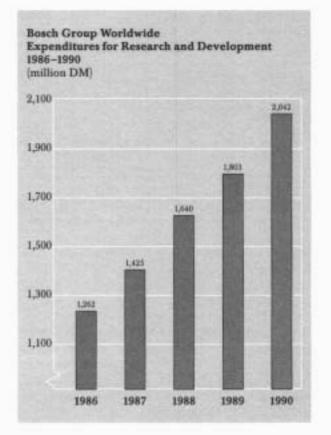


will thus amount to 3,095 (1989: 2,870) million DM. Equity capital of the Bosch Group Worldwide increased to 7,050 (1989: 6,668) million DM.

We expect slower economic growth

We expect the worldwide economic downturn to continue. This will also impact the automobile industry of Western Europe. It remains to be seen whether the German economy will continue to succeed in avoiding this general trend.

We are cautious in judging the development in the new states. As production and employment continue to decline, lower demand becomes more likely.



Smaller sales increases

In the years to come, we must reckon with smaller growth rates in important markets. Thus, we will use this period to consolidate and improve our competitive capabilities. Due to the present worldwide trend, we expect smaller growth rates of sales for the current year. At the beginning of 1991, the Bosch Group Worldwide employed a total of 181,207 people, 3,034 more than a year before. For the most part, additional personnel were hired abroad.

In Germany the number of employees increased by 367 to 117,409. 61% of these were factory workers, 34% salaried employees and 5% apprentices and trainees. Female employees accounted for 29% of the workforce. Foreigners represented 26% of the industrial workforce. The proportion of skilled workers remained unchanged at 35%.

Personnel costs continued to rise

Mainly as a result of Union agreements for 6% wage and salary increases as well as the new and higher contributions for social security, expenditures for wages, salaries and fringe benefits rose 7.9% for each hour worked. Personnel costs worldwide amounted to 10.7 (1989: 10.2) billion DM.

5.6 billion DM were attributable to Robert Bosch GmbH. Of this amount 2.8 (1989: 2.6) billion DM were for social benefits. For every 100 DM of direct compensation for labor, we spent an additional 100 DM for social benefits. Approximately 38% or 1.06 billion DM of these social benefits were compulsory contributions, the majority of which were for company contributions to social security. Benefits mandated by Union agreements, such as vacation pay and Christmas bonuses amounted to 32% or 900 million DM.

Company social benefits amounted to 30% or 860 million DM. They included mainly pension pay, premiums for service and performance, cafeteria operations and company-sponsored educational expenses.

Profit-sharing

Employees of Robert Bosch GmbH received a service and performance premium of 90 DM for every 3,075 DM of annual gross earnings and 20 DM for every year of Bosch employment. Including vacation pay and Christmas bonus mandated by Union agreements, an employee thus received extra pay amounting to about 165% of one month's earnings. Employees of our subsidiaries and affiliates also participated in the company's profits.

New elections of shop council members and speaker committees

During the elections held in the spring of 1990, the employees of the domestic Bosch Group elected 134 shop councils with a total of 1,191 members. Of these, 170 shop-council members are completely freed from their regular work. In 1990, in accordance with the new Speaker Committee Law, middle-management employees for the first time elected 27 committees with a total of 67 members. A joint speaker committee was formed for the Robert Bosch GmbH and a group speaker committee for the entire domestic Bosch Group.

Emphasis on hiring trainees

On-the-job training is becoming of growing importance for the selection of candidates for executive and specialist staff positions. In 1990, in the domestic Bosch Group, we concluded 2,083 (1989: 2,065) contracts with such candidates. In addition, we established a special practical curriculum for particularly qualified students. These people gain practical experience in their off-lesson time by participating in practical projects.

Training of executive management personnel in our regional subsidiaries

The executive personnel and the candidates for executive and specialist staff positions at our regional subsidiaries are included in our employee training concept. Together with the respective local personnel departments, our personnel department at corporate headquarters takes care of these persons. The exchange of specialists and management personnel between domestic divisions and regional subsidiaries, and among the regional subsidiaries was increased. We support the cooperation between members of our staff, and hope to tie them more closely to our enterprise by arranging seminars which will be attended by a variety of different nationalities.

At the beginning of 1991, more than 150 young employees began their management training program. We increased the hiring of foreign graduates for our training programs. We took part in a great number of informative sessions for graduates of foreign institutes of higher learning and also used domestic trade fairs to get students interested in our company.

Vocational training and further education now also available at Bosch locations abroad

Following their graduation from apprenticeship, Robert Bosch GmbH took on 669 apprentices in permanent employment. During September 1990, 948 young people (1989: 914) began their training, of which 18% were females. 86% of these apprentices are being trained in technical/industrial vocations. We improved our rating system for apprentices. Systematic rating at reasonable intervals serves to keep apprentices informed about their performance and potential for additional qualifications.

In the worldwide Bosch Group, one out of five apprentices is being trained abroad. In addition, one of every four apprentices begins his training in a foreign country. We aim to introduce the traditional and successful Bosch apprenticeship method in as many foreign operations as possible and to maintain it at the highest possible standard.

We also intensified our in-house vocational training program. In the worldwide Bosch Group 116,000 (1989: 113,000) employees took advantage of this opportunity, and 1,100 employees served as teachers. In order to fill our demand for skilled workers in production, we increased our efforts to improve the qualification of those employees without specialized training. In all, a total of 320 employees took part in these vocational-training courses.

In order to further the education of management personnel, and in addition to our inhouse vocational training program, we increasingly supported the voluntary participation of our employees in educational courses outside of work time. We contributed to fees and granted extra vacation time for test preparation and test taking.

The Robert Bosch Kolleg celebrated its 10th anniversary at the beginning of 1991. During this period, we provided about 750 employees with graduate degrees from universities or equivalent vocational colleges and also with several years of professional experience, with the opportunity to freshen-up on the basics of their particular field with the help of selected teachers from institutes of higher learning. With the aid of these seminars, the participants were thus able to up-date their know-how on the current state of the art in their field. Among other things, the subjects covered during these 12-week courses includes measuring techniques, closed and open-loop control engineering, electronics in process automation, computer sciences, design engineering, materials technology, electrical engineering and business economics.

Company health insurance was extended to almost all plants of Robert Bosch GmbH

The company health insurance fund of Robert Bosch GmbH, Stuttgart, expanded to include almost all plants of Robert Bosch GmbH. This organization now also services the formerly separate local funds of Bosch plants in Blaichach and Reutlingen and takes care of employees and their families, approximately 110,000 members. Thus, almost all employees of Robert Bosch GmbH are now able to take advantage of the favorable premiums and service-friendly attention through our company health insurance.

Appreciation to our employees for their efforts

We wish to thank all employees for their efforts and commitment. The favorable cooperation of the employee representatives helped to facilitate many decisions that benefitted both the company and its employees when difficult situations arose. In the last 5 years the Bosch Group significantly intensified its activities in the area of research and development. Investments increased disproportionately relative to the growth of the company. The number of R&D employees doubled during the same period.

Microelectronics plays a key role and many of our products are based upon electronics without which they would not have been possible at all. Approximately 16 billion DM of our sales in 1990 consisted of products in which electronics plays a dominant role. The share of worldwide sales made up by electronic products has doubled since the beginning of the 80's.

The development of application-specific microcontrollers has begun

We entered into a cooperative agreement with Intel Corporation, Santa Clara, California to develop 16-bit microcontrollers. For this purpose we established a group at the Technical Center for Microelectronics in Reutlingen. This group develops application-specific versions of Intel microcontrollers and the related peripheral modules for our electronic equipment and systems. We combine switching modules with the core of standard microcontrollers on one chip. This enables us to dispense with a large number of components and connecting lines in the products concerned and to achieve increased performance in the information-processing area.

We expanded the capacity for modern optoelectronic systems

We allocated considerable capacity to the development of cost-effective optical communication and distributor systems which extend as far as the subscriber. These include developments for flexible digital narrowband terminals with a low bit rate, as well as analog and digital TV feed and distributor systems with bit rates up to 10 gigabit per second. This is more than a million times the rate needed to transmit a phone conversation.

We are improving the noise behavior of our products

An important quality characteristic of many of our products is low noise. For this reason the evaluation of acoustical properties as early as possible during the design phase is of great importance.

We simulate the vibration behavior of compact alternators with the aid of the latest computer programs, using, for instance, the finite element method, and match the results with those from experimental modal analysis and sound-intensity studies carried out on development samples. This enables us to simulate product variations in the computer from which we derive suggestions for low noise designs.

Gas-filled pressure accumulators for traction control systems must maintain their sealing properties for at least 10 years. We shortened the development time with the aid of a computer program which enables us to simulate the start-up processes and long-term behavior of sealing systems within a few hours by entering the material and geometric data of the sealing elements.

In vehicles with electronically controlled gasoline injection, the level of unburnt oxygen remaining in the exhaust gas downstream of the catalytic converter is a measure of the converter's operational efficiency. In order to measure this oxygen content, we developed a sensor for use in a workshop tester for checking the catalytic-converter function.

We studied nozzle interior-flow behaviour with the aim of further improving our injection nozzles. For this purpose we developed largescale models in which we can use water as the flow medium. The flow is made visible with the use of modern methods such as electrolytic gasbubble marking and the laser split-image method. The results from the model largely correspond to real conditions. In addition, we continue to simulate nozzle flows with the computer.

Use of test methods for quality assurance

We test individual components with high-precision test equipment in order to ensure the highest quality of our fuel-injection systems. We developed a method which precisely detects differences in fuel quantity per injection cycle during realtime operation with intermittently operating injectors.

We apply the holographic droplet measurement method to study fuel atomization. This enables us to measure local size, mass and speed distribution of droplets under conditions resembling those encountered in the intake manifold and allows us to optimize our injectors.

In order to accelerate the development of complex mechanical-electronic products, such as gasoline fuel-injection systems, we designed a computer model to simulate system functions. For this purpose we developed methods, programs and highly efficient multiprocessors with which the behavior of the system, including existing components, can be simulated, analyzed and optimized in real time.

Together with outside research institutes we are exploring the fundamentals and capabilities of neuronal networks and electronic learning machines. Potential uses are signal processing for noise suppression, sound source separation and voice recognition as well as non-linear controls.

Sound quality using digital technology also in the motor vehicle

We are participating in the definition and the manufacture of sample units for the successor system to FM broadcasting. Through digital signal transmission, Digital Auto Broadcast (DAB) will provide sound quality in radio broadcasting which matches the reproduction of compact discs (CD). First field trials are expected to start in 1993.

We accepted the project leadership for a field test of a successor system to the Automatic Radio Information system (ARI) promoted by the German Federal Ministry for Research and Technology since January 1, 1991. Within the framework of the Radio Data System (RDS), it transmits traffic information parallel to the current radio program. This can be called up by the driver in a number of different languages. As a result of international standardization the system can be operated throughout Europe. Bosch contributed significantly to the definition of the standardization.

Private exchanges based on broadband technology

The expansion of PABX's to include broadband transmission of voice, computer data and images is one of our development goals in the communications technology field. Based on our previous work we were given the lead for the EC project DAMS (Dynamically Adaptable Multi-Service System). Among the performance characteristics of the new system are its capability for automatic adaptation to changing needs of participants, a variable transmission bandwidth as well as increased reliability and availability.

At present, concepts for interfaces and communication protocols are being developed, the expected system load is being studied through model calculations, and the operation system functions are being designed. Renowned university institutes accepted subcontracts in order to develop the fundamentals for performance characteristics.

Measures to protect the environment continued

In our research departments, we are conducting a large number of fundamental investigations in support of the large-scale measures introduced for environmental compatibility in the manufacture of products and the recycling of scrapped assemblies and equipment. We have ascertained a number of novel technical possibilities.

Bosch Group - Business Sectors

Automotive Equipment

Automotive Equipment Division 1

ABS, chassis systems and safety systems

Automotive Equipment Division 5

Diesel fael-injection equipment

Automotive Equipment Division 2

Lighting technology

Automotive Equipment Division 8

Semiconductors and electronic control units Automotive Equipment Division 3

Control systems for gasoline engines

Automotive Equipment Division 9

Starting motors and alternators

Automotive Equipment Division 4

Bodywork electrics and electronics

Automotive Aftermarket Division

Distribution of automotive equipment, after sales service; Photokino, Eisemann

Communications Technology

Mobile Communications Division

Car radio, two-way radio, entertainment electronics, broadband communications, medical electronics, vehicle location and navigation systems

Public Communications Division

Multiplex systems, co-axial and optical-fiber transmission systems, telecommunication cable systems, malio-relay systems, satellite transmission systems, mobile-radio systems, uwitching systems, special communications systems, card telephones, avionics

Private Communications Division

Private communications systems, products and services for private networks, information systems, safety systems

Consumer Goods

Bosch-Siemens Hausgeräte GmhH⁽¹⁾ Electrical household appliances, home-entertainment electronics

Power Tools Division

Electric power tools for the trades, the industry, and for the do-ityourself market. Accessories.

Junkers Division

Heating and hot-water equipment, heating-system controls, blower burners, gas controls, hathroom furniture

Capital Goods

Industrial Equipment Division Industrial electronics, assembly and handling equipment, deburring equipment, test equipment and technology

Hydraulies and Pneumatics Division Hydraulic and poeumatic products for mobile and stationary applications, electronic fluid-control technology

(Status as of December 31, 1990)

Synthetic and Metal

Froducta Division Technical components; semi-finished dummer, elastomer, thermoplastic products; light alloy castings, carbon brushes, soldemagnets, sintered metal parts

Packaging Machinery Division

Forchaging machines and equipment for foodstuffs and beverages, candies, pharmscentical and chemotechnical products. Machinery for the production of candies and pharmaceutical products. Worldwide automobile production declined by 2% to 48.8 million vehicles in 1990. Motorvehicle output declined by 1.2% in Western Europe and by 9% in North America. Production increased by 4% in Japan.

