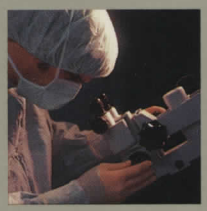
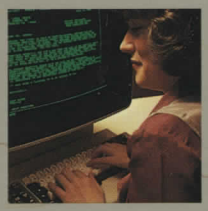
In its first decade, the microprocessor has been designed into more than 100,000 products □ □ □ Private Automatic Branch Exchanges □ Clothes Dryers □ Multimeters □ Teaching Aids □ Computer-Controlled Laser Trimming Systems □ Programmable Calculators □ Microwave Ovens □ Metallurgical Processing □ Electronic Blackboards □ Sprinkler Systems □ Utility Meters □ Typesetting Equipment □ Minicomputers □ Main-frame Computers □ Spectrum Analyzers □ Copying Machines □ Electronic Mail □ Computerized Axial Tomography Scanners □ Avionics □ Automobiles □ Stopwatches □ Light Switches □ Line Conditioning Equipment □ Data Concentrators □ Ultrasonic Scanners □ Thermostats □ Facsimile Machines □ Cameras □ Personal Computers □ Solar Energy System Control □ Video Disks □ Electronic Signs □ Infant Hearing Assessment Instruments □ Toys □ Telex Switching Systems □ Speech Synthesizers □ Local Area Networks □ Data Base Management □ Automatic Teller Machines □ Robots □ Oscilloscopes □ Scoreboards □ Wastewater Instrumentation □ Meteorological Instruments □ Point-Of-Sale Terminals □ Electronic Work Stations □ Dust Detectors □ Disk Drives □ Timber Processing Systems □ Deep Space Instrumentation □ Satellites □ Heart Pacemakers □ Word Processors □ Clocks □ Wristwatches □ Sensor Matrix Control □ Petrochemical Process Control □ Flight Management Systems □ Radar □ Electric Power Generation System Control □ Gasoline Pumps □ Sewing Machines □ Kidney Dialysis Machines □ Floppy Disk Controllers □ CRT Controllers □ Printer Control □ Analog/Digital Conversion Control □ Data Encryption/Decryption □ VCR Edit Controller □ Missile Guidance Systems □ Washing Machines □ Stereo Receivers □ Video Cassette Recorders □ Speech Recognition □ Scales □ Mobile Communication Systems □ Marine Navigation □ Electronic Games □ Digitally Controlled Machine Tools □ Cluster Controllers □ Reading Aids For The Blind □ Textile Machinery □ Security Systems □ Self-Diagnostic Systems □ Weapons Control □ Audio Dosimeters □ Intelligent Terminals □ Televisions □ Refrigerators □ Video Cameras □ Logic Analyzers □ Computer-Aided Design □ Prosthetic Limbs □ Tape Decks □ Food Processors □ Troubleshooting Instruments □ Telephones □ Printing Presses □ Automatic Test Equipment □ Automated Bonding Systems □ Traffic Control Systems □ Heat Exchangers □ Radios □ Energy Management Systems □ Turntables □



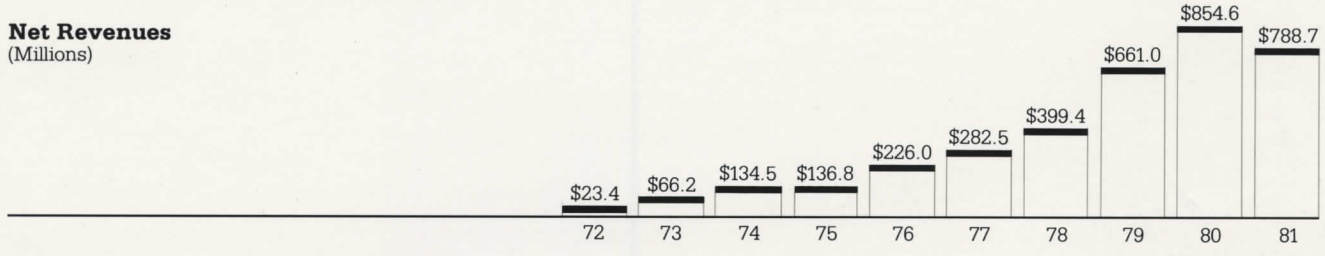


Financial Highlights (Dollars in thousands—except per share amounts)

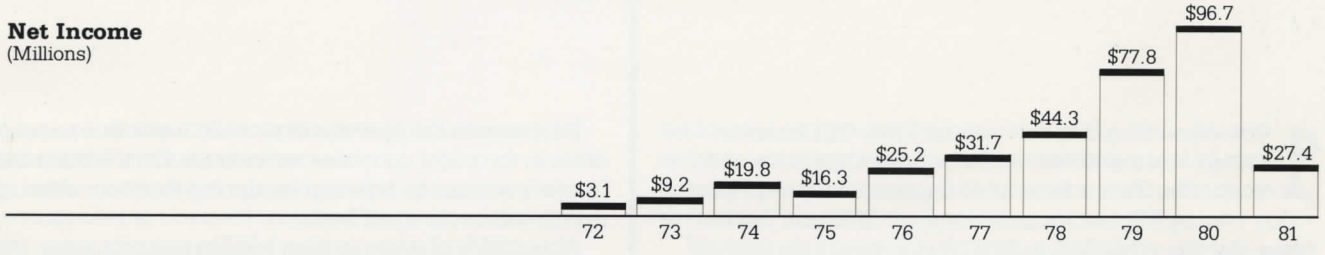
		1981	1980	Percent Change
Net revenues		$788,676	$854,561	(7.7)%
Income:	Before taxes	$ 40,234	$185,329	(78.3)%
	Net	$ 27,359	$ 96,741	(71.7)%
	Per share	$ .61	$ 2.21	(72.4)%
Return on revenues:	Before taxes	5.1%	21.7%	
	Net	3.5%	11.3%	
Return on average equity		5.9%	26.3%	

See page 18 for a description of our industry segment reporting.

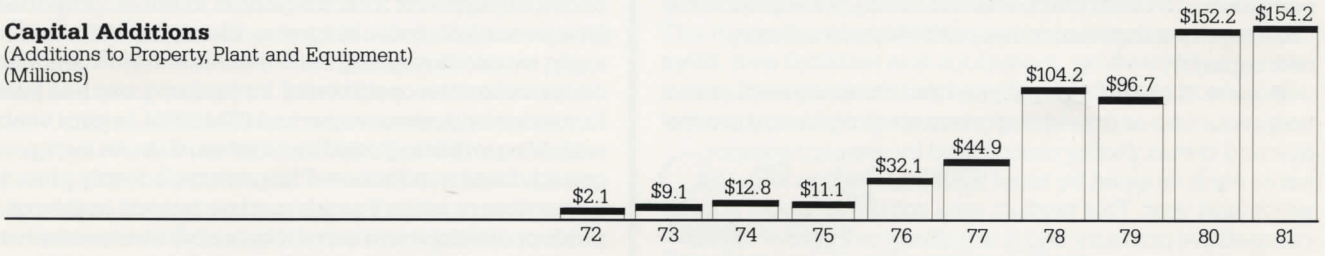
Net Revenues
(Millions)



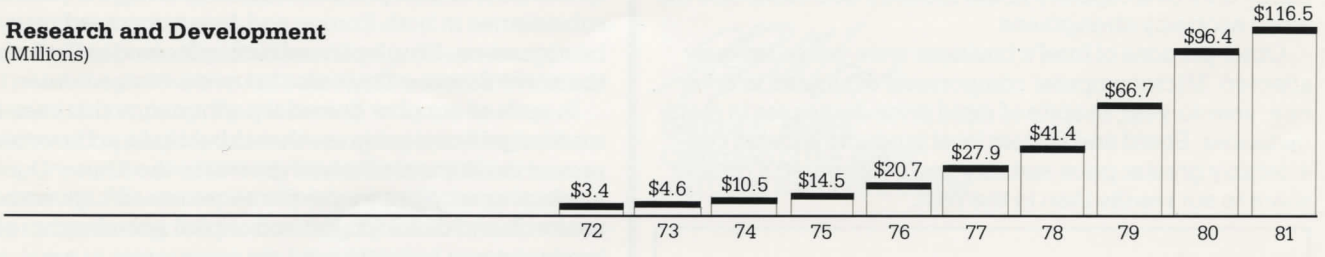
Net Income
(Millions)



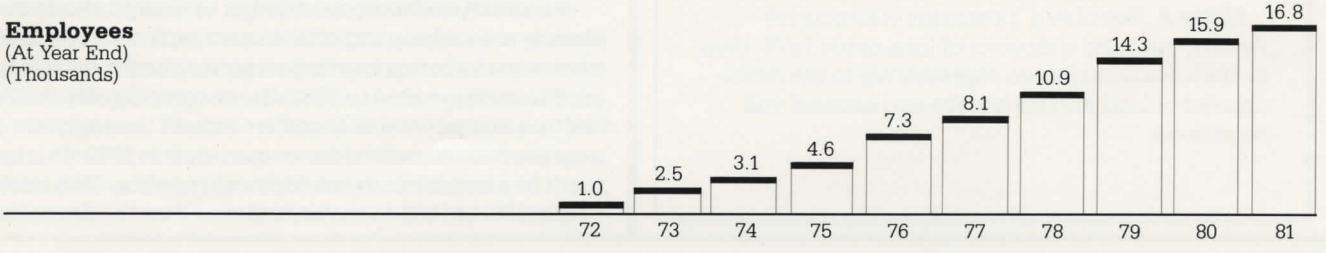
Capital Additions
(Additions to Property, Plant and Equipment)
(Millions)



Research and Development
(Millions)



Employees
(At Year End)
(Thousands)



Management Report

1981 was a very difficult year for Intel. Our financial results were seriously affected by competitive and economic forces. Revenues decreased from the previous year by 8%, net income dropped 72%, and net income per share fell 72% to $.61. By far the single largest contributor to these drops was the strong price erosion for LSI memory components that resulted from industry overcapacity.

