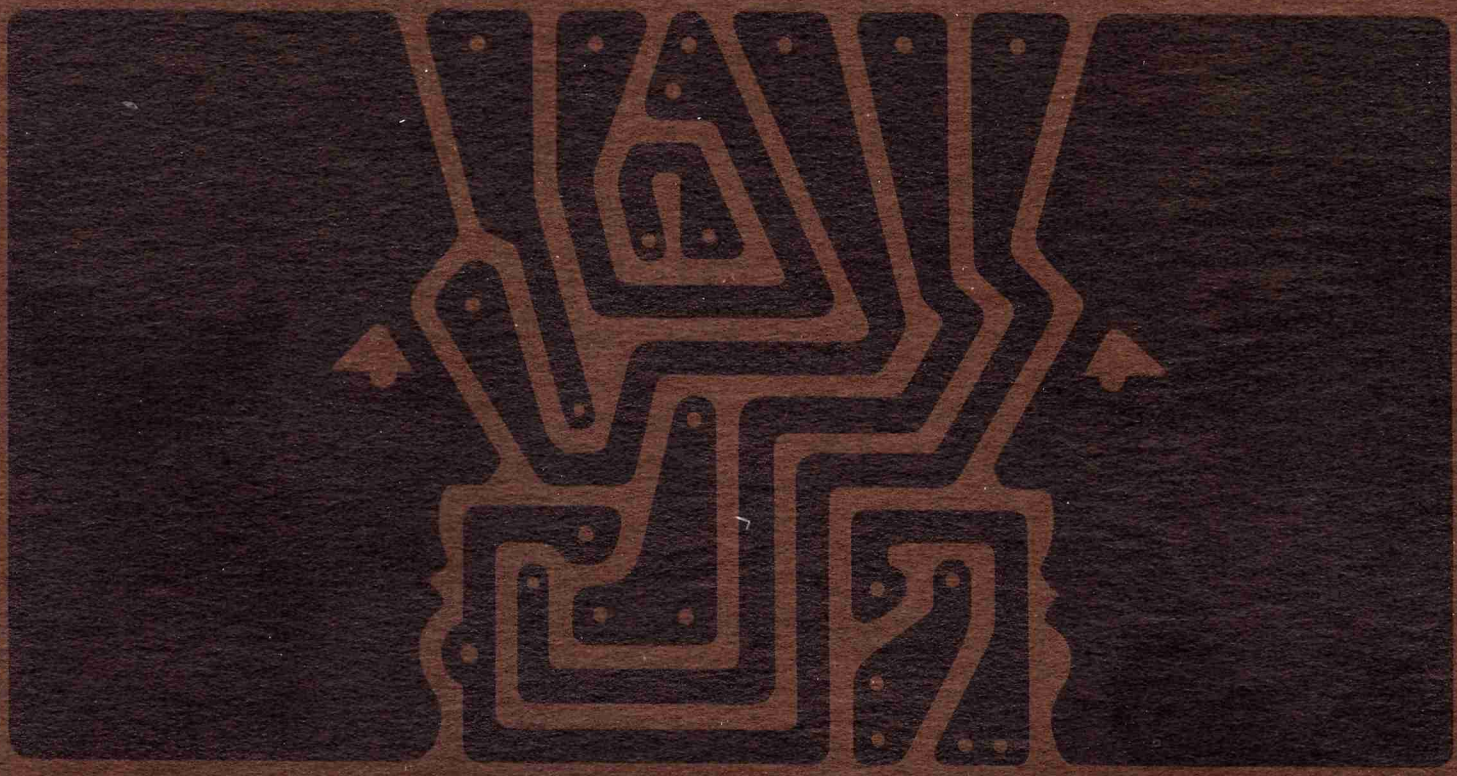
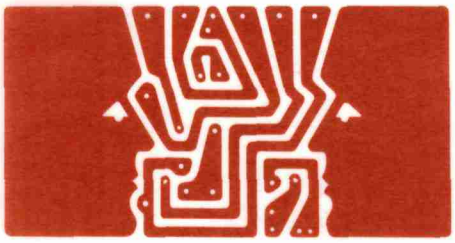
Motorola



1972 Annual Report

MOTOROLA



The mind to imagine . . . the skill to do.

This year's annual report celebrates the dynamic spirit that unites Motorola people and their customers in a global network of performance. The men and women who create, produce and sell our products share conscientiously in the task of applying innovative technology to help serve increasingly complex human needs around the world. In appreciation, we dedicate this book to them.

To Our Shareholders and Friends

1972 was a banner year for Motorola. We are pleased to report that sales and earnings in every quarter, and for the full year, established records for each such period. The sales and earnings performance of every division increased substantially over 1971. Our earlier stated expectations of generally firming worldwide economic conditions and consistently improving Motorola results did materialize.

Sales volume for the year broke through the billion dollar level, with sales and other revenue of $1,163,315,088 being up 26% from 1971's $926,592,871. Earnings increased at an even greater rate—$52,038,120 compared with $31,749,944—up 64% from 1971. Earnings per share of $3.81 compared with $2.37 the previous year.

Each of our five divisions participated in reaching this milestone in the company's history. Major achievements of each division are detailed in the main body of this report. Progress made by our New Ventures group and the electronic watch components groups have also kept pace with our expectations.

Financial. Motorola's financial position remains strong and is marked by a current ratio of $2.23 of current assets to every dollar of current liabilities. Consolidated worldwide long-term debt is at a low 15% of long-term debt plus shareholders' equity. Fixed asset expenditures in 1972 were $48 million, compared with $32 million in 1971. Our current plans for 1973 provide for a sharp increase in such spending, to approximately $80 million. This large increase, which includes major projects initiated in 1972, is a function of: (1) the rapid growth in our business which has occurred over the past few years; (2) the simultaneous maturing of several major international business plans; and (3) the fact that some fixed asset expenditures normally anticipated for the 1970-72 period were deferred pending clear indication of the economic recovery which has now taken place.

Research and development spending was $76 million, up from $65 million in 1971. A further increase is planned for 1973.

The large fixed asset expenditures, increased R & D spending and the additional working capital needed to support continued sales growth in 1973, while significant in amount, are not expected to require equity financing in the foreseeable future. Our major sources of funds continue to be retained earnings and depreciation. 1972 depreciation was $30.5 million, up from $27.2 million in 1971. 1973's depreciation is expected to additionally increase as a consequence of greater fixed asset expenditures.

Share distribution. In February 1973, the Motorola Board of Directors expressed its intention to effect a share-for-share distribution on or about June 1 to shareholders of record on or about May 18 subject to shareholder approval at the May 7 annual meeting of a proposal to increase the number of authorized shares of common stock of Motorola from 20,000,000 to 40,000,000. Also, the board expressed its intention to raise the quarterly dividend in June to 12.5 cents per share then outstanding. This would be equivalent to a 66⅔% increase in the present annual dividend rate. If the new dividend rate is adopted and maintained during the remainder of 1973, cash dividends paid in 1973 would be equivalent to 80 cents per share on the presently outstanding shares and would be within the guideline established by the U.S. Committee on Interest and Dividend which permits aggregate dividend payment in1973 not exceeding 25% of 1972 net income. Continuation of the increased dividend would naturally depend on our operating results and financial position as well as on then current government regulations or guidelines at any given time.