Automobile production in the former West German States increased by 2.6% to 4.98 million vehicles. The production of passenger cars increased by 2% and the production of commercial vehicles by 10%.

The Bosch Group increased worldwide sales in the automotive equipment business sector by 1.3% to 16.1 billion DM. Adjusted for price increases and currency fluctuations, the increase was 3%.

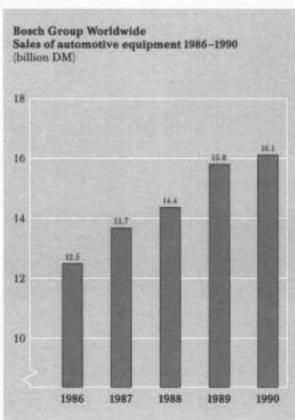
Expansion of capacity for gasoline fuel-injection

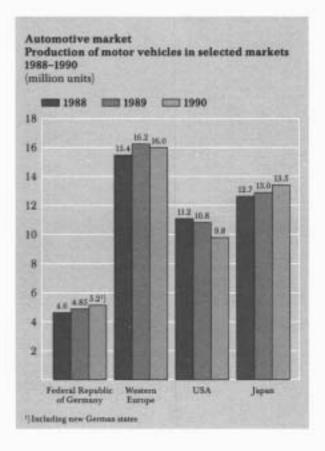
The number of passenger cars equipped with gasoline fuel-injection will increase further with the introduction of new emission standards in the European Community in early 1993. In particular we are expanding our production capacity in France – Mondeville/Caen, Rodez and Vénissieux – in order to meet market demand.

We continued to establish technical centers abroad in order to support the development and application-engineering work with our customers.

For model years after 1994, U.S. law requires constant monitoring of the vehicle systems and components which determine the composition of exhaust emissions. The so-called on-board diagnosis (OBD II) signals malfunctions and whether exhaust-emission limits have been exceeded. We are developing and testing this very complex system in close cooperation with our customers.

The pilot production of a new measuring system to determine the intake air mass was started successfully. In addition to the familiar hot-wire air-mass sensor, the more cost-effec-





the introduction of new emission standard

tive hot-film air-mass sensor is now also available. The heated resistors surrounded by the air flow are mounted on ceramic substrates based on thick-film technology.

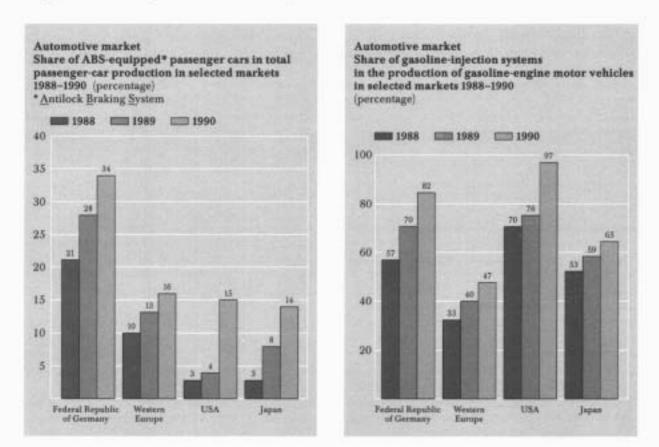
Electronic control units for a 5-gear automatic transmission

Electronic transmission control makes an important contribution towards increased driving comfort and reduced fuel consumption. The electronics automatically adapt the shift points to the changing driving conditions and contribute to smoother shifting. We have been building ECUs and actuators for this purpose since 1983. In 1990 mass production started of an ECU for a 5-gear automatic transmission.

For the first time, we developed a system combination to the production stage which comprises several individual systems which mutually exchange data via the controller area network (CAN) developed by Bosch. CAN is a very powerful bus system based on multiplex technology. Several electronic control units for functions such as gasoline fuel-injection, ignition, electronic engine-power control, onboard diagnosis, antilock braking system (ABS) and traction control form part of the system.

Diesel passenger cars are being confronted with uneven market interest in various European countries. Our efforts were concentrated on further improving emissions. We increased the accuracy of the start of injection through continued development of the distributor pump thus reducing the amount of pollutants in the exhaust gas.

We supplied more advanced injection equipment with increased injection pressure for commercial-vehicle engines in the USA. This resulted in a reduction in particulate emissions. For the first time we supplied electronic diesel control (EDC) for commercial vehicles as a standard feature to a U.S. customer.



Over 6 million antilock braking systems (ABS) since the start of production

We increased production of antilock braking systems (ABS) for passenger cars in 1990 to 1.8 million units, a 39% increase over the previous year. We have manufactured over 6 million ABS since the start of production in 1978. The joint-venture company Nippon ABS in Japan in which we have a 50% interest built about 400,000 ABS in 1990. 24 motor-vehicle manufacturers offer 75 basic models with Bosch ABS worldwide. The number of standard ABSequipped vehicle models increased again.

Our compact ABS with attached electronic control unit is enjoying increasing acceptance. We developed a new electronic control unit with expanded functions for traction control (ASR).

We continue to expand production of ABS and ASR for commercial vehicles. We supply these systems to commercial-vehicle manufacturers in Europe, the USA, Japan, South Korea and Australia.

We developed a hydraulic rear-wheel steering system for use in top of the line vehicles. This consists of a customized hydraulic actuator, and an electronic control unit which meets the demand for safety and reliability with the aid of two microprocessors operating independently of each other.

Growing market for restraint systems

The market for restraint systems is characterized by a rising worldwide demand for safety. The use of passive restraint systems has been legally mandated in the USA since 1989. We manufacture electronic control units to trigger airbags, belt tensioners and roll bars. Electronic sensing and evaluation makes it possible to permanently monitor correct operation. The accelerometer as well as the evaluation and diagnostic electronics are combined into one unit. This compact design simplifies installation into the vehicle. Since the start of production in 1980, Bosch has built over 3 million trigger units for airbags, belt tensioners and roll bars. New plant for compact alternators in Wales

In Cardiff/South Wales, where we are setting up large-scale production facilities for compact alternators, we were able to start production in early 1991. Production comprises three different rating classifications from 50 to 140 ampere output. As early as 1991 a major proportion of our output will consist of this type of design.

Litronic headlamp system reaches production stage

In order to further improve our reflectors, we developed a new, complex headlamp reflector geometry (variable focus) and thus increased the efficiency of the lower-beam light. Regular production of this VF reflector has started.

One of our customers exhibited the first Litronic headlamp system with gaseous-discharge lamp at the 1990 Paris Car Show in a production vehicle. This made Bosch the first manufacturer worldwide to build this new headlamp system for standard applications. Litronic improves active safety by boosting light output considerably.

Headlight-leveling control systems for newly produced vehicles have become mandatory in Germany since 1990. We further expanded production capacity in our Malaysia plant in order to be able to meet growing demand.

Electronics contributes to the well-being and safety of the driver

We developed small-power motors with integrated electronic control for power drives for positioning and force limitation. Such drives are used for power windows and sunroofs.

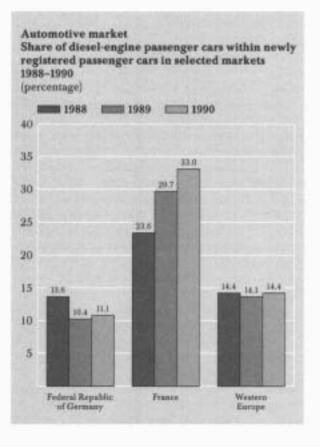
To meet the increasing demand for electrical power-window systems in small and intermediate cars, we started volume production of a new motor generation with low volume and low weight.

For the first time we started preproduction of a multiplex system for electronic A/C control in passenger cars. The control elements located in the front and rear seating areas to allow individual temperature adjustment, as well as additional system components, communicate via the CAN bus system. The amount of wiring needed was reduced considerably as a result.

Central control unit for pneumatic functions in passenger cars

A central pneumatic control unit for passenger cars also reached the production stage. It controls central locking as well as additional pneumatic functions such as opening the trunk lid, backup aid and lowering the rear head rest.

We developed a new concept for the structuring of electronic systems in vehicles in our automotive advance-engineering departments. To the extent possible, individual systems are developed in modular form (hardware and software modules) and mutual data links are



organized in strictly hierarchical form. As a result the number of required interfaces is reduced.

This principle makes it possible to develop subsystems simultaneously and relatively independently of each other, and to reduce the variety of subassemblies.

Internationalization of customer service strengthened

The Automotive Equipment Aftermarket Division strengthened the internationalization of its services. The resultant centralization of functions and the standardization of services results in cost advantages.

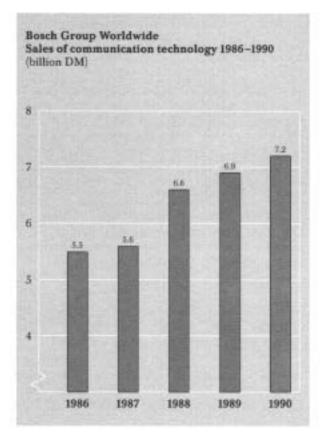
We met our goal of achieving a sales growth above the market growth. We improved our position in Europe. We increased our market shares with spark plugs and wiper blades. The product mix in Europe was expanded by including an improved battery line for commercial vehicles.

In particular we solidified our position in Southeast Asia and Japan. Maintenance-free batteries based on lead-calcium technology were successfully introduced in Japanese vehicles in Japan.

We complied with the greater environmental awareness of our customers by expanding our exchange program with factory warranty.

Our sales and service organization comprises 9,366 (1989: 9,309) Bosch Service Centers and Agents with over 95,000 employees in 121 countries. At 7.5% the market for information and communications technology in Europe grew at a slightly slower pace than in the previous year. Additional demand was generated from the new states' need for expanded public communication networks and electronic homeentertainment equipment.

Our communications technology business sector participated in the market growth. Bosch Group sales in the area of communications technology increased worldwide by about 5.2% to 7.2% billion DM.



We reorganized this business sector effective January 1, 1990. The public switching system product group is now legally independent as Bosch Telecom Öffentliche Vermittlungstechnik GmbH and is a part of the Public Communications Division. We incorporated the mobile radio and audio equipment product groups of the Public Communications Division and the manufacturing alliance for car radios established with Grundig AG in Braga/Portugal in 1990 into the Mobile Communications Division.

Renewed strong growth in mobile communications

The performance of the Mobile Communications Division was more favorable than expected. Despite stiffer competition, sales increased by 12.8% as a result of high volume sales.

Mobile Communications Division

Car radios and accessories, broadband communications, vehicle antennas, radio technology, medical electronics, navigation and location systems, entertainment electronics

Production sites at Berlin, Braga, Herne, Hildesheim, Mondeville/Cäen, Penang, Salzgitter, Wolfenbüttel

Employees:	15,770	(1989: 14,035)
Sales:	2.8 (2.5) billion DM
Investments:	113 (88) million DM

We achieved about a fourth of this sales increase in the new German states.

Sales of Blaupunkt-Werke GmbH (car radios, accessories, electronic home-entertainment equipment) reached 1.9 (1989: 1.7) billion DM. Car-radio sales increased by about 18% to 3.9 million units. This growth was stronger than the overall market growth so that Blaupunkt further solidified its leading position in Europe. Blaupunkt built its 50 millionth car radio in 1990.

Blaupunkt strengthened original-equipment sales to European motor-vehicle manufacturers. For the first time supply agreements were entered into with Japanese automobile manufacturers. The company received its first orders for the Board Information Terminal (BIT) which makes it possible to operate and display several information and communication systems in the car.

Among the orders received for the Travelpilot navigation system, there was a large order from a U.S. firefighting organization. We increased sales of TV sets by 22%. Blaupunkt maintained its position in the stagnating video-recorder market by introducing new units. Our camcorder business suffered from continued price erosion.

Increased domestic demand for mobile phones led to a sales increase in the field of radio technology. Utilities, the police and the German railroad placed additional orders for customized radio equipment and systems. Export sales fell short of expectations due to declining prices for mobile phones in some European countries.

Increased sales of vehicle antennas was attributable largely to high original-equipment sales. We also realized higher sales with radio antennas for motor vehicles.

The Mobile Communications Division invested 178 (1989: 152) million DM in research and development. Results were improved.

Competitive pressure in private communications technology continues

Overcapacity and the opening up of national markets led to undiminished price competition in the private communications technology field. In particular this affected large and intermediate switching systems as well as terminals. In this environment we increased sales by 7% figured on a comparative basis.

The Private Communications Division consists of Telenorma GmbH and Friedrich Merk Telefonbau GmbH; it also includes their foreign subsidiaries.

The private network product group added a digital communication system for small and medium-size companies to the ISDN system series "Integral". The line of communication systems based on ISDN technology thus comprises equipment which handles from between 4 and over 10,000 subscriber lines, including a comprehensive terminal program.

Our experience in planning, setting-up and management of networked communication systems resulted in additional large orders. For a large Mexican Bank, we supplied and installed a countrywide network comprising 86 ISDN systems and with more than 30,000 subscriber lines.