In spite of record unit volumes and the success of our cost reduction and yield improvement programs, the revenue and pretax profits contributed by memory components each dropped by more than $100 million from the preceding year. This product area continues under strong competitive pressure and it is unlikely to improve significantly until overcapacity in the industry decreases and the world economy strengthens.

Other portions of Intel's business were not so severely affected. Microcomputer components expanded in revenue, year-to-year, in spite of rapid price decreases in many instances. Board and system level products showed considerably greater price stability and contributed a greater share to our results than in the past.

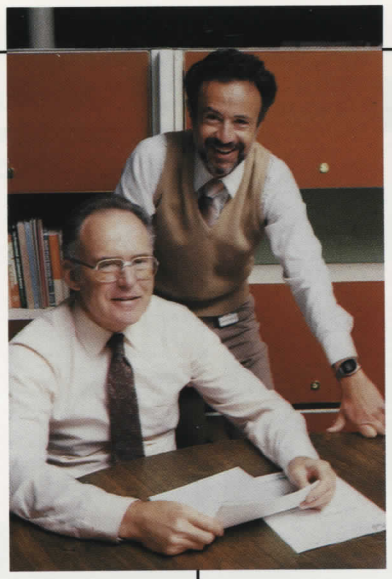
Harry A. Steinberg, president of Executive Action, Inc., and a director of Intel since 1978, died in 1981. He contributed significantly to the development of Intel and his advice and counsel will be missed.

Business in Europe was especially weak due to recessions in the major countries' economies. On the other hand, Intel's business in Japan grew during the year, although from a relatively small base.

About 35% of revenue resulted from export sales. We expect this portion of Intel's business to remain important as foreign markets grow at least as fast as the U.S. Accordingly, we are increasing our overseas commitments. In order to assure the opportunity for further growth of Intel's European business, we formed CIMATEL, a joint venture with Matra-Harris Semiconducteurs, S.A., to design integrated circuits in France. This venture not only provides better access to the French market, but will make our product development more responsive to any unique requirements of European customers. During the year, our subsidiaries in both Europe and Japan occupied new headquarters. The Japanese facility located in Tsukuba, the new "Science City," also houses a design center.

In spite of our poor financial performance this year, Intel made significant progress that should help achieve improved results and renewed growth in the future. Our levels of investment for the future remained high with both research and development and capital spending at record levels.

We introduced a record number of new products that already are making important contributions. Over 20% of total revenue in the fourth quarter resulted from sales of products introduced in 1981. Their contribution should continue to grow rapidly and we expect the high rate of new product introductions to continue in 1982. Our investment in research and development, totaling $116 million or nearly 15% of 1981 revenue, will continue the flow of signif-



Gordon E. Moore (seated) and Andrew S. Grove

icant new products and technology that is necessary for success in the markets Intel serves.

We have continued to spend heavily to keep our plants and equipment at the level required by new technology. Capital expenditures of $154 million were the highest in Intel's history. A major driving force for this high investment level comes from the new products and processes we introduced. These often require a new generation of processing and test equipment. In addition, we made major progress toward automation of many assembly and processing operations in order to achieve greater reproducibility and control. Spending on new facilities was high as we completed several major projects started in earlier years. Because we did not start many new building projects in 1981, spending for facilities will be down significantly in the coming year.

In many respects the slowdown has given us an opportunity and the motivation to increase the overall efficiency of the entire company. By not having to focus on the problems of rapid growth, we were able to concentrate on improving the productivity and efficiency of our organization. We are especially happy with the progress made in improving the productivity of administrative functions. Here in many areas we have installed procedures and methods that allow significant growth in business without additional personnel. The progress we have made should prove very valuable in the next period of expansion.

In this difficult year we would like to give special thanks to our employees. We have often called on them to put forth unusual effort and their response has been outstanding. For example, we recently asked our professional and managerial staffs to work an extra ten hours a week without additional compensation (we call this the 125% Solution) in order to accelerate programs that are important to our successful operation during this recession and in the recovery to follow. This program is yielding excellent results.

We believe Intel is in a very sound position to participate when the growth of the semiconductor industry resumes. The investments made this year in research and development, new facilities and equipment, productivity improvements, new products, and an expanded field force will help fuel our growth in the coming years.

A. S. Grove

Andrew S. Grove
President and Chief Operating Officer

G. E. Moore

Gordon E. Moore
Chairman of the Board
and Chief Executive Officer

Automatic teller machines (ATMs) such as Bank of America's Versateller are making it possible for banks to provide their customers with unprecedented flexibility in when and where they bank. Diebold, one of the nation's largest manufacturers of automatic teller machines, serves Bank of America and other customers with ATMs based on Intel's iSBC 80/10AD single board computers and iSBC 016 memory expansion boards.

The Microprocessor

Cornerstone for Intel Growth

"No single invention is so radically changing U.S. industry as is the microprocessor, or computer-on-a-chip. Already, some thoughtful observers refer to the microprocessor as the engine that is powering a second industrial revolution, one in which man's brain-power will be multiplied with even greater force than the steam engine multiplied his muscle power"—Business Week, *March 19, 1979.*

It was just 10 years ago that Intel introduced the first microprocessor, the tiny computer on a chip of silicon that has been credited with launching a new era of industrial activity. Today, they are the brains of thousands of new products, ranging from personal computers to automobile fuel and emission control systems, from office word processors to sophisticated military defense systems. An important fact to consider is that the microprocessor still is in its infancy. New uses are being found for it daily. Intel estimates that already more than 100,000 products contain microprocessors.

In the past decade, microprocessors have become the cornerstone of Intel's product line, the foundation on which the company has based its growth and is building its strategy for the 1980s and beyond.

Beginning The Microprocessor Era

The first commercial microprocessor—the Intel 4004—actually changed the way in which new electronic products were designed. Equipment makers no longer had to develop new circuit designs for every product. Instead, they now had a standard block of logic that could be programmed to do a job. Because of their small size, high reliability and low price, micro-

The Mitel SX 2000 digital PABX is an integrated communications system that incorporates up to eight Intel 7110 magnetic bubble memories on each mass storage memory card, for a combined storage capacity of eight million bits of data per card. The SX 2000 is a high-density, energy-saving system that addresses all the requirements for versatile voice and data switching. Shown is the SX 2000 workstation, which features inter-office communications capabilities such as electronic mail and the dialing of programmed numbers at the touch of a button.

"One of the first products on the market incorporating Intel's new 8051 single chip microcomputer is American Sign & Indicator's SS4000 electronic scoring console. We've been working closely with the company to develop the 8051-based controller for the system, which allows American Sign to build a very powerful and versatile scoring console with the minimum number of chips possible. The 8051's internal timers and expansion memory capabilities allow American Sign to put the scoring programs of 5–6 sports in one console. These scoring consoles are designed for use by high schools, colleges and professional sport stadiums." Randy Bolster, Field Applications Engineer. Also shown is Chuck Eixenberger (right, Senior Software Engineer, American Sign & Indicator)

processors made possible a whole new class of "intelligent" machines that could not have been envisioned previously.

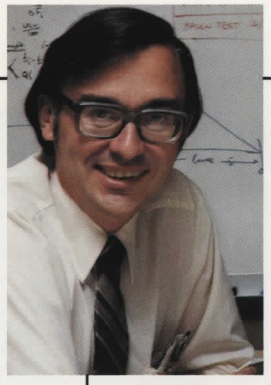
The impact of the microprocessor has been similar to that of the development of the fractional horsepower motor in the nineteenth century. The first fractional horsepower motors gave users the freedom to apply affordable horsepower where it was needed, creating uses never imagined with the large motors that ran entire factories. The microprocessor has done the same thing for man's brain power that the fractional horsepower motor did for muscle power. For the first time, it has become possible to distribute computer intelligence to the fingertips of the user, an impossible task with the big computers of the early 1970s. An example of this pervasiveness can be found in the home. A modern household contains an average of 40 motor-driven appliances and other machines. In the next decade, it is possible that the number of microprocessors in the home will overtake the number of motor-driven household items. Already, these chips have found their way into thermostats, automobiles, microwave ovens, sprinkler systems, stereos, toys, video-cassette recorders, security systems, dishwashers and many more everyday items. Solid state electronics is making these products more responsive to users' needs, and more reliable, due to the reduction in the number of moving parts in each product. Users need no special knowledge to operate these products, and are often unaware a product contains a microprocessor. Thus, many who profess to have no knowledge of computers are in fact using them daily.

"...microprocessors have become the cornerstone of Intel's product line, the foundation on which the company has based its growth and is building its strategy for the 1980s and beyond."

The "Micromainframe™" Arrives

Intel's 4004 was the first in a series of ever-more-powerful processors that led to the introduction in 1981 of the Intel iAPX 432, a three-chip set designed specifically for the information-intensive applications of the 1980s. This "Micromainframe,™" as it is called, exemplifies the technological strides made by Intel and others in the last decade. The 4004 had the equivalent of 2,300 transistors and made possible the first intelligent instruments and computer terminals. The new iAPX 432 has the equivalent of 225,000 transistors and will open the door to applications not previously feasible.