Delaware reincorporation. The 1973 annual meeting proxy material which will be mailed on or about March 29 will also contain a proposal

adopted by the board of directors on February 28, to reincorporate Motorola as a Delaware corporation. This proposal results from an extensive and detailed study by the board and legal counsel. Under the rules of the Securities and Exchange Commission governing the solicitation of proxies it would be inappropriate to describe the terms of the proposed reincorporation here; however, all details concerning this proposal, including a full statement of the board's reasons for adopting the proposal, will be included in the proxy material which will be mailed to shareholders shortly.

Management and organization. The organization change we implemented in early 1972, and which we detailed in last year's shareholder report, is enabling us and our key associates to provide operational leadership to our rapidly growing businesses and simultaneously to devote more attention to the key issues and opportunities the company will face in the 1970s.

As long planned, Elmer H. Wavering, previously vice chairman and chief operating officer, retired December 31 from these positions after completing more than 41 years of Motorola service and upon reaching the age of 65. It is impossible in the limited space of this letter to even mention Mr. Wavering's many contributions to Motorola's successes over the past four decades, or to adequately state the appreciation of ourselves and our associates for those contributions. We do gratefully acknowledge Mr. Wavering's magnificent service to the company and express our pleasure that he will remain a member of the board of directors.

International trade and investment. Elsewhere in this report is included a commentary on international trade and investment. Since we recognize this issue to be of vital national concern, we want to communicate to all shareholders the company's position in this regard.

Outlook. Because of the fine results achieved in 1972, it should not be expected that the magnitude of year-to-year comparisons will continue. However, as we enter 1973, we find the level of bookings, backlog and billings to be firm. This, along with the generally optimistic domestic and international economic outlook, supports our expectations of further increases in sales and earnings in all divisions in 1973.

1972's record results and the passing of the billion dollar milestone could not have been achieved without the splendid efforts of all members of the Motorola family worldwide, efforts which we do acknowledge with sincere gratitude.

For the Board of Directors,

Robert W. Galvin

Chairman of the Board

William J. Weisz

President

March 20, 1973

Financial Highlights

	1972	1971
Sales and Other Revenues	$1,163,315	$926,593
Income Before United States, Canada and Other Nations' Income Taxes	92,462	62,055
% to Sales	7.9%	6.7%
United States, Canada and Other Nations' Income Taxes	40,424	30,305
Earnings	52,038	31,750
% to Sales	4.5%	3.4%
Per Share of Capital Stock	3.81	2.37
Weighted Average Shares Outstanding	13,648,443	13,410,794
Capital Expenditures	48,008	31,977
Depreciation	30,529	27,239
Working Capital	311,587	247,579
Current Ratio	2.23	2.22
Shareholders' Equity	439,611	375,897
Book Value Per Share	31.89	27.88
Yearend Employment (approx.)	56,000	49,000

Dollar amounts in thousands, except per share data

Annual Meeting. The annual meeting will be held on Monday, May 7, 1973. A notice of the meeting, together with a form of proxy and a proxy statement, will be mailed to shareholders on or about March 29, 1973, at which time proxies will be solicited by management.
Transfer Agents Harris Trust and Savings Bank, 111 W. Monroe St., Chicago, Ill. 60690
First National City Bank, 111 Wall St., New York, N.Y. 10015
Registrars Continental Illinois National Bank and Trust Company of Chicago, 231 S. LaSalle St., Chicago, Ill. 60690
Irving Trust Company, 1 Wall St., New York, N.Y. 10015
Auditors Peat, Marwick, Mitchell & Co., 222 S. Riverside Plaza, Chicago, Ill. 60606.

Contents

Officers

		AGE	YEARS OF SERVICE
ROBERT W. GALVIN	Chairman of the Board and Chief Executive Officer	50	32
WILLIAM J. WEISZ	President and Chief Operating Officer	46	25
BENJAMIN W. BORNE	Vice President, Human Relations	48	1
ALLEN H. CENTER	Vice President, Public Relations	60	19
EDWARD J. HARTY	Controller	57	21
JOHN T. HICKEY	Vice President for Finance and Secretary	47	25
JOHN A. HUBENY	Vice President and Assistant to the Chief Financial Officer	62	38
DONALD R. JONES	Treasurer	43	22
J. PAUL JONES	Vice President and Director of Corporate Staff	49	21
STEPHEN L. LEVY	Vice President, New Ventures	51	9
HOMER L. MARRS	Vice President and General Manager, Equipment Divisions	56	35
WALTER B. SCOTT	Vice President and Director of Manufacturing and Facilities	57	27
LEWIS D. SPENCER	Vice President and General Attorney	56	22
COMMUNICATIONS DIVISION			
JOHN F. MITCHELL	Vice President and General Manager	45	20
CARL E. LINDHOLM	Vice President and Assistant General Manager	44	6
MARTIN COOPER	Vice President and Director of Systems Operations	44	19
JACK GERMAIN	Vice President and Director of Product Operations	46	23
JOSEPH F. MILLER	Vice President and Director of Domestic Distribution	48	21
ROBERT N. SWIFT	Vice President and Director of Marketing	49	21
SEMICONDUCTOR PRODUCTS DIVISION			
THOMAS J. CONNORS	Vice President and General Manager	43	9
JOHN R. WELTY	Vice President and Assistant General Manager	50	15
CHRISTIAN J. GOODMAN	Vice President and Director of Division Staff	52	11
JACK C. HAENICHEN	Vice President and Director of Operations, MOS	37	14
PATRICK D. LYNCH	Vice President and Director of Operations, Bipolar ICs	39	13
CONSUMER PRODUCTS DIVISION			
EDWARD P. REAVEY, JR.	Vice President and General Manager	49	6
HERBERT D. DeBORDE	Vice President, Operations	53	6
GOVERNMENT ELECTRONICS DIVISION			
RALPH W. ELSNER	Vice President and General Manager	52	24
AUTOMOTIVE PRODUCTS DIVISION			
OSCAR P. KUSISTO	Vice President and General Manager	59	24
JAMES A. TORRENCE	Vice President and Assistant General Manager	42	20
FRED P. HILL	Vice President and Director of Entertainment Products and International Operations	52	34

Directors

ROBERT W. GALVIN

J. PAUL JONES

OSCAR P. KUSISTO

STEPHEN L. LEVY

HOMER L. MARRS

ARTHUR C. NIELSEN, JR.

ARTHUR L. REESE

ELMER H. SCHULZ

WALTER B. SCOTT

EDWIN P. VANDERWICKEN
Chairman, Finance and Audit Committees

ELMER H. WAVERING

WILLIAM J. WEISZ

KENNETH V. ZWIENER

Director Emeritus:
DANIEL E. NOBLE
Chairman, Science Advisory Board

Communications Division

Division sales and earnings reached record highs. Sales increase exceeded the long term growth rate and the profit margin improved over the previous year.

New order for Metrocom system was placed by Maryland Department of Transportation for Baltimore. Communicates voice messages, automatic status reports and emergency alarms from public transport vehicles to dispatchers.

Fort Lauderdale Police Department purchased a Total Area Coverage (TAC) system of personal portable radios and solid state modular communications control centers. Police officers communicate via personal portable radios to their dispatchers from anywhere within the city.

