KOPPERS

1981 Annual Report and Form 10-K

Inside, some words about:

- a difficult year for Koppers and the economy.
- continuing strength in cash flow.
- reduction of debt and maintenance of dividend as we kept our financial condition strong.
- scalebacks, divestitures and other management measures—including effective marketing strategies—to improve our competitive position.
- a precise strategy to upgrade our technological base as we aim for new and expanded markets.

Koppers Company, Inc./1981 at a Glance

($ Millions, except per share figures)	1981	1980
Total sales	$2,018.6	$1,929.2
Net income	$ 51.6	$ 54.0
Earnings per share of common stock	$ 1.58	$ 1.98
Cash flow	$ 132.1	$ 134.6
Dividends per share of common stock	$ 1.40	$ 1.40
Return on average common equity	7.2%	9.0%
Capital investment	$ 182.1	$ 230.9
Backlog at year end	$ 518.0	$ 526.0

The Koppers Mission

Our mission is to employ corporate assets—people, facilities, technology and funds—in order to achieve a balanced combination of Company growth, financial stability, return to investors and opportunity for employees. In doing so, we must satisfy our basic function of meeting the needs of society.

The Koppers performance objectives, listed here, set down once more the specific long-term goals we have set as we carry out our mission:

- **Average annual net income growth greater than that achieved in the 1970s.**
- **Cash-flow growth at a rate at least equal to that of net income.**
- **Generation of net income sufficient to pay approximately 25% of cash flow as dividends to common shareholders.**
- **Limitation of debt to near 35% of total capitalization.**
- **Concentration of capital funds in areas where the Company's various capabilities will make it the low-cost producer and the potential leader in each of the market segments it serves.**
- **A major upgrading of the Company's scientific and technological strengths, with commitments to internal and external research and development.**
- **Capital investments in high-technology ventures, emerging research-based activities and other areas whose payoff potentials greatly outweigh the risks involved.**
- **Concomitant with these new directions, unremitting attention to the management strategies needed to keep the Company's core businesses healthy and growing.**
- **Timely and aggressive divestiture of assets that no longer fit into Koppers long-range strategic plans.**
- **Above all, dedication to our role as the outstanding performer in our various industries, with a solid reputation for quality and value.**

Inside This 1981 Annual Report

The Company's Business
Discussion of the Company's business is presented in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Description of Koppers Business." In brief, Koppers is a diversified manufacturing corporation with specialized engineering and construction capabilities. Headquartered in Pittsburgh, Pennsylvania, it has 293 operating locations and makes more than 100 types of products.

Annual Meeting
The annual meeting of the shareholders of the Company will be held at 11 a.m. on Monday, April 26, 1982 in the Pittsburgh Room of The William Penn Hotel, Pittsburgh, Pennsylvania.

To Our Shareholders:

By no means could 1981 be considered a good year for the U.S. economy—or for Koppers. On the other hand, the Company's performance was better than might be indicated by the cold figures that showed a decline in earnings per share.

There was no impairment of our capacity for growth, no slackening of our prospects as we accepted short-term penalties to earnings in exchange for planned actions to further Koppers growth potential in the years ahead. Cash flow remained strong enough that dividends paid to our shareholders stayed well within the boundaries of prudent management.

Those in charge of our operations exerted firm control of the Company's businesses as market conditions worsened, participating in what one observer called "a productive exercise in the management of adversity."

The Company's accomplishments in 1981 should be measured in the context of the environment in which they took place.

The American economy suffered unmistakable recession for the second consecutive year. Inflation, although abating in degree, remained sweeping in extent. Industrial production fell throughout the year. High interest rates began to hurt some sectors of the economy that had previously shown strength. These high rates also continued to depress activity in the three major end markets—construction, automotive equipment and capital spending—that account for three-fourths of Koppers sales.

Little of this was new. Many of the economic circumstances that confronted us were in motion before the year began. Nevertheless, the close of 1981 brought confirmation that much had been achieved in combating the effect of lower business levels and in further strengthening Koppers financial and operational capabilities.

- Cash flow remained high, and the Company's financial position was—and is—good.
- We reduced our debt, and interest expense was on the decline in the second half of the year.
- We aggressively pursued a comprehensive growth plan encompassing three kinds of activity: formulation of appropriate business strategies; divestiture of certain operations; and investment in new products, processes and technologies. There was progress in each area in 1981.

These and other measures brought us to the end of 1981 showing gains in a number of areas over the year before. Although Koppers profit at the operating level was slightly improved, this was not reflected in earnings, which declined by $.40 per share from 1980.

Unusual expenses, mostly from discontinued businesses, more than offset the contribution to earnings from unusual income, which included the large capital gain realized on the sale of our Canadian lumber business. This operation could no longer satisfy the Company's long-term growth objectives under the nationalistic trends that inhibit growth of foreign-owned businesses in Canada.

Earnings were further penalized by expenses associated with the development of synthetic fuel projects. Income tax credits were lower than in 1980. On balance, $.24 per share of the $.40 per share difference between the two years was accounted for by these two factors and the unusual items. Most of the expenses were incurred with an eye to benefiting future earnings growth. Similar expenses incurred in 1980 led to some initial benefits in 1981. These factors are discussed in more detail in the Chief Financial Officer's letter on page 19.

1981 Operating Performance

In a company as diversified as Koppers, annual results represent the sum of activities along a number of fronts.

Weak demand in major end markets, as well as nonrecurring expenses due mostly to write-offs for discontinued operations, produced a significant decline in Organic Materials operating income. Road Materials maintained a high level of income through strong operating margins and profits from overseas construction projects. Added to higher income in Forest Products wood-treating businesses was the gain realized on the sale of the Company's Canadian lumber business. Improved operating performances throughout Engineered Metal Products launched its expected turnaround, and a strengthening in new orders raised the year-end backlog. The loss in Engineering and Construction reflected the continued low level of capital spending by the steel industry.

Charles R. Pullin, Fletcher L. Byrom

Management Actions

We began this message with a reference to "the management of adversity." That phrase does not mean to imply a policy of retrenchment or a shift in long-term strategy. Rather, it describes the measures we instituted in order to keep the enterprise strong until business demand returns to a reasonable level of activity in the areas that most affect us.

We discontinued certain businesses because they did not meet our growth expectations, and we scaled back a number of others in order to bring them into line with market activities.

We set out at midyear to lower our capital expenditures, which had been planned for $200 million. The total figure for the year was approximately $147 million, excluding the nearly $35 million invested in Richmond Tank Car Company. This should be viewed against the fact that such expenditures had been at historically high levels in the five previous years—a total of almost $750 million for the period.

We also conserved cash also by holding down inventories and receivables. This was an important factor in our ability to reduce total debt and cut interest expenses over the second half of the year.

Other management actions were directed toward strengthening our competitive positions so that there can be some progress in our operating and earnings performance even while the current business weakness persists.

A number of these actions are discussed on page 19. Their full benefit has not yet been felt, and additional plans to streamline costs and operations are being carried out. We do believe we are in control of the direction of our operating performance and that this will be demonstrated through 1982 and beyond.

Where We Stand Today

Koppers ended 1981 in excellent corporate health.

Our financial condition remains strong. We maintained a high level of cash flow, $132.1 million in 1981 versus $134.6 million in the prior year. This permitted us to reduce debt and to maintain the common dividend.

Our manufacturing base is the most modern in our history, thanks to a five-year program of continually upgrading plants and equipment. Not only has this strengthened our ability to compete within the current climate of reduced demand, but any upswing in the economy will find us exceptionally well prepared to meet new demands.

A comprehensive strategic growth plan set into motion in 1981 has given Koppers firm direction for the future. For the short range, our goal is to advance the Company's return on common shareholders' equity toward our target of 18% as rapidly as possible. For the longer term, our goals are twofold:

- To grow in the 1980s even more than we did in the 1970s.
- To upgrade our technological base. Measures taken to achieve this objective are discussed in the section that follows.

Behind Koppers approximately $1 billion in fixed investment stand specific business strategies. Of that total:

- We have 28% in businesses that offer opportunities for rapid, sizable growth.
- We have 54% in businesses that we will manage for profit—solid, thriving businesses in which we will invest additional funds to maintain market shares and reduce costs.
- We have 18% in businesses targeted for correction—those in which we are not meeting our returns or that no longer fit into our long-range strategic plans. These will be turned around or disposed of by mid-1983.

The Outlook

In our 1980 annual report, we cited certain indicators that pointed to "a potential recurrence of recession in 1981," saying:

"As of now, there are no signs of improvement in many of the areas that depressed Koppers 1980 performance, and it is not realistic to expect significant changes quickly."

We are currently caught up in that recession whose recurrence we foresaw. Combined with the severe winter weather experienced in the opening weeks of 1982, this is likely to result in a first-half performance even lower than in 1981. If our spirits seem somewhat brighter at this writing, it is in some measure due to the lessons we have learned and the actions we have carried out over the past 12 months.

We take heart, too, from certain developments discussed in the section that follows: new national policies to move us away from the consumption bias that has damaged our economy—tax legislation beneficial to industries important to Koppers—and above all, mounting acknowledgment of the need to rebuild the nation's infrastructure, with which Koppers activities are so intertwined.

On the last point, we need only remark that the alternative to such rebuilding—an uninterrupted downhill slide—is unthinkable. Nevertheless, we must temper our optimism with the realization that federal fiscal policies are currently stimulative and therefore in possible conflict with the more conservative monetary policies now in effect. This could lead to further escalation of high interest rates, slowing those recovery trends that would be favorable to the economy in general and to Koppers in particular.

Meanwhile, recognizing that we must operate with the "givens" available to us, we do not propose to mark time until external conditions provide a more congenial environment for our activities. Rather, we will continue to exert every effort to strengthen this enterprise, especially under the currently depressed state of the economy. In making that pledge, we wish to express our gratitude for the indispensable support of our employee associates and shareholders.

We do not expect that these pages 12 months from now will bring news of a dramatic change in our fortunes. What we do expect is that we will be able to report further progress in coping with difficulty and in preparing for opportunity. In the final analysis, we are determined to prove that we are equipped to manage long-term prosperity as well as temporary adversity.

F. L. Byrom

Fletcher L. Byrom
Chairman of the Board

C R Pullin

Charles R. Pullin
Vice Chairman of the Board

February 22, 1982

Koppers Future: A Long and Winding Highway

If we are to talk about where Koppers is going, it does not serve our purpose to think of the road ahead as a straight line to a predictable horizon. What we have, rather, is likely to be a long and winding highway along which we will find a number of branches as we proceed.

Some of those branches, inevitably, may lead us into unrewarding areas, with little gained for us but the lessons of exploration.

Some will lead to areas rich and profitable.

Meanwhile, our corporate horizon—like all horizons—will constantly change shape as we move toward it, drawing us on with its promise of new and growing opportunities.

It may be useful, before we embark upon our highway to the future, to examine where we have been.

In the mid-1960s, we launched a new capital investment strategy that was to shape the Company as we know it today. Its purpose was to establish a solid base for diversity in manufacturing businesses.

In the decade of the 1970s, Koppers not only withstood the shocks of four recessions, but grew and prospered.