Private Communications Division

Products and services for private networks, information and security systems

Production sites at Brussels, Caracas, Champagne-sur-Seine, Frankfurt, Landstuhl, Madrid, Montceau-les-Mines, Munich, Rijswijk, Rödermark, Vienna

Employees:	17,180 (1989: 19,098) ¹)
Sales:	2.5 (2.3) billion DM
Investments:	106 (111) million DM
) Including the pr	oduct group for public communication

systems which was span-off at the beginning of 1990

The German Postal Service Telekom placed a large order for phones in the low price range. For the first time, the French postal service "France Telecom" ordered ISDN terminals for main stations.

The security technology product group expanded its line of products and services for medium and small systems.

The French company JS Télécom SA under the direction of Telenorma increased its sales. The company introduced the leasing of communication equipment. The company acquired two important installation companies in Southwest France.

The division invested 182 (1989: 224) million DM in research and development. 285 (355) million DM were for the financing of leasing systems. Results were improved.

Moderate growth in public communications technology

The market for public communications technology grew only moderately. The declining demand for transmission technology was offset by increased orders for switching technology. ANT Nachrichtentechnik GmbH, Teldix GmbH and Bosch Telecom Öffentliche Vermittlungstechnik GmbH are combined into the Public Communications Division. Figured on a comparative basis, its sales increased approximately 2.4%.

ANT has supplied the German Postal Services Telekom with fiber-optic and radio-relay transmission systems for a variety of network levels. Orders for VBN (broadband switching network) subscriber equipment, for ISDN network termination technology (integrated services digital network), and for the construction of a radio-relay system in the new states, have increased our sales volume.

Public Communications Division

Multiplex systems, coaxial and optical-fiber transmission systems, telecommunication cable systems, radio-relay systems, satellite transmission systems and stationary mobile radio systems, switching systems, card phones, avionics

Production sites at Backnang, Heidelberg, Limburg, Offenburg, Schwäbisch Hall

Employees:	8,475 (1989: 8,138) ¹)
Sales:	1.73 (1.70) billion DM
Investments:	109 (95) million DM

²) without Bosch Telecom Öffentliche Vermittlungstechnik GmbH

To establish the digital mobile radio network (D-Network) in Germany, ANT in the consortium DMCS 900 developed radio base stations and switching systems. The consortium received orders from two German network operators as well as some foreign customers.

With the start and the successful acceptance of the satellite DFS Kopernikus 2 and TDF 2, ANT was able to bill for additional portions of these projects.

In August 1990 the Federal Minister for Post and Telecommunications granted ANT a license to operate VSAT satellite communication networks as the first private company. Such satellite communication systems with very small aperture terminals, which can be installed easily and quickly, are especially important for quick establishment of data communication links with the new states.

ANT developed and supplied a train control and passenger information system using fiber optics for the high-speed intercity express trains (ICE) being put into operation by the German railroad with the summer schedule 1991. The Mobile Communications Division contributed the audio and video equipment including signal processing.

ANT received additional orders for card phones from the German Postal Services Telekom and will also supply this equipment for ICE trains. The increased demand for digital local and long-distance switching centers led to an increase in sales and orders on hand in this product group.

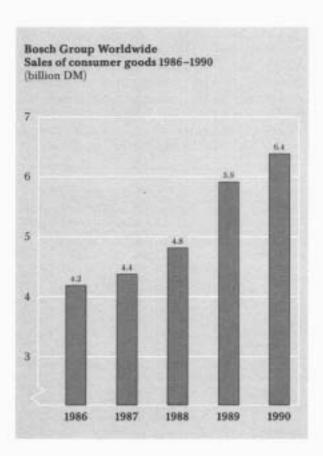
In Thailand, ANT completed work on a large telecommunications network. In Vietnam and the Peoples Republic of China, entry into the important markets was successful with orders for fiber-optic transmission lines.

At Teldix GmbH the worldwide decline in demand for military equipment was noticeable. The sales of this product group declined as a result of cutbacks and cancellations of contracts already concluded.

The Public Communications Division invested 259 (1989: 206) million DM in research and development. Results were favorable.

Consumer Goods

The demand for consumer goods continued in 1990. The divisions of our consumer goods business sector increased their sales by 9.3% to 6.4 billion DM.



Heavy demand for electrical household appliances continues

The market for electrical household appliances in Western Europe increased by 2.3% to 43 billion DM.

Bosch-Siemens Hausgeräte GmbH which submitted worldwide financial statements for the first time in 1990 increased its sales, including those of its domestic and foreign affiliated companies, by 8%, and further secured its position in the European household-appliance market. The company achieved two-digit growth in Germany.

New models revived sales of refrigerating units. The first refrigerators and freezers with CFCfree insulation were introduced to the market in 1990. The leading position in Europe with dishwashers was strengthened. Late 1990 the 10 millionth dishwasher was built in the Dillingen plant. Sales expectations were exceeded with washing machines and ovens, especially with small home and floor-care equipment as well as in the area of home-entertainment electronics.

Bosch-Siemens Hausgeräte GmbH, Munich

Electric household appliances, entertainment electronics

Production sites at Athens, Berlin, Bretten, Estella, Dillingen, Giengen, Pamplona, Santander, Traunreut, Zaragoza

Capital stock:	240 (1989: 240) million DM
Equity	50% Robert Bosch GmbH
interest:	50% Siemens AG
Employees:	22,820 (23,114)
Sales:	6.5 (6.0) billion DM
Export share	
of sales:	50 (50) %

Because of continuing weak demand especially abroad, and stiff price competition, sales of dryers and microwave ovens fell below the previous year's level. The company assigned the distribution of Bosch kitchens to Hans Feierabend GmbH in which we have a 40% interest.

Investments in tangible fixed assets dropped to 259 (274) million DM. Investments in research and development were 119 million DM.

Sales of foreign affiliated companies were favorable overall. Since mid-1990, Bosch household appliances are distributed by a newly founded company in Great Britain.

The improvement in results led to higher reserves and dividends.

Growing market for power tools

The world market for power tools grew by 4% in terms of volume to over 70 million units in 1990. Due to the US-\$ and Yen exchange rates it stagnated at around 10 billion DM. In Europe the continuing favorable trends in the construction industry led to an increase in demand of 10%. The German market received an additional uplift from the demand from the new states.

The Power Tool Division solidified its position worldwide with a sales increase of 14% to 2.2 billion DM. In almost all European markets we achieved a sales increase which outpaced market growth. Our operations in Asia and America proceeded according to plan. With the acquisition of 50% of the shares in the American accessory specialist Vermont American we further strengthened our position in the largest power-tool market in the world.

The division's product innovations were well received by the trade and consumers alike.

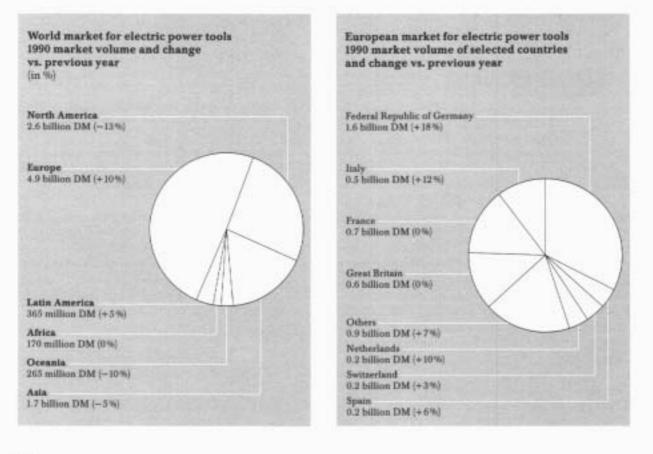
Increased investments in tangible fixed assets

were primarily earmarked to expand our production capacities.

Junkers expands its market position

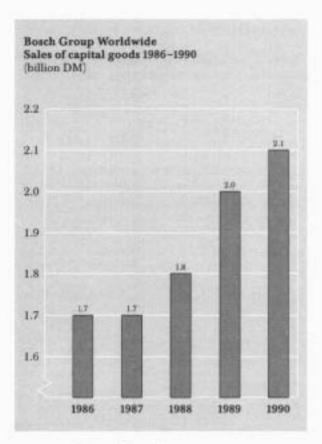
The continuing favorable trends in the construction industry, additional demand from the new states, as well as heightened environmental awareness led to increased sales of our main product, gas-fired water heaters. We are continuing our intensive efforts to further reduce the amount of pollutants emitted by our equipment.

Abroad, especially in Spain and Italy, demand was brisk for our inexpensive gas-fired boilers made in Portugal. We completed the relocation of production from Germany to Portugal.



Capital Goods

The industry maintained a vigorous domestic investment activity thanks to the economic conditions. The divisions of our capital goods business sector increased sales by 6.2% to 2.1 billion DM.



Favorable market environment for fluid technology

The previous year's positive performance continued in the hydraulic and pneumatic division. Orders did not fully meet expectations because business activity in some of our important customer branches declined in this field in the second half of the year, and orders from abroad were restrained. Despite these developments sales increased.

We strengthened our market position in Germany and especially in France in the hydraulics and pneumatics field. In the USA we established a training center at our Racine facility for sales personnel and customers.

In the industrial hydraulics field we introduced

more advanced industry-specific solutions, whereby we successfully employed electrohydraulic components. The new digital electrohydraulic hitchcontrol for agricultural tractors was well received by customers.

For the cooling of motor-vehicle diesel engines we developed a hydrostatic fan drive with electronic control and related sensors. This makes it possible to place the cooling-air blower outside the engine compartment.

We introduced specific pneumatic systems for the printing, beverage and textile-machine industry. The standard program of pneumatic valves and maintenance units was technically improved. We rounded out our comprehensive cylinder program with a series of short-stroke cylinders with scanning. We made a powerful software package available to our customers for their Computer Aided Design (CAD) work on cylinders and mounting hardware. For training purposes, we broadened our range of instructional and practice systems in control and drive technology.

Market position in industrial equipment strengthened

The Industrial Equipment Division again increased its sales. The market position was strengthened or expanded in all product areas.

In particular, the domestic sales to the engineering and automobile industry of the product group for industrial control electronics, contributed to higher sales. Abroad we strengthened the sales basis by working together with large customers. We widened the range of numerical controls in the medium and high power ranges.

We added additional modules and functions to our programmable controls. We supplied our innovative decentralized electronic plug-in installation to various customers. Sales of controls for resistance-welding processes were above average as a result of numerous investment projects in the automobile industry.

We introduced standardized transfer systems for simple automation functions in the area of assembly and handling technology, and brought out new, cost-effective modules for material conveying. We completed a number of technically advanced assembly installations, in which control technology and test engineering is gaining more and more in importance. We set up additional training and information centers in Dresden and Singapore.

We widened our product line in the deburring technology field through newly developed standard machinery for electrochemical and automated mechanical deburring.

The test equipment product group also introduced a number of products, among them an improved generation of electronic engine testers, and test stands for performance analysis.

Sales of plastic products increased

Due to the phase-out of our light-metal foundry, sales of the plastic and metal product division fell below the previous year's level. We increased sales in the plastic-products area especially as a result of the greater use of plastics in cars.

We expanded our line of multi-pin connectors for automotive electronic equipment by including connectors with integrated shielded data lines and sealed individual conductors at the cable side.

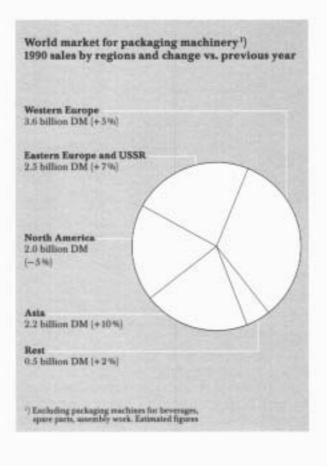
Together with a customer, we developed chain wheels with rubber coating for camshaft drives in order to further dampen the noise of modern high-performance engines. We started serial production.

Manufacture of packaging machinery expanded outside Germany

The world market for packaging machinery was uneven. Although demand rebounded in Western Europe, North America experienced a declining trend. The exchange rate affected sales in Japan. Despite heavy demand, their financial condition limited purchases by RGW (Council for Mutual Economic Assistance) countries. Our Packaging Machinery Division solidified its position on the world market. Despite an unchanged export share of 80%, sales exceeded those of the previous year.

In order to protect our foreign operations, we expanded the development and manufacture of machinery in Brazil, Japan, and the USA.

To keep pace with the changing behavior of purchasers, we developed innovative packaging solutions with product-protection methods, aseptic systems and machine concepts for material-saving packaging.



Bosch Group - Regional Subsidiaries1)

Europe

Belgium **Robert Bosch Produktie NV** Automotive equipment

France Blaupunkt SA Automotive equipment

Italy Robert Bosch SpA²⁵

Sweden AB ROBO

Automotive equipment

Spain Robert Bosch SA Automotive equipment

America

Argentina Robert Bosch Argentina SA²⁾

Marico

Robert Bosch SA de CV²⁾

USA

Weldon International Inc.