Computer-aided dispatch vehicle status system was purchased by the police department in Huntington Beach, Calif. The system is designed to enable police to command and control their vehicles more efficiently in emergency situations.

New Motorcall system bought by Florida State Department of Transportation. This system is designed to help stranded motorists summon aid through roadside radios.

'72 product introductions: A new line of UHF Micor mobile radios and medium power base stations to complement existing models, and a low frequency, 100-watt version of the Mocom-70 mobile radio were added. Personal radio highlights included the Handie-Com MH 10 two-way portable radio in VHF band and the Pagecom pager as economy models to supplement the existing Handie-Talkie portable radio and the Pageboy II pager line. Modcom, modular communications control console, a desk top communications center, also introduced. Coronary Observation Radio (COR), a mobile telemetry unit which monitors cardiac functions, was introduced for ambulance and medical personnel.

Continued upward trend in international sales: Canada continued service to public safety markets in Edmonton, Hamilton and Windsor with expanded mobile and portable radio systems. Spanish telephone company made a major Pageboy II purchase. The Royal Netherlands Air Force ordered large quantities of UHF radios and pagers. French taxi system placed a major order for mid-band radios. '72 brought increased European acceptance of paging systems and mobile radios.

Order input growth is on target in other world markets. Argentine federal police placed a large equipment order in '72. Expanding markets for reliable communications equipment have emerged in Africa, Middle East, Latin America and in the Asia/Pacific area.

Current trends of order input and backlog indicate further growth in world markets and greater sales volume for the division.

Alone in a city of strangers, a woman waits. After dark the empty streets add fear to her loneliness. But unknown to her, strangers are helping to make her world a safer place through better communications....

... In Motorola's Schaumburg, Ill. plant, Neysa Thompson supervises people who assemble Micor two-way radios. Solid state, modular construction has replaced vacuum tubes with easy to install circuit boards. Neysa and her people are dedicated to meeting the quality standards set by Motorola engineering.

Besides Neysa, another stranger is watching out for the waiting woman's safety. Every evening Officer Hammond's patrol takes him past streets where lonely crowds hurry by. His police car, equipped with Micor radio communications, is in constant contact with a citywide network of police patrols. Like the men in hundreds of law enforcement agencies across the country, Officer Hammond depends on his Micor radio for its advanced performance capabilities.

Motorola communications technology brings strangers together and helps them help each other. And that's good to know when a woman must wait alone after dark.

Semiconductor Products Division

"Pete, my printout from the STARS system this morning shows a backorder on those ROMs I ordered yesterday. My customer can't wait. Can you do anything?" "I'll try, Ralph."

Pete Myslinski and Ralph Giessen have never met. But, twice a day, Pete phones Ralph in Schiller Park, Ill. from Motorola's semiconductor Customer Service headquarters in Phoenix. Ralph works for Hamilton/Avnet, a top-ranked nationwide distributor of electronic components. As Hamilton's manager for Motorola's semiconductor products in the Chicago area, Ralph can count on Motorola's Pete and the daily STARS teletype report to help him take care of his customers.

STARS is a unique, daily order activity report system serving Motorola's franchised U.S. distributors. On a coded teletype command to the STARS computer in Phoenix, in minutes the distributor can receive a complete printout of his previous day's orders for Motorola parts. Forewarned by STARS, Ralph had time to track down most of the Motorola ROM integrated circuits his customer needed from other Hamilton/Avnet offices. Now the rest was up to Pete.

"Ralph, I put a priority rush on your order, and we're getting out a partial shipment immediately."

Electronics equipment manufacturers may not know about Pete 'n Ralph, or the STARS program. But they do know that their Motorola distributor offers them the same reliability in delivery that they depend on in Motorola semiconductors.

Record high sales and earnings were due to resurgent worldwide demand in most major semiconductor markets. Significant growth factors: the computer markets' revival plus new applications for discrete semiconductors and integrated circuits in consumer and industrial electronics. These positive trends are expected to continue.

'72 industry sales were estimated up by about 25% in worldwide semiconductor market. The European market growth was estimated to be 20-25%; Asia/Pacific, 19-22%; and U.S. domestic about 28%. Motorola semiconductor products also recorded significant growth in all three markets.

MECL 10,000 circuits became a standard logic for computer industry, with 18 new devices added to this high speed integrated circuit family in '72. The line now has 37 standard circuits plus 17 wide temperature functions for military use.

Metal-oxide-semiconductor (MOS) integrated circuit sales for Motorola during '72 grew at a faster rate than the world industry, whose growth was an estimated 60-70%. In complementary MOS (CMOS), 41 new devices were introduced.

Linear integrated circuit sales accelerated well beyond initial estimates. Further expansion is predicted for '73. A major factor: the automotive market, prompted by new federal safety standards.

Sales of discrete semiconductors increased, especially in silicon small signal and power transistors. Small signal growth was caused largely by the improved entertainment products market, particularly TV receivers. Power transistors are expected to enjoy strong growth through the mid '70s, primarily due to vital role in "all solid state" TV, portable electronics and electronic ignition systems. It is doubtful that integrated circuits will penetrate these high-growth discrete product areas.

Production capacity is being increased to meet worldwide semiconductor demand. A 67,000 sq. ft. plant was completed in East Kilbride, Scotland; and a 62,000 sq. ft. addition, more than doubling the size of the Guadalajara, Mexico plant, will be completed by Fall '73. Increased production space at the main Phoenix plant will become available upon completion of a 67,000 sq. ft. office building, scheduled for mid '73.

Customer service "first" was scored in the industry with the newly opened "LocaLogic" Design Center in Lexington (Boston), Mass. Eastern area equipment manufacturers are using the center to design their own complex LSI circuits without traveling to the Phoenix design headquarters. More centers are planned.

Semiconductor prospects excellent for '73. Total U.S. factory sales are forecast to continue their upward trend, as will sales in the international markets. Motorola is confident of retaining its share of this industry growth.

Consumer Products Division

Color TV sales set second straight annual record. Unit sales increased (distributor to dealer) by about 40%—nearly double the U.S. industry figure.

Black-and-white TV sales climbed 40% in contrast to the U.S. industry average of about 8%.

Continuing trend: Despite shift in demand to portables from color consoles, Motorola console sales remained generally above industry averages. Portables kept pace with increased demand.

Strong national advertising program established for Quasar color TV on the three major national television networks—concentrated on college and professional football plus prime time shows.

Customer Satisfaction Program to upgrade consumer service—now fully underway in Wisconsin, Michigan and Texas. Established television set service centers are chosen on the basis of technical proficiency, employe training programs, availability and maintenance of equipment and parts. Expansion plans are underway for U.S. and Canadian dealers.

The division continued to apply video expertise in its newly developing visual display business. The displays are used for readouts in computer terminals and closed circuit TV systems.

A major expansion program is closing the gap on increased production requirements. Opened in '71, the Toronto, Ont. color TV assembly plant was enlarged from 45,000 sq. ft. to 65,000 sq. ft. An adjacent facility was leased to provide 42,600 sq. ft. of additional production and office space. The Taiwan plant, also opened in '71, was expanded from 123,000 sq. ft. to 161,000 sq. ft. In Quincy, Ill., 145,000 sq. ft. were added to the original 710,000 sq. ft. plant. Completion is due in '73. In Webb City (near Joplin, Mo.), Motorola purchased a 38,000 sq. ft. plant and additional land for future expansion. '73 plans call for a 40,000 sq. ft. addition to Webb City plant.