- Our sales quadrupled, rising at an average rate of 13% per year.
- Our net income grew at an average annual rate of 17%.
- Our growth rate for the important measurement known as cash flow averaged 15% per year.

Now the nation is bogged down in still another recession, which began in mid-1981, barely half a year after the conclusion of the preceding slump.

Both of these latest recessions, triggered and sustained by high interest rates, have displayed a difference most important to Koppers: a *simultaneous* drop, severe and prolonged, in the three markets—construction, automotive and capital equipment—that account for more than 75% of our current sales. That had not happened in previous recessions.

- Office buildings aside, nonresidential construction has been weak since early in 1980, while the number of housing starts, after a four-year decline, is at its lowest point in 35 years.
- The automotive industry, which had fallen to a 20-year low in 1980, sank to that level again in 1981.
- Capital spending, when the figures for the automotive and petroleum industries were subtracted from the overall total, continued to show the weakness that had begun early in 1980.

Just when the economy may turn up again is not certain. What is certain is that—in an era otherwise characterized by widespread disagreement on methods and objectives—one national goal has aroused enthusiastic support: the "reindustrialization of America." There is near-unanimous acceptance of the need to rebuild the country's commercial and industrial infrastructure.

This is the goal toward which, conscious of its mission in a free society, Koppers has equipped itself to make a major contribution.

Underlying the new consensus is recognition of the damage that has been done by a persistent consumption bias in past economic, fiscal, regulatory and social policies. That bias is now in the process of being set aside in favor of an emphasis upon restoration of productivity through greater investment, an area in which the U.S. has been falling behind its trading partners by far too much and for far too long.

We are particularly encouraged by certain trends in tax policy at the federal level. As for the new tax provisions that affect capital formation, we expect that their benefits will manifest themselves only gradually, but that the cumulative effect will be significant in the capital-intensive industries with which Koppers has its most important business relationships. Improved cash flow among companies in certain markets—construction, transportation, steel, paper, electric utilities and capital equipment—promise a healthy upsurge in demand for Koppers products and services.

This is not to suggest that we have pulled off the road, waiting for the economic "potholes" to be repaired in our long and winding highway.

Some of the measures we have taken to deal with our immediate problems are detailed in the message to shareholders and in other sections of this report.

A discussion of the measures we are pursuing in order to ensure Koppers vitality over the long term constitutes the bulk of the material that follows.

The businesses we have in place today, supported by the most modern and efficient physical plant in our history, will generate the largest share of our strength and growth for some years to come. Beyond that, we have made an uncompromising commitment to keep Koppers ahead of its competitors with a precise strategy to upgrade the Company's technological base. This involves . . .

An important part of the strategy involves a new Koppers Office of Science and Technology, created to work with existing units. Among the responsibilities assigned to it are a rejuvenation of the Company's existing technology and the removal of all barriers to the flow of ideas, knowledge and methodologies among the Company's many elements. This process encompasses the program under which we augment our internal resources by funding research projects at universities already working on problems related to our commercial interests.

Parallel with this activity has been a lively program under which we employ venture capital not only to widen our technological base, but to provide us with greater access to markets, some of which we have never entered before.

Genex Corporation, which gave us a significant presence in the world of genetic engineering and in which we have a sizable position, is concentrating its efforts on chemicals and pharmaceuticals. Genex has progressed to pilot plant production and recently sold the first commercial quantities of a chemical it has developed.

From that strong start, we have broadened our participation in this field through two recent investments.

- Engenics, Inc. concentrates on process development, whereby laboratory results are translated into larger-scale manufacture, an activity that seems likely to be the controlling factor in the time required to commercialize products developed through genetic engineering. Much of the funded research is being conducted at Stanford University and the University of California at Berkeley.
- DNAP puts us into agricultural applications as it works to develop hardier and more versatile plant varieties to help push a new "Green Revolution" for a world still short of food in many areas.

Two other investments have involved us in new and revolutionary applications for two of civilization's oldest materials.

- EOTec Corporation, in which we hold a substantial equity position, is active in fiber optic communications, sensors and specialty glass. Incorporated in 1979, it is now seeing a flow of repeat orders from its customers, a sign that it is perceived as technologically equal or superior to its competitors.
- Ceramatec, Inc. is situated in a market that has been estimated at billions of dollars annually in advanced ceramic technology for use in space, microelectronics, internal combustion engines, batteries and other applications.

Whatever the outcome of these and similar undertakings, it is obvious that Koppers has become an enterprise markedly different from what it was a relatively short time ago. Although most of our basic businesses remain firmly in place, recent developments have begun to change the fundamental character of the Company as they expand its range of competence even further.

. . . such factors as internal research and development, university-based high-technology research, venture capital investments, synthetic fuel projects and our operations in coal. With Koppers going through a fundamental change, we look forward to success as we step up our participation in such emerging fields as genetic engineering, fiber optics and advanced ceramic technology.

- Construction is well under way on two plants for the manufacture of our phenolic foam board and should be completed by mid-1982. This product offers superior insulating qualities, and fire-resistant capabilities. Designed initially for use in commercial buildings, it can be adapted for applications in the appliance, transportation, tank, pipe and residential construction markets.
- Our coal holdings, which now include 180,000 contiguous acres of land with more than 200 million tons of reserves, should make a growing contribution to our income through revenues derived from the leasing of mining rights.
- For a number of years, Koppers has actively participated in the development of what is now known as the KBW coal gasification process, a commercially proven technology basic to the conversion of coal into methanol and ultimately into premium gasoline. Recent developments have led to increasing recognition of the long-range advantages of methanol as a transportation fuel. Accordingly, Koppers interest in this emerging technology has evolved toward equity participation in projects to supply alternative fuels. We now have behind us most of the investment needed so far to pursue our interests in three synthetic fuels projects. Those three are among only 11 recently selected by the U.S. Synthetic Fuels Corporation for further consideration, with the decision on federal loan and price guarantees to be made by mid-1982. If approved and carried out, they would engage a wide assortment of Koppers activities in design, construction and the supply of raw and processed materials.
- Our 23% share of Richmond Tank Car Company enlarges our prospects in the railroad industry, with which we have had a mutually rewarding association for half a century. We expect a considerable increase in demand for tank and hopper cars when the economy approaches normalcy again a state that will serve to highlight the advantages inherent in Richmond's low-cost manufacturing position.

Other projects are at earlier stages of development, but no less exciting in their potential. These include the Koppers-funded high-technology university research projects, in which we would hold proprietary rights to technological breakthroughs.

The overall view down the highway is for the most part encouraging.

For some years to come, the largest share of our strength and growth will derive from the businesses we have in place today. These are supported by the most modern and efficient physical plant in our history. Over the past half-dozen years, we have directed $835 million to capital expenditures. This represents more than 70% of our depreciable asset base at the end of 1981.

And what of the years beyond? We take heart from a bit of recent history, which reflects the theme of this essay and which can be summed up in two short sentences:

- **In 1965, our road materials operations accounted for less than 5% of our sales.**
- **In 1981, our road materials operations accounted for 27% of our total sales plus more than 40% of our total operating income.**

We have presented a great mix of activities and potentialities in this discussion. Some of those, we feel sure, will make comparably important contributions to Koppers success in times to come.

Koppers Operating Results by Business Segments

($ Millions)		Sales	Operating Income	During 1981	Near-Term Outlook
Organic Materials	**81** 80	**$ 678.1** $ 577.2	**$ 29.2** $ 47.2	Unusual expenses, weak end markets caused income drop. Chemical unit sales declined 15%; capacity utilization was 52% versus 63% in 1980. Marginal chemical lines were discontinued. Efficiencies improved. Coke unit sales doubled. Roofing materials income fell. Binder pitch was strong in first half. Coatings, polyester resins income rose substantially. Creosote sales were strong.	**Major markets will remain depressed until recession, interest rates abate. As market cycles improve, income gains could be dramatic. Modern, efficient capacity exists to meet turnaround at any time. New phenolic foam roof insulation will become available in 1982. Coke operating costs should be lower. Absence of marginal businesses will benefit income.**
Road Materials	**81** 80	**$ 541.9** $ 531.7	**$ 57.9** $ 57.2	Improved prices, operating efficiencies offset weak U.S. construction markets. Overseas construction contributed significantly. Construction services constituted 37% of sales. Geographic expansions were completed in Colorado, Florida, Wyoming.	**States will continue to need new revenue sources for street, highway, bridge maintenance. Interest rate trend will determine recovery in housing, other construction. Growth is likely in general construction, worldwide markets. Changes in fuel taxes will create added revenues for roadbuilding.**
Forest Products	**81** 80	**$ 379.8** $ 380.9	**$ 42.9** $ 21.3	Sale of Canadian lumber business boosted income. Wood-treating business was at high level. Railroad crossties, wood-treating chemicals, transmission poles were strong, offsetting weaknesses in utility poles, piling, hardwood lumber. New energy conservation, other plant efficiencies were instituted.	**Crosstie sales should continue strong. Renovation, expansion markets should maintain upward pace in sales, volumes of treating chemicals. Construction demand for treated wood will depend on interest rate trends. Sales to utilities are expected to continue moderate increase.**
Engineered Metal Products	**81** 80	**$ 342.5** $ 358.1	**$ 12.7** $ (1.1)	Nearly all product lines improved. Piston rings and seals, power transmission couplings, materials processing equipment business showed major strengths. Environmental products operated at loss. Mineral processing equipment improved significantly. New orders were particularly strong in materials processing equipment, environmental lines.	**High backlog should aid 1982 results. New capacity is to be completed to meet upturn in diesel piston ring demands. Any increase in industry capital spending should have immediate, positive effect. New tax legislation should prove favorable to capital goods markets.**
Engineering and Construction	**81** 80	**$ 58.6** $ 64.6	**$ (7.5)** $ (.4)	Prolonged downturn in steel industry construction caused earnings loss. Potential increased for synthetic fuel plant construction using KBW Gasification Systems, with U.S. Synthetic Fuels Corporation considering loan, price guarantees for three projects. Capability was developed for electric furnace building, materials handling systems.	**Depressed 1981 backlog will keep construction volume at low level. Contract awards on steelmaking projects could come in 1982, but competition will intensify. A number of synfuels projects under review by U.S. Synfuels Corporation could reach approval stage.**
Miscellaneous	**81** 80	**$ 17.7** $ 16.7	**$ 6.9** $ 4.8	Coal operations increased income significantly. Interest, equity income from investments also contributed to earnings. Synthetic fuel project development costs penalized income.	**Koppers coal, other resource business should continue to grow. Synthetic fuels development costs are expected to be lower as projects reach final negotiation stages.**
Total	**81** 80	**$2,018.6** $1,929.2	**$142.1** $129.0		
	81 80		**$ 22.5** $ 24.1	**General Corporate Overhead**	
	81 80		**$119.6** $104.9	**Income Before Interest Expense and Income Taxes**	