Industrial equipment

South Africa

Robert Bosch (Pty) Ltd

Automotive equipment

Belgium NV Robert Bosch SA2

> France Compagnie Parisienne d'Outillage à Air Comprimé SA Hydraulics, pneumatics

Norway Robert Bosch A/S#

Sweden Robert Bosch All²⁰

Tarkey Robert Bosch Motorlu Araçlar Yan Sanayi ve Ticaret AS Automotive equipment

Denmark Robert Bosch A/S²¹

France 15 Télécom SA Private and public communications systems

Apatria Robert Boach AG Automotive equipment

Switzerland Robert Bosch AG²⁵ France Robert Bosch (France) SA Automotive equipment

Great Britain Robert Bosch Ltd²⁰

Portugal Robert Bosch Lds¹¹

Switzerland Scintilla AG Electric power tools and saw blades

Robert Boach Ltda Automotive equipment, electric power tools, car radios, hydraulic products, packaging machinery

Brazil

Mexico Automagneto SA de CV¹⁾

Automotive equipment

USA. **Racine Fluid Power Inc.**

Hydraulic components

Benell WAPSA Auto Peças Ltita Automotive equipment

USA **Robert Bosch Corporation** Automotive equipment, industrial equipment, packaging machinery

USA Robert Bosch Capital Corporation

Finance-Holding

Canada Robert Bosch Inc^{2]}

USA Robert Bosch Power Tool Corporation Electric power tools

Asia, Africa, Australia

India Motor Industries Co Ltd (MICO) Automotive equipment, hydraulic products

Bosch K.K.II

Amstralia Robert Bosch (Australia) Pty Ltd Automotive equipment

Malaysia Robert Bosch (Malaysia) Sdn Bhd

Components for communications technology, automotive equipment, car radios

ingapore

Robert Bosch (South East Asia) Pie Ltd[®]

Status as of December 31, 1990

1) Important companies in which Bosch holds a majority interest,

either directly or indirectly 2) Sales and service for the divisions of the Boach Group

3) Not consolidated: Bosch interest 40%

25

1990 sales of our regional subsidiaries before consolidation increased by 1.6% to 13 billion DM. In real terms, e.g. in their respective currencies and adjusted for price changes, the increase was 4.8%.

Sales as stated in real terms grew in all regions, except in Latin America.

Within the EC, not including the Federal Republic of Germany, we achieved a real growth of 4.1%. Our companies in Denmark, Italy, and Spain were the major contributors to this growth.

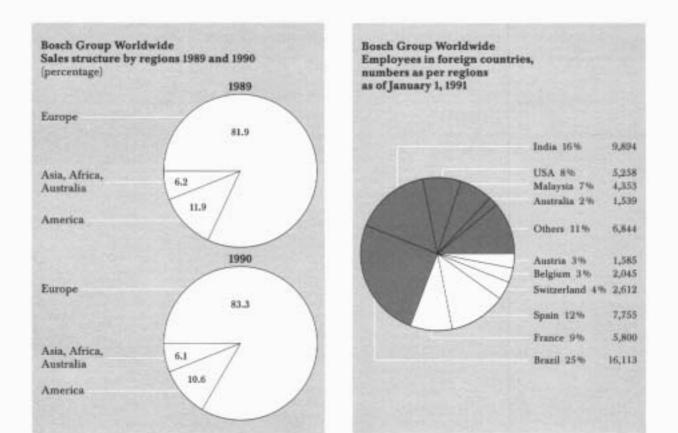
In the European non-EC countries we experienced a real sales growth of 6.6%. This was mainly due to the favorable sales trends of our manufacturing companies in Austria, Switzerland, and Turkey.

Strong growth in the regions of Asia, Africa, and Australia

Our companies in Asia, Africa and Australia achieved, as in 1989, a significant real sales growth of 14%.

On a worldwide basis, the Bosch Group includes 68 subsidiaries in which Bosch exercises, directly or indirectly, majority voting rights.

Robert Bosch Internationale Beteiligungen AG, Zurich, our holding company for foreign interests, increased its share capital by 50 million to 150 million S.Fr. Financial investments increased to 481 (1989: 420) million S.Fr. As last year, the company earned 25 million S.Fr. Dividends amounted to 17 (1989: 15) million S.Fr. An amount of 3 (10) million S.Fr. was transferred to reserves and 5 million S.Fr. was carried forward as unappropriated surplus.



Europe

Economic growth declined in many Western European countries, particularly in Great Britain and in Sweden. Trends for economic downturns were also noted elsewhere.

France

Robert Bosch (France) SA, Saint-Ouen (Paris)

Manufacture of automotive equipment. Sales and service of Bosch products in France

Production sites at Mondeville/Caen, Rodez (Aveyron), Vénissieux (Rhône)

Capital stock:	320 (1989: 300) million F.Fr
Equity interest:	100 (100)%
Employees:	2,820 (2,776)
Export share	
of sales:	32 (28)%

In spite of an overall economic downtrend, the company increased sales by 3% (2% in real terms). Original equipment business with gasoline fuel-injection grew disproportionately. On the other hand, business in diesel fuel-injection equipment stagnated. Sales of automotive aftermarket products increased.

Although the market for electric power tools was stagnant, the company was able to increase its market share. In spite of strong international competition, sales of products of the mobile communications division continued to increase. Our newly added business in broadband communications developed favorably.

The company acquired the shares of Blaupunkt SA, Mondeville/Caen which was renamed Robert Bosch Electronique SA.

Great Britain

The company was able to maintain its sales volume at the 1989 level despite the spinoff of the household-appliances business. Business with original-equipment customers grew. The company was also able to slightly increase automotive aftermarket sales. Although the market for electric power tools was in a decline, new market shares were won.

Robert Bosch Ltd, Denham

Sales and service of Bosch products in Great Britain. Manufacture of automotive products in preparation

Capital stock: Equity interest:	20 (1989: 8) million £ 100 (100)%
Employees:	535 (436)

The construction of a manufacturing facility for compact alternators near Cardiff, South Wales impacted results.

Italy

Sales at this subsidiary increased by 14% (12% in real terms). Sales of automotive original equipment remained even in spite of a decline in vehicle production. Increases in gasoline fuel-injection equipment compensated for declines in diesel fuel-injection equipment.

Robert Bosch Sp	pA, Milan
Sales and servic	e of Bosch products in Italy
Capital stock: Equity interest: Employees:	33 (1989: 26) billion Lit. 100 (100)% 330 (314)

Sales of household appliances, electric power tools, television and video equipment, car radios and other mobile communications products increased. Automotive aftermarket sales increased as well.

Austria

Our subsidiary increased its consolidated sales by 11% (12% in real terms). Sales of car radios, household appliances as well as products of original automotive equipment and of thermotechnology products were major contributors to this increase.

Robert Bosch AG, Vienna

Manufacture of diesel fuel-injection equipment. Sales and service of Bosch products in Austria

Production site at Hallein

Capital stock: 121 (1989: 121) million ö.S. Equity interest: 100 (100)% Employees: 1,245 (906)

ÖDEG Österreichische Diesel- und Elektrikausrüstung Vertriebsgesellschaft mbH merged with Robert Bosch AG.

Sweden

The Swedish economic conditions worsened. Sales of Robert Bosch AB stagnated. Market shares were gained in household appliances, do-it-yourself tools, and video recorders. Automotive original equipment sales met with increasing competition.

Robert Bosch AB, Kista (Stockholm)

Manufacture of headlamps and lighting equipment. Sales and service of Bosch products in Sweden

Production site at Linköping

Capital stock:	40 (1989: 40) million S.Kr.
Equity interest:	100 (100)%
Employees:	655 (669)

Switzerland

Scintilla AG increased sales by 17% (14% in real terms) and expanded its market share. Commercial and do-it-yourself tools as well as accessories contributed to the growth. The increase was gained mainly in European markets, however, sales in overseas markets were higher as well.

Scintilla AG, So	lothurn
Manufacture of saw blades	electric power tools and
Production site (Wallis)	s at Solothurn, St. Niklaus
Capital stock: Equity interest: Employees: Export share of sales:	36 (1989: 36) million Sw.Fr. 84.8 (84.8)% 2,220 (1,881) 97 (96)%

Both plants worked at full capacity. At a new site in Derendingen, Canton of Solothurn, construction of a production facility was begun.

Robert Bosch AG, Zurich, our distribution company maintained its sales volume at approximately the previous year's level. Hydraulic and pneumatic products, electric power tools, and products in control and drive technology achieved higher sales. On the other hand, automotive aftermarket sales and sales of household appliances fell below 1989 volume.

Spain

of sales:

Robert Bosch Commercial Española SA merged with Fábrica Española Magnetos SA (FEMSA) and was renamed Robert Bosch SA.

Robert Bosch SA, Madrid Manufacture of automotive equipment. Sales and service of Bosch products in Spain Production sites at Alcalá de Henares, Aranjuez, Castellet, Guardamar, La Carolina, Madrid, Palazuelos, San Juan Despí, Treto Capital stock: 13.6 billion S. Ptas Equity interest: 100% Employees: 5,655 (5,545) Export share

The company increased sales by 7.7% (7.6% in real terms). The increase was mainly due to higher exports. There was an above-average increase in the business with products in thermo-

59 (54)%

technology, electric power tools and car radios. Sales of equipment in home-entertainment electronics and automotive equipment suffered as a consequence of generally lower demand.

In order to provide our original equipment customers with better on-site support, we expanded our center for development, application engineering and technical sales in Madrid. Thus, we intend to strengthen our market position in an increasingly competitive environment.

We continued the restructuring measures of the past years. We will concentrate the manufacturing of batteries in Guardamar.

America

Economic progress in North America lost momentum. The US economy stagnated. Economic trends in Brazil varied greatly. By way of more liberal policies the Mexican government is trying to strengthen the competitiveness of its domestic industry.

United States of America

Demand for automotive equipment declined, and in some sectors the manufacturing capacity of Robert Bosch Corporation was not fully utilized.

Sales, including those of the Airflow Research and Manufacturing Corporation, were 5.3% higher than in 1989 (4.3% in real terms). Above all, sales of ABS systems, car radios, electric power tools, and household appliances increased. The increase in the domestically manufactured content of products sold in the USA was continued as scheduled by the expansion of ABS system manufacture.

In the Detroit Metropolitan Area, in the vicinity of the Farmington Hills Technical Center, a test track for braking and traction control experiments was constructed.

Sales of automotive aftermarket products, car radios, car telephones, and household appliances again increased. A newly constructed central warehouse in Atlanta, GA, improves customer service.

In spite of a decline in the housing and construction markets, we were able to gain market shares for electric power tools.

Robert Bosch Corporation, Broadview, IL

Manufacture of automotive equipment, hydraulic equipment, industrial equipment, packaging machinery and electric power tools. Sales and service of Bosch products in the United States

Production sites at Anderson, SC, Atlanta, GA, Bridgman, MI, Charleston, SC, Madison Heights, MI, New Bern, NC, Racine, WI

Capital stock:	100 (1989: 100) million
	US-\$
Equity interest:	100 (100) %
Employees:	5,115 (4,901)

On the other hand, we suffered declining sales in packaging machinery, flexible assembly systems, hydraulic products, and deburring equipment as a consequence of the economic slowdown.

Weldun International Inc took measures to expand its business in components for assembly technology and widened its distributor network. The business in capital goods stagnated at the 1989 level due to declining investment activity in the automobile and information technology industries.

In 1990, Robert Bosch Corporation invested 89 (1989: 108) million US-\$ in tangible fixed assets.

Mexico

Following the strong growth of last year, the company achieved another sales increase of 32% (18% in real terms). Production capacities were fully utilized. The opening of the Mexican market increased competition. Deliveries to the automotive industry were increased again.

Robert Bosch SA de CV, México D.F., our distribution company, increased sales by 15% (3.3% in real terms). We were able to maintain our market share, which in some market segments is relatively high, and even to expand our share of the market in electric power tools. The step-by-step introduction of mandatory emission controls enlivened the business with products in testing technology.

Automagneto SA de CV, Toluca

Manufacture of electric automotive equipment

Production site at Toluca

Capital stock:	14.4 (1989: 14.4) billion
	Mex.\$
Equity interest:	40 (40)%
Employees:	1,720 (1,449)
Export share	
of sales:	4.6 (4.2)%

Brazil

Robert Bosch Ltda, Campinas

Manufacture of automotive equipment, hydraulic products, electric power tools, car radios, and products in testing and measuring technology. Sales and service of Bosch products in Brazil

Production sites at Aratú, Campinas, Curitiba, Manaus, São Paulo

Capital stock: 4.2 billion Cr\$ (1989: 183 million NCr\$) Equity interest: 100 (100)% Employees: 13,570 (12,350) Export share of sales: 12 (13)%

Sales dropped 2.3% in real terms as a consequence of the deteriorating economic situation. Profits were negatively impacted by disorderly changes in production, insufficient selling prices, and export earnings which were distorted by exchange rates.

Asia, Africa, Australia

In general, the Asian economies were relatively strong. Growth of the Indian Gross National Product remained at the 1989 level in spite of internal political problems. In Japan, developments in the markets for stocks, capital and currencies did not diminish the demand for consumer and capital goods. However, the Australian economic trend slowed down.

In the middle of the year we opened a liaison office in Taipei/Taiwan.

India

Motor Industries Co Ltd (MICO), Bangalore

Manufacture of automotive equipment, hydraulic products and special machinery. Sales and service of Bosch products in India

Production sites at Bangalore, Nasik, Naganathapura

Capital stock:	380 (1989: 380) million ind. Rs.
Equity interest: Employees:	51 (51) % 9,475 (8,989)
Export share of sales:	9 (10)%

High demands for automotive original equipment, as well as automotive aftermarket products led to an increase in sales of 23% (9.5% in real terms). Exports were somewhat higher. The utilization of manufacturing capacity remained high. The company began production and distribution of hydraulic products.

We intensified research and development activities.