The division is reaping benefits of technical leadership. Motorola was first to mass-produce color TV receivers with rectangular picture tubes; first in U.S. with all solid state modular color sets; and first in the U.S. with five-function, one-button tuning. Now the only manufacturer offering up-front, "works in a drawer" service accessibility.

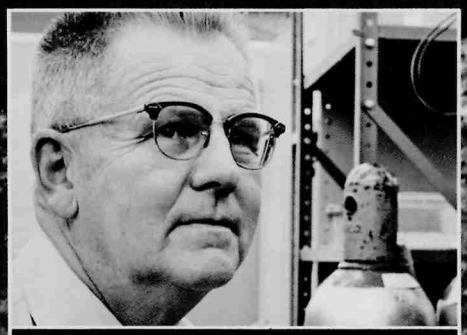
Excellent showing in Canadian color TV sales. Motorola Canada Limited sales, earnings and market share met expectations. Growing sales penetration is expected in '73 with consumer demand reinforced by advertising on Canadian TV networks.

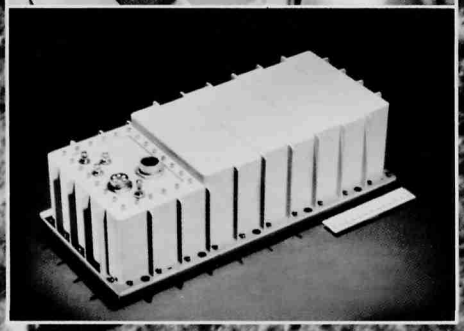
"When I make my follow-up calls to customers," says Dolores O'Toole, "I hear comments like — 'I didn't believe you were really from Motorola until the serviceman came and fixed our TV set'; or, 'imagine a manufacturer caring about someone who has already bought his product!'." As consumer coordinator Dolores starts her workday in the afternoon and stays well into the evening to reach customers at home.

Representing Motorola's customer satisfaction program, she has telephoned hundreds of people who recently purchased a Quasar color TV to explain that buying a Motorola product means the beginning of a relationship, not the end. Although most of the customers she talks to are satisfied with their new TVs, if one has a problem he can depend on Dolores to help. Often the only service needed consists of some minor adjustment covered by the Quasar guarantee, whose basic terms are on the back of every color TV set.

In calling back to make sure that the customer's problem has been solved, Dolores usually finds the person still a bit astonished but appreciative. As Motorola's customer satisfaction program has revealed, personal contact and consideration can build bonds of trust between manufacturer and consumer.

Government Electronics Division





In space, a minor malfunction may signify a fatal flaw. When NASA asked Motorola to design and install a device to test a piece of Apollo equipment not produced by Motorola, Cullen Moore, senior staff engineer at GED, knew how much could be at stake. Working under a support contract with NASA, Cullen's team had just one week to build the unit, ship and install it in a key tracking station outside Madrid, Spain. As Cullen says, to get a score of people working with total dedication on a project, you must fire their imaginations. Give them the challenge of an "almost impossible task." Five and one half days later, the test equipment, cannibalized from a Block II Apollo lunar module transponder, was on its way. After Cullen and another Motorola engineer made the final preparations at the Madrid station, the testing device was able to produce the data requested by NASA during the next flight. The way Cullen Moore sees it, with so much riding on communications, nothing should be left to chance.

Dedicated engineering backed up the Motorola communications equipment aboard Lunar Roving Vehicles, Lunar Modules and Command Modules that helped link the Apollo astronauts to Earth. Motorola transponders helped relay TV pictures and biomedical data from the astronauts and provided two-way radio contact with tracking stations around the world.

Sales were up over the previous year and earnings were at an all-time high. Yearend backlog was up more than 60% over '71.

Space activity continuing. During '72, division delivered NASA equipment for manned Skylab program – hardware for earth-to-space communications and the relay unit for the command module's docking with the orbiting Skylab.

Development is underway for NASA and the Jet Propulsion Lab on three major communication/electronic subsystems for the '73 deep space probe to Venus and Mercury. Five subsystems are in preparation for a '75 Viking/Mars unmanned orbiter and lander mission.

Contracts awarded in '72 include production of communications transponders for Earth Resources Technology Satellites and the Atmospheric Explorer Satellite. Another is to develop a transponder for the Smithsonian Institute's Red Shift relativity experiment to be orbited by NASA.

Development and shipboard tests completed on Fleet Broadcast receiving systems. Designed to provide primary satellite communications for U.S. Navy's major ships. Follow-on production opportunities are significant.

Multimillion dollar Defense Department contract awarded to develop secure voice communications for the armed forces. Initial development was completed on U.S. Army's Position and Survey System (PASS). A new contract was also received for 20 additional precision PASS sets, used in mapping and artillery location.

In radar development, initial contract was received for the first units of Motorola's new Totalscope II visual display device.

Several production prototype ground stations were delivered to the U.S. Navy Department for the tri-service Integrated Target Control System. Additional funding was provided for work on a new system configuration for an airborne control station.

A second Slot Buoy contract was received and production continued on these undersea electronic one-way tactical communications devices.

Multimillion dollar contract opens new market. Several years of R&D investment brought award of a major U.S. Air Force contract for active Electronic Countermeasures equipment.

International sales. Canadian government purchased special transponders for use in a drone tracking project in Canada, the United Kingdom and West Germany. Brazil joined seven other countries using electronic positioning systems in a wide variety of marine applications, including hydrographic and geophysical studies.

Outlook for '73: Government procurement trends should strengthen the division's opportunities for further growth.

Automotive Products Division

Division sales and earnings records reflected worldwide automobile demand and growing preferences for more sophisticated and higher priced entertainment products.

Car radio sales to auto manufacturers continued strong. Motorola remained the sole outside supplier for '73 model Chrysler Corp. and American Motors cars. Also supplied Ford Motor Co. and other manufacturers with selected models. Company continued as major source for Volkswagen in U.S. and Canada.

In entertainment centers—which combine AM/FM radio, FM stereo and an 8-track tape player in a single unit—the division was the only supplier to Ford and Chrysler for these products.

Tape players continued to be a growing area of division business. Motorola was the only supplier to Chrysler, Ford and American Motors for '73 models. Also major supplier to Volkswagen in U.S. and Canada.

Private label tape deck sales were up considerably, as were aftermarket sales for Motorola-branded radios.

Alternator sales for '72 increased more than 40%. The division was sole supplier to American Motors for '73 models. Volkswagen awarded a multimillion dollar contract beginning with the '73 model year for Beetles and Karmann-Ghias. Alternators are shipped to Germany for installation in cars primarily destined for the U.S. market.

Thick film technology was introduced into the new Volkswagen voltage regulators, and will also be applied to other products.

Electronic solid state ignition systems are now being supplied to Chrysler Outboard Corp. for its marine engines.