Between these two milestone processors is a well-coordinated group of products. The essence of Intel's approach is to have a coordinated series of processors so each customer can select the right unit for his system needs. The 432, 8086 and 8088 represent the top end of this continuum. The 8086 family, for example, intro-



Intel's Dr. Marcian E. "Ted" Hoff, architect of the first microprocessor.

duced in 1978, has become the industry-standard 16-bit microprocessor. To date, it has been designed into about 5,000 products. In addition, five other semiconductor manufacturers are or soon will be manufacturing this product, assuring customers of a broad selection of vendors from which to purchase the device. And because of its acceptance in the market place, more software programs are being developed for the 8086 than for any other 16-bit machine.

In the middle of the series are the 8080A and 8085, well-tested 8-bit processors. The 8048 and 8051 families of single chip microcomputers are at the lower end. These single chip units integrate not only the central processing unit of a computer, but also the input/output circuitry and data and program memory needed. In all, the company offers 18 microprocessors and microcomputers.

Three of the many engineers developing Intel's 432 family are, left to right, Bill Brown, Roger Swanson and Walt Kuver, shown with the 432/600, a system for development and OEM applications. According to Roger Swanson, "System 432/600 is a family of OEM computer building blocks built around iAPX 432 components. Each family member offers 'transparent multiprocessing', the unique ability to increase processing power without software changes."

What is a Microprocessor?

In 1971, Intel placed an advertisement that announced not just a new product but "a new era of integrated electronics ... a microprogrammable computer on a chip." That claim has proved true. Intel's new product, which quickly became known as a "microprocessor," transformed the electronics industry.

Dr. Marcian E. "Ted" Hoff, Jr., conceived the microprocessor. Given the task of designing a complex set of chips for a customer planning to manufacture a family of programmable calculators, Dr. Hoff suggested a simpler solution. Rather than produce a set of chips dedicated to one function, he suggested Intel design a standard logic chip that could be made to do many things.

Dr. Hoff realized the same architectural principles used to build mainframe and minicomputers could be applied on a very small scale to produce a "microcomputer." All computers, whatever their size and power, have four major elements:

Arithmetic Logic Unit (ALU). *A microprocessor is the ALU of a microcomputer system. It is designed to recognize and execute a predetermined number of instructions. These instructions are presented to it as "data words" that are 4, 8, 16 or 32 "bits" long, depending on the power of the microprocessor. Each bit is represented as a 1 or 0 that can be understood and manipulated by the microprocessor's logic gates.*

Program Memory. *The instructions that can be understood by a microprocessor can be stored in various types of "read-only" memory chips (ROMs, PROMs, EPROMs and E^2PROMs). By creating a sequence of instructions (a software program), programmers direct the microprocessor to perform a given task such as controlling automobile emissions.*

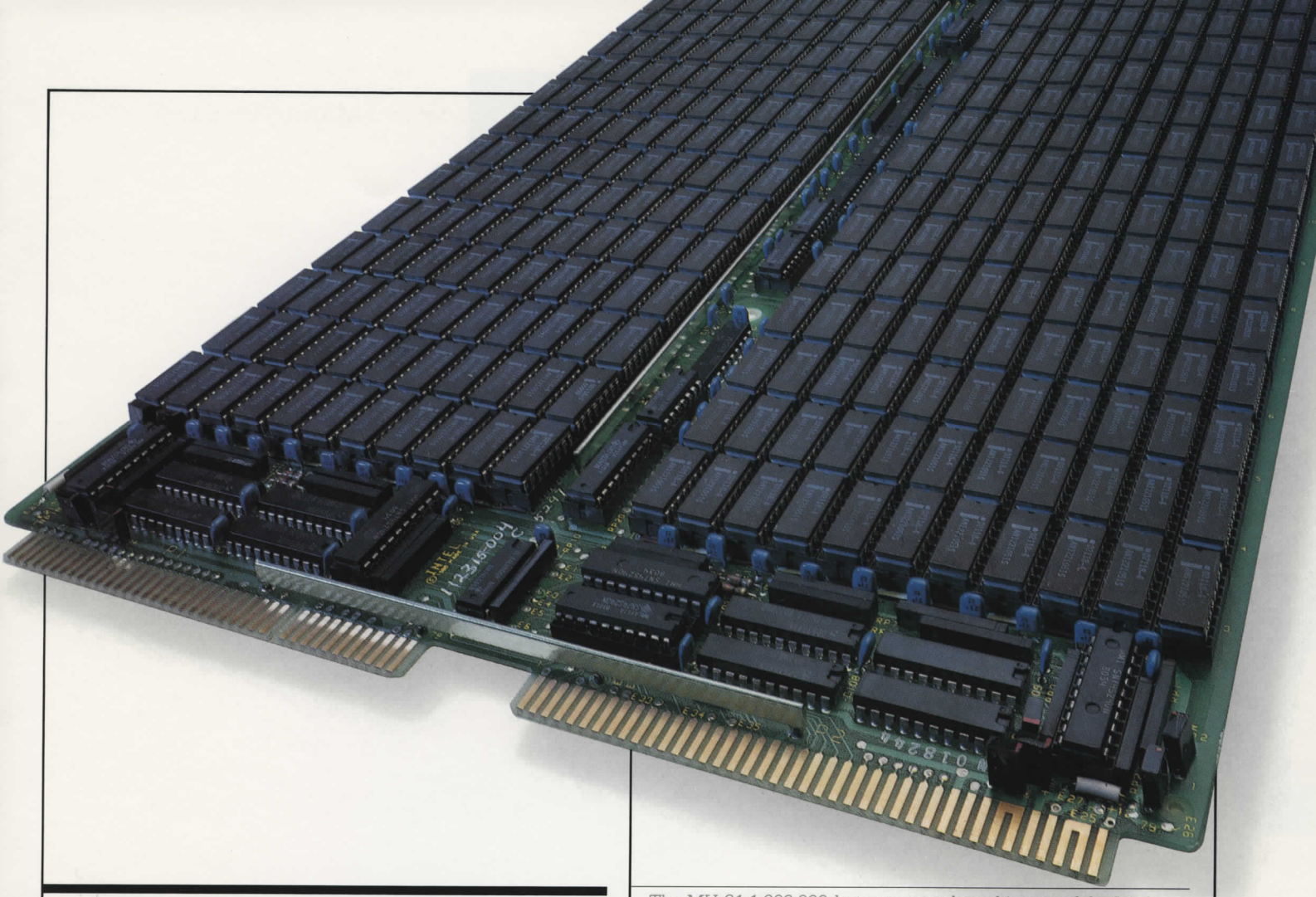
Data Memory. *The variable data to be processed by a microcomputer is stored in chips called random access memories (RAMs). In the case of a gasoline pump, RAMs would store data such as gasoline flow rate and whether the pump is on or off.*

Input/Output Devices. *To enable a microcomputer to interact with the outside world, there must be ways to enter and access data. Input devices include keyboards and sensors. Output devices include printers, CRT terminals and microfilm devices.*

Four considerations determine the power of a microprocessor. 1) How fast can it process data? 2) How many instructions can it understand? (The greater the number of instructions, the easier it is to write programs.) 3) How wide a data word can it handle? (The wider the word, the greater the throughput of data.) 4) How much memory can it address? (Each data word stored in memory has a specific address, and many more addresses are possible with longer data words.)

A comparison of the first microprocessor, Intel's 4004, with the 8086 shows the rapid progress made in a few years.

	4004	8086
ALU Add Time	*10.8 Microsec.*	*1.1 Microsec.*
Number of Instructions	*45*	*133*
Data Word Width	*4 Bits*	*16 Bits*
Maximum Memory Size	*4500 Bytes*	*1 Million Bytes*



The MU-91 1,000,000-byte memory board is part of the Intel Series 90 memory system, used in flight simulators, array processing, and many other applications. Memory capacity can be varied from 32,000–2,000,000 bytes, in a single chassis, depending on customer needs. Series 90 now has an intelligent controller feature available that does self-diagnostic procedures on the system to identify and correct memory faults.

The Growing Use of Microprocessors

The applications for microprocessors continue to proliferate as existing products are enhanced by the addition of electronic intelligence and new products are created to take advantage of the capabilities of the microprocessor. One excellent example of a large company capitalizing on off-the-shelf technology occurred in 1981 when IBM introduced three important new business systems based on Intel devices. The IBM Personal Computer is the first personal computer to use the Intel 8088, an advanced 8-bit processor with a 16-bit architecture. IBM's System 23 small business computer is built around Intel's 8085, also an 8-bit machine, and IBM's DisplayWriter word processor uses the Intel 8086 16-bit device.

"The first commercial microprocessor—the Intel 4004—actually changed the way in which new electronic products were designed."

At the other end of the scale, many small companies are tapping the power of these same components to design advanced systems that give them a lead in their industries. Intel devices are being used in products that monitor grain elevators in the Midwest, set type at newspapers across the country, provide earlier diagnosis of factors that cause strokes, and to control a solar-powered electrical system at a national park in Utah. They are being designed into products that make workers more efficient, systems more reliable, computation faster and more precise, and finished goods less expensive. The range of applications seems limited only by the imagination.

According to Dataquest, a market research company, microprocessors and single chip microcomputer sales have increased from $36 million in 1976 to approximately $1.2 billion in 1981. This market is expected to grow to $3.1 billion by 1985 as microprocessors of the power of the iAPX 432 become available for general use, as prices continue to tumble, and as an ever-widening number of products are designed with them.