Japan

All sections of our trade business reported brisk demand. At the end of 1990 we completed the construction phase of our application-engineering and service center in Yokohama according to plan. Following the installation of technical equipment we plan to start operations of this facility in spring of 1992.

The expansion of our Regional Subsidiary Bosch Korea Ltd continued on schedule. We prepared for the setting-up of an applicationengineering center in Seoul.

Bosch K.K., Tokyo

Sales and service of Bosch products in Japan

Capital stock:	5.8 (1989: 1.7)
Equity interest: Employees:	million Yen 100 (100)% 315 (289)

Malaysia

The production company Robert Bosch (Malaysia) Sdn Bhd increased sales by 32% (30% in real terms). Increased production of car radios was the reason for this growth.

Robert Bosch (Malaysia) Sdn Bhd, Penang

Manufacture of automotive equipment, car radios, loudspeakers, and electronic components

Production site at Penang

 Capital stock:
 15 (1988: 7.5) million M.\$

 Equity interest:
 100 (100) %

 Employees:
 3,505 (3,116)

 Export share
 6 (95) %

We enjoyed a leading position on the local market in the growing original-equipment business for car radios. We constructed new buildings for production, storage, shipping and power supply.

Malaysian German Equipment Sdn Bhd, in which we own an 80% share, increased production of components for headlight-leveling controls and headlamps for the only national manufacturer of passenger cars. South Africa

Robert Bosch (Pty) Ltd, Johannesburg

Production of automotive electric equipment. Sales and service of Bosch products in South Africa

Production site at Brits

Capital stock: 15.125 (15.125) million R Equity interest: 64 (64) % Employees: 1,060 (990)

In spite of a slightly recessive economic trend, as well as a decline in the automobile market, the company was able to improve its market position and to increase sales in real terms by 1.9%.

Australia

Although domestic production of motor vehicles increased, the registration figures for new cars fell. During the last four months of the year, car manufacturers had to resort to short work hours.

Business progress was impacted by decreasing demand. Sales were 5% below those of the previous year.

Robert Bosch (Australia) Pty Ltd, Clayton (Melbourne)

Manufacture of electric and electronic automotive equipment. Sales and service of Bosch products in Australia

Production site at Clayton (Melbourne)

Capital stock:	22.5 (1989: 19) million A.\$
Equity interest:	100 (100)%
Employees:	1,580 (1,528)

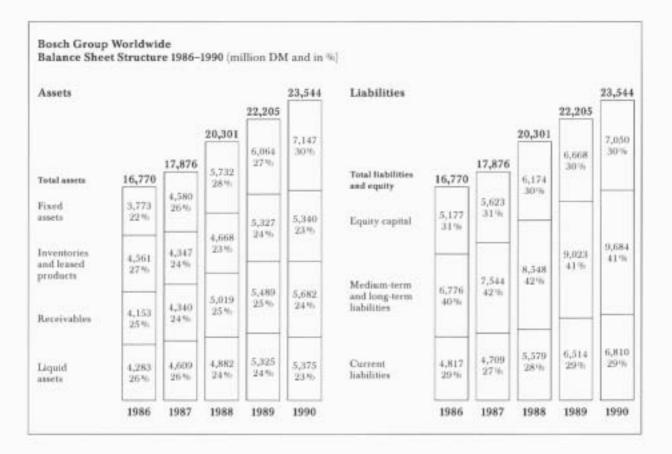
Consolidated Balance Sheet as of December 31, 1990

ASSETS	December 31, 1990 million DM million DM	December 31, 1989 1 million DM
FIXED ASSETS		
Intangible fixed assets		
Concessions, patents, trademarks and similar rights and assets as well as licenses on such rights and assets Goodwill Advance payments	183.3 494.9 6.5 684.7	194.8 574.4
Tangible fixed assets		
Land, leasehold rights and buildings, including buildings on land owned by others Production equipment and machinery Other equipment, fixtures and furniture Advance payments and construction in progress	1,987.5 1,480.1 1,936.2 587.2 5,991.0	1,761.8 1,254.3 1,543.2 468.3 5,027.6
Financial investments	00.020	
Investments in affiliated companies Loans to affiliated companies Investments in associated companies Other financial investments Other loans	39.0 1.4 217.0 52.8 161.4 471.6 7,147	4.7 1.7 65.1 31.6 <u>163.1</u> <u>266.2</u> 3 <u>6,064.3</u>
CURRENT ASSETS		
Leased products	1,088.4	1,151.5
Inventories	4,819.6	4,872.7
Advance payments made Advance payments received	39.7 607.6 4.251.7	38.1 - 735.3 4,175.5
Accounts receivable and other assets		
Trade accounts receivable Receivables from affiliated companies Receivables from companies in which	4,553.1 55.0	4,368.7 24.2
interests are held Other assets	139.7 983.5	126.0
Marketable securities	5,731.3	5,629.5
Treasury stock (face value 23 million DM) Other securities	40.7 2,960.4 3,001.1	40.7 2,763.8 2,804.5
Checks, cash on hand, in Federal Reserve Bank, postal checking accounts and cash in banks	2,289.3	.8 2,352.1 16,113.1
DEFERRED EXPENSES		

LIABILITIES	December 31,	333 G	December 37, 1985
	million DM mi	llion DM	million DM
EQUITY CAPITAL			
Capital stock		800.0	800.0
Earned surplus		5,727.2	5,381.9
Inappropriated earnings		42.5	42.5
dinority interests		480.4 7,050.1	443.6 6,668.0
ACCRUALS WITH VALUATION RESERVE PORTION		366.6	147.0
ACCRUALS Accrued pensions and similar obligations Accrued taxes Other accruals	3,944.5 185.6 6,160.4	10,290.5	3,599,6 257.2 6,099.7 9,956,5
LIABILITIES Loans Liabilities with banks Accounts payable trade Notes payable and acceptances Payables to affiliated companies Payables to companies in which interests are held Other liabilities	$\underbrace{\begin{smallmatrix} 117.4\\ 2,156.2\\ 1,433.6\\ 40.7\\ 129.8\\ 24.8\\ 1,910.8\\ \end{smallmatrix}$	5,813.3 23.3	$ \begin{array}{r} 111.0\\ 1,760.6\\ 1,400.3\\ 54.6\\ 143.7\\ 47.6\\ \underline{47.6}\\ 1,889.1\\ 5,406.9\\ 26.3\end{array} $
	_	23,543.8	22,204.7

Consolidated Statement of Income for the period from January 1 to December 31, 1990

million DM	million DM 31,823.7	million DM
	31,823.7	2020 CO.2013
		30,587.6
		1.1.1
	-2.8	370.6
	330.5	253.3
	32,151.4	31,211.5
	1,436.6	1,360.7
-12,196.8 -1,214.7		- 12,032.3 - 953.1
	-13,411.5	- 12,985.4
-8,664.9		- 8,304.4
-2.052.6		- 1,897.3
	-10,717.5	- 10,201.7
	-1,948.1	-1,922.6
	-5,590.5	- 5,514.2
	11.1	11.4
	7.4	8.0
	456.2	440.3
	- 40.1	- 60.9
	- 106.8	- 40.0
	-315.8	- 274.4
	1,932.4	2,032.7
	-1,117.1	- 1,193.4
a 1	-255.7	- 213.3
	559.6	626.0
	(46.7)	(71.5)
	(5.6)	(4.1)
		$\begin{array}{c} -12,196.8\\ -1,214.7\\ \\ -13,411.5\\ \\ -8,664.9\\ \\ -2,052.6\\ \\ -10,717.5\\ \\ -1,948.1\\ \\ -5,590.5\\ \\ 11.1\\ \\ 7.4\\ \\ 456.2\\ \\ -40.1\\ \\ 7.4\\ \\ 456.2\\ \\ -40.1\\ \\ \\ -106.8\\ \\ \\ -315.8\\ \\ 1,932.4\\ \\ -1,117.1\\ \\ -255.7\\ \\ 559.6\\ \\ (46.7)\end{array}$



Financial Statements of Bosch Group Worldwide

1990 Development of Fixed Assets

	Cost of acquisition or manufacture as of Jan. 1, 1990 million DM	Changes in the consolidated group million DM	Additions million DM
Intangible fixed assets			
Concessions, patents, trademarks and similar rights and assets as well as licenses on such rights and assets Goodwill Advance payments	528.2 1,152.2 1.3	40.0 9.7	83.1 2.0 5.2
	1,681.7	49.7	90.3
Tangible fixed assets			
Land, leasehold rights and buildings, including buildings on land owned by others Production equipment and machinery Other equipment, fixtures and furniture Advance payments and construction in progress	3,282.7 4,754.3 6,241.5 522.0	15.3 21.0 3.4 0.2	290.5 764.3 1,201.6 533.2
	14,800.5	39.9	2,789.6
Financial investments			
Investments in affiliated companies Loans to affiliated companies Investments in associated companies	32.2 1.7 172.4	-18.1	49.4 203.0
Loans to companies in which interests are held Other loans	98.4 165.6	0.1	25.7 29.4
	470.3	- 18.0	307.5
	16,952.5	71.6	3,187.4

Transfers million DM	Retirements million DM	Cost of acquisition or manufacture as of Dec. 31, 1990 million DM	Depreciation cumulative to Dec. 31, 1990 million DM	Net book value as of Dec. 31, 1990 million DM	Depreciation current year million DM	Write-ups current year million DM
minon Day	million DM	million DM	million DW	mulon DM	minon DM	million DM
	62.1 316.0	589.2 847.9	405.9 353.0	183.3 494.9	131.7 90.9	
		6.5		6.5		
	378.1	1,443.6	758.9	684.7	222.6	
135.0 98.8	21.5 117.3	3,702.0 5,521.1	1,714.5 4,041.0	1,987.5 1,480.1	167.1 604.1	0.1
-394.2	273.6 10.2	7,333.3 651.0	5,397.1 63.8	1,936.2 587.2	907.4 46.8	0.1
	422.6	17,207.4	11,216.4	5,991.0	1,725.4	0.6
1.9	3.5	61.9	22.9	39.0	15,3	
	0.3 56.9	1.4 318.5	101.5	1.4 217.0	17.4	
-1.9	0.1 30.9	122.1 164.2	69.3 2.8	52.8 161.4	3.9 0.4	
	91.7	668.1	196.5	471.6	37.0	
17 N	892.4	19,319.1	12,171.8	7,147.3	1,985.0	0.6

Financial Statements of Bosch Group Worldwide

Statement of Changes in Finance	cial Position in 19	90	
Source of Funds	million DM	Application of Funds	million DM
Financing from internal sources		Increase in funds	
Decrease in assets			
Tangible and intangible fixed assets	2,002	Tangible and intangible fixed assets	2,880
Financial investments	102	Financial investments	307
	_2,104	Inventories, leased products	13
		Accounts receivable and other assets	110
Other internal financing		Cash at banks, securities	133
Transfers to surplus accounts	382		3,443
Increase in accruals	334		
Increase in accruals with valuation reserve portion	220		
1990 dividend	43	Repayment of debts	
	979	1989 dividend	43
External financing			
Increase in liabilities	_403		
	3,486		3,486

General remarks

The consolidated financial statements of the Bosch Group Worldwide conform to the regulations of the Commercial Code.

In order to assure better understanding of these financial statements, we included, as required, additional comments pertaining to individual items in the balance sheet and the profit and loss statements. The profit and loss statement follows the format of the total cost method.

The consolidated group

The consolidated statements include Robert Bosch GmbH and 18 domestic as well as 61 foreign subsidiaries. For the first time, we included Airflow Research & Manufacturing Corporation (USA), Sarrazin SA (France) and Vulcano-Termo-Domésticos SA (Portugal) in the consolidated group. As a consequence of mergers and other restructuring measures, the consolidated group decreased by eleven companies.

The consolidated statements of Bosch-Siemens Hausgeräte GmbH were included pro rata pursuant to Section 310 of the Commercial Code.

In accordance with Section 296, second paragraph, of the Commercial Code, companies lacking operations or having insignificant business volume were not included with the consolidated statements. In the case of relief fund institutions we waived inclusion pursuant to Section 296, paragraph 1, digit 1 of the Commercial Code.

The equity valuation of significant interests in associated companies was applied in accordance with the book-value method. In addition to BTS Broadcast Television Systems GmbH and Vermont American Corporation, which was included for the first time, this valuation method pertained to four domestic and ten foreign companies.

Principles of classification and valuation

In addition to financial statements conforming

to the prevailing laws of their respective countries, the companies of the Consolidated Group also submitted internal financial statements based upon our uniform principles of classification and valuation.

We adhered to the valuation principle of the lower of cost and imparity of gain and loss recognition. Assets were never valued in excess of acquisition cost or cost of manufacture.

The financial statements of two foreign associated companies were modified to comply with uniform consolidation principles of the Consolidated Group. The remaining financial statements were not subjected to change.

The local financial statements of our subsidiaries were audited in the respective countries and were given unqualified opinions by the auditing firms. The auditors also certified the correctness of the internal statements which became part of the consolidated financial statements.

Currency translation

Accounts receivable stated in foreign currencies were, in principle, converted to DM equivalents at the lower of the exchange rate at the date of origin or at balance-sheet date. Accounts payable were stated at the higher of the exchange equivalents at the date of origin or balance-sheet date. Anticipated losses of forward currency contracts were provided for by corresponding accruals.