Koppers Sales by Major End Markets

($ Millions)		Sales	% Total	During 1981	Near-Term Outlook
Engineered Construction	**81** 80	**$ 540.5** $ 516.3	**26.8** 26.8	Highway spending was strong early in year, but weakened. Other nonbuilding construction declined 7%. Sewer, water projects declined. Price improvements, geographic expansions aided sales.	**New highway spending will remain weak with emphasis on maintenance. State, local projects will be curtailed by slower revenue growth, reduced federal grants. Bridge repair will grow.**
Architectural Construction	**81** 80	**$ 280.5** $ 269.2	**13.9** 14.0	High interest rates hurt new housing. Remodeling held even. Spending was up sharply for industrial plants, office buildings, declined for other building construction.	**Housing starts will rise slowly. Remodeling expenditures will stay about even. Nonresidential spending will weaken with high interest rates.**
Chemicals, Plastics and Rubber	**81** 80	**$ 218.7** $ 224.2	**10.8** 11.6	Low operating rates pressured prices, profits. Export sales were weak. Replacement-tire demand improved; new-car tire market weakened.	**Sluggish housing, auto, agriculture, export markets are expected. Prices, profits are not likely to keep pace with inflation. No gain is expected for total 1982 industry output.**
Iron and Steel	**81** 80	**$ 211.8** $ 161.2	**10.5** 8.4	After strong first half, steel demand fell. Imports increased. New accounts compensated for weak markets. Steel industry capital spending fell moderately. Foundry industry activity was weak.	**Steel output may not match 1981. Steel industry plans eventual major capital spending increase. Slow recovery will preclude strong foundry industry rebound.**
Transportation	**81** 80	**$ 189.7** $ 177.0	**9.4** 9.2	High interest rates depressed auto, truck sales. Imports leveled off. Heavy truck deliveries fell 14%. Railroads increased crosstie replacements.	**Tax cut, business recovery should lead to continued strength in railroad crosstie sales, moderate second-half gain in auto market. Heavy trucks will continue upward trend in diesels.**
Nonferrous Metals and Mining	**81** 80	**$ 125.2** $ 108.8	**6.2** 5.6	Aluminum, other metals output dropped as housing, auto markets continued low, overseas demand weakened. Aluminum operating rates were cut to 70%. Mining capital spending increased 15%.	**Excessive inventories may delay aluminum rebound. Containers, defense may hold up well. Gradual improvement in auto, housing markets, small gain in mining capital expenditures are expected.**
Lumber	**81** 80	**$ 109.9** $ 112.1	**5.4** 5.8	Softwood lumber fell slightly from low 1980 levels; hardwood was about even. Canadian softwood operations were sold in third quarter.	**Prospects for mild recovery in new housing starts depend on lower mortgage rates. Hardwood use for railroad crossties is expected to match or exceed 1981.**
Utilities: Electric, Gas, Telephone, Sewer, Water	**81** 80	**$ 102.0** $ 92.7	**5.1** 4.8	Electric utility capital spending increased. Power use increased. Pipeline construction reached high level. Sewer, water expenditures declined.	**Electric utility rate relief will improve business. Modest growth is expected. Domestic pipeline installations may slow; deregulation could spur new projects.**
Paper and Packaging	**81** 80	**$ 88.7** $ 89.4	**4.4** 4.6	Pulp, paper, paperboard output increased. Corrugated box shipments rose 2%-3%. Capital spending by pulp and paper industry declined.	**Pulp, paper, paperboard consumption will pick up in late 1982. Operating rates will slide. Capital expenditures will be limited to more efficient production equipment.**
Machinery	**81** 80	**$ 40.6** $ 43.8	**2.0** 2.3	Nonelectrical machinery output, capital spending by machinery industry each expanded 5%. Engine, farm equipment production dropped moderately.	**Machinery production will decline. Tax incentives will be offset by low operating rates, sluggish market outlook, high real interest rates.**
Agriculture, Food, Grain Processing	**81** 80	**$ 36.2** $ 42.8	**1.8** 2.2	Production of grain mill products held even. Capital spending by food and feed industry expanded 3%-4% after inflation adjustment.	**Moderate increase is expected for grain mill products. Food industry capital spending should improve.**
	81 80	**$ 74.8** $ 91.7	**3.7** 4.7	**All Other**	
	81 80	**$2,018.6** $1,929.2	**100.0** 100.0	**Total Sales**	

Shareholder Information

Market for Koppers Common Stock and Related Security Holder Information
Koppers common stock, $1.25 par value, is principally traded on the New York Stock Exchange and is listed also on the Midwest and Pacific stock exchanges. The tables below present its high and low market prices, and dividend information. Cash dividends have been paid on these shares every year since 1944.

Long-term debt agreements and the terms of Koppers cumulative preferred stock, $100 par value, 4% Series, and Koppers $10 convertible preference stock, no par value, include certain restrictive covenants. These, among other things, prohibit certain aggregate amounts of the Company's dividends and distributions on its stock from exceeding specified levels. The most restrictive provision, contained in a long-term debt agreement that matures in the year 2000, permitted $170,534,000 of consolidated earnings retained in the business to be available for cash dividends. This is substantially greater than the total dividends of $46,653,000 paid out by Koppers in 1981.

Cumulative Preferred Stock
The outstanding shares of cumulative preferred stock, $100 par value, 4% Series, may be redeemed at the option of the Company, as a whole or in part, at any time upon not less than 30 nor more than 60 days' notice, at $107.75 per share, together with accrued and unpaid dividends to the date fixed for redemption. Although the Company also has the right, with the approval of the Board of Directors, to repurchase cumulative preferred shares in the open market, it has no current plans to redeem or repurchase shares.

$10 Convertible Preference Stock
The outstanding shares of $10 convertible preference stock, no par value, may be converted into shares of common stock of the Company at any time, unless previously redeemed, at the conversion price of $28.75 per share, subject to adjustment in certain events. The preference stock is not redeemable prior to December 15, 1983 and, on and after such date, is redeemable on not less than 30 days' notice at the option of the Company at a price beginning at $107.00 per share and declining by $1 per share each year through 1990.

Equity Security Holders

Title of Class	Number of Shareholders of Record at March 8, 1982
Common Stock, $1.25 Par Value	18,910
Cumulative Preferred Stock, $100 Par Value	1,348
Convertible Preference Stock	373

Continuing Growth of Participation in Dividend Reinvestment Plans
Over 12% of Koppers shareowners participated in the Company's cost-free Dividend Reinvestment/Cash Payment Plan in 1981. The number of participants grew by more than 14% during the year, to more than 2,300. Participating shareholders invested nearly $660,000 to purchase more than 37,000 additional shares during 1981. These plans enable shareholders, on a cost-free basis, to:

- Elect to invest common and/or preferred dividends in shares of Koppers common stock; and/or
- Purchase additional Koppers common stock by making voluntary cash payments of $25 to $1,000 in any month.

Shareholders may obtain further information on these plans by writing to Mellon Bank N.A., Attention: Corporate Trust Division, Mellon Square, Pittsburgh, Pennsylvania 15230.

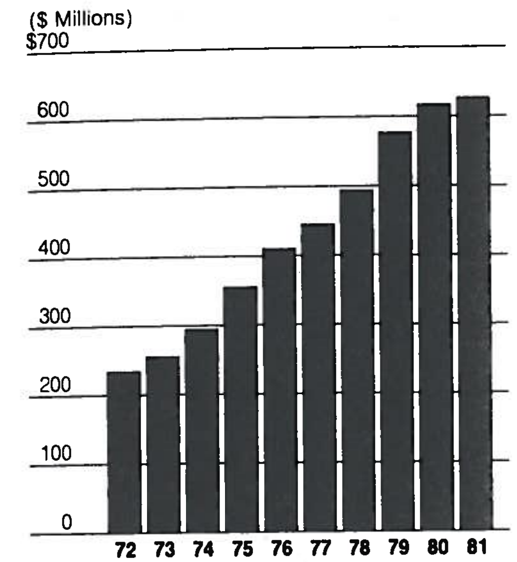
Koppers Common Stock Statistics

	1981	1980	1979	1978	1977
Common stock price ranges on NYSE/Composite:					
High	**$27⅞**	$35¼	$27⅝	$24⅝	$26⅜
Low	**16⅛**	19	17⅜	18¾	20
Close	**17**	25	27	20⅛	22¾
Volume traded (in thousands)	**8,781**	7,780	4,183	4,684	5,163
% of shares outstanding	**32%**	29%	16%	19%	21%

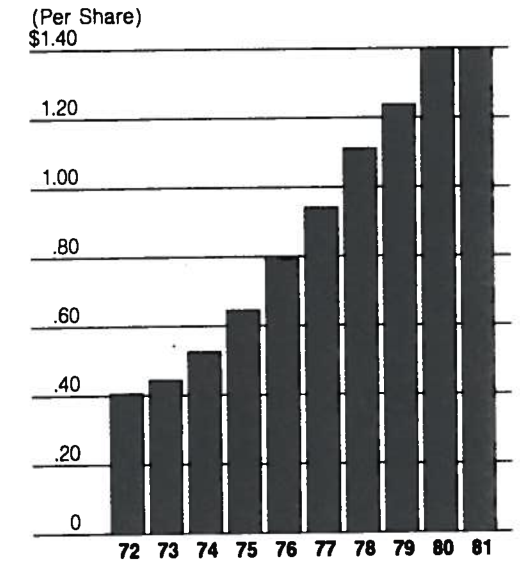
Quarterly Common Stock Price Ranges and Dividends

	1981			1980		
Quarter	**High**	**Low**	**Dividend**	High	Low	Dividend
1st	**$27⅞**	**$20¾**	**$.35**	$31¾	$23⅝	$.35
2nd	**27¼**	**22½**	**.35**	25½	19	.35
3rd	**24⅞**	**17¼**	**.35**	33½	23¼	.35
4th	**18¾**	**16⅛**	**.35**	35¼	23½	.35