Building Blocks

The microprocessor is an essential building block in products and systems designed by Intel customers. It is just one element, however, so the company's product strategy is to offer a full line of compatible products. This "total solution" strategy includes semiconductor memory products, peripheral controllers, software, development aids, single board computers, and complete systems, as well as applications support, customer training and product service. The market for microprocessor support products is presently much larger than the market for microprocessors themselves.

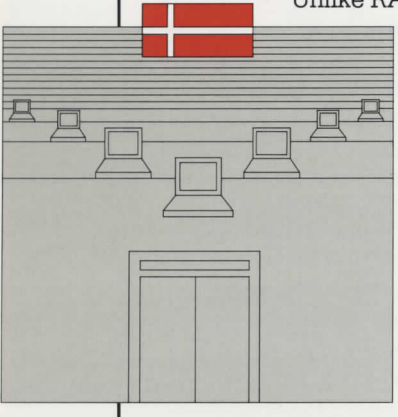
Memory: Intel began in 1968 as a supplier of semiconductor memories and today offers a wide range of memory devices including random-access memories (RAM), program memory devices, bubble memories and memory systems. Memories continue to be a large portion of Intel's business.

IBM chose Intel's high performance 8088 microprocessor as the central processing unit for the IBM Personal Computer, introduced in 1981. Seven Intel peripheral components are also integrated into the IBM Personal Computer.

RAMs are the most widely used semiconductor memory because the data they store can be revised easily. Intel manufactures both dynamic and static RAM components. Dynamic RAMs offer greater density while static RAMs have the advantage of not requiring "refresh" pulses of electricity to maintain the data stored in them. Intel also produces memory systems such as the FAST 3805 that store up to 72 million bytes of data per system.

Intel also manufactures three types of "read-only" memories used to store microprocessor programs: programmable read-only memories (PROMs), erasable PROMs (EPROMS) and electrically erasable PROMs (E^2PROMs).

Unlike RAMs, all three of these program memory devices are "non-volatile"—they retain data when electrical power has been turned off.



The SYSTEM 2000 Data Base Management System offered by Intel's Commercial Software Systems Operation in Austin, Texas will play a key role in Denmark's plans to handle all stock and bond transactions in the country via a paper-less, computerized system. The "Vaerdipapircentralen" system now being installed will tie together over 20,000 terminals throughout Denmark. As a result of the system, physical stocks and bonds will be obsolete in Denmark by 1983.

Intel introduced the industry's first EPROM in 1971 and continues to be the leader in this category of memory device. EPROMs can be erased as many times as necessary with ultraviolet light and then reprogrammed to meet changing demands. Intel's first EPROM stored 2K bits of data. EPROMs with 8K, 16K and 32K capacities followed, and in 1981, Intel introduced the industry's first 64K unit. Because of the rapid progress in technology during the past decade, this newest member of Intel's EPROM family offers 32 times the storage capacity of the first EPROM in nearly the same silicon area.

EPROMs have played an important role in the growth of the microprocessor. The chief alternative to the EPROM is the mask-programmable ROM, which must be made by a semiconductor manufacturer. ROMs are practical only for high volume products with stable programs because any change requires an expensive new mask. The EPROM enables the customer to revise his own programs inexpensively and provides cost-effective storage of microprocessor programs for smaller volume products. Thus, the EPROM has made the microprocessor practical in many more products.

Intel has carried this flexibility one step farther with the new E^2PROM family. It offers in-system reprogrammability, and each byte can be revised individually. These features make remote, selective reprogramming possible.

Magnetic bubble memory is still another type of memory offered by Intel. Bubbles are dense, non-volatile solid state memories that are ideal in certain applications. On the factory floor, for example, they are preferable to tapes and disks, whose moving parts can be affected by dust, vibration and temperature extremes. As prices decline, bubbles are also coming into wider use in office equip-

Boeing's new 767, a medium range, 211-passenger jetliner, incorporates flight and energy management systems using Intel memory and microcomputer components. Intel 2764's, the newest generation EPROM with a memory capacity of 64,000 bits, are used in the 767's flight management system to determine best routes and track estimated arrival times. The 8748 single chip microcomputer with on-board EPROM drives an energy management flight control system that helps enable the 767 to burn 35% less fuel per seat than any of Boeing's previous models.

ment and other applications where their high density (presently one million bits per chip versus 64K per chip in dynamic RAMs) and ability to retain data when power fails are advantageous.

Nineteen eighty-one was a significant year for Intel's bubble memory operation. Sales increased three-fold during the year. Intel's commitment to bubble technology was affirmed with the decision to expand bubble fabrication facilities in Santa Clara, California.

"To date, (the 8086) has been designed into about 5,000 products."

The company introduced two important new bubble-based products, the iSBX-251 Bubble Multimodule board and the Plug-A-Bubble cassette system. The iSBX-251 board contains one million bits of data on a card that plugs directly on to many of the single board computers made by Intel. The Plug-A-Bubble cassette is a one-million bit removable system that brings portability to bubble memory.

Intel introduced the first one-million bit bubble memory system in 1979 and now ships over 95 percent of the world's supply of this component.

Peripheral controllers: To be useful, microprocessors and memory products must be able to communicate with each other and with other devices. Intel has developed a wide range of peripherals that permit microprocessors to work with disk drives, CRT terminals, printers, instruments and other input and output devices necessary to design a complete system. These controllers are special-purpose microprocessors themselves. Examples of important new controllers introduced in 1981 include the 8206 error detection and correction unit that allows large memory systems to operate error-free and the 8203 controller for 64K dynamic RAMs. In all, Intel manufactures 56 types of peripherals, more than any other company.

Systems: When the microprocessor was first introduced by Intel in 1971, the company offered components only. This meant that customers faced the task of integrating the central processing unit, peripheral processors, memories and other necessary circuits into printed circuit boards, and then adding the other elements needed for a complete system. Then in 1974, Intel began offering single board computers for customers who didn't want to invest the money or the time required to create their own board-level computers. In 1981, the company took the next step forward in system integration when it introduced the System 86/330. This packaged microcomputer system is complete with single board computer, disk drives, software interfaces, power supply, and chassis. The 86/330 is expected to be used in industrial automation, data acquisition, communication and special data and word processing applications.

With the addition of the 86/330, Intel can now offer its customers a wide range of integration options. After assessing his resources, volume and market timing needs, the OEM can make the decision to buy at the component, board or system level. If his needs change, he can change integration levels easily.

"Users... are often unaware a product contains a microprocessor. Thus, many who profess to have no knowledge of computers are in fact using them daily."

In a sense, Intel has evolved into a company whose business can be characterized as being "2/3 components and 2/3 systems." This is to say there is now substantial

overlap between these two categories. Microprocessor components are becoming increasingly "system-like" as they integrate additional power and performance features into silicon.

"Because of the rapid progress in technology during the past decade, (the) newest member of Intel's EPROM family offers 32 times the storage capacity of the first EPROM in nearly the same silicon area."

Microcomputer development systems are another important element of Intel's systems business. Intel is the largest manufacturer of such systems, which are used to develop concurrently the software programs and hardware for new products incorporating Intel microprocessors. In 1981, Intel introduced the Intellec DS/E System, which enables customers to develop, test and execute programs for Ethernet* local area networks. Also new is the ICE-86A in-circuit emulation module. It is designed to permit users to debug systems that pair the 8086 or 8088 with Intel's 8087 numeric processor extension device or 8089 input/output processor. The company also introduced Pascal 86 and FORTRAN 86, proprietary languages for the 8086/8088 family.

Software: Software is the set of instructions which tells the computer what to do. It is becoming an increasingly larger portion of the cost of developing a new product. Intel is taking the lead in placing more software on silicon to reduce the burden of software development which must be borne by the user. By embedding many of the most common instructions into a chip of silicon, Intel is making it easier for designers to write their own software programs.

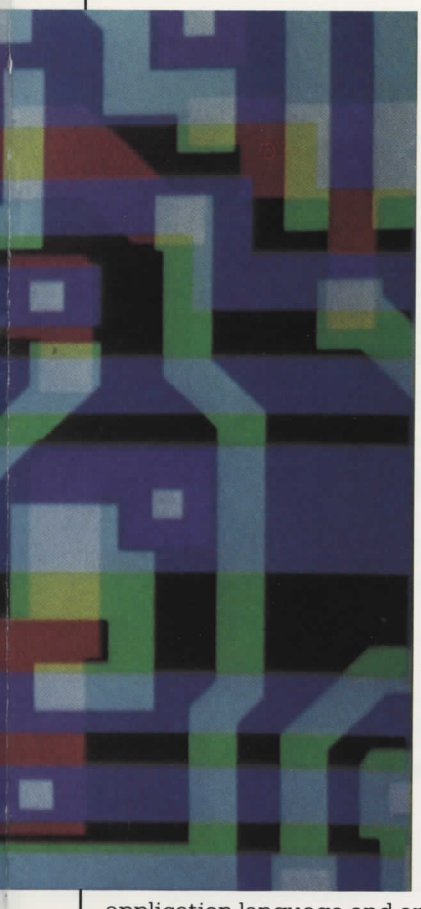
"Using our new Silicon Foundry, customers can design proprietary integrated circuits and then have them processed in Intel's high-yielding wafer fabrication plants. This gives them access to an advanced process capability without having to make the considerable capital investment required for an in-house process line. The Computer-Aided Design (CAD) Group I work in is providing customers with access to CAD technology to assist them in their design process."