Expansion plans include enlarging the Arcade, N.Y., and Midland, Ont. facilities to meet the production demand for entertainment and automotive and industrial products. In Seguin, Tex., car radio production began in a leased 48,000 sq. ft. plant. A new, considerably larger facility will be built there this year. A major new facility is scheduled for Angers, France. This plant will produce automotive and industrial products for European distribution, including a new generation of alternators designed in '72 for the European market.

International operations improved sales performance. The division's subsidiary in the United Kingdom set a sales record and became profitable in '72. Canadian car radio sales increased over previous year. Autovox in Italy, a majority-owned subsidiary, did not operate at a profit in '72. Alps-Motorola of Japan achieved record sales with improved profits.

Final adjustments on a production-ready entertainment center are underway inside a new '73 car at Motorola's Franklin Park, Ill. automotive test facility.

Two years ago, when Frank Drong first saw the design specifications drawn up by Motorola's customer, a major automobile manufacturer, he knew that a lot of man hours had already gone into working out the details of a contract which would benefit both Motorola and the customer.

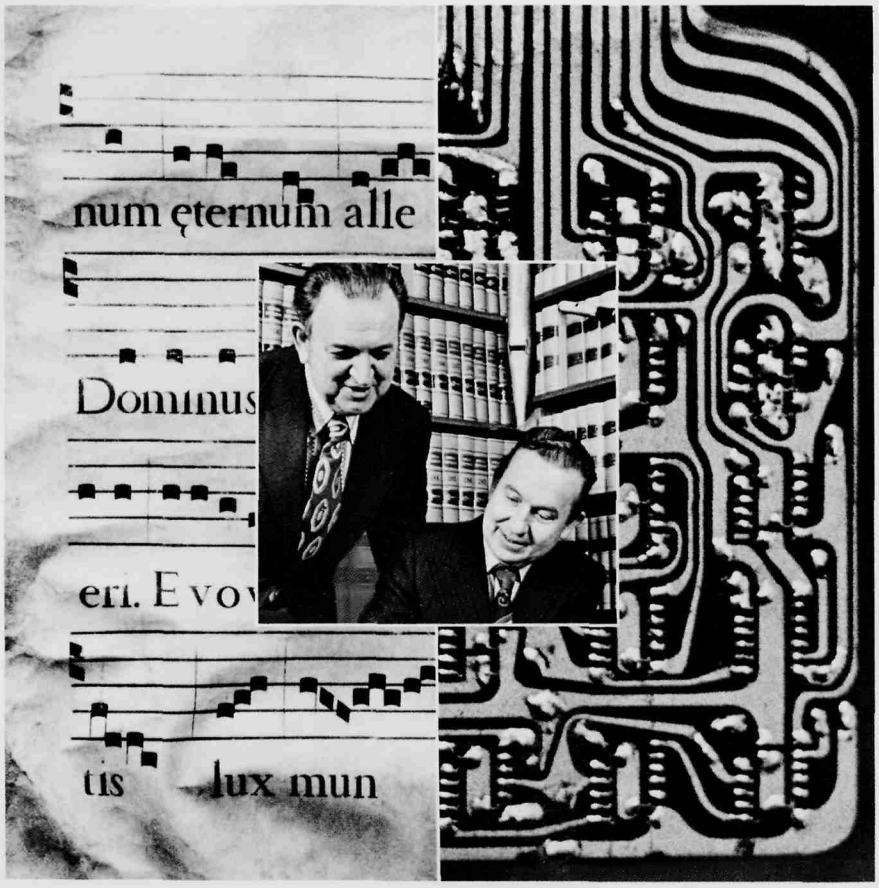
Viewing the finished product, Frank is satisfied that his electrical engineering input contributed in an essential way to this compact unit. But the key to its total development has been cooperation. Cooperation at all levels of Motorola's participation, and cooperation with the customer. So, before the public will see this new car, it is here, because only an actual test can reveal how the car and the entertainment center will interact. "Let's see. Is there any possibility of interference here? No, OK. Let's hear how it sounds." Frank checks the tape, then turns on the radio. "Beautiful!"

New Ventures Activity

Two years ago, when Dick Harasek was new products manager for Motorola's Consumer Products Division, he and his friend, Herman Pedtke, began looking for ways to advance a revolutionary new product idea.

Dick enjoyed his job; but he was ambitious for a chance to control his own destiny—to reach beyond his grasp—to a new venture. And New Ventures backing, Dick believes, can give a solid competitive edge to his potential innovative enterprise. With Herman Pedtke as a Motorola consultant, Dick is refining, quantifying and organizing their original concept into a formal schedule for producing and marketing a whole new application of electronics technology to the field of music. This may be formalized as a New Venture for Motorola.

With New Ventures, Dick and others like him who have viable business propositions and the drive to make them successful, are assured of careful consideration from a major corporation. One with an appreciation for the entrepreneurial spirit, and the creativity to encourage it. New Ventures—a part of Motorola's investment in the future.



New Ventures activity was formalized in February 1972. Its purpose: to generate and launch new businesses from within Motorola; to manage businesses acquired by Motorola; and to aid in researching and developing possible acquisitions.

Two New Ventures laboratories were established in Chicago and Phoenix as a focus for venture activities.

American Regitel Corp., San Carlos, Calif., became a majority-owned subsidiary of Motorola Inc. in March '72. Regitel manufactures electronic cash registers, credit terminals and merchandise ticket readers. Store-based minicomputer/controllers can command up to 120 cash registers. 4,000 Regitel registers and credit terminals are currently in use at 40 major department stores nationally; several are operating in Europe.

Retail point-of-sale electronics is predicted to mushroom. '72 industry sales neared $60 million. Estimated sales for '73 stand at about $140 million.

Other Businesses

Institutional Electronics Unit (IEU) markets a variety of electronic products to the lodging industry, and provides related systems engineering, maintenance and financing. Total product sales volume was up about 30% over '71. Quasar lodging color TV unit sales increased 52% over '71.

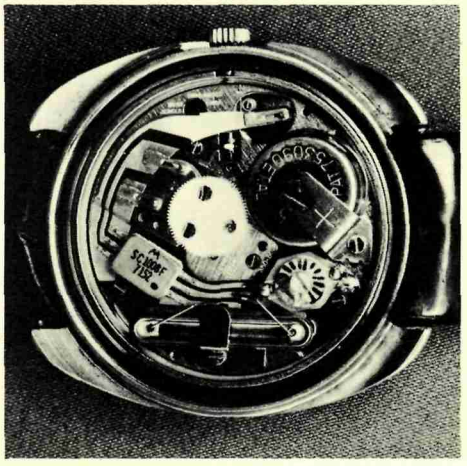
'72 product introductions for the lodging market included Pagecom radio pagers and Quasar Colorviewer TV with AM/FM radio.

IEU is the leading supplier of color TV and electronic communications systems to Holiday Inns Inc. The unit is also the major U.S. supplier of color TV to ITT Sheraton Corporation of America, Western International Hotels and Del Webb Hotels International.

1,400 Quasar Colorviewer TVs were provided for four Pacific Southwest Airways' hotels. New O'Hare International Tower hotel plans to use 1,000 Quasar Colorviewer TV sets and Motorola radio paging and electronic management systems. The Travelodge near Disney World was equipped with Quasar Colorviewer TVs. Other '72 customers included the new Crown Center, Kansas City, Mo.; Hyatt House on Union Square, San Francisco; and Host Airport Hotel, Houston.