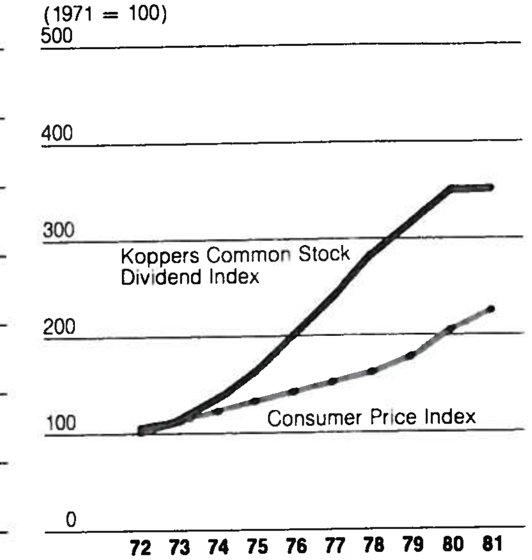
Common Shareholders' Equity



Annual Common Dividend Growth



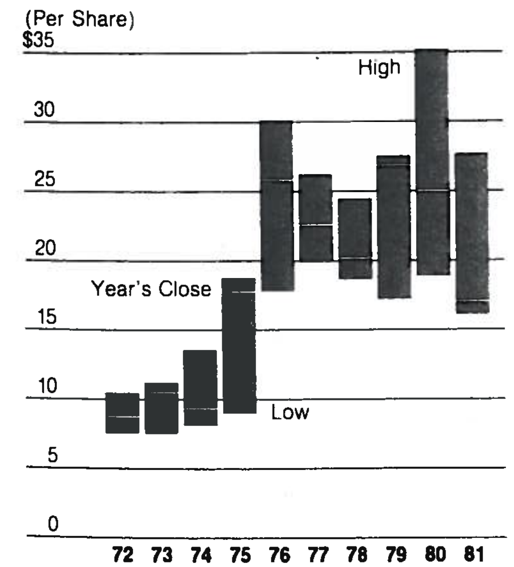
Dividends Outgrew Inflation



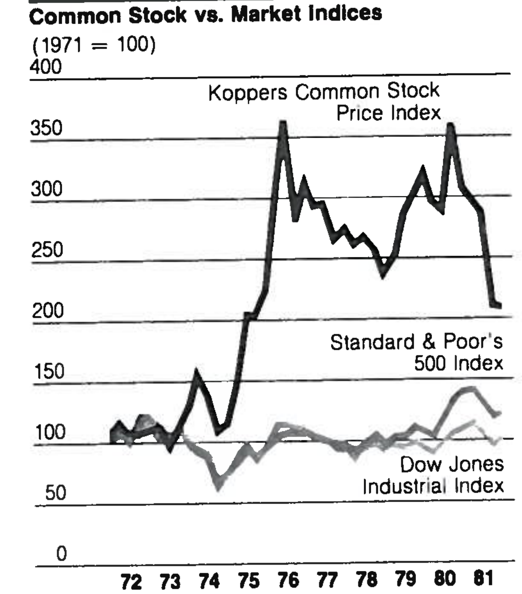
The Shareholders' Scorecard

This series of charts illustrates how owners of Koppers common stock have fared over the past 10 years. Value of the Company's common equity has substantially more than doubled. The dividend has been tripled and outgrew inflation by a wide margin. Price of the common stock fluctuated widely in recent years and, despite the 1981 decline, continues ahead of leading market indices. The total return (stock appreciation plus dividends reinvested) also has kept Koppers shareholders ahead of inflation. This chart shows that $1,000 invested in Koppers common stock at the start of 1972 would have grown to $3,064 at the close of 1981.

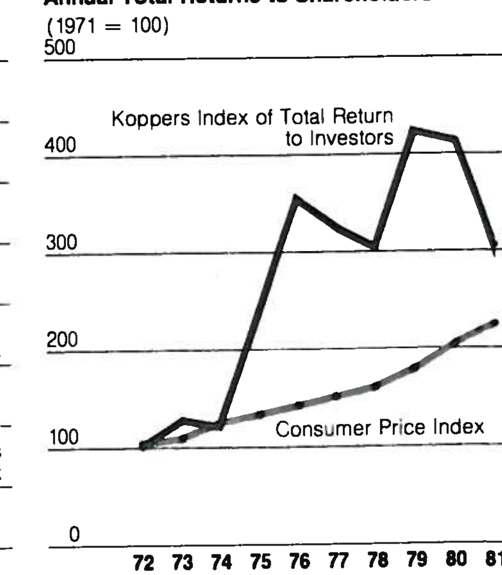
Common Stock Price Trend



Common Stock vs. Market Indices



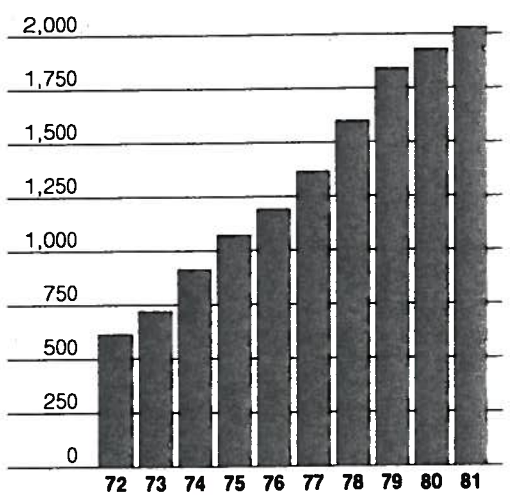
Annual Total Returns to Shareholders



Management's Discussion and Analysis of Financial Condition and Results of Operations

The discussion and analysis in this section cover, for the period 1979-1981, the performance of Koppers business segments, other factors in the income statement (page 25) that materially influenced the Company's financial results, and changes in liquidity and use of capital resources that had a meaningful effect on Koppers financial condition at the close of 1981.

Total Koppers Sales
($ Millions)



Results of Operations

Net Sales
Company sales increased moderately in each of the past three years, with most of the gain coming from the four largest operating groups. Product price increases in these business segments more than accounted for the overall sales growth in 1981 and 1980 as unit volumes were lower in numerous product lines. Higher prices accounted for nearly 50% of the sales gain in 1979. Acquisitions added less than 5% to Koppers sales in each of the three years.

Normally, Koppers sales are on an upward trend and reach a peak during the second and third quarters of any year, then begin to decline in the fourth quarter because of seasonal influences. The first quarter of a year is typically the lowest in sales volume. Usually, the Company's income also follows this pattern, which is shown in the Quarterly Financial Data below. In 1981, however, Koppers gross profit rose moderately during the year and reached the highest level in the fourth quarter. This was due to the effect of unusual income and expenses during the year, as well as management's efforts to reduce costs and to counter the unfavorable effects exerted by recession upon product sales volumes.

Following are discussions of the performance of each of Koppers operating groups.

Organic Materials

($ Millions)	1981	1980	1979
Sales	**$678.1**	$577.2	$556.6
Operating income	**$ 29.2**	$ 47.2	$ 55.6

In mid-1979, prior to the 1980 recession, a number of Organic Materials product lines began to feel the effect of weakening trends in the automotive, steel, housing and related industries. Through 1981 and 1980, conditions in these markets failed to improve. Demand for chemicals worsened in 1981, and the weakness spread to the group's roofing materials business; income in both businesses declined sharply. Improved performances in Organic Materials other product lines, traceable to aggressive efforts to reduce costs and to increase unit sales in the face of weakened markets, nearly offset this reduction. The overall decline in 1981 operating income was due largely to unusual expenses of $12.3 million that resulted from write-offs for discontinued operations and a write-down of an investment. This contrasted with nonrecurring income in 1980 of $3.5 million from recoveries on insurance claims.

Unit sales of chemicals fell by 15% in 1981, following a 19% decline in 1980. Capacity utilization at the Company's chemical plants sank to a 52% average in 1981, from 63% in the prior year and from 71% in 1979, which benefited from a strong second-half recovery in demand. Improved prices over the three years failed to offset high fixed costs, as well as increased costs of raw materials, energy and labor. Consequently, chemical results fell below break-even in 1981, with income substantially less than in the prior two years. Added to this loss were write-offs taken for discontinued operations in certain chemical businesses; this will reduce future operating expenses. Additional consolidations expected in chemical operations will increase the use of internally generated raw materials in the group's processing operations, thus further reducing operating costs.

Income from the roofing materials business fell after substantial increases in the prior two years. Sales of Koppers cold-applied roofing system, KMM, were flat in 1981 following two years of rapid growth. Activity in the nonresidential construction and reroofing markets began to decline noticeably near the close of 1980, and this trend continued during the recent year. Koppers has introduced a new roof insulation product that will be in full commercial production in mid-1982. This phenolic foam insulation board has thermal qualities and fire-resistant properties superior to those of competitively priced products. Initial market acceptance has been excellent.

Income in coke operations rose to near break-even after a significant loss in 1980, as unit sales almost doubled in 1981 after declines in the prior two years. Vigorous marketing programs significantly expanded the Company's customer base. A large coke inventory accumulated in 1980 was completely sold in 1981, and all coke facilities were put into operation during the second half, versus an earlier operating level of less than 50%. Although prices improved, they were not sufficient to offset higher coal, operating and start-up costs. The greatest volume increase was in blast furnace coke. Foundry coke sales also rose. Sales and income in specialty resins and other foundry products also improved in the face of a weak market in 1981, reversing the declines of prior years.

Steady demand growth for carbon binder pitch since 1979 began to falter in the second half of 1981 as production in the aluminum industry declined. Creosote sales continued to improve moderately as demand was strong for railroad crossties. Continued high unit sales, cost reductions and higher prices helped income in this business to improve for the third consecutive year.

Aggressive marketing strategies countered weak demand for protective coatings and polyester resins. Income rose significantly from earlier years. Coatings sales benefited from good international and domestic activity in underground pipeline construction and from new markets opened in the defense and original equipment markets. High sales of specialty polyester resins continued and moved Koppers total volume 14% ahead of the prior year, during which growth had slowed after a long period of expansion. Sales and income improved also in other specialty coating, sealant and adhesive lines.

Road Materials

($ Millions)	1981	1980	1979
Sales	**$541.9**	$531.7	$454.1
Operating income	**$ 57.9**	$ 57.2	$ 55.0

Road Materials 1981 performance ran counter to the weak U.S. construction market, which declined noticeably in the second half of the year. Improved prices and operating efficiencies largely offset drops in sales volume. Weakening second-half market trends had a slight effect on income in Western operations, which continued to account for the majority of Road Materials income. Results in Eastern markets rose from depressed 1980 levels. Construction activity in Southern markets remained weak, as in the prior year. A subsidiary involved in a joint venture on several overseas construction projects was a significant contributor to Road Materials income gain, as was The Sterling Companies, purchased in November, which operates in the Western Overthrust Belt of the Rocky Mountains.

The modest gains in Road Materials sales and operating income over the past three years reflect how high interest rates have depressed the nationwide engineered construction market. Koppers total shipments of aggregates fell to 49 million tons in 1981, from 50 million in 1980 and 54 million in 1979. Making up for this somewhat has been the growing importance of construction services to Road Materials total sales as the result of recent expansions. These services accounted for approximately 37% of Road Materials sales in each of the past two years, up from 26% in 1979.

Acquisitions in 1981 included a Florida aggregates producer and The Sterling Companies, which provide construction services and produce aggregates, ready-mix concrete and bituminous concrete. Acquisitions in 1980 and 1979 included a North Carolina producer of aggregates that is also a large earthmoving company, two Virginia companies that specialize in highway and bridge construction, and companies in Colorado and Oklahoma that produce aggregates and provide construction services.

Forest Products

($ Millions)	1981	1980	1979
Sales	**$379.8**	$380.9	$368.8
Operating income	**$ 42.9**	$ 21.3	$ 31.9

Strong demand for railroad crossties and other wood products has boosted income in each of the past three years in Forest Products major business line, wood treating. A similar performance in the group's specialty wood-treating chemical operations has helped to offset declines in other product areas affected by the depressed activity in the construction industry since 1979. Income in the basic domestic wood-treating and building product businesses improved 20% over 1980. The large increase in Forest Products 1981 operating income resulted from the sale of the Company's Canadian spruce lumber operations, which added $20.2 million.

Sales of railroad crossties climbed steadily in 1979 and 1980 and leveled off in 1981. Programs implemented to increase operating efficiencies and reduce energy costs helped improve income. Demand for crossties remained strong through 1981, and the backlog at year end was high. The current recession, however, makes it uncertain that railroads will carry out planned track improvements during 1982. Strong demand for transmission poles was largely offset by reduced sales of utility poles and piling due to high interest rates that dampened activity in electric utility construction.