For the conversion of statements in foreign currencies, we applied, in principle, average exchange rates at the balance-sheet date. Transactions pertaining to fixed assets were converted at mean average quarterly or annual DM equivalents respectively. Resulting differences were included with beginning balances of cost of acquisition or manufacture as well as in cumulative depreciation.

Tangible fixed assets of our subsidiaries in Brazil were valued at their original carried-forward DM equivalents of cost of acquisition or manufacture. Depreciations were based on historical values. As in the past, the equity capital of these companies also was stated at historical DM equivalents.

Income and expenses were converted at average annual or quarterly exchange rates as published by the German Federal Reserve Bank. Differences resulting from the application of annual exchange rates versus year-end exchange rates were included with other expenses.

Consolidation principles

For capital consolidation purposes, we applied the book-value method at the date of acquisition or at the date of first-time consolidation for such companies that were subjected to firsttime consolidation. Differences resulting from amounts not subject to capitalization were included by adjustment of earned surplus accounts.

Profits or losses from sale of fixed assets within the Consolidated Group were eliminated. Inventory values reported in the consolidated statements were based on cost of manufacture within the group. The principle of the lower of cost or market was adhered to.

Profits from sales to associated companies were not eliminated since they were either insignificant or conclusive records were not available. Within the Consolidated Group, loans and accounts receivable as well as corresponding accruals or accounts payable were offset. The same method was applied to sales, revenues and expenditures.

We provided for potential tax liabilities resulting from consolidation transactions through deferred charges in the amount of 19.5 million DM.

Fixed assets

Intangible fixed assets including goodwill from first-time consolidation of shares of interest as well as fixed assets and financial investments, were stated at cost of acquisition and taking applicable depreciation into consideration. Depreciation was taken according to plans in either linear or accelerated modes. Low-cost items were fully depreciated during the year of acquisition. In addition, we made full use of special depreciation allowances in all host countries.

Extraordinary depreciation in the amount of 84.4 million DM pertained mainly to capitalized goodwill resulting from first-time consolidation.

In accordance with tax regulations, we deducted 156 million DM directly from the acquisition cost of tangible fixed assets. The depreciation was taken pursuant to Sections 6b and 7d of the Income Tax Law, Sections 82a and 82d of the Income Tax Regulations, Section 3 of the Law for the Promotion of the Economy of the Border Regions, Section 14 of the Berlin Development Law, and pursuant to local tax laws in the host countries of our regional subsidiaries.

Interest-free and low-interest loans were adjusted to reflect present values by application of a uniform discount rate domestically, and prevailing rates in foreign countries.

The development of fixed assets in the Consolidated Bosch Group is shown on pages 36 and 37. Additions to interests in associated companies comprise, in addition to contributions to equity capital and prorated earnings the values of a newly formed and an acquired enterprise. Differing values between cost of acquisition and the share of equity capital at the balancesheet date in the amount of 10 million DM is considered goodwill and being depreciated in accordance with Section 309, paragraph1 of the Commercial Code. Retirements include dispositions as well as prorated losses and dividend payments. In total, the book values of interests in associated companies were lower than the prorated equity.

Current assets

Inventories were valued at the lower of cost of acquisition or manufacture or market at the balance-sheet date. Costs of manufacture include direct costs and reasonable overhead. Inventories from internal sales are stated at cost of manufacture in accordance with the respective regulations in the Commercial Code. Inherent risks of inventory storage and distribution were provided for by write-downs. Additional downward adjustments were applied in cases of insufficient sales revenue or when production capacities were not fully utilized. We took depreciation of 26.5 million DM pursuant mainly to Section 80 of the Income Tax Regulations, Section 14 of the Berlin Development Law as well as local tax regulations. Extraordinary depreciation of inventories amounted to 1.3 million DM.

Advance payments for merchandise were directly applied to inventory values.

Accounts receivable and other assets were stated at nominal values less deductions for identifiable risks as well as general credit risks. Interest-free or low-interest receivables with maturities of more than one year were discounted.

Maturity dates	Maturities of more than one year			
	1990 million DM	1989 million DM		
Trade accounts receivable Receivables from companies in which we have financial	9	37		
interests Other assets	23 342	1 262		

Marketable securities included in current assets were valued at the lower of acquisition cost or market. With regard to potential future value fluctuations, we depreciated 1.4 million DM during the year.

Treasury stock: Robert Bosch Industrieanlagen GmbH, Stuttgart, holds a share of Robert Bosch GmbH with a nominal value of 23.0 million DM. This amount is equivalent to 2.88% of the capital stock of the parent company.

Equity capital

The subscribed capital stock of 800 million DM corresponds to the capital stock of Robert Bosch GmbH. Surplus accounts include the following:

1990 million DM	1989 million DM
2,252	2,027
41	41
3,434	3,314
5,727	5,382
	million DM 2,252 41 3,434

Unappropriated earnings of the Consolidated Group are identical to those of Robert Bosch GmbH.

Liabilities

Accruals with valuation reserve portion were formed pursuant to Sections 6b and 52, paragraph 8 of the Income Tax Law, Section 3 of the Law for the Promotion of the Economy of the Border Regions, Section 31, paragraph 3 of the Berlin Development Law, Section 1 of the Developing Countries Tax Law, and Section 3 of the Foreign Investment Tax Law. Our foreign subsidiaries followed local regulations with regard to such risks.

In determining the size of accruals, we provided for all identifiable risks.

Pension accruals and similar liabilities were determined by application of actuarial principles and were discounted to reflect present or partial values. For domestic companies we basically used a 6% discount rate. Regional companies used discount rates prevailing in their respective countries. Liabilities are stated at

Maturities			
	of more than five years		
million DM 1990	million DM 1989	million DM 1990	
1,360	673	349	
1,432	1,400		
41	55		
25	144	98	
25	47		
1,047	1,308	400	
3,930	3,627	847	
	one million DM 1990 1,360 1,432 41 25 25 1,047	of less than one year million DM 1989 1,360 673 1,432 1,400 41 55 25 144 25 47 1,047 1,308	

amounts owed. Other liabilities include indebtedness to stock holders (Robert Bosch Stiftung GmbH) in the amount of 43.6 million DM.

Of liabilities, 220 million DM were secured by mortgages and 37.1 million DM by other liens.

Included in other liabilities are tax liabilities in the amount of 207 million DM (last year 174 million DM) and liabilities pertaining to social benefits amounting to 131 million DM (last year 216 million DM).

Contingencies not included in sheet nor as balance-sheet notes	the balance million DM
Contingent liabilities from the	
issuance or transfer of notes	328
Including affiliated companies	2
Including secured by liens	3
Contingent liabilities from	
guarantees	376
Including affiliated	
companies	25
Contingent liabilities from	
warranties	72
Contingent liabilities for	
provisions for third-party	
liabilities	13

Other financial obligations of significance for an opinion on the financial condition do not exist.

Details to the consolidated profit and loss statement

Breakdown of sales: 1990 sales by		
business sector	million DM	96
Automotive equipment	16,070	50.5
Communications	T 0 40	00.7
technology	7,240	22.7
Consumer goods	6,417	20.2
Capital goods	2,097	6.6
	31,824	100.0
1990 sales by regions	million DM	Ŋ0
EC countries	23,909	75.1
Other European countries	2,584	8.2
America	3,390	10.6
Asia, Africa, Australia	1,941	6.1
	31,824	100.0

For social security, pension, and support payments we expensed a total of 2.1 billion DM including 537 million DM for pensions (1989: 471 million DM).

Income from financial interests amounted to 11.1 million DM. Income from loans amounted to 7.4 million including 0.1 million DM (1989: 0.1 million DM) from affiliates. Income from associated companies comprises profits, losses as well as needed depreciation.

Other interest and similar income amounted to 456 million DM including 0.3 million DM (1989: 2.1 million DM) from affiliates. Of 316 million interest and similar expenses, 9.5 (1989: 10.1) million DM are attributable to affiliated companies.

Expenses resulting from additions to accruals with valuation reserve portion amounted to 258 million DM and are included in other operating expenses. Income from the reversal of accruals with valuation reserve portion is included in other operating income in the amount of 39.8 million DM.

The impact of tax allowances on the profit for the fiscal year as well as in former years, and the size of future burdens from the respective valuations are of secondary importance.

Additional details

Average numbers of employees during 1990 were as follows:

	Total	Including BSHG (prorated)
Factory workers Salaried	115,571	7,592
employees Apprentices/	57,968	3,624
Trainees	6,097	195
	179,636	11,411

In 1990, total compensation of the members of the Board of Management of Robert Bosch GmbH amounted to 9.9 million DM. Former members of the Board and their dependents received 7.1 million DM and members of the Supervisory Council 1.1 million DM.

Accruals for pension liabilities for former members of the Board of Management and their dependents amounted to 48.4 million DM. The members of the Supervisory Council and of the Board of Management are listed on page 59.

Shareholdings of the Bosch Group Worldwide

A listing of the shareholdings of the consolidated Bosch Group will be deposited with the commercial registry of the Stuttgart Circuit Court.

Stuttgart, May 3, 1991

ROBERT BOSCH GMBH

The Board of Management

Auditor's opinion

The accounting and the consolidated statements, which we have audited in accordance with professional standards, comply with legal provisions. With due regard to the generally accepted accounting principles the consolidated financial statements give a true and fair view of the company's assets, liabilities, financial position and profit and loss. The management report to the consolidated financial statements is consistent with its content.

Stuttgart, May 3, 1991

Schitag Schwäbische Treuhand-Aktiengesellschaft Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft

Dörner Wirtschaftsprüfer

Wolff Wirtschaftsprüfer

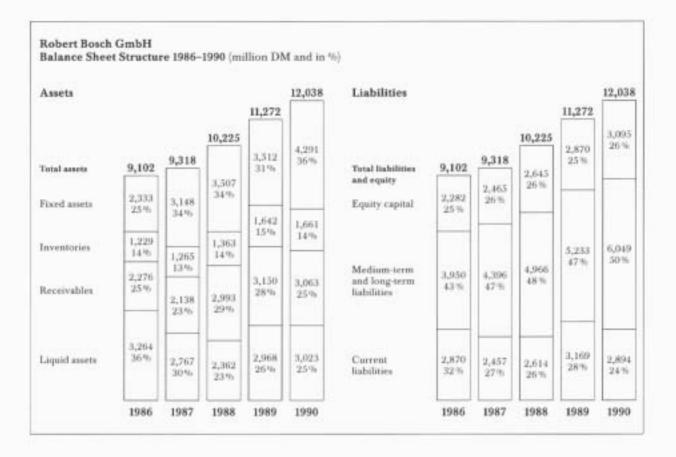
Balance Sheet as of December 31, 1990

ASSETS	December 1990	r 31,	December 31, 1989
		aillion DM	million DM
FIXED ASSETS			
Intangible fixed assets			
Concessions, patents, trademarks and similar rights and assets as well as licenses on such rights and assets	-		
Tangible fixed assets			
Land, leasehold rights and buildings, including buildings on land owned by others Production equipment and machinery Other equipment, fixtures and furniture Advance payments and construction in progress	516.9 375.2 1,203.0 229.8		448.9 341.2 901.1 206.9
Financial investments	2,324.9		1,898.1
Investments in affiliated companies Other financial investments Loans to companies in which	1,707.3 147.3		1,355.7 142.6
interests are held Other loans	49.1 62.5		55.3
	1,966.2	4,291.1	<u>1,613.7</u> 3,511.8
CURRENT ASSETS		4,000111	3,01110
Inventories			
Raw materials and supplies Work in progress, uncompleted projects Finished products and merchandise Advance payments made Advance payments received	468.9 475.6 803.2 6.8 93.7		467.6 446.6 775.8 2.2 - 49.7
	1,660.8		1,642.5
Accounts receivable and other assets Trade accounts receivable Receivables from affiliated companies	1,667.2 877.2		1,600.6 907.6
Receivables from companies in which interests are held Other assets	80.8 472.7		102.1 579.0
oue ases	3,097.9		3,189.3
Marketable securities	2,020.9		1,902.7
Cash on hand, in Federal Reserve Bank, postal checking accounts and cash in banks	951.6		1,012.1
		7,731.2	7,746.6
DEFERRED EXPENSES		15.4	13.6

LIABILITIES	December 31, 1990		December 31, 1989
	million DM in	nillion DM	million DM
EQUITY CAPITAL			
Capital stock		800.0	800.0
Earned surplus			
Legal reserve Surplus appropriated for plant maintenance Unappropriated surplus	80.0 770.0 1,402.0		80.0 695.0 1,252.0
		2,252.0	2,027.0
Unappropriated earnings		42.5 3,094.5	42.5 2,869.5
ACCRUALS WITH VALUATION RESERVE PORTION		229.1	89.4
ACCRUALS	8	1000	
Accrued pensions Accrued taxes Other accruals	2,940.7 21.8 4,333.2		2,539.5 61.3 4,215.0
		7,295.7	6,815.8
LIABILITIES			
Liabilities with banks Accounts payable trade Payables to affiliated companies	$ \begin{array}{r} 181.4 \\ 264.0 \\ 201.6 \end{array} $		186.9 330.4 105.4
Payables to companies in which interests are held Other liabilities	8.6 762.7		47.2 827.3
		1,418.3	1,497.2
DEFERRED INCOME	2	0.1	0.1
	-	12,037.7	11,272.0