—Todd Wagner
Principal Engineer, Computer-Aided Design Group

An example of this strategy during 1981 was the introduction of the new Intel 80130, a silicon operating system "kernel" that works with either the 8086 or 8088 microprocessors to simplify development of real-time, multitasking applications. In the 80130, 35 instructions and all hardware functions necessary for a complete operating system have been integrated into silicon. This chip, when used with either an 8086 or 8088, has been optimized for such applications as industrial control systems with complex input/output requirements, multifunction small business and personal computers, PABX equipment, and transaction processing systems like those used for electronic fund transfer.

In another step to encourage the availability of software,

**Ethernet is a trademark of Xerox Corporation*



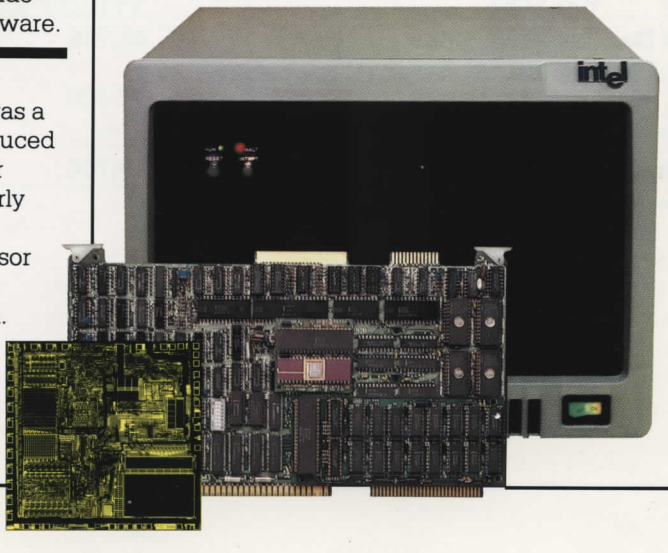
Intel established a Software Distribution Operation in 1981. This organization will market application language and operating system software developed by independent software companies for Intel's 16-bit and 8-bit microprocessors. Already agreement has been reached with Digital Research, Inc., Pacific Grove, California, Microsoft, Inc., Bellevue, Washington, and Mark Williams, Inc., Chicago, Illinois, enabling Intel to distribute operating systems and languages developed by these firms for a wide variety of Intel's microcomputer systems and boards. These programs, coupled with Intel's own language and operating systems products, will provide users with easy access to a large base of proven software.

"For the first time, it has become possible to distribute computer intelligence to the fingertips of the user...."

The Future of the Microprocessor

The tenth anniversary of the microprocessor was a significant year for Intel. The company introduced about 100 new products, all tied in one way or another to microprocessors. While it has gained nearly universal acceptance among manufacturers of electronic products in just a short time, the microprocessor will become even more pervasive in the 1980s and beyond. Its potential is only beginning to be realized. Intel, developer of the first microprocessor and a leader in the field today, plans to play an active role in this exciting future.

As shown in this superimposed photograph, Intel now offers its customers a complete range of microcomputer integration choices. The new System 86/330, background, is a fully integrated microcomputer, complete with system software, power supply, chassis and disk drives. The OEM customer who wants less system integration can purchase the iSBC 86/12A single board computer and other boards that are the heart of the 86/330. And for the customer who wants to provide the maximum value-added, Intel provides components, represented here by a photomicrograph of the 8086 microprocessor in the foreground.



Consolidated Statement of Income (Thousands—except per share amounts)

Intel Corporation

Three Years ended December 31, 1981	1981	1980	1979
NET REVENUES	**$788,676**	**$854,561**	**$660,984**
Cost of sales	458,308	399,438	313,106
Research and development	116,496	96,426	66,735
Marketing, general and administrative	184,293	175,577	131,974
Operating costs and expenses	759,097	671,441	511,815
Income before interest and other and taxes on income	29,579	183,120	149,169
Interest and other	(10,655)	(2,209)	121
Income before taxes on income	**40,234**	**185,329**	**149,048**
Taxes on income	12,875	88,588	71,244
NET INCOME	**$ 27,359**	**$ 96,741**	**$ 77,804**
Earnings per capital and capital equivalent share	**$ .61**	**$ 2.21**	**$ 1.85**
Capital shares and equivalents	**44,700**	**43,720**	**42,145**

Consolidated Statement of Shareholders' Equity (Thousands)

Three Years ended December 31, 1981

	Capital Stock			
	Number of Shares	Amount	Retained Earnings	Total
Balance at December 31, 1978	**39,832**	**$ 70,618**	**$134,444**	**$205,062**
Proceeds from sales of shares through employee stock plans and tax benefit thereof	1,180	19,869	—	19,869
Acquisition of MRI, Inc.	372	4,562	(4,108)	454
Net income	—	—	77,804	77,804
Balance at December 31, 1979	**41,384**	**95,049**	**208,140**	**303,189**
Proceeds from sales of shares through employee stock plans and tax benefit thereof	1,352	32,930	—	32,930
Net income	—	—	96,741	96,741
Balance at December 31, 1980	**42,736**	**127,979**	**304,881**	**432,860**
Proceeds from sales of shares through employee stock plans and tax benefit thereof	1,030	27,598	—	27,598
Net income	—	—	27,359	27,359
Balance at December 31, 1981	**43,766**	**$155,577**	**$332,240**	**$487,817**

See accompanying notes.

Consolidated Balance Sheet (Dollars in Thousands)

December 31, 1981 and 1980	1981	1980
ASSETS		
Current assets:		
Cash and short-term investments at cost, which approximates market	$ 115,260	$ 127,681
Accounts receivable, net of allowance for doubtful accounts of $3,878 ($4,296 in 1980)	179,604	195,644
Inventories	97,452	91,401
Prepaid taxes on income and other assets	67,454	31,883
Total current assets	**459,770**	**446,609**
Property, plant and equipment:		
Land and buildings	215,519	165,831
Machinery and equipment	279,676	222,140
Construction in progress	80,269	48,417
Equipment leased to others	15,478	10,546
	590,942	446,934
LESS Accumulated depreciation	179,195	126,375
Property, plant and equipment, net	**411,747**	**320,559**
TOTAL ASSETS	**$871,517**	**$767,168**
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Notes payable	$ 31,889	$ 11,844
Accounts payable	41,700	30,350
Deferred income on shipments to distributors	52,683	46,033
Accrued liabilities	45,705	39,902
Profit sharing retirement plan accrual	—	15,250
Income taxes payable	—	3,892
Total current liabilities	**171,977**	**147,271**
7% Convertible subordinated debentures	**150,000**	**150,000**
Deferred taxes on income	**44,019**	**23,266**
Unamortized investment tax credits	**17,704**	**13,771**
Shareholders' equity:		
Capital stock, no par value, 75,000,000 shares authorized	155,577	127,979
Retained earnings	332,240	304,881
Total shareholders' equity	**487,817**	**432,860**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**$871,517**	**$767,168**

See accompanying notes.

Consolidated Statement of Changes in Financial Position (Thousands)

Intel Corporation

Three Years ended December 31, 1981	1981	1980	1979
Working capital provided by operations:			
Net income	$ 27,359	$ 96,741	$ 77,804
Charges to income not involving the current use of working capital:			
Depreciation	62,976	48,983	40,375
Non-current portion of deferred taxes on income and deferred investment tax credits	24,686	8,027	6,782
	115,021	153,751	124,961
Working capital provided by proceeds from issuance of convertible subordinated debentures	—	150,000	—
Working capital provided by proceeds from sales of shares through employee stock plans and tax benefits thereof	27,598	32,930	19,869
	142,619	336,681	144,830
Working capital used for net additions to property, plant and equipment	(154,164)	(152,151)	(96,681)
Working capital effect of MRI, Inc. at acquisition	—	—	(491)
Increase (decrease) in working capital	**$ (11,545)**	**$184,530**	**$ 47,658**
Increase (decrease) in working capital by component:			
Cash and short-term investments	$ (12,421)	$ 93,530	$ 5,878
Accounts receivable	(16,040)	56,467	40,994
Inventories	6,051	12,668	27,018
Prepaid taxes on income and other assets	35,571	1,242	12,387
Notes payable	(20,045)	7,280	24,514
Accounts payable	(11,350)	(378)	(7,881)
Deferred income on shipments to distributors	(6,650)	(4,389)	(15,599)
Accrued liabilities	(5,803)	(5,797)	(14,902)
Profit sharing retirement plan accrual	15,250	(7,150)	(8,100)
Income taxes payable	3,892	31,057	(16,651)
Increase (decrease) in working capital	**(11,545)**	**184,530**	**47,658**
Working capital at beginning of year	299,338	114,808	67,150
Working capital at end of year	**$287,793**	**$299,338**	**$114,808**

See accompanying notes.

ACCOUNTING POLICIES

Basis of Presentation The consolidated financial statements include the accounts of Intel Corporation and all of its subsidiaries. Accounts denominated in foreign currencies have been translated in accordance with FAS No. 8.

Inventories Inventories are stated at the lower of cost or market. Cost is on a first-in, first-out basis for materials and purchased parts and is computed on a currently adjusted standard basis (which approximates average or first-in, first-out cost) for work in process and finished goods. Market is based upon estimated realizable value reduced by normal gross margin. Inventories at December 31, are as follows:

	1981	1980
	(Thousands)	
Materials and purchased parts	$33,744	$33,269
Work in process	37,535	41,208
Finished goods	26,173	16,924
Total	$97,452	$91,401

Property, plant and equipment Property, plant and equipment are stated at cost. Depreciation is computed for financial reporting purposes principally by use of the straight-line method over the estimated useful lives of the assets. Accelerated methods of computing depreciation are used for tax purposes.