Sales of wood-treating chemicals rose gradually over the past three years because of increased market penetration and growing demand in the residential renovation and alteration market. Increased raw material integration in the production of these specialty chemicals has raised Koppers capacity to serve this fast-growing market.

Conditions remained severely depressed in the domestic hardwood lumber business, but losses, although they continued in 1981, were substantially lower, thanks to disposal and consolidation of facilities as well as improved revenues from timberland operations. Further dispositions of hardwood sawmill facilities and timberlands are planned for 1982 and beyond.

Koppers Quarterly Financial Data

($ millions, except per share data)	1st Quarter 1981	1st Quarter 1980*	2nd Quarter 1981	2nd Quarter 1980*	3rd Quarter 1981	3rd Quarter 1980*	4th Quarter 1981	4th Quarter 1980*	Total 1981	Total 1980*
Net sales	**$425.9**	$402.9	**$538.4**	$462.7	**$540.9**	$555.0	**$513.4**	$508.6	**$2,018.6**	$1,929.2
Gross profit**	**46.4**	46.7	**83.6**	79.6	**85.8**	90.7	**88.6**	70.1	**304.4**	287.1
Net income	**(3.8)**	.0	**16.2**	19.6	**25.2**	23.0	**14.0**	11.4	**51.6**	54.0
Earnings per common share	**$ (.20)**	$ (.01)	**$ .51**	$ .73	**$ .84**	$ .84	**$ .43**	$ .41	**$ 1.58**	$ 1.98

*Restated to reflect compliance with Statement of Financial Accounting Standards No. 43, Accounting for Compensated Absences, and reclassified to conform with 1981 classifications.
**Net sales less Cost of sales (including allocable portion of Depreciation, depletion and amortization and Taxes, other than income taxes).

Engineered Metal Products

($ Millions)	1981	1980	1979
Sales	**$342.5**	$358.1	$328.2
Operating income	**$ 12.7**	$ (1.1)	$ 11.4

Income improved in 1981 in almost all segments of Engineered Metal Products, reversing a downward trend that had begun in 1979. Part of the income gain came from a reduction in write-offs and other unusual expenses to $1.3 million in 1981, from the $12.8 million that caused the group's loss in 1980.

After a slow start, sales of piston rings and seals grew by more than 20% in 1981 as demand rose in the replacement market for piston rings for diesel trucks. Greater volume plus capacity additions that improved operating efficiencies resulted in higher income. Sales of shaft seals went up as a result of strong industrial demand in the compressor industry. At year-end 1981, markets for piston rings had slowed considerably. Despite these current conditions, construction is continuing on a new plant that, by 1983, will significantly increase Koppers capacity to supply rings to the diesel engine market.

Sales and income improved also in power transmission couplings as the result of greater demand for maintenance work in the steel and petrochemical industries. Heightened manufacturing efficiencies along with material cost reductions provided by a new forge shop helped to raise margins in this line.

In spite of a sales decline, income was up in the Sprout-Waldron materials processing equipment business in 1981 as the result of manufacturing and other cost reductions and a more favorable product mix. A substantial increase in new orders during the second half was due to technical innovations in the Company's line of thermomechanical pulping machinery. The new design will allow makers of pulp products to recover steam for use in reducing plant energy costs. Orders in the Company's feed and grain mill business also improved.

In spite of lower demand in the corrugated box industry, 1981 results in corrugated container machinery continued to be profitable, as in the prior two years. Concentration on new, higher-margin products as well as cost reductions enabled the division to remain profitable. Overcapacity continues throughout this business.

The near absence of unusual expenses in mineral processing equipment resulted in a slightly better than break-even performance in 1981, versus a large loss in 1980. Unusual expenses totaled $11.2 million in 1980 as reserves were established for plant closings, for replacement and repair of equipment previously installed on ore processing projects, and for losses arising from a customer bankruptcy. The world recession in mineral markets, which has depressed demand for processing machinery, caused a loss in 1979 also. There was little pickup in orders in 1981. To cope with this prolonged recession, the division is marketing processing machinery adapted to new end uses and has formulated plans to introduce new products that will reduce its dependency on the mineral processing industry.

Environmental Elements incurred a small loss in 1981, after a profitable 1980 performance, due to the depressed level of new orders during 1979 and 1980. A good performance in the division's air handling products line was not enough to offset the low operating levels in electrostatic precipitators, water and sewage treatment systems, and sound control equipment. New orders were strong during the second half of 1981 and backlog at year end was up by 61%. Most of the gain was in precipitator projects.

Engineering and Construction

($ Millions)	1981	1980	1979
Sales	**$ 58.6**	$ 64.6	$113.8
Operating income	**$ (7.5)**	$ (.4)	$ 10.5

Prolonged recession in the steel industry's major end markets has brought about a substantial contraction in domestic steel production capacity over the past three years. The low level of steel industry capital spending during this period has pushed Koppers construction activity below the break-even level. The group's 1981 results were further penalized by unusual expenses of more than $2.7 million, primarily from an unfavorable lawsuit settlement.

In 1980, Koppers and the Babcock & Wilcox operating unit of McDermott Incorporated formed KBW Gasification Systems, Inc. to carry out engineering and construction of coal gasification projects on a worldwide scale. A number of projects involving the KBW process are nearing the final stages of consideration by the U.S. Synthetic Fuels Corporation. Several other projects that would use the KBW process are in the feasibility study stage. These could result in contract awards in the coming year if suitable loan and price guarantees can be negotiated with the Synthetic Fuels Corporation.

Preliminary work is under way also on various steel plant projects that could be awarded in 1982.

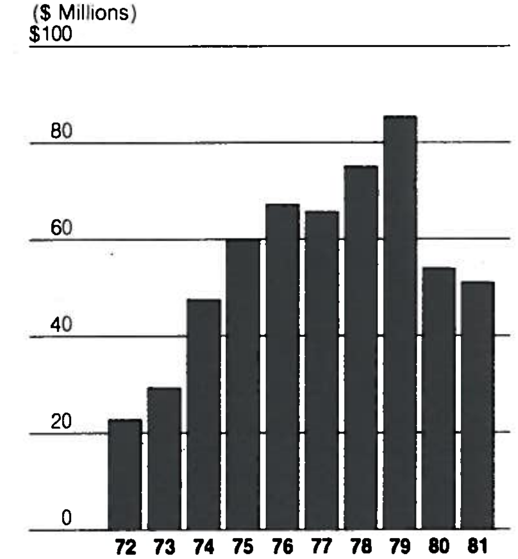
Actions were taken in 1981 to expand the potential markets for Koppers engineering and construction services. The group acquired an exclusive U.S. license for electric arc furnace steelmaking technology and for bulk reclaimer systems that will decrease dependence on traditional construction.

Miscellaneous Sales and Operating Income

($ Millions)	1981	1980	1979
Sales	**$17.7**	$16.7	$6.8
Operating income	**$ 6.9**	$ 4.8	$5.7

Miscellaneous sales and operating income includes revenues received by Koppers that are not the result of group operations. Sales growth in the past several years reflects the Company's increasing investment in energy resources. Revenues and income from Koppers investment in coal lands in Tennessee come under this heading and account for the great majority of its 1981 and 1980 results and nearly half of its 1979 income. Koppers offers these lands for lease to independent coal operators. The increase in income from coal operations, as well as higher interest and equity income from Koppers investments, offset $6.9 million of the Company's expenses incurred in connection with the development of synthetic fuels projects. Koppers is participating in three projects currently being considered by the U.S. Synthetic Fuels Corporation for loan and price guarantees: Tennessee Synfuels Associates—a plant to produce gasoline from coal, Peat Methanol Associates—a North Carolina project to produce methanol from peat, and Hampshire Energy—a project in Wyoming to produce gasoline and other products from coal. Miscellaneous income declined in 1980 because of lower interest and equity income from Koppers investments.

Net Income
($ Millions)



Foreign Operations*

Year ended December 31, ($ Millions)	1981	1980	1979
Koppers identifiable assets:			
Foreign operations	**$79.1**	$109.2	$70.1
% of consolidated identifiable assets	**6%**	8%	6%
Canadian identifiable assets included in above	**$23.5**	$ 58.9	$60.9
% of foreign operations identifiable assets	**30%**	54%	87%
Koppers revenues (net sales):			
From foreign operations	**$90.6**	$103.9	$88.0
% of consolidated revenues	**4%**	5%	5%
From Canadian operations included in above	**$62.8**	$ 74.7	$78.0
% of foreign revenues	**69%**	72%	89%
Koppers income (after foreign and applicable U.S. income taxes):			
From foreign operations	**$ 9.3**	$ 2.3	$ 9.3
% of total net income	**18%**	4%	11%
From Canadian operations included in above	**$ 1.4**	$ 0.5	$ 8.7
% of foreign income	**15%**	22%	94%

*Koppers export sales are not included in this presentation as they constitute less than 6% of the Company's total sales and are not material.

Financial Results

Operating Expenses

The trends in sales and profitability in the Company's major product lines over the past three years were discussed in the preceding section. The combined effect of these numerous individual trends on Koppers overall profit performance is generally reflected in the relationship between the Company's Sales and Cost of sales, shown in Operating expenses on the income statement (page 25).

As a percentage of Koppers Sales, Cost of sales has moved within a range of less than 1.0 percentage point over the past three years. There was some deterioration in the margin in 1980 with modest recovery in 1981. This gives an indication of the progress operating managers made during recent years to reduce costs and improve prices wherever possible in order to offset declining unit sales and the effects of cost inflation. Nonrecurring factors influenced Cost of sales in each of the past three years. Costs were reduced in 1981 mainly through adjustments that lowered pension expenses, through a recovery on an insurance claim, and through reductions of certain inventories that resulted in a liquidation of LIFO inventory quantities. These factors were somewhat offset by an unfavorable lawsuit settlement. A cost increase of $8.3 million in 1980 represented reserves established for plant closings and equipment replacement guarantees that were not totally matched by insurance claim recoveries. Nonrecurring expenses increased Cost of sales by $3.2 million in 1979.

The relatively stable relationship of Cost of sales to Sales in recent years was not carried through to the Company's Operating profit. Declining unit sales and increasing cost pressures made it impossible to offset increases in other operating costs that were not directly related to the Company's volume of operations. These increases reduced Koppers Operating profit margin on sales from 7.3% in 1979 to 5.0% in 1980 and 4.9% in 1981.

One such expense that rose significantly during 1979-1981 was Depreciation, depletion and amortization, up by $20 million, or more than 31%, compared with a 10% sales gain over the same period. This increase was due to high levels of capital investment that have greatly expanded the Company's depreciable asset base in recent years. In 1981, however, the Company lowered its capital investment, resulting in the smallest rise in depreciation in recent years.

Taxes, other than income taxes increased each year more than twice as fast as the growth in sales. This was due to rising real estate, personal property and social security taxes.

Selling, research, general and administrative expenses also went up in relation to sales, from 8.5% in 1979 to 9.4% in 1981, as the result of higher wages and salaries and increased selling and research expenses.