Statement of Income for the period from January 1 to December 31, 1990

	1990		1989	
	million DM	million DM	million DM	
Sales		17,523.9	16,623.4	
Decrease/increase in finished goods and work				
in progress inventories		-5.3	179.6	
Other capitalized costs		68.5	65.7	
Total operating performance		17,587.1	16,868.7	
Other operating income		1,241.8	871.0	
Costs of materials Raw materials, supplies and merchandise Purchased services	-7,569.5 -851.0		- 7,094.4 - 724.8	
		-8,420.5	-7,819.2	
Personnel costs Wages and salaries	- 4,425.3		- 4,125.1	
Social security, pension plans and support payments	-1,024.2		- 900.2	
D		-5,449.5	-5,025.3	
Depreciation of intangible and tangible fixed assets		- 863.7	- 823.5	
Other operating expenses		-2,940.8	-2,943.8	
Income from profit transfer agreements		67.7	40.2	
Income from affiliated companies		118.6	195.0	
Expenses from loss transfers		-2.9	- 60.0	
Income from long-term financial investments		3.5	3.4	
Other interest and similar income		330.2	285.0	
Amortization of financial investments and securities included in current assets		-300.5	-287.2	
Interest and similar expenses		- 150.7	- 122.1	
Income from ordinary activities		1,220.3	1,188.2	
Tixes on income		-836.7	- 840.1	
Other taxes		-116.1	- 80.6	
Net income of the year		267.5	267.5	
Transfer to surplus accounts for plant maintenance unappropriated earned surplus	- 75.0 - 150.0		- 75.0 - 150.0	
		-225.0	- 225.0	
Unappropriated earnings		42.5	42.5	



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Financial Statements of Robert Bosch GmbH

1990 Development of Fixed Assets

	Cost of aquisition or manufacture as of Jan. 1, 1990	Additions	Transfers
	million DM	million DM	million DM
intangible fixed assets			
Concessions, patents, trademarks and similar rights and assets as well as licenses on such rights and assets	36.4	40.3	
Tangible fixed assets			
Land, leasehold rights and buildings, including buildings on land owned by others Production equipment and machinery Other equipment, fixtures and furniture Advance payments and construction in progress	1,056.5 1,585.8 3,524.5 2.54.7	94.7 220.8 731.3 218.6	45.2 26.4 117.4 - 189.0
	6,421.5	1,265.4	
Financial investments			
Investments in affiliated companies Other financial investments Loans to companies in which interests are held Other loans	3,169.6 326.9 55.3 60.4	536.7 63.3 15.4	1.9 - 1.9
Source routes con	3,612.2	615.4	
	10,070.1	1,921.1	

Retirements million DM	Cost of acquisition or manufacture as of Dec. 31, 1990 million DM	Depreciation cumulative to Dec.31, 1990 million DM	Net book value as of Dec.31, 1990 million DM	Depreciation current year million DM	Write-ups current year million DM
million DM	minion DM	minion DW	million DM	million DN	million Day
36,4	40.3	40.3		40,3	
0.8 39.3 90.2 3.2	1,195.6 1,793.7 4,283.0 281.1	678.7 1,418.5 3,080.0 51.3	516.9 375.2 1,203.0 229.8	68.7 203,0 516.5 35.2	0.
133.5	7,553.4	5,228.5	2,324.9	823.4	0.
2.8 19.3 6.2 13.2	3,705.4 369.0 49.1 62.6	1,998,1 221.7 0,1	1,707.3 147.3 49.1 62.5	185.7 58.1 0.1	
41.5	4,185.1	2,219.9	1,966.2	243.9	
211.4	11,779.8	7,488,7	4,291.1	1,107.6	

Statement of Changes in Financi			
Source of Funds	million DM	Application of Funds	million DM
Financing from internal sources		Increase in Funds	
Decrease in assets			
Tangible and intangible fixed assets	879	Tangible and intangible fixed assets	1,306
Financial investments	263	Financial investments	615
	1,142	Inventories	18
		Cash at banks, securities	- 58
Other internal financing			1,997
Transfers to surplus accounts	225		
Increase in accruals	480		
Increase in accruals with valuation reserve portion	140		
Decrease of receivables, other assets, and		Repayment of debts	
deferred expenses	89	Liabilities	79
1990 dividend	43	1989 dividend	43
	977		122
	2,119		2,119

1990 Added Net Value

Source of Added Net Value	1990 million D	М
Sales – Decrease in work in progress and finished goods inventories + Other costs capitalized	17,524 5 68	
= Total operating performance + All other income	17,587 1,762	
 Total company performance Costs excluding depreciation Materials Expenditures from loss transfers Other operating expenses 	19,349 8,420 3 2,941	
 Added net value before depreciation Cost of depreciation Depreciation of intangible and tangible fixed assets Write-offs of financial investments and securities included in current assets 	7,985 864 300	
= Added net value (after depreciation)	6,821	
Distribution of Added Net Value	1990 million D	M %
Added Net Value	6,821	100.0
Thereof to employees Wages and salaries, social-security levies, pension plans and support payments to Government taxes	5,450 952	79.9 14.0
to Company	1.171	
surplus accounts to Lenders interest	225 151	3.3 2.2
to Shareholders dividends	43	0.6

General remarks

The financial statements of Robert Bosch GmbH for the fiscal year 1990 conform in classification and valuation to the provisions of the German Commercial Code.

In order to improve the understanding and synopsis of the financial statements, we included comments pertaining to certain items of the balance sheet as well as the profit and loss statement as required.

The profit and loss statement follows the format of the total cost method.

Fixed assets

Fixed assets are stated at cost of purchase or manufacture. Depreciation was based on established guidelines. Whenever permitted by tax laws, we applied accelerated depreciation methods. Straight-line depreciation was used when resulting depreciation amounts were higher. Shift differentials were added to straight-line depreciation rates when equipment was used in multishift operations. Items of minor value were fully depreciated in the year of acquisition.

We made use of extraordinary depreciation in the amount of 244 million DM on such capital assets, which, at the balance sheet date had to be adjusted to lower values.

We applied depreciation in the amount of 96 million DM directly to the purchase cost of capital assets pursuant to the tax regulations of Section 3 of the Development Law for the Promotion of the Economy of the Border Regions, Sections 6b and 7d of the Income Tax Law, Section 14 of the Berlin Development Law, and Section 82a of the Income Tax Regulations.

Interest-free and low-interest loans were discounted to reflect their present values. We retained, pro rata, lower valuations when discounts at the date of issue were lower.

The 1990 development of fixed assets is presented on pages 48 and 49.

Inventories

Raw materials, supplies and merchandise were valued at the lower of average purchase cost or market.

The valuation of work in progress and finished goods was based on production costs pursuant to Section 255, paragraph 2 of the Commercial Code to the extent that they had to be capitalized in accordance with the German Tax Laws.

We provided for risks inherent with warehousing and distribution by grouping inventories into different valuation categories. In addition, we recognized future valuation changes through appropriate deductions. When production capacities were not fully utilized and also in cases of diminishing returns from certain products, we applied special write-downs.

By application of Section 80 of the Income Tax Regulations, we depreciated 2.5 million DM.

Advance payments for orders received were directly applied against inventories.

Accounts receivable, other assets, marketable securities

Accounts receivable and other current assets were valued at acquisition cost. We provided for all recognizable individual risks and general credit risks by correlated write-downs. Dated receivables and notes were discounted to represent current values. Accounts receivable in foreign currencies were stated at the lower of the exchange rate at acquisition or balance sheet dates.

The portfolio of securities consisted mostly of stock-exchange listed debentures. Securities were valued at the lower of acquisition cost or stock exchange prices in application of existing valuation principles.

Receivables from shareholders (Robert Bosch Industrieanlagen GmbH) are included with receivables from affiliated companies in the total amount of 484 million DM. Accounts payable to shareholders (Robert-Bosch-Stiftung GmbH) in the amount of 43.6 million DM are included with other liabilities.

Maturities:	Maturities of more than one year			
	1990	1989 million DM		
Trade accounts				
receivable Receivables from	4	25		
affiliated companies	450	458		
Other assets	316	274		

Accruals with valuation reserve portion

These amounts were computed pursuant to Section 3 of the Development Law for the Promotion of the Economy of the Border Regions, Section 6b of the Income Tax Law, Section 1 of the Developing Countries Tax Law, and Section 3 of the Law pertaining to Investments in Foreign Countries.

Accruals

The size of accruals provides for all identifiable risks. Pension accruals were computed in full by application of actuarial principles at their fractional or present values. For the most part, valuations were based on an interest factor of 5.5%. New additions were also computed by application of a 5.5% interest factor.

Other accruals provide for obligations in the areas of sales, personnel and fringe benefits. Also included are obligations from regional subsidiaries and miscellaneous other risks.

For deferred maintenance, we also included accruals for expenditures which have to be spent within a period of between four and twelve months after the close of the fiscal year.

Liabilities

All liabilities are stated at amounts owed. Liabilities in foreign currencies are stated at the higher of exchange rates at the date of origination or at balance sheet date.

Liabilities in the amount of 42.6 million DM were secured by mortgages.

Included with other liabilities are tax liabilities in the amount of 64.4 million DM (1989: 39.2 million DM) and also liabilities for social benefits in the amount of 188 (1989: 103) million DM.

Contingencies

Together with Siemens AG, Robert Bosch GmbH is a shareholder in the holding com-

Maturities:			
Maturities.		Maturities	
	one year or le	58	more than five years
	1990 million DM	1989 million DM	1990 million DM
Bank loans	76	29	21
Accounts payable trade	264	330	
Payables to affiliated companies	202	105	
Payables to companies in			
which we hold interests	9	47	
Other liabilities	384	734	173
	935	1,245	194
	0.000		

pany of Bosch-Siemens Hausgeräte GmbH. The holding company is governed by civil law.

Between this holding company and Bosch-Siemens Hausgeräte GmbH exists a control and profit-transfer agreement. Other financial obligations of any significance for an opinion on the financial statements do not exist.

Contingencies not included in the balance sheet nor mentioned in the balance-sheet notes (million DM)

Contingent obligations from	
issuance or transfer of notes	106
Contingent obligations from	
guarantees	471
including affiliated companies	204
Contingent liabilities from warranties	72

lion DM from affiliated companies. Of interest and similar expenses in the amount of 151 million DM, 55.1 (1989: 42.9) million DM are attributable to affiliated companies.

Expenditures for provisions for accruals with valuation reserve portion in the amount of 164 million DM are included with other expenses. Income from the reversal of accruals with valuation reserve portion in the amount of 24.4 million DM are included with other income.

The application of tax allowances and their impact on profits of the current fiscal year as well as in former years and also the size of future burdens from such valuations are of secondary importance.

Other details

Details to the profit	
and loss statement	

For social security and similar benefits, and for pensions and support payments, we expensed 1,024 million DM including 358 million DM for pension payments (1989: 269 million DM).

Income from affiliated companies amounted to 119 million DM. This amount includes 110 million DM (1989: 183 million DM) from companies in the consolidated group.

Other interest and similar income amounted to 330 million DM including 8.2 (1989: 8.5) mil-

rectage number of employee	s during room
Factory workers	51,542
Salaried employees	21,619
Apprentices/Trainees	2,789

75,950

Average number of employees during 1990:

Aggregate compensation of the members of the Board of Management amounted to 9.2 million DM in fiscal 1990. Former members of the Board of Management and their dependents received 6.9 million DM and members of the Supervisory Council 1.0 million DM. Accruals for pension liabilities to former members of the

million DM	Ŋ _D	1990 sales by regions:	million DM	q_0
		EC countries	14,305	81.6
13,490	77.0	Rest of Europe	1,355	7.8
		America	1,043	5.9
727	4.2	Asia, Africa,		
1,498	8.5	Australia	821	4.7
1,755	10.0			
54	0.3			
17,524	100.0		17,524	100.0
	13,490 727 1,498 1,755 54	$\begin{array}{cccc} 727 & 4.2 \\ 1,498 & 8.5 \\ 1,755 & 10.0 \\ 54 & 0.3 \end{array}$	million DM % by regions: 13,490 77.0 EC countries Rest of Europe America 727 4.2 Asia, Africa, 1,498 8.5 Australia 1,755 10.0 54 0.3	million DM % by regions: million DM 13,490 77.0 EC countries 14,305 13,490 77.0 Rest of Europe 1,355 America 1,043 727 4.2 Asia, Africa, 1,498 8.5 Australia 821 1,755 10.0 54 0.3 100

Board of Management and their dependents amounted to 48.4 million DM.

Members of the Supervisory Council and of the Board of Management are listed on page 59.

Shareholdings of Robert Bosch GmbH

Except for insignificant interests, a listing of the shareholdings of Robert Bosch GmbH is included on pages 56 and 57. A complete listing of the shareholdings of the consolidated Bosch Group will be submitted to the commercial registry of the Stuttgart Circuit Court.

Stuttgart, March 28, 1991

ROBERT BOSCH GMBH

The Board of Management

Auditor's opinion

The accounting and the annual financial statements, which we have audited in accordance with professional standards, comply with legal provisions. With due regard to the generally accepted accounting principles the annual financial statements give a true and fair view of the company's assets, liabilities, financial position and profit and loss. The management report is consistent with the annual financial statements.