Four unique Inn Scan 400 electronic management systems are scheduled for introduction in '73. They are designed to help optimize productivity and profitability of hotels and motels.

Demand for matched sets of electronic watch components, introduced in '72, exceeded expectations, and order backlog is steadily increasing. Primary U.S. customer is Benrus, user of all three Motorola components (quartz crystal, integrated circuit and micro-watt motor). Several others, including Girard Perregaux in Switzerland, are customers for individual components.



International Trade and Investment

Motorola's markets and operations are worldwide. Our increasing role in international trade and investment not only profits the company but helps foster world peace, understanding and improved quality of personal living as our employment, investment and business grow in each country.

However, the environment for international trade is not as good as it should be and is threatened further by well-intentioned but shortsighted political efforts that ignore basic business strengths while also overlooking the real problems. Of particular concern throughout the world are certain legislative proposals, like Burke-Hartke in the United States. Because of the effect of the large U.S. market on world trade, passage of these proposals would have a detrimental effect on the world economy due to the reaction such constraints, if established by a major nation, would certainly provoke elsewhere.

These proposals seem to ignore the positive benefits contributed within countries such as the United States by worldwide corporations like Motorola. For example,as we have established marketing, warehousing or manufacturing operations in other nations, Motorola's U.S. employment rose, particularly its employment in support of those operations. Plants in Europe, South America, Israel, etc. producing for their local markets have increased U.S. exports of parts and complementary finished products to those markets, creating jobs both in the United States and the other countries. This has further permitted Motorola, like most multinational companies, to contribute a significant company-wide trade surplus to the United States. Our total U.S. exports for 1972 were twice our total U.S. imports. More than half of our U.S. exports were to Motorola subsidiaries elsewhere. As these investments have increased so also have our U.S. exports to them.

Motorola also had a positive impact on the 1972 U.S. balance of payments, which would have been true even if we had financed all non-U.S. fund requirements from U.S. sources.

These basic business strengths and contributions are characteristic of a worldwide corporation.

Yet, there is a particular fundamental trade and investment problem that needs to be resolved promptly among the developed nations of Europe, Japan and the United States: that is, removal of inequities on a product for product basis of duty differences, non-tariff barriers, subsidies and investment restraints that distort commerce.

It is to this objective that governmental efforts should be directed.

Motorola Worldwide

Canada
Markham, Ontario
Midland, Ontario
Willowdale, Ontario
France
Toulouse
West Germany
Wiesbaden
Great Britain
East Kilbride, Scotland
Stotfold, England
Hong Kong
Kowloon
Israel
Tel-Aviv
Italy
Rome
Korea
Seoul
Mexico
Guadalajara, Jalisco
Mexico , D.F.
Nogales, Sonora
Puerto Rico
Vega Baja
Switzerland
Geneva
Taiwan
Taipei
United States
Chicago, World Headquarters
Franklin Park, Illinois
Pontiac, Illinois
Quincy, Illinois
Schaumburg, Illinois
Webb City, Missouri
Mesa, Arizona
Phoenix, Arizona
Tempe, Arizona
Scottsdale, Arizona
Fort Lauderdale, Florida
Arcade, New York
Seguin, Texas
Motorola Executive Institute
Oracle, Arizona

Major Product Lines

Communications Division
Mobile and portable FM two-way radio communications systems
Radio paging systems
Communications control centers
Visual communications systems
Signaling and remote control systems
Car telephone systems
Microwave communications systems
Health care communications systems
Precision instruments
Component products
Semiconductor Products Division
Integrated circuits (Bipolar and MOS)
Linear integrated circuits
MSI/LSI integrated circuits (Bipolar and MOS)
Silicon and germanium power and small signal transistors
Silicon rectifiers and "Annular" transistors
Field effect transistors
RF small signal and power transistors
Thyristors and varactors
Zener and tuning diodes
Functional circuits
Optoelectronics
Consumer Products Division
Quasar color television
Monochrome television
Console and component audio products
Visual display monitors
Government Electronics Division
Aerospace communications systems
Tactical radio and microwave communications systems
Radar systems, data links, and display systems
Range positioning and navigation systems
ASW tracking systems
Instrumentation products
Countermeasures systems
Missile guidance and drone systems
Electronic ordnance devices
Automotive Products Division
Car radios
Stereo tape players
Alternator charging systems
Solid state ignition systems
Electronic instrumentation
New Ventures Activity and Other Businesses
Training and educational films
Point-of-sale electronic systems
Hotel/motel electronic management, communications and entertainment systems
Timepiece electronics

Consolidated Balance Sheet

as of December 31, Motorola, Inc. and Subsidiaries

Assets	**1972**	**1971**
Current Assets	(Thousands of dollars)	
Cash	$20,040	19,068
Short-term investments, at cost (approximating market)	30,092	4,230
Accounts receivable	254,387	209,393
Allowance for doubtful accounts	(6,843)	(5,945)
Costs recoverable under United States government contracts, less progress billings	8,766	6,983
Inventories, at the lower of cost (first-in, first-out) or market		
Finished goods	59,520	57,512
Work in process and production materials	157,913	122,803
Future income tax benefits	23,817	19,822
Other current assets	16,626	17,087
Total Current Assets	564,318	450,953
Plant and Equipment, at Cost		
Land	12,481	12,750
Buildings	152,784	146,478
Machinery and equipment	179,175	150,192
Accumulated depreciation	(143,460)	(125,201)
Net Plant And Equipment	200,980	184,219
Sundry assets, net	10,206	11,569
	$775,504	646,741

See accompanying notes to consolidated financial statements

as of December 31, Motorola, Inc. and Subsidiaries

Liabilities and Shareholders' Equity	**1972**	**1971**
Current Liabilities	(Thousands of dollars)	
Notes payable – banks and other		
United States and Canada	$31,376	24,950
Other nations	19,473	18,852
Current maturities of long-term debt (note 3)	3,026	3,273
Accounts payable	87,262	67,328
Accrued compensation	26,019	17,710
United States, Canada and other nations' income taxes (note 4)	12,593	10,883
Other (including withheld) taxes	12,272	12,023
Contribution to employes' profit sharing funds (note 7)	13,897	8,577
Product and service warranties	14,070	9,755
Accrued expenses and other	32,743	30,024
Total Current Liabilities	252,731	203,375
Long-Term Debt (note 3)	80,302	63,780
Minority Interest in Majority-Owned Subsidiaries	2,860	3,689
Shareholders' Equity (note 9)		
Capital stock, $3.00 par value (notes 3 and 5) Authorized: 20,000,000 shares Outstanding: 1972, 13,785,488 shares; 1971, 13,480,798 shares	41,356	40,442
Additional paid-in capital (notes 3 and 5)	114,645	95,349
Retained earnings (notes 2 and 3)	283,610	240,106
Total Shareholders' Equity	439,611	375,897
	$775,504	646,741