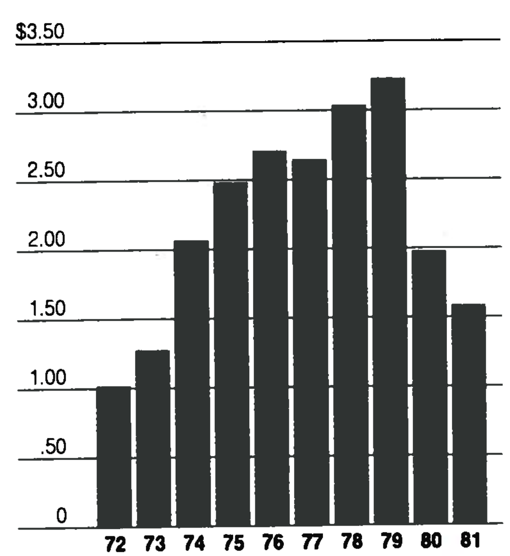
Other Income

Other income in 1981 was substantially higher than in the prior two years for a number of reasons:

- A capital gain realized on the sale of the Company's Canadian lumber business, which added $20.2 million in 1981 and more than offset $13.2 million in write-offs from disposal of discontinued operations, mostly in Organic Materials. This compared with a $6.5 million loss incurred for similar disposals in 1980 and with a net gain realized in 1979 from the sale of a Road Materials business.
- Higher income from the sale of capital assets, primarily from increased sales of equipment by Road Materials in 1981 versus the two prior years.
- An increase in the Company's equity in earnings of affiliates in the past two years, largely due to income from a Road Materials subsidiary, acquired in 1980, that is participating in overseas construction projects. This improvement was substantial in 1981 as it more than overcame $6.3 million in expenses representing part of Koppers development costs for three synthetic fuel projects.
- A gain in interest income generated by higher levels of short-term investment during 1981 than in the prior two years.

Table 6 (page 33) shows the distribution of Other income by business segments for the past three years.

Earnings Per Common Share



Interest Expense

Interest expense rose sharply in 1979 and 1980 as borrowings went up in each year and interest rates escalated. In 1979, $15 million of 8¼% industrial development bonds were issued and costs increased for the use of commercial paper to cover peak working capital requirements. In 1980, Koppers completed a $100 million private placement of 11¼% promissory notes and substantially raised its use of commercial paper to meet working capital needs. Interest expense increased only slightly in 1981 as during the year the use of short-term debt was reduced and long-term debt fell by $20 million.

Income Taxes

Provision for income taxes rose sharply in 1981 after falling in the prior two years. Taxes grew by a greater margin in the recent year than Koppers pretax income because of the high tax rate encountered on the sale of Canadian lumber operations and because lower capital investments and weaker export sales substantially reduced tax credits. Major factors in the lower tax rates in 1979 and 1980 were increased benefits from investment tax credits, from the effect of percentage depletion over cost depletion, and from the effect of the lower tax rate on capital gain income. The factors that influenced the Company's effective tax rate for the past three years are shown in Table 5 (page 32).

Koppers Selected Financial Data

($ millions, except per share data)	1981	1980*	1979*	1978*	1977
Operating results:					
Net sales	**$2,018.6**	$1,929.2	$1,828.3	$1,581.9	$1,355.7
Income from operations	**$ 51.6**	$ 54.0	$ 84.9	$ 76.0	$ 66.4
Income from operations —per common share	**$ 1.58**	$ 1.98	$ 3.21	$ 3.01	$ 2.64
At year end:					
Total assets	**$1,328.2**	$1,389.5	$1,140.7	$1,036.1	$ 870.3
Long-term debt	**$ 288.9**	$ 308.7	$ 224.2	$ 233.6	$ 152.0
Redeemable convertible preference stock	**$ 75.0**	$ 75.0	—	—	—
Total long-term debt and redeemable preference stock	**$ 363.9**	$ 383.7	$ 224.2	$ 233.6	$ 152.0
Cash dividends declared per common share	**$ 1.40**	$ 1.40	$ 1.25	$ 1.125	$ .95

*Restated to reflect compliance with Statement of Financial Accounting Standards No. 43, Accounting for Compensated Absences, and reclassified to conform with 1981 classifications.

Financial Condition

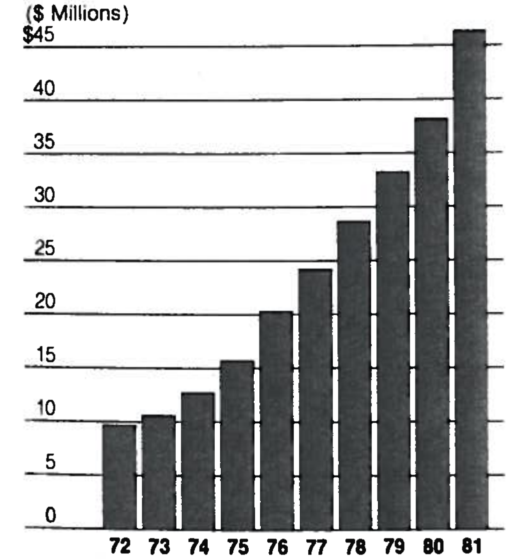
Liquidity

This discussion has been prepared to report how Koppers provided liquidity during 1979-1981, making it possible to finance capital expansions, to provide funds needed to support sales, to repay debt and to compensate shareholders through dividend payments.

The accompanying tables summarize the funds generated by Koppers over the past three years and show how these funds have been used.

The period encompassed the three highest years of capital expenditures and dividend payments in Koppers history. The level of funds paid to holders of the Company's common stock did not increase substantially during 1981, but the issuance of 750,000 shares of convertible preference stock near the close of 1980 produced a significant rise in total dividend payout for the year, as shown in the graph below.

Total Dividends Paid
($ Millions)



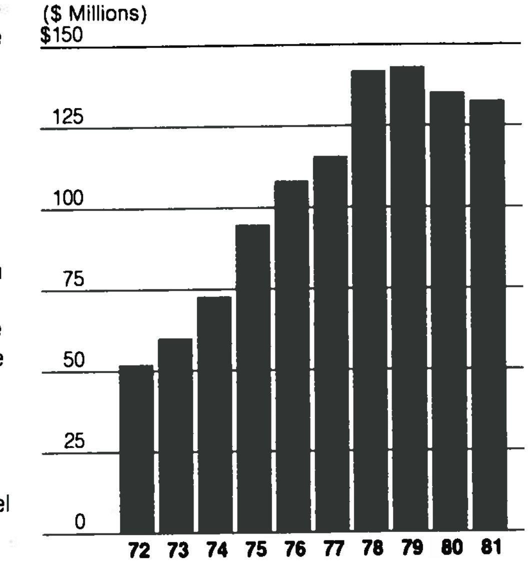
The accompanying table shows that funds generated from the Company's operations have met a high proportion of the Company's total financial needs over the past three years. Term debt was increased in 1980 to finance the high levels of capital expenditures carried out during 1979-1980. The funds from the convertible preference issue went largely toward the Company's investment in Richmond Tank Car Company and the reduction of debt.

Koppers management employs a number of performance criteria to measure the Company's liquidity. These include trends in cash-flow generation, working capital used and the Company's debt/equity position and borrowing capacity.

Cash Flow

Cash flow serves as a measure of the strength underlying the Company's liquidity. Koppers cash flow has increased over the past 10 years at an average rate of more than 11% per year, compounded. This trend reached a plateau and declined slightly in the past three years because of the decline in the Company's net income due to weakening business conditions in major end markets. Depreciation has been the most consistent growth portion of cash flow; it will continue to rise so long as Koppers maintains a high level of capital spending. Koppers depreciation is expected to increase moderately in 1982.

Cash Flow
($ Millions)



Funds Generated by Koppers

($ Millions)	1981	1980*	1979*
Funds from Operations:			
Net income to common stock	**$ 43.8**	$ 53.4	$ 84.2
Depreciation	**83.6**	78.9	63.6
Deferred taxes	**3.5**	2.3	(6.3)
Other	**1.2**	—	—
Total cash flow	**$132.1**	$134.6	$141.5
Plant dispositions and decline in value of investment	**7.1**	—	—
Equity in earnings of affiliates, less dividends received	**4.6**	(.8)	(.5)
Total funds from operations	**$143.8**	$133.8	$141.0
Other sources of funds:			
Sale of fixed assets	**$ 38.3**	$ 10.9	$ 15.2
Term debt and capital lease obligations	**1.6**	134.6	29.6
Common stock issued	**5.8**	26.4	32.2
Preference stock issued	**—**	72.6	—
Total	**$189.5**	$378.3	$218.0

Koppers Use of Funds

($ Millions)	1981	1980	1979
Capital expenditures	**$147.3**	$216.9	$177.1
Investment in Richmond Tank Car Company	**34.8**	14.0	—
Total capital investments	**$182.1**	$230.9	$177.1
Common dividends paid**	**38.8**	37.8	32.6
Term debt and capital leases retired	**21.3**	50.1	39.0
Other	**1.9**	2.6	1.0
Total	**$244.1**	$321.4	$249.7

*Restated to reflect compliance with Statement of Financial Accounting Standards No. 43, Accounting for Compensated Absences, and reclassified to conform with 1981 classifications.

**Dividends paid on preference and preferred shares are not shown here as a use of funds; they are already accounted for in net income to common stock.

Working Capital
Koppers has maintained its working capital within a narrow range over the past three years. This has resulted from management's efforts to reduce inventories to levels appropriate to weakening business conditions. Further, management has maintained close attention to accounts receivable so that, in a declining business and financial environment, payments due from customers would not tie up Company funds excessively. The large increase in 1980 working capital was a temporary condition that resulted when $53 million from the issuance of convertible preference stock in December of 1980 was held in cash at year end. These funds were intended for use in completing the purchase of stock in Richmond Tank Car Company and for the reduction of corporate debt. Excluding these funds temporarily held in cash, working capital at the close of 1980 would have been $272 million.

($ Millions)	1981	1980	1979
Working Capital	**$270.7**	$325.0	$265.3

Working capital is the surplus of current assets over current liabilities and indicates the amount of financial flexibility a company has to meet day-to-day business obligations, to withstand adversity, to pay dividends and to build plants.

Shareholders should be cognizant of the way in which the level of working capital has been affected by the Company's use, starting in 1974, of the last-in, first-out (LIFO) method of inventory accounting.

LIFO accounting recognizes the current costs of labor and materials in the cost of sales (on the income statement), and thereby prevents the overstatement of earnings and the overpayment of income taxes that would result from the use of first-in, first-out (FIFO) accounting during inflationary times. The effect of this, however, is an understatement of the Company's current assets, specifically its value of inventories (on the balance sheet). This, therefore, leads to understatement of the level of day-to-day business the Company's working capital can realistically support.

($ Millions)	1981	1980	1979
Inventories:			
FIFO	**$340.6**	$349.6	$305.0
LIFO	**213.8**	240.3	211.9
Excess of FIFO cost over LIFO	**$126.8**	$109.3	$ 93.1

Comparison of the Company's inventories for the past three years, using both the LIFO and FIFO methods of accounting, illustrates the growing disparity between the current value of the Company's inventories (FIFO value) and the value of inventories carried on the Company's balance sheet (LIFO value). This disparity has grown wider every year since the adoption of the LIFO method in 1974.