Stuttgart, March 28, 1991

Schitag Schwäbische Treuhand-Aktiengesellschaft Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft

Dörner Wolff Wirtschaftsprüfer Wirtschaftsprüfer

Name and location of the company	Cur- rency	Exchange rate 100 units of local currency	Owned ¹)	Equity Capital millions in local currency	Profit or Loss millions in local currency
Germany					
Anlagenvermietung GmbH, Stuttgart ANT Nachrichtentechnik GmbH, Backnang Blaupunkt-Werke GmbH, Hildesheim Bosch-Siemens Hausgeräte GmbH, Munich ⁴) Bosch Telecom Öffentliche Vermittlungs-	DM DM DM DM		50 100 ²) 100 50	14.6 337.9 183.4 714.4	2.4 60.0 EAV ³) 76.4
technik GmbH, Eschborn BTS Broadcast Television Systems GmbH,	DM		100	31.0	6.0
Darmstadt Hans Feierabend GmbH, Einbeck MB Video GmbH, Osterode Robert Bosch Elektronik GmbH, Salzgitter Robert Bosch Industrieanlagen GmbH, Stuttgart Teldix GmbH, Heidelberg Telenorma GmbH, Frankfurt (M) ⁴)	DM DM DM DM DM DM DM		25 40 35 100 100 100 100	92.1 10.3 15.8 22.8 86.3 19.7 435.0	EAV ³) -4.2 0.7 EAV ³) -3.5 46.1
Foreign Countries					
EUROPE					
Belgium Robert Bosch Produktie NV, Tienen NV Robert Bosch SA, Anderlecht (Brussels)	B.Fr. B.Fr.	4.84 4.84	100 100	$2,372.4 \\ 626.9$	438.8 31.7
Denmark Robert Bosch A/S, Ballerup	D.Kr.	25.88	100	153.4	16.2
France Robert Bosch (France) SA, Saint-Ouen (Paris) ⁴)	F.Fr.	29.39	100	1,609.1	44.3
Great Britain Robert Bosch Ltd, Denham	£	288.60	100	71.7	0.4
Italy Robert Bosch SpA, Milan	Lit	0.13	100	104,825.6	16,832.0
Netherlands Robert Bosch Verpakkingsmachines BV, Weert Blaupunkt BV, Amsterdam	N.FL. N.FL.	88.63 88.63	100 100	18.6 11.1	5.4 0.7
Norway Robert Bosch A/S, Trollaasen (Oslo)	N.Kr.	25.43	100	62.4	3.3
Austria Robert Bosch AG, Vienna	ö.S	14.21	100	592.7	0.1
Portugal Robert Bosch Lda, Lisbon Vulcano-Termo-Domésticos SA, Aveiro	P.Esc. P.Esc.	$\substack{1.12\\1.12}$	100 90	1,580.8 848.2	$320.8 \\ 259.1$

Directly and indirectly held shares
 A subsidiary of Allianz AG Holdings owns an 18% share of ANT
 EAV= Profit and loss transfer agreement
 Consolidated figures of this company

Name and location of the company	Cur- rency	Exchange rate 100 units of local currency	Owned ¹) %	Equity Capital millions in local currency	Profit or Loss millions in local currency
Sweden Robert Bosch AB, Kista (Stockholm) AB ROBO, Linköping	S.Kr. S.Kr.	26.53 26.53	100 100	76.3 33.2	6.3 2.9
Switzerland Robert Bosch Internationale Beteiligungen AG, Zurich Robert Bosch AG, Zurich Scintilla AG, Solothurn	S.Fr. S.Fr. S.Fr.	117.35 117.35 117.35	90 100 84.8	475.7 33.4 228.6	25.0 4.0 29.7
Spain Robert Bosch SA, Madrid	S.Pts	1.57	100	18,737.1	578.0
Turkey Robert Bosch Motorlu Araçlar Yan Sanayi ve Ticaret AS, Bursa	T.L.	0.05	80	43,376.8	2,776.2
AMERICA					
Argentina Robert Bosch Argentina SA, Buenos Aires	*	0.03	100	6,852.9	631.8
Brazil Robert Bosch Ltda, Campinas ²) WAPSA Auto Peças Ltda, São Paulo	Cr.S Cr.S	0.88 0.88	100 100	42,060.5 6,182.9	-2,327.2 - 174.8
Canada Robert Bosch Inc., Mississauga	Can.5	128.90	100	7.1	0.4
Mexico Robert Bosch SA de CV, México, D.F. Automagneto SA de CV, Toluca	Mex.\$ Mex.\$	0.05 0.05	100 40	34,388.5 128,737.0	9,310.3 7,799.1
United States of America Robert Bosch Corporation, Broadview, IL ²)	USS	149.40	100	598.7	-10.8
ASIA India Motor Industries Co Ltd (MICO), Bangalore	ind.Rs.	8.38	51	1,191.4	158.9
Japan Bosch K.K., Tokyo	¥	1.10	100	6,224.6	24.0
Malaysia Robert Bosch (Malaysia) Sdn Bhd, Penang	M.S	55.24	100	39.4	7.5
Singapore Robert Bosch (South East Asia) Pte Ltd, Singapore	S.\$	86.02	70	18.3	2.2
South Korea Korea Diesel Industries Co Ltd, Seoul	Won	0.21	20	13,190.8	2,545.7
AFRICA, AUSTRALIA South Africa Robert Bosch (Pty) Ltd, Johannesburg ²)	S.A.R.	58.55	64	64.0	8.3
Australia Robert Bosch (Australia) Pty Ltd, Clayton (Melbourne)	A.S	114.89	100	87.1	3.0

Directly and indirectly held shares
 Consolidated figures of this company

In its sessions, the Supervisory Council concerned itself mainly with business progress, the financial situation, capital investment projects, plans for cooperative engagements, and new technical developments.

In addition to such sessions, the Supervisory Council was informed by written monthly reports from the Board of Management on the company's situation and progress. Further, the Supervisory Council was informed of special events through circular letters.

Schitag, Schwäbische Treuhand-Aktiengesellschaft, Stuttgart, audited the accounting records, the financial statements and the situation reports of Robert Bosch GmbH as well as the consolidated statements of the Bosch Group. The auditors gave their unqualified opinion. Following its own investigation, the Supervisory Council without reservations concurs with the findings. It recommends that the shareholders approve the financial statements and adopt the application of net income as proposed by the Board of Management.

At the conclusion of the session on June 25, 1990, Dr. jur. Alfred Hetzel and Dr. jur. Paul A. Stein retired from the Supervisory Council due to having reached the age limit for retirement. The Supervisory Council wishes to thank both gentlemen for their longtime cooperation and their valuable advice. Effective same date, the shareholders elected Dr.-Ing. Konrad Eckert and Dipl.-Ing. Kurt Schips to become members of the Supervisory Council. Both gentlemen were former members of the Board of Management of Robert Bosch GmbH.

Effective April 25, 1991, the deputy members of the Board of Management Dr.-Ing. Hermann Eisele, Dr. rer. pol. Wolfgang Hugo, and Dr.-Ing. Joachim Koch were elected full members of the Board of Management.

Stuttgart, May 1991

For the Supervisory Council Dr.-Ing. Wolfgang Eychmüller Chairman

Supervisory Council

Dr.-Ing. Wolfgang Eychmüller, Ulm/Donau Chairman Chairman of the Board of Management of Wieland-Werke AG

Ludwig Vogt, Litzendorf-Pödeldorf Deputy Chairman Chairman of the Shop Council of the Bamberg Plant and Member of the Joint Shop Council of Robert Bosch GmbH as well as of the Combined Shop Council

Dr. jur. Peter Adolff, Stuttgart Member of the Board of Management of Allianz Versicherungs-Aktiengesellschaft

Rudolf Baron, Sibbesse Chairman of the Shop Council of the Hildesheim Plant and Member of the Joint Shop Council of Blaupunkt-Werke GmbH

Walter Bauer, Kohlberg Chairman of the Shop Council of the Reutlingen Plant and Deputy Chairman of the Joint Shop Council of Robert Bosch GmbH as well as of the Combined Shop Council

Hans Beuttler, Ditzingen Deputy Chairman of the Shop Council of the Feuerbach Plant and Member of the Joint Shop Council of Robert Bosch GmbH

Rudolf Bley, Immenstadt Deputy Chairman of the Shop Council of the Blaichach Plant and Member of the Joint Shop Council of Robert Bosch GmbH

Dr.-Ing. Konrad Eckert, Stuttgart Former Member of the Board of Management of Robert Bosch GmbH (from June 25, 1990)

Dr. jur. Robert E. Ehret, Frankfurt Former Member of the Board of Management of Deutsche Bank AG

Hans-Henning Funk, Hildesheim Chairman of the Shop Council of the Hildesheim Plant and Member of the Joint Shop Council of Robert Bosch GmbH

Dr. rer. pol. Johan M. Goudswaard, Wassenaar/Netherlands Former Deputy Chairman of the Board of Directors of Unilever NV

Gudrun Hamacher, Frankfurt Managing Member of the Board of Directors of the Trade Unions of the Metal Industry Jörg A. Henle, Essen Chairman of the Board of Management of Klöckner & Co. Aktiengesellschaft

Dr. jur. Alfred Hetzel, Gerlingen Former Member of the Board of Management of Robert Bosch GmbH (until June 25, 1990)

Dr. jur. Robert Holzach, Zumikon/Switzerland Honorary President of Union Bank of Switzerland

Dr. rer. pol. Ralf Krüger, Kronberg Former Member of the Board of Management of the Bank für Gemeinwirtschaft Aktiengesellschaft

Prof. Gero Madelung, Munich Technical University Munich, Chair of Aviation Technology

Paul Offenhäußer, Heimsheim Department Manager at the Feuerbach Plant of Robert Bosch GmbH

Prof. Dr. rer. nat, Hans-Joachim Queisser, Stuttgart Director at the Max-Planck-Institut für Festkörperforschung

Walter Riester, Stuttgart District Manager of the Stuttgart District of the Metal Trade Union

Kurt Schips, Gerlingen Former Member of the Board of Management of Robert Bosch GmbH (from June 25, 1990)

Dr. jur. Paul A. Stein, Leinfelden-Echterdingen Former Member of the Board of Management of Robert Bosch GmbH (until June 25, 1990)

Management

Members of the Board of Management

Marcus Bierich Chairman

Günter Bensinger

Hermann Eisele

Karl Gutbrod

Wolfgang Hugo

Joachim Koch

Hansjörg Manger

Friedrich Scholl

Hermann Scholl

Herbert Weber

Associate Members of the Board of Management

Clemens Börsig

Heiner Gutberlet

Rainer Hahn

General Counsel

Hans Dieter Mosthaf

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Mio ECU 1990 ¹)
Sales											
Worldwide Bosch Group Foreign share	12,950	13,812	16,126	18,373	21,223	23,807	25,365	27,675	30,588	31,824	15,508
as a percentage of sales Domestic Bosch Group Export share as a percentage of sales Robert Bosch GmbH	56 9,574	56 10,229	50 12,380	53 14,158	54 16,121	50 19,573	50 20,832	51 22,491	52 24,452	51 25,776	12,561
	40 8,052	40 8,547	35 9,042	39 10,653	39 12,474	39 13,265	39 14,261	38 15,101	39 16,623	38 17,524	8,540
Expenditures for research and development											
Worldwide Bosch Group as a percentage	681	753	883	977	1,097	1,262	1,425	1,640	1,803	2,042	995
of sales	5.3	5.5	5.5	5.3	5.2	5.3	5.6	5.9	5.9	6.4	
Domestic Bosch Group	644	703	827	906	1,017	1,172	1,321	1,500	1,625	1,879	916
as a percentage of sales	6.7	6.9	6.7	6.4	6.3	6.0	6.3	6.7	6.6	7.3	
Investments in tangible fixed assets											
Worldwide Bosch Group	595	748	895	1,129	1,406	1,813	2,015	1,937	2,064	2,790	1,359
including domestic	383	489	626	789	1,031	1,407	1,576	1,390	1,259	1,708	832
including foreign	212	259	269	340	375	406	439	547	805	1,082	527
as a percentage of sales	4.6	5.4	5.6	6.1	6.6	7.6	7.9	7.0	6.7	8.8	
as a percentage	4.0	1.96108	5.0	9-4	0.0	1.0	1.0		0.7	0.0	
of depreciation	109	119	117	134	139	145	142	128	128	162	
Depreciation on tangible fixed assets											
Worldwide Bosch Group	546	631	765	844	1,009	1,254	1,416	1,511	1,607	1,725	841
Employees – annual average											
Worldwide Bosch Group	115,869	112,154	127,992	131.882	140,374	158,142	161.343	165,732	174,742	179.636	
including domestic	73,232	71,047	86,574	89,230	94,422	109,604	111,046	113,146	116,644	117,549	
including foreign	42,637	41,107	41,418	42,652	45,952	48,538	50,297	52,586	58,098	62,087	
Personnel expenses											
Worldwide Bosch Group	4,681	4,918	5,877	6,563	6,983	8,139	8,782	9,277	10,202	10,718	5,223
Key figures from financial statements											
Total assets	9,221	9,870	12,609	14,073		16,770	18,181	20,301	22,205	23,544	11,530
Equity capital	2,888	3,228	3,725	4,377	4,664	5,177	5,623	6,174		7,050	3,453
as a percentage of	31	33	30	31	31	31	31	30	30	30	
Net income for the year	181	181	242	446	402	454	825	30 554	626	560	273
Unappropriated	- 232										
earnings -	31	34	37	40	44	40	43	43	43	43	21

Values in million DM

¹) Conversion of DM to ECU The 1990 DM values in the Ten Year Statistics have been converted to ECU. Balance-sheet figures excluding consoli-dated net earnings were converted at DM/ECU exchange rates at year end (DM 0.48973 in 1990). Figures of the Income Statement and additions to fixed assets were valued at annual average exchange rates (DM 0.48731 in 1990).