Deferred income on shipments to distributors Certain of Intel's sales are made to distributors under agreements allowing price protection and right of return on merchandise unsold by the distributors. Because of frequent sales price reductions and rapid technological obsolescence in the industry, Intel defers recognition of such sales until the merchandise is sold by the distributors.

Investment tax credits Investment tax credits are accounted for using the deferral method whereby credits are treated as a reduction of the U.S. federal tax provision ratably over the useful lives of the related assets.

Earnings per capital and capital equivalent share Earnings per share are computed using the weighted average number of outstanding capital shares and capital equivalent shares. Capital equivalent shares include shares issuable under employee stock option plans as determined by the treasury stock method. Capital equivalent shares relating to Intel's 7% convertible subordinated debentures have not been included because they are antidilutive when considering interest on the debentures.

BORROWINGS

Intel's borrowings are comprised of notes payable and 7% convertible subordinated debentures. Notes payable have been issued under established foreign and domestic lines of credit which approximate $190,000,000 at December 31, 1981. These lines are generally renegotiated on an annual basis. The weighted average interest rate on borrowings outstanding under these lines at December 31, 1981 approximated 12.2%. Intel complies with compensating balance requirements related to certain of these lines of credit, however, such requirements are immaterial and do not legally restrict the use of cash.

The debentures were issued in August 1980, are due in August 2005 and are subject to annual sinking fund requirements of $5,400,000 commencing in August 1991. These debentures may be converted into shares of Intel capital stock at a conversion price of $60.50 principal amount for each share of capital stock. Intel may redeem all or any part of the debentures at any time subject to a premium through August 1999. Such premium is 6.65% as of December 31, 1981 and declines by .35% annually. Approximately 2,480,000 shares of capital stock are reserved for issuance under terms of the debenture agreement.

INTEREST AND OTHER

	1981	1980	1979
		(Thousands)	
Interest expense	$ 12,129	$ 6,784	$ 2,758
Interest income	(21,119)	(9,280)	(2,012)
Foreign currency (gains) losses	(1,665)	287	(625)
Total	$(10,655)	$(2,209)	$ 121

Interest expense for 1981 and 1980 excludes $3,000,000 and $750,000, respectively, which was capitalized as a component of construction costs. Interest was not capitalized in 1979.

TAXES ON INCOME

Taxes on income are comprised of the following:

	U.S.	Foreign	Total
		(Thousands)	
1981			
Pretax income	$ 14,749	$ 25,485	$ 40,234
State income taxes	$ 2,334	$ —	$ 2,334
U.S. Federal income taxes	(1,918)	—	(1,918)
Foreign income taxes	—	12,459	12,459
Taxes on income	$ 416	$ 12,459	$ 12,875
Effective tax rate	2.8%	48.9%	32.0%
1980			
Pretax income	$153,221	$ 32,108	$185,329
State income taxes	$ 12,309	$ —	$ 12,309
U.S. Federal income taxes	60,449	—	60,449
Foreign income taxes	—	15,830	15,830
Taxes on income	$ 72,758	$ 15,830	$ 88,588
Effective tax rate	47.5%	49.3%	47.8%
1979			
Pretax income	$115,146	$ 33,902	$149,048
State income taxes	$ 9,833	$ —	$ 9,833
U.S. Federal income taxes	44,636	—	44,636
Foreign income taxes	—	16,775	16,775
Taxes on income	$ 54,469	$ 16,775	$ 71,244
Effective tax rate	47.3%	49.5%	47.8%

U.S. Federal income taxes differ from the statutory rate of 46% principally as a result of investment tax credits ($6,800,000, $3,900,000 and $2,600,000 in 1981, 1980 and 1979, respectively) and research and development tax credits of $1,400,000 in 1981.

Prepaid income taxes result primarily from inventory valuation adjustments not currently deductible and from the financial deferral of income on sales to distributors. Deferred income taxes result from currently providing estimated U.S. income taxes on the earnings of Intel's Domestic International Sales Corporation (DISC) subsidiaries and its foreign subsidiaries to the extent that such amounts are not deemed to be permanently invested. Additionally the deferral method of accounting for investment tax credits results in such credits being utilized to reduce taxes payable prior to the time that they are recognized as a reduction of the provision for taxes on income.

Income taxes payable are also reduced and capital stock increased as a result of tax deductions arising from stock plan transactions.

Following is a summary of estimated income taxes currently payable:

	1981	1980	1979
		(Thousands)	
Taxes on income	$ 12,875	$ 88,588	$ 71,244
Prepaid (deferred) items:			
Inventory valuation adjustments	8,994	—	—
Distributor sales and other reserves	(1,243)	2,321	7,571
DISC and other undistributed earnings	(2,971)	(6,202)	(6,168)
Deferred ITC	(3,933)	(3,627)	(2,244)
Depreciation	(9,333)	(1,066)	3,021
State and local tax accruals	(2,235)	(328)	827
Other, net	1,808	(394)	(14)
Net	(8,913)	(9,296)	2,993
Current taxes on income	3,962	79,292	74,237
Benefit from stock plan transactions	(7,539)	(13,643)	(7,454)
Estimated taxes currently payable (receivable)	$ (3,577)	$ 65,649	$ 66,783
Prepaid (deferred) items:			
U.S. Federal	$ (5,187)	$ (10,406)	$ 2,471
State	(683)	385	1,209
Foreign	(3,043)	725	(687)
	$ (8,913)	$ (9,296)	$ 2,993

During 1981 the Internal Revenue Service completed its examination of Intel's U.S. income tax returns for 1975, 1976 and 1977. The preliminary report relating to this examination has been received and does not include any matters which will have a material effect on Intel's results of operations or its financial condition as of December 31, 1981. The IRS has indicated that it plans to commence an examination of Intel's income tax returns for 1978 and 1979 during 1982. No adjustments which would have a material effect upon Intel's results of operations or financial condition are expected as a result of this examination.

EMPLOYEE BENEFIT PLANS

Stock option plans Intel has stock option plans under which officers and key employees may be granted options to purchase shares of Intel's authorized but unissued capital stock at not less than 85% of the fair market value at date of grant. The existing non-qualified stock option plans were amended during 1981 in accordance with provisions of the Economic Recovery Tax Act of 1981 to provide employees with incentive stock options. In conjunction with these amendments, employees have been offered the opportunity to cancel non-qualified options received subsequent to December 31, 1975 and receive new incentive options for the same number of shares. With this cancellation and reissue, management changed the exercise price of options which were outstanding at exercise prices significantly higher than the then current market price. This change in exercise price was made because management believed that the higher priced options were no longer a motivating factor for key employees and officers.

Options expire no later than ten years from date of grant. No material charges have been made to income in accounting for options. Proceeds and income tax benefits realized by Intel as a result of transactions in these plans are credited to capital stock. Additional information with respect to employee stock options is as follows:

	Shares Available For Options	Outstanding Options	
		Number of Shares	Aggregate Price
		(Thousands)	
December 31, 1978	6,434	5,010	$ 54,263
Options granted	(1,728)	1,728	42,635
Options exercised	—	(884)	(7,942)
Options cancelled	478	(478)	(6,780)
December 31, 1979	5,184	5,376	$ 82,176
Options granted	(1,165)	1,165	45,478
Options exercised	—	(1,026)	(11,189)
Options cancelled	398	(398)	(7,693)
December 31, 1980	4,417	5,117	$108,772
Options granted	(4,962)	4,962	88,590
Options exercised	—	(586)	(6,831)
Options cancelled	3,943	(3,943)	(82,412)
December 31, 1981	3,398	5,550	$108,119
Options exercisable at December 31: 1979		1,572	$ 13,866
1980		1,730	$ 19,809
1981		620	$ 9,532

The average exercise price for options outstanding at December 31, 1981 was $19.48 while the range of individual exercise prices was $2.75 to $22.88. Individual options outstanding at that date will expire if not exercised at specific dates ranging from January 1982 to December 1991. The range of exercise prices for options exercised during the three year period ended December 31, 1981 was $2.75 to $42.66.

Intel also has a separate stock compensation plan for key employees of one of its subsidiaries whereby these employees may acquire common stock of the subsidiary; however, Intel is entitled to reacquire this common stock in exchange for an estimated 200,000 shares of Intel capital stock which are reserved at December 31, 1981. During 1981, 1980 and 1979 approximately $300,000, $750,000 and $3,300,000, respectively, was charged to income under this plan.

Stock participation plan Under this plan qualified employees are entitled to purchase shares of Intel's capital stock at 85% of the fair market value at certain specified dates. Of the 4,000,000 shares authorized to be issued under this plan, as amended, 2,506,000 shares are available for issuance at December 31, 1981. Employees purchased 444,000 shares in 1981 (326,000 and 290,000 in 1980 and 1979, respectively) for $13,228,000 ($8,098,000 and $4,473,000 in 1980 and 1979, respectively).

Profit sharing retirement plan Effective July 1, 1979, Intel adopted a profit sharing retirement plan for the benefit of qualified employees. The plan is designed to provide employees with an accumulation of funds at retirement and provides for annual contributions to trust funds based on a formula which considers annual return on both equity and revenues. Under this formula no contribution was accrued for 1981. The amounts charged against pre-tax profits for the twelve-month period ended December 31, 1980, and the six-month period ended December 31, 1979, were approximately $15,000,000 and $8,000,000, respectively.

Employee annual entitlements vest five years after each plan year or upon retirement and are based upon accumulated fund assets. It is Management's intention to fund annual contributions on a current basis.