The fact is that the FIFO value of inventories more closely approximates the purchasing power that the Company actually has to meet short-term business obligations. The following presents what the Company's working capital would be if FIFO inventory values, rather than LIFO, were included in current assets and if the additional tax liability would be reflected in current liabilities. Continued use of FIFO accounting after 1974 would have substantially increased the Company's tax liabilities and would have required greater use of long term funding to maintain the current level of working capital.

($ Millions)	1981	1980	1979
Working capital including FIFO inventory value	**$391.0**	$432.0	$354.8

In the past, a widely accepted rule of thumb within the business and financial community stated that a prudently run corporation should maintain a ratio of current assets to current liabilities of approximately 2-to-1, or better. For the reasons just discussed, this is no longer generally applicable to companies that have been on LIFO accounting for a number of years, and it should be recognized that they can have a strong liquidity position with a current ratio of less than 2-to-1. The following comparison of the Company's current ratio using both types of inventory valuation illustrates this point.

Current ratio	1981	1980	1979
Inventory value:			
FIFO	**2.40-to-1**	2.34-to-1	2.30-to-1
LIFO	**1.99-to-1**	2.02-to-1	1.98-to-1

Koppers ability to meet its short-term obligations remains excellent.

Borrowed Funds
During the course of any year, Koppers uses commercial paper and revolving bank credit to cover peak working capital requirements. As shown in the chart on the opposing page, commercial paper bearing a 17.3% average annual interest rate was used at various times in 1981, with the maximum outstanding during the year at $43 million. None was outstanding at year end. The use of commercial paper was significantly lower than in 1980 as the result of an increase in cash generated from operations, primarily from a reduction in working capital.

In the period 1979-1981, Koppers increased net term borrowings by $55.3 million. In 1979, Koppers obtained $15 million from the issuance of industrial development bonds. During 1980, Koppers received $100 million from the issuance of 11.25% promissory notes and a 10% $9.8 million term loan.

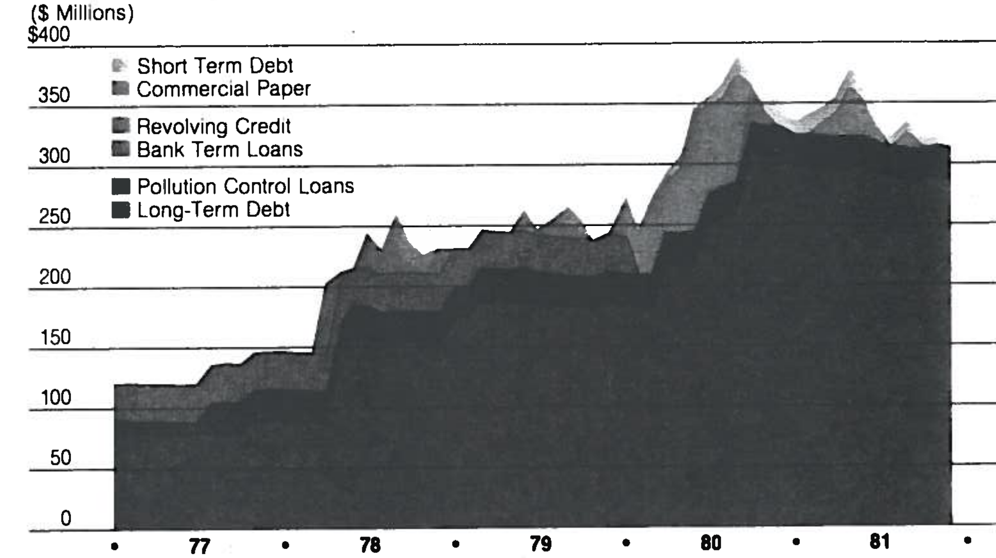
Over the three-year period, the Company issued 2.8 million common shares, primarily in connection with acquisitions, boosting the number of shares outstanding by 11%. The issuance of 750,000 shares of convertible preference stock on December 23, 1980 provided net proceeds of $72.6 million to the Company. During 1980, $20 million was used to repay indebtedness. During 1981, the Company reduced term debt and capital lease obligations by $19.7 million and short-term debt by $19.2 million.

Financial Structure
Although additional financings in the past three years have increased the Company's debt level, the debt portion of Koppers total capitalization has remained near 30%, well within Koppers self-imposed limit of 35%. The Company's debt level averaged 30% over the past 10 years.

At the close of 1981, the Company was in a highly flexible position to fund future growth. Moreover, management continually reviews the various businesses in which the Company has invested to determine whether any assets should be redeployed. Several current discussions could lead to the sale of assets during 1982. In addition, the Company has an expanded bank credit agreement that provides for revolving credit loans of up to $200 million until September 30, 1986. The agreement was unused at the close of 1981.

Unless market conditions show significant improvement during the year, Koppers will maintain capital expenditures in 1982 at a relatively low level of just over $100 million. Koppers expects to be able to finance those expenditures, along with any increase in working capital required, through internally generated funds and the use of current credit arrangements. The Company is continually looking ahead to possible investment opportunities and, therefore, is constantly examining the options available for future financing. To maintain liquidity and the flexibility desired in Koppers financial structure, management could elect to secure external financing during the coming year, or beyond. There are, however, no immediate plans for doing so.

Debt Used to Support Operations*
($ Millions)



*Does not include obligations under certain leases.

Koppers Total Capitalization

December 31,	1981 $ Millions	1981 % of Total	1980* $ Millions	1980* % of Total	1979* $ Millions	1979* % of Total
Total Debt						
11.25% Promissory notes	**$ 100.0**	**9.7%**	$ 100.0	9.6%	$ —	—%
8.95% Note	**60.0**	**5.8**	60.0	5.8	60.0	7.2
Industrial development bonds	**40.0**	**3.9**	40.0	3.9	40.0	4.8
6% Notes	**32.0**	**3.1**	35.0	3.4	38.0	4.5
Pollution control loans	**25.4**	**2.5**	26.0	2.5	26.0	3.1
8% Notes	**2.2**	**.2**	4.4	.4	6.6	.7
5.8% Notes	**2.6**	**.3**	3.3	.3	4.0	.5
Capital lease obligations	**10.8**	**1.0**	12.5	1.2	12.6	1.5
Other	**16.0**	**1.5**	17.6	1.7	12.6	1.5
Term loans payable to banks	**—**	**—**	9.8	.9	24.4	2.9
Revolving credit loans	**—**	**—**	—	—	—	—
Debt due within one year	**22.2**	**2.2**	21.9	2.1	17.4	2.1
Total	**$ 311.2**	**30.2%**	$ 330.5	31.8%	$241.6	28.8%
Equity						
Common	**$ 629.1**	**61.1%**	$ 619.5	59.6%	$582.2	69.4%
Preference**	**75.0**	**7.3**	75.0	7.2	—	—
Preferred	**15.0**	**1.4**	15.0	1.4	15.0	1.8
Total	**$ 719.1**	**69.8%**	$ 709.5	68.2%	$597.2	71.2%
Total Capitalization	**$1,030.3**	**100.0%**	**$1,040.0**	**100.0%**	**$838.8**	**100.0%**

*Restated to reflect compliance with Financial Accounting Standards No. 43, Accounting for Compensated Absences.
**SEC regulations require that capitalization ratios also be shown with redeemable preference stock included in debt. On this basis, 1981 debt would be 37.5% of total capitalization, with equity being 62.5%.

Capital Expenditures

Koppers total capital expenditures in 1981 were consciously reduced by management because of continued weakness in the Company's major end markets. Investments did continue on several projects associated with new or rapidly growing products.

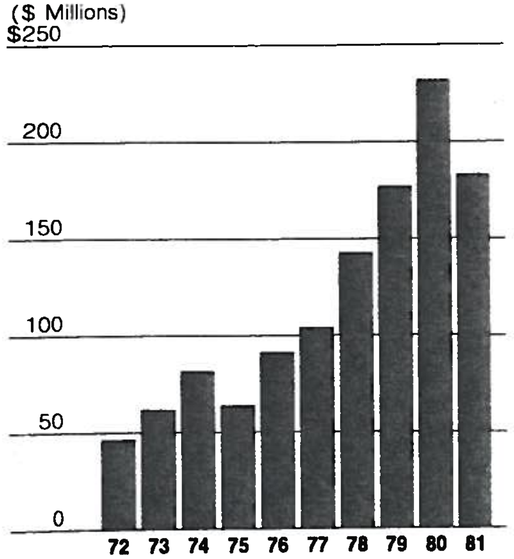
Capital investments in the two years prior to 1981 were at the highest levels in the Company's history. The lower 1981 level will have no meaningful impact on the Company's program to improve plant operating efficiencies. Koppers has ample capacity in virtually all product lines to supply customer needs for the foreseeable future.

The capital investment figures that are reported include the Company's investment in the common stock of Richmond Tank Car Company. The following table separates that investment from total capital expenditures in order to illustrate better the three-year trend in capital expenditures for property, plant and equipment.

Total Capital Expenditures ($ millions)	1981	1980	1979
Expenditures	**$147.3**	$216.9	$177.1
Investment in Richmond Tank Car Company	**34.8**	14.0	—
	$182.1	$230.9	$177.1

Investment of these expenditures by operating group is shown in Table 6 on page 33. As shown in (SEC Schedule V) on page 34, a major portion of each year's expenditures was devoted to increases in Koppers property, plant and equipment. The great majority was used to purchase machinery and equipment in order to modernize, to increase production capacity, or to improve efficiency at Company facilities. During the three-year period, the Company's expenditures to eliminate or bring pollution to satisfactory levels ranged from 4.5% to 10% of the total spent for capital investments.

Capital Expenditures
($ Millions)



Major expenditures or acquisitions completed in each of the past three years are summarized below.

1981—Road Materials acquired three companies in Florida and Colorado-Wyoming that produce aggregates and bituminous and ready-mix concrete and that supply civil construction services. The group also increased aggregate reserves in Denver and completed several expansion and modernization programs at various crushing plants.

A project was under way in Organic Materials to modernize an important tar processing plant, and construction was started on two facilities that will produce the Company's new phenolic foam insulation board. Forest Products started up a plant about mid-1981 that improved its raw material position in its wood-treating chemical operations. The group also was active on several projects to use wood wastes as fuel and reduce plant energy costs.

In Engineered Metal Products, two projects modernized and expanded the Company's Baltimore piston ring and shaft seal facilities. In addition, construction was started on a completely new plant in Georgia that will further increase Koppers capacity to produce high-speed diesel piston rings. A foundry expansion in the group's materials processing and handling operations also was completed during the year.

A small addition was made to the Company's coal properties, a modest investment in a company associated with genetic engineering research was completed, and Koppers purchased additional stock in Richmond Tank Car Company early in the year, increasing its ownership of that company to 23%.

1980—Road Materials acquired companies in North Carolina and Colorado that produce aggregates and supply civil construction services, and two companies in Virginia specializing in highway and bridge construction. The group also increased sand and gravel reserves in Los Angeles and completed several expansion and modernization programs at crushing plants.