Consolidated Earnings and Retained Earnings

Years ended December 31, Motorola, Inc. and Subsidiaries	**1972**	**1971**
	(Thousands of dollars, except per share figures)	
Sales and other revenues	$1,163,315	926,593
Manufacturing and other costs of sales	808,286	632,313
Selling, service and administrative expense (notes 6 and 7)	222,888	196,993
Depreciation of plant and equipment	30,529	27,239
Interest and amortization of debenture discount, expense and premium, net	10,417	7,714
Minority interest in net earnings (losses) of majority-owned subsidiaries	(1,267)	279
Total Costs and Other Expenses	1,070,853	864,538
Income before United States, Canada and other nations' income taxes	92,462	62,055
United States, Canada and other nations' income taxes, net of investment credit of $1,922,000 in 1972, $554,000 in 1971 (note 4)	40,424	30,305
Net earnings	52,038	31,750
Retained earnings at beginning of year	240,106	216,414
Less cash dividends declared (per share: 1972, $.624; 1971, $.60) (note 9)	8,534	8,058
Retained earnings at end of year (notes 2, 3 and 9)	$283,610	240,106
Earnings per weighted average share outstanding during the year (note 9)	$3.81	2.37

See accompanying notes to consolidated financial statements

Consolidated Changes in Financial Position

Years ended December 31, Motorola, Inc. and Subsidiaries	**1972**	**1971**
	(Thousands of dollars)	
Working Capital Provided		
Net earnings	$52,038	31,750
Add expenses not requiring outlay of working capital:		
Depreciation	30,529	27,239
Amortization of deferred debenture discount, expense and premium, net	555	632
Minority interest in net earnings (losses) of majority-owned subsidiaries	(1,267)	279
Working capital provided from operations	81,855	59,900
Disposals of plant and equipment (and tooling, net)	3,971	722
Decrease in sundry assets (exclusive of amortization of deferred debenture discount, expense and premium)	808	1,292
Increase in long-term debt	29,334	4,914
Increase in minority interest in majority-owned subsidiaries (exclusive of current year's net earnings)	438	2,704
Proceeds from issuance of capital stock	20,210	8,120
Total working capital provided	136,616	77,652
Working Capital Used		
Additions to plant and equipment (includes net balances of subsidiaries acquired: 1972 – $1,126,000; 1971 – $5,673,000)	49,134	37,650
Equipment rented to others, at cost	2,127	—
Reduction of long-term debt	12,812	6,482
Cash dividends	8,534	8,058
Total working capital used	72,607	52,190
Increase in working capital	$64,009	25,462
Increase (Decrease) in Components of Working Capital		
Cash	$ 972	(2,155)
Short-term investments	25,862	(1,840)
Accounts receivable, net	44,096	35,318
Cost recoverable under United States Government contracts, less progress billings	1,783	1,287
Inventories	37,118	34,051
Future income tax benefits	3,995	1,174
Other current assets	(461)	1,589
Total current assets	113,365	69,424
Notes payable	7,047	34,160
Current maturities of long-term debt	(247)	(20,588)
Accounts payable	19,934	11,582
Accrued compensation	8,309	3,309
United States, Canada and other nations' income taxes	1,710	1,776
Other (including withheld) taxes	249	1,502
Contribution to employes' profit sharing funds	5,320	2,079
Product and service warranties	4,315	3,053
Accrued expenses and other	2,719	7,089
Total current liabilities	49,356	43,962
Increase in working capital	$64,009	25,462

See accompanying notes to consolidated financial statements

Consolidated Additional Paid-in Capital

Years ended December 31, Motorola, Inc. and Subsidiaries	**1972**	**1971**
	(Thousands of dollars)	
Balance at beginning of year	$95,349	87,643
Share option plans (notes 5 and 9)	12,848	6,017
Conversion of 4½% convertible guaranteed debentures, (principal amount: 1972, $8,786,000; 1971, $2,366,000) (notes 3 and 9)	6,448	1,689
Balance at end of year	$114,645	95,349

See accompanying notes to consolidated financial statements

Notes to Consolidated Financial Statements

1 Accounting policies. Following is a summary of significant accounting policies followed in the preparation of these consolidated financial statements which policies are in accordance with generally accepted accounting principles.

Consolidation. The consolidated financial statements include the accounts of the company and all majority-owned subsidiaries. Commencing in 1972, certain other investments (20% to 50% owned affiliates) previously carried at cost were adjusted (not materially) to recognize earnings since acquisition, less dividends received. Other investments are carried at cost unless a permanent decline in value is deemed to have occurred. All significant intercompany accounts and transactions have been eliminated in consolidation.

International. The accounts of the company's operations outside the United States have been translated as follows: plant and equipment at currency exchange rates prevailing when acquired; other assets and liabilities at year-end rates; operating accounts at rates prevailing during the year except depreciation charges which are translated at the historic rates of the related assets. The net currency translation loss for the year of $56,000 (1971 recognized a gain of $879,000) was charged to deferred exchange gains provided in prior years.

The company's equity in undistributed earnings of the non-U.S. subsidiaries and affiliates included in consolidated retained earnings at December 31, 1972 amounted to $14,750,000 ($7,670,000 in 1971). Certain of these earnings may be taxable in the United States upon distribution; however, it is intended that these earnings be permanently invested in operations outside the United States and accordingly, no provision has been made for United States taxes.

Inventories. Inventories are valued at the lower of cost (first-in, first-out) or market. Market value of work in process and production materials is represented by replacement cost and for finished goods by net realizable value.

Income tax. Future income tax benefits relate to current charges against income which will be deductible for tax purposes in the future.

Plant and equipment. Plant and equipment is stated at cost. The related cost and accumulated depreciation on property sold, retired or fully depreciated are cleared from the accounts with the net difference, less any amount realized from disposals, reflected in current operations. Depreciation is provided on the basis of the estimated useful lives generally by the declining balance method for items acquired subsequent to December 31, 1953, and by the straight-line method for items acquired prior to that date.

Debenture discount, expense and premium. Deferred debenture discount,

expense and premium are included in sundry assets at unamortized cost. Amortization is being charged to interest expense over the terms of the debentures by the straight-line method.

Share options. When share options are exercised, the proceeds received are credited to the capital stock account to the extent of the par value of shares issued, and the excess is credited to additional paid-in capital. The tax benefit the company receives from disqualifying dispositions by optionees of exercised qualified stock options is credited to additional paid-in capital.

Research and development. R&D expenditures are charged to operations as incurred.

Advertising and sales promotion. The costs of advertising and promotional programs are charged to operations during the year generally in relation to sales, and are fully expensed by the end of the year. Anticipated future promotional costs on current sales are also charged against operations in the current year.

Product and service warranties. Anticipated costs related to product and service warranties are recorded at the time of the sale of the products.

2 At December 31, 1972 and 1971 net assets of consolidated operations outside the United States and Canada aggregated $78,500,000 and $49,900,000 respectively.

Export sales of U.S. companies, and sales and other revenues of operations outside the United States and Canada were 14% and 13%, respectively, of 1972 and 1971 consolidated amounts.