COMMITMENTS

Intel leases a portion of its capital equipment and certain of its facilities under leases which expire at various dates through 1991. Rental expense was $16,500,000 in 1981, $11,007,000 in 1980, and $8,269,000 in 1979. Minimum rental commitments under all noncancelable leases with an initial term in excess of one year are payable as follows: 1982-$5,900,000; 1983-$4,200,000; 1984-$2,300,000; 1985-$700,000; 1986-$400,000; 1987 and beyond $900,000.

Commitments for construction or purchase of property, plant and equipment approximate $55 million at December 31, 1981. In addition to these commitments, a series of agreements were made during 1981 with governmental agencies of a foreign country. Under terms of these agreements, Intel expects to construct within that country, manufacturing facilities having an estimated value of $75 million. Financial inducements provided to Intel in connection with these agreements include a combination of grants and low interest loans which in the aggregate approximate $65 million. The agreements

provide that all phases of the project be completed by 1985, loans be secured by the facilities and amounts borrowed be repaid in quarterly installments ending in 1993. No significant construction expenditures or borrowings have occurred through December 31, 1981.

SUPPLEMENTAL INFORMATION (unaudited)
Quarterly information Quarterly information for each of the three years in the period ended December 31, 1981 is presented on page 19.
Inflation adjusted information A financial summary which has been adjusted for changing prices to reflect the effects of inflation is presented on page 22.

INDUSTRY SEGMENT REPORTING

Intel and its subsidiaries operate in one dominant industry segment and are engaged principally in the design, development, manufacture and sale of LSI (large scale integrated) semiconductor components and systems incorporating these components. During 1981 approximately 13% of Intel's revenues were derived from sales to one significant customer.

Operations outside the United States include assembly and test facilities which are maintained in Barbados, Malaysia and the Philippines and sales subsidiaries throughout Europe and other parts of the world (Other). Summary balance sheet information for operations outside of the United States at December 31 is as follows:

	1981	1980
	(Thousands)	
Current assets	$111,969	$93,547
Current liabilities	58,333	28,934
Net property, plant and equipment	63,080	37,765

Geographic information for the three years ended December 31, 1981 is as follows:

NET REVENUES

	Products Sold Within			
	U.S.	Europe	Other	Total
	(Thousands)			
1981 Net revenues of:				
U.S. operations	$511,199	$ 73,285	$13,425	$597,909
European operations	—	132,708	—	132,708
Other operations	—	—	58,059	58,059
1981 Net revenues	$511,199	$205,993	$71,484	$788,676
1980 Net revenues of:				
U.S. operations	$515,474	$ 94,174	$11,892	$621,540
European operations	—	185,369	—	185,369
Other operations	—	—	47,652	47,652
1980 Net revenues	$515,474	$279,543	$59,544	$854,561
1979 Net revenues of:				
U.S. operations	$416,427	$ 57,250	$15,938	$489,615
European operations	—	122,599	—	122,599
Other operations	—	—	48,770	48,770
1979 Net revenues	$416,427	$179,849	$64,708	$660,984

Transfers between geographic areas are accounted for at amounts which are generally above cost and consistent with rules and regulations of governing tax authorities. Such transfers, which are eliminated in the consolidated financial statements, are as follows:

	1981	1980	1979
		(Thousands)	
U.S.	$122,640	$140,175	$110,279
Europe	—	5,528	5,096
Other	39,630	30,051	23,902

OPERATING INCOME

	1981	1980	1979
		(Thousands)	
Operating income allocable to:			
U.S.	$ 30,162	$169,889	$132,177
Europe	14,901	29,604	26,672
Other	6,443	6,008	8,527
Unallocated	(21,927)	(22,381)	(18,207)
	$ 29,579	$183,120	$149,169

Operating income is net revenues less operating expenses and does not include an allocation of general corporate expenses and interest and other.

IDENTIFIABLE ASSETS

	1981	1980	1979
		(Thousands)	
Identifiable assets of:			
U.S.	$571,065	$498,315	$370,133
Europe	87,391	69,115	47,859
Other	87,658	62,197	45,545
General assets, net	125,403	137,541	36,556
Total assets	$871,517	$767,168	$500,093

General assets are principally cash, short-term investments and prepaid taxes on income.

REPORT OF CERTIFIED PUBLIC ACCOUNTANTS

The Board of Directors and Shareholders
Intel Corporation

We have examined the accompanying consolidated balance sheets of Intel Corporation at December 31, 1981 and 1980, and the related consolidated statements of income, shareholders' equity and changes in financial position for each of the three years in the period ended December 31, 1981. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the statements mentioned above present fairly the consolidated financial position of Intel Corporation at December 31, 1981 and 1980, and the consolidated results of operations and changes in financial position for each of the three years in the period ended December 31, 1981, in conformity with generally accepted accounting principles applied on a consistent basis during the period.

Arthur Young & Company

San Jose, California
January 12, 1982

FINANCIAL INFORMATION BY QUARTER (unaudited)

(Thousands—except per share data)

	Quarter Ended			
1981	Dec. 31	Sep. 30	Jun. 30	Mar. 31
Net Revenues	$199,618	$203,238	$201,201	$184,619
Cost of sales	113,126	119,063	113,290	112,829
Research and development	32,010	29,732	28,312	26,442
Marketing, general and administrative	50,412	45,088	44,769	44,024
Interest and other	(2,644)	(2,257)	(3,152)	(2,602)
Taxes on income	2,149	648	8,272	1,806
Net income	$ 4,565	$ 10,964	$ 9,710	$ 2,120
Earnings per capital and capital equivalent share	$ 0.10	$ 0.25	$ 0.22	$ 0.05
Market price range (A) High	$ 29.63	$ 36.13	$ 41.75	$ 41.75
Low	$ 22.63	$ 22.88	$ 34.88	$ 32.75
1980				
Net revenues	$219,213	$216,497	$214,978	$203,873
Cost of sales	108,244	98,768	97,504	94,922
Research and development	25,866	26,028	22,898	21,634
Marketing, general and administrative	45,413	43,597	44,012	42,555
Interest and other	(4,098)	364	2,904	(1,379)
Taxes on income	20,931	22,822	22,780	22,055
Net income	$ 22,857	$ 24,918	$ 24,880	$ 24,086
Earnings per capital and capital equivalent share	$ .52	$ .57	$ .58	$ .55
Market price range (A) High	$ 49.50	$ 47.50	$ 34.13	$ 37.38
Low	$ 38.50	$ 33.38	$ 27.50	$ 28.75
1979				
Net revenues	$194,798	$176,245	$154,978	$134,963
Cost of sales	89,590	84,106	73,803	65,607
Research and development	20,743	17,816	14,841	13,335
Marketing, general and administrative	40,904	34,657	30,202	26,211
Interest and other	(503)	(304)	389	539
Taxes on income	21,061	19,108	17,082	13,993
Net income	$ 23,003	$ 20,862	$ 18,661	$ 15,278
Earnings per capital and capital equivalent share	$ .54	$ .49	$ .44	$ .38
Market price range (A) High	$ 35.75	$ 32.25	$ 26.00	$ 21.50
Low	$ 28.75	$ 23.75	$ 20.19	$ 16.31

(A) Intel's capital stock and convertible subordinated debentures are traded in the over-the counter market and are quoted on NASDAQ and in the Wall Street Journal and other newspapers. At December 31, 1981 there were approximately 18,000 holders of capital stock and 700 holders of convertible subordinated debentures. Intel has never paid cash dividends and has no present plans to do so.

Ten years ended December 31, 1981

	At December 31				Year Ended December 31		
	Net Investment In Plant & Equip.	Total Assets	Long-Term Debt	Shareholders' Equity	Working Capital Provided By: Operations	Working Capital Provided By: Employee Stock Plans	Working Capital Used for Net Additions To Plant & Equip.
1981	$411,747	$871,517	$150,000	$487,817	$115,021	$27,598	$154,164
1980	320,559	767,168	150,000	432,860	153,751	32,930	152,151
1979	217,391	500,093	—	303,189	124,961	19,869	96,681
1978	160,140	356,565	—	205,062	78,025	12,025	104,157
1977	80,117	221,246	—	148,942	49,777	7,766	44,881
1976	51,069	156,568	—	109,460	38,018	10,073	32,073
1975	28,474	102,719	—	74,173	24,232	7,100	11,169
1974	22,186	75,410	—	50,799	25,515	3,135	12,783
1973	13,015	50,567	—	27,888	12,402	1,278	9,113
1972	5,376	21,944	—	17,396	3,552	684	2,104

	Year Ended December 31					
	Net Revenues	Cost of Sales	Research & Development	Other Costs & Expenses, Net	Net Income Total	Net Income Per Share
1981	$788,676	$458,308	$116,496	$186,513	$27,359	$ .61
1980	854,561	399,438	96,426	261,956	96,741	2.21
1979	660,984	313,106	66,735	203,339	77,804	1.85
1978	399,390	196,376	41,360	117,340	44,314	1.08
1977	282,549	143,979	27,921	78,933	31,716	.80
1976	225,979	117,193	20,709	62,863	25,214	.63
1975	136,788	67,649	14,541	38,324	16,274	.42
1974	134,456	67,909	10,500	36,271	19,776	.53
1973	66,170	35,109	4,565	17,282	9,214	.25
1972	23,417	12,425	3,442	4,466	3,084	.09

Overview Intel was incorporated in 1968 and since that time has operated in one dominant industry segment; the design, development, manufacture and sale of LSI semiconductor components and systems incorporating these components. Since inception, both the complexity and functional utility of Intel's products have increased and the per function cost of these products has decreased dramatically. Intel's ability to enhance existing products and develop new products has been possible primarily because of a commitment to invest significant amounts of money in research and development efforts and in the most modern and technologically advanced facilities and support equipment available. Following are comments relevant to Intel's financial condition and results of operations.