Expenditures to modernize several chemical and tar processing facilities were carried out in Organic Materials.

Forest Products had work under way on a plant to produce treating chemicals and on projects that will reduce plant energy costs by burning wood wastes. Additions were made to the Company's Canadian lumber facilities and its coal reserves, and an investment in a genetic engineering research company was increased. Koppers established an initial investment in Richmond Tank Car Company.

1979—Organic Materials completed two coke batteries that added 40% to foundry coke capacity, and expanded resorcinol capacity by 25%, polyester resin capacity by 25% and KMM cold-applied roofing materials capacity by 100%.

Road Materials purchased a leading supplier of aggregates as well as steel concrete-reinforcing products in South-eastern states and moved into Oklahoma with the purchase of a Tulsa supplier of aggregates, bituminous and ready-mix concrete, and construction services.

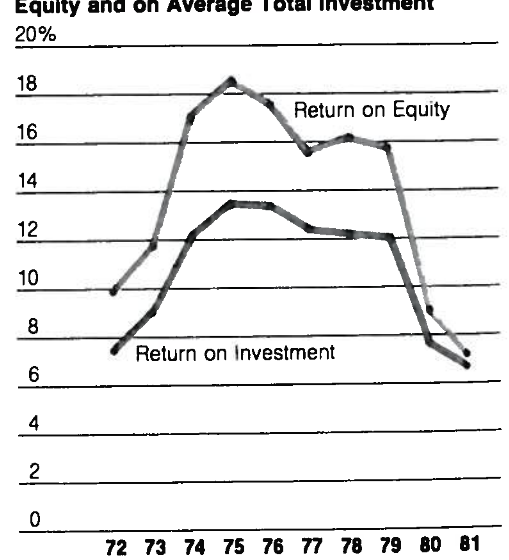
Forest Products investments were directed toward modernizing and improving efficiencies at the Company's treating plants.

Engineered Metal Products completed a new forge shop to serve power transmission couplings operations and acquired a foundry to provide gray iron castings used in several product lines.

Effects of Inflation

A discussion of the effects on the business of changing prices and inflation, begins on the following page.

Returns on Average Common Shareholders' Equity and on Average Total Investment



Chief Financial Officer's Letter

To Our Shareholders:

Most of Koppers major end markets suffered throughout 1981 from weak demand, which declined even further as the year went on. Upward pressures on raw materials and other operating costs were unremitting, and at times intense. In spite of significant deterioration in an already poor business environment, Koppers performance at the operating level did not fall from 1980. This can be seen in the relationship of the Company's sales to cost of sales, discussed on pages 13-14. It indicates that management's efforts to reduce operating and overhead costs, and to increase sales in spite of weak demand, were beginning to pay off.

Koppers management worked to accomplish this in several ways.

Management Actions

First, we adjusted plant operations in a number of businesses to increase operating efficiencies; in other product lines, we stepped up capacity utilization through higher unit sales.

Second, we capitalized on the fact that, for most important businesses, the Company enjoys leadership in major end market segments. We used that position more aggressively in 1981 to maintain or increase our market shares. Even in some cases where unit sales fell, it was our competition that bore the brunt of the drop.

Third, we discontinued five product lines in 1981. This resulted in a charge against Koppers earnings of $.26 per share and nullified the $.24 per share capital gain realized on the sale of the Company's Canadian lumber operations. However, the discontinued operations will shed $34 million in sales that, in 1981, produced $6 million in operating losses.

Work-force reductions were another tool used to lower 1981 operating costs. The total number of Company employees at the close of 1980 was cut by 11% during 1981.

Koppers modest improvement at the operating level was not carried through to earnings per share. Four factors accounted for more than half of the $.40 per share earnings decline.

The unusual items mentioned above reduced earnings by $.05 per share in 1981, versus a $.15 per share reduction in 1980. This pushed the decline for the year to $.50 per share.

The Company's expenses to develop synthetic fuel projects lowered earnings by $.15 per share in 1981, compared with $.02 per share in 1980.

Reductions in Koppers income tax credits due to lower capital investment and export sales cut the total 1981 tax credits to $.28 per share, from $.49 per share in the prior year.

The net effect of these nonrecurring factors was responsible for $.24 of the $.40 earnings per share difference from year to year. Payment of the convertible preference dividend accounted for the balance.

Some of the major steps taken to reduce costs are summarized here.

Operations Strengthened

In Organic Materials, coke operations advanced from a serious loss position to approach the break-even point. We reduced a large coke inventory, raised capacity utilization significantly and greatly expanded our customer base. Unit sales of coke doubled.

Aggressive marketing tactics produced higher income in such other Organic Materials businesses as foundry resins, protective coatings, polyester resins, and other specialty resins and adhesives.

Actions that penalized the earnings of our chemical business in 1981 will lower costs in future years. Plans to consolidate operations further are designed to increase the use of internally produced raw materials in our processing operations and should lead to additional reductions in operating costs.

We introduced a new roof insulation board that has thermal qualities superior to those of competitive products in its price range. Initial market acceptance has been excellent, and this is expected to become a high-volume product in a few years.

Numerous Road Materials operations sustained a high level of income in 1981 after making adjustments for lower demand. An acquisition near the close of the year moved Koppers into the active Rocky Mountain Overthrust Belt in Colorado-Wyoming.

Innovations that cut fuel costs and raised plant productivity contributed to higher income in Forest Products through reductions in operating costs.

Engineered Metal Products, which began to benefit from consolidations made in 1980 to offset the impact of recession, had further consolidations under way in 1981. Continued technological development also paid off as we obtained important new contracts for our advanced materials processing systems.

Engineering and Construction reduced its overhead costs and acquired licenses for new technologies that will broaden the potential markets for this business.

These management actions are expected to contribute to Koppers favorable progress in future years and should help us to overcome the weight of lackluster economic growth.

Effects of Changing Prices

The past decade's high rate of inflation in the United States has led to an emerging concern within the accounting and financial professions that financial statements do not fully measure the trend in real economic performance. The belief is that an enterprise reporting increased operating results might actually be earning less in real terms.

Financial Accounting Standards Statement No. 33, "Financial Reporting and Changing Prices," issued in 1979, attempts to address the distortion that inflation has created in reported financial information. It prescribes two measurement methods to estimate the impact of inflation on selected financial data. The first method, referred to as "constant dollar," requires that certain historical costs be adjusted for general inflation by restatement into dollars having the same general purchasing power as measured by the Consumer Price Index for All Urban Consumers (CPI-U). The second method, referred to as "current cost," adjusts certain historical costs to reflect estimated specific price changes.

Koppers enthusiastically endorses attempts by the accounting and financial professions to find satisfactory ways to present the inflation issue. The present state of the art, however, leaves much to be desired before it can achieve an acceptable inflation accounting standard for corporate reporting purposes. Both methods involve the use of assumptions, approximations and estimates; consequently, the resulting measurements should be viewed in that context and not as precise indicators of the effects of inflation. In addition, the degree of accuracy in compiling the data presented is less than that of the historical-cost data that are reported in the consolidated financial statements.

Koppers, in complying with FASB Statement No. 33, has elected to restate only inventories; sales; cost of sales; property, plant and equipment, net of accumulated depreciation; and depreciation, depletion and amortization. These areas are most affected by inflation. Restatement of other accounts would not materially affect the results. Other data in the five-year summary also are restated for purposes of comparison.

Some Conclusions Concerning the Effect of Inflation on Koppers
The Company's results of operations, as adjusted for general inflation, illustrate some of the more obvious effects of the declining purchasing power of the dollar. Profits have been seriously eroded by inflation, while income taxes as a percentage of pretax earnings have risen considerably. Because the effects of inflation are not deductible for income tax purposes and a larger portion of the Company's earnings is a return of capital, income taxes are, in effect, confiscating capital. Consequently, the maintenance of capital and the potential for growth continue to be adversely affected.

Koppers does not believe, however, that the impact of inflation on the Company's 1981 performance and financial condition was as severe as the inflation-adjusted income data, taken alone, would indicate. Koppers bases its operating and investment decisions on cash flow considerations. Combining inflation-adjusted depreciation, depletion and amortization and net income with deferred taxes shows that cash flow on an inflation-adjusted basis was approximately 20% less than on a historical-cost basis in 1981.

Table A Consolidated Statement of Income From Operations Adjusted for Changing Prices

For the Year Ended December 31, 1981 ($ Thousands, except per share figures)	Dollars of Current Purchasing Power*: **As Reported in 1981 Financial Statements Historical Cost)**	Adjusted for General Inflation (Constant Dollars)	Adjusted for Changes in Specific Prices (Current Cost)
Net sales	**$2,018,562**	$2,023,902	$2,023,902
Operating expenses:			
Cost of sales	**1,597,556**	1,625,317	1,619,248
Depreciation, depletion and amortization	**83,564**	136,174	133,044
Taxes, other than income taxes	**49,155**	49,155	49,155
Selling, research, general and administrative expenses	**189,358**	189,358	189,358
	1,919,633	2,000,004	1,990,805
Operating profit	**98,929**	23,898	33,097
Other income	**20,660**	15,183	16,088
Interest expense	**34,061**	34,061	34,061
Income before income taxes	**85,528**	5,020	15,124
Provision for income taxes	**33,886**	33,886	33,886
Income (loss) from operations	**$ 51,642**	$ (28,866)	$ (18,762)
Dividends on:			
Redeemable convertible preference stock	**7,285**	7,285	7,285
Cumulative preferred stock	**600**	600	600
Net income (loss) applicable to common stock	**$ 43,757**	$ (36,751)	$ (26,647)
Average number of shares of common stock outstanding during year (thousands)	**27,667**	27,667	27,667
Earnings per share of common stock	**$ 1.58**	$ (1.33)	$ (.96)
Gain from decline in purchasing power of net amounts owed		$ 21,365	$ 21,365
Increase in current cost of inventory and property, plant and equipment held during the year**			$ 150,803
Effect of increase in general price level			131,475
Increase (decrease) in specific prices over increase in general price level			$ 19,328

*Current-cost and constant-dollar amounts are expressed in average 1981 dollars. Changes are measured by the Consumer Price Index.
**At December 31, 1981, the current cost of inventories was $337,263, and the current cost of property, plant and equipment, net of accumulated depreciation, was $924,748.

A purchasing power gain results from holding net monetary liabilities (monetary liabilities in excess of monetary assets) because inflation permits the repayment of borrowings with dollars possessing reduced purchasing power. In 1981, Koppers experienced a net gain of $21.4 million from the decline in general purchasing power of net amounts owed.

This represents an unrealized gain. Therefore, the effect of inflation upon such net monetary liabilities is excluded from income of continuing operations, whereas the effect of inflation on nonmonetary assets is recognized over the holding period of the assets and is accordingly included in income from continuing operations.

At the close of 1981, the Company's net assets adjusted for the effects of general inflation on inventory, property, plant and equipment, and net monetary items were $1,072.3 million. The current cost of net assets at the close of the recent year was approximately $1,094.4 million. In each case, the effect of inflation increased the adjusted value of the Company's assets by nearly 50%. Accordingly, the value of shareholders' equity would be increased by the same margin.

Table A indicates that adjusted sales would