3 Long-term debt at December 31 consisted of the following:

	1972	1971
	(Thousands of dollars)	
Debt outside the United States and Canada:		
4½% convertible guaranteed debentures due July 1, 1983	$18,848	$27,634
8% guaranteed sinking fund debentures due March 1, 1987	25,000	—
Notes payable (generally at prevailing prime rates) due in installments to 1981	10,224	9,419
Debt in the United States:		
4¾% debentures due April 1, 1986 (excluding $1,000,000 debentures held by the company for sinking fund payment)	26,000	27,000
3¾% and 4⅜% notes due in annual installments to 1976	2,000	3,000
Notes payable (generally at prevailing prime rates) due in installments to 1977	1,256	—
	$83,328	$67,053
Less current maturities, included in current liabilities	3,026	3,273
Net long-term debt	$80,302	$63,780

The 4½% convertible guaranteed debentures (issued by Motorola International Development Corporation) are convertible into capital stock of Motorola, Inc. at the rate of 12.6 shares for each $1,000 principal amount, subject to adjustment in certain events, and are guaranteed as to the payment of principal and interest by Motorola, Inc. The debentures are redeemable at various dates at redemption prices reducing from 104% to 100% of the principal amount thereof. In 1972, $8,786,000 in debentures ($2,366,000 in 1971) were converted into 110,693 shares (29,807 in 1971). At December 31, 1972, there were 237,500 shares (348,193 in 1971) of Motorola, Inc. capital stock reserved for issuance upon the conversion of these debentures.

The 8% guaranteed sinking fund debentures (issued by Motorola International Capital Corporation) are redeemable at various dates beginning after March 1, 1977, at redemption prices reducing from 102% to 100% of the principal amount thereof. Annual sinking fund payments are required beginning March 1, 1977 in progressive amounts sufficient to retire 76% of the issue prior to maturity. The issue is guaranteed as to payment of principal and interest by Motorola, Inc.

At December 31, 1972, $165,000,000 (1971 – $137,000,000) of retained earnings were not restricted by loan agreements as to dividend payments.

See note 9.

4 The provision for taxes on income includes $39,503,000 United States and Canada and $921,000 in other nations. The effective tax rate for 1972 reflects tax benefits principally arising from United States investment credit accounted for on the flow through method; and tax holidays and tax loss carryovers which offset 1972 earnings in other than the United States or Canada.

5 Under the company's Employe Share Option Plans, shares of capital stock have been made available for qualified or non-qualified option to employes of the company and certain subsidiaries. Options may be granted at not less than fair market value on the dates of grant, and become exercisable one year from date of grant. Qualified options expire at the end of five years and non-qualified options expire at the end of ten years. Data on share options are summarized as follows:

	1972	1971
Options Outstanding Beginning of Year	514,845	508,170
Options Granted	164,570	124,900
	679,415	633,070
Less:		
Options Exercised	193,997	108,325
Options Terminated	3,500	9,900
	197,497	118,225
Options Outstanding End of Year	481,918	514,845
Shares Reserved for Possible Future Options	424,790	585,860
Total Shares Reserved	906,708	1,100,705
Aggregate Option Price of Outstanding Options	$42,753,000	$32,820,000
Aggregate Option Price of Exercisable Options	$21,804,000	$22,148,000
Excess of the Option Price Over the Par Value of Shares Issued	$10,201,000	$ 5,429,000
Tax Benefit Resulting from Disqualifying Dispositions by Optionees	$ 2,647,000	$ 588,000

See note 9.

6 An Executive Incentive Plan provides that the company and certain subsidiaries may reserve up to 4% of their annual consolidated pre-tax earnings (as defined) for the payment of cash incentive awards. Such awards are payable, except for awards of $1,000 or less, generally in equal annual installments over a period of five years and are generally subject to the recipients' continued employment. Reserves of $2,642,000 and $1,614,000 representing 4% of defined earnings were provided in 1972 and 1971 respectively for such awards. Awards of $1,632,000 were made in 1972 ($1,284,000 in 1971), and $3,846,000 (subject to Pay Board limitations under the Economic Stabilization Act of 1970) was available for awards at December 31, 1972 ($2,836,000 in 1971).

7 The company and certain subsidiaries have contributory profit sharing plans in which all eligible employes participate. The companies' contributions to profit sharing funds in the United States, Canada and other nations, based upon percentages of pre-tax earnings, were $13,897,000 in 1972 and $8,577,000 in 1971.

The company and certain subsidiaries have a voluntary, contributory pension plan. The company's policy is to fund pension costs accrued, 1972, $2,416,000; 1971, $2,578,000. At December 31, 1971, date of the latest actuarial determination, vested benefits were fully funded. In the event that the amount actually payable annually under the plan does not amount to 40% or more of an officer's rate of salary at retirement, it is the intention of the company (subject to certain qualifications and conditions) to make supplementary payments so that the total annual payments will aggregate at least 40% (or 30% in the case of payments to widows) of the officer's rate of salary at retirement. The company is providing a reserve for the supplementary payments on a current basis.

8 The companies are obligated under repurchase and other agreements principally in connection with the financing of sales of products to consumers, and

are defendants in suits and claims, which management believes will have no material effect on the business of the companies.

9 On February 28, 1973 the Board of Directors, subject to shareholders' approval, proposed an amendment to the Articles of Incorporation to increase the authorized shares of the company from 20,000,000 shares to 40,000,000 shares. If approved, the Board intends to authorize a share for share distribution in May 1973.

References to the number of shares in notes 3 and 5 are based on shares authorized and outstanding at December 31, 1972.

Accountants' Report

The Board of Directors and Shareholders of Motorola, Inc.:

We have examined the consolidated balance sheet of Motorola, Inc. and subsidiaries as of December 31, 1972 and 1971 and the related statements of earnings and retained earnings, additional paid-in capital and changes in financial position for the years then ended. 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 aforementioned financial statements present fairly the financial position of Motorola, Inc. and subsidiaries at December 31, 1972 and 1971 and the results of their operations and changes in financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Peat, Marwick, Mitchell & Co.

Chicago, Illinois
February 14, 1973,
except for Note 9 as to which the date is February 28, 1973

Ten Year Financial Summary

Motorola, Inc. and Subsidiaries

	Sales and Other Revenues	Income before United States, Canada and Other Nations' Income Taxes	Net Earnings	Earnings Per Share*	Working Capital	Net Invest-ment in Plant & Equipment	Share-holders' Equity
1972	$1,163,315	$92,462	$52,038	$3.81	$311,587	$200,980	$439,611
1971	926,593	62,055	31,750	2.37	247,579	184,219	375,897
1970	796,418	51,813	25,663	1.93	222,117	174,530	344,085
1969	873,224	71,843	33,793	2.74	235,593	167,500	326,134
1968	775,124	57,376	28,261	2.30	176,414	145,582	238,778
1967	629,975	34,571	18,816	1.54	131,358	136,963	206,286
1966	682,375	60,013	32,953	2.70	128,159	127,219	192,598
1965	516,973	57,839	31,839	2.62	118,015	81,083	165,002
1964	419,067	38,927	20,667	1.71	107,626	67,837	137,533
1963	377,853	27,127	12,927	1.07	92,359	67,284	120,735

Thousands of dollars, except per share figures

*Earnings per share are based on the weighted average shares outstanding during the respective years, adjusted for share distributions.

The conversion of 4½% debentures and the exercise of outstanding share options would not result in a significant dilution of earnings per share.

Earnings per share shown above do not include 11¢ of non-recurring charge from discontinuance of color TV picture tube manufacturing operation in 1970.

MOTOROLA

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