Financial Condition Intel's Balance Sheet has grown substantially and reflected continuing strength throughout the ten year period ended December 31, 1981. During this period, Shareholders' Equity has consistently exceeded 55% of Total Assets. During the four-year period ended December 31, 1981, an average of approximately $125 million per year was expended in additions to plant and equipment. This level of capital spending exceeded earnings during the period by a factor of greater than two. Such levels of capital spending are considered necessary to maintain manufacturing capabilities at the leading edge of technology and to provide the capacity required for future growth.

Until 1980, Intel was able to finance its growth and current operations with funds provided by equity, operations, employee stock plans and modest amounts of short-term borrowings. In 1980, it became apparent that these sources would not be adequate to support near-term capital spending requirements and, accordingly, $150 million was raised through the public issuance of convertible subordinated debentures. During 1981, Intel entered into agreements with a foreign government which will provide funds of approximately $65 million for the construction of a major facility within that country. As additional requirements are identified, Intel will continue to pursue the public and governmental sources that are available to finance its needs at costs which are considered favorable.

Results of Operations 1981 is the first year in Intel's history during which year to year revenue growth did not occur. Revenues grew by 29% from 1979 to 1980 but decreased by 8% from 1980 to 1981 in spite of an increase in unit shipments during this latter period. Typically, semiconductor components decline in both sales value and cost to manufacture. During 1979 and the first half of 1980 sales prices remained uncharacteristically level while cost to manufacture declined. This price stability was due to an excess of demand over industry capacity. Commencing in the second half of 1980 and throughout 1981 prices have declined at unprecedented rates. These rapid price reductions are primarily related to industry overcapacity which occurred as a result of industry-wide capital expansion programs and the effects of recessionary economic conditions throughout the world. The current industry outlook is for a continuation of existing conditions well into 1982, at a minimum.

To help combat these competitive conditions, Intel has substantially increased its level of research and development efforts in order to bring new and improved products to market. Over 20% of fourth quarter 1981 revenues resulted from products introduced in 1981.

Other costs and expenses, as reflected in the accompanying summary, decreased during 1981 primarily as a result of lower income taxes due to reduced profits and a significantly higher level of interest income. Administrative expenses were held reasonably close to 1980 levels, in spite of an increased volume of business, primarily as a result of aggressive programs designed to improve efficiency and productivity.

On the next page are financial data adjusted for changing prices and designed to reflect the effects of inflation.

Statement of Income Adjusted for Changing Prices (Millions—except per share amounts) Intel Corporation

For the Year Ended December 31, 1981

	As Reported in the Primary Statements	Adjusted for General Inflation (Constant Dollar)	Adjusted for Changes in Specific Prices (Current Costs)
NET REVENUES	$ 788.7	$ 788.7	$ 788.7
Cost of sales	458.3	478.7	467.2
Research and development	116.5	118.1	117.7
Marketing, general and administrative	184.3	184.9	184.7
Interest and Other	(10.7)	(10.7)	(10.7)
Taxes on income	12.9	13.0	12.9
NET INCOME	$ 27.4	$ 4.7	$ 16.9
Earnings per capital and capital equivalent share	$ .61	$ .11	$ .38
Purchasing power gain on net monetary items held during the year (a)		$ 1.9	$ 1.9
Depreciation included in costs and expenses above	$ 60.0	$ 75.2	$ 70.6
Amounts of inventory and property, plant and equipment at December 31			$ 574.2
Increase in specific prices of inventories and property, plant and equipment (net) held during the year			$ 62.4
Effect of increase in general price level			$ 72.6
Excess of increase in general price level over increase in specific prices ($9.1 and $8.4 for 1980 and 1979, respectively)			$ 10.2

(a) For 1980 and 1979 there were purchasing power losses of $3.9 and $2.3, respectively, on net monetary items.

Five Year Comparison of Selected Financial Data Adjusted for Changing Prices

	Net Revenues in Millions of 1981 Constant Dollars	Market Price Per Common Share at Year End in Constant 1981 Dollars	Average Annual Consumer Price Index-Urban (CPI-U)
1981	$788.7	$21.87	272.4*
1980	943.1	42.44	246.8
1979	828.5	39.99	217.4
1978	558.5	20.69	195.4
1977	424.1	15.05	181.5

*Estimated

Management's Discussion of Adjusted Financial Data

The statements of selected financial data adjusted for changing prices are presented in accordance with the requirements of FAS No. 33. Two types of information, constant dollar and current cost, are presented as a supplement to the traditional financial statements. The constant dollar information is a general restatement of traditional data to monetary units having the same general purchasing power. The current cost information is a restatement of selected traditional data to reflect the effects of changes in the relative process of specific items. The following explanatory comments are provided to assist in understanding the summary.

Constant Dollar Information—Pervasive inflation causes dollars earned and spent in the current year to have less value than dollars earned and spent in the prior years. The constant dollar revenue, cost and per share data is calculated by adjusting historical dollar amounts to average 1981 dollars using the CPI-U. No adjustments have been made to taxes on income for deferred taxes that might be deemed to arise as a result of differences between income on a constant dollar basis and income reported for tax purposes. Constant dollar amounts for 1981, 1980 and 1979 have been computed by reference to historical data for each quarter.

Depreciation expense is calculated by restating the historical cost of assets acquired in prior years into 1981 dollars using CPI-U indices and calculating depreciation thereon using the same methods and estimated useful lives as used in the traditional statements.

The economic significance of monetary items (cash, receivables and obligations of fixed amounts) is related to the general purchasing power of money. As a result, Intel experienced purchasing power gains in 1981 and losses in 1980 and 1979 on net monetary assets held during these periods.

Intel's constant dollar net assets at December 31, 1981, 1980 and 1979 valued at average 1981 dollars are $565.7, $512.7 and $415.2 million, respectively. Constant dollar net income for 1980 and 1979, adjusted to average 1981 dollars, are $85.3 and $81.8 million, respectively. Constant dollar earnings per share for these years are $1.95 and $1.94, respectively.

Current Cost Information—Current cost data has been computed by restating depreciation expense into 1981 dollars based upon specific indices relevant to Intel's capital assets rather than using a general index such as the CPI-U. The method of restatement is the same as used for constant dollar information. No adjustment has been made to inventories other than their depreciation component inasmuch as historical costs approximate current cost.

Intel's current cost net assets at December 31, 1981, 1980 and 1979 valued at average 1981 dollars are $552.0, $531.2 and $397.6 million, respectively. Current cost net income for 1980 and 1979, adjusted to average 1981 dollars, are $95.9 and $76.3 million, respectively. Current cost earnings per share for these years are $2.19 and $1.81, respectively.

Corporate Directory

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Gordon E. Moore*
Chairman and Chief Executive Officer, Intel Corporation

Robert N. Noyce*
Vice Chairman, Intel Corporation

Edward L. Gelbach
Senior Vice President, Intel Corporation

Andrew S. Grove*
President and Chief Operating Officer, Intel Corporation

D. James Guzy†
President of Arbor Laboratories, manufacturer of electronic instruments

Richard Hodgson†
Industrialist

Sanford Kaplan†•
Retired Corporate Executive

Max Palevsky
Industrialist

Arthur Rock*†•
Chairman of the Executive Committee; General Partner of Arthur Rock and Associates, venture capital investors

Charles E. Young
Chancellor of the University of California at Los Angeles

**Member of the Executive Committee*
†Member of the Audit Committee
•Member of the Compensation Committee

Officers

Gordon E. Moore
Chairman of the Board of Directors and Chief Executive Officer

Andrew S. Grove
President and Chief Operating Officer

Robert N. Noyce
Vice Chairman of the Board of Directors

William H. Davidow
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Edward L. Gelbach
Senior Vice President and General Manager, Components Group

Laurence R. Hootnick
Senior Vice President, Finance and Administration

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Vice President and General Manager, Non-Volatile Memory Division

Keith L. Thomson
Vice President and Director, Systems Operations

Ronald J. Whittier
Vice President and General Manager, Memory Products Division

Transfer Agent and Registrar

Wells Fargo Bank
San Francisco, California;
Wells Fargo Securities Clearance Corp.
New York, New York

Certified Public Accountants

Arthur Young & Company
San Jose, California

Corporate Headquarters

3065 Bowers Avenue
Santa Clara, CA 95051

Additional copies of this report are available at the following locations:

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3065 Bowers Avenue
Santa Clara, CA 95051

Intel International
Rue du Moulin à Papier 51,
Boîte 1
B-1160 Bruxelles, Belgium

Intel Japan K.K.
5-6, Tokadai, Toyosato-Cho,
Tsukuba-gun,
Ibaraki, 330-26, Japan

Form 10-K

If you would like to receive, without charge, a copy of the Corporation's 'Form 10-K' which will be filed with the Securities and Exchange Commission prior to March 31, 1982 for the 1981 year, please send your request to:
Roger S. Borovoy, Secretary
Intel Corporation
Mail Stop 4-105
3065 Bowers Ave.
Santa Clara, Ca. 95051.

Annual Meeting

The Intel Annual Meeting of Shareholders will be held March 11, 1982 at the Registry, Scottsdale, Arizona.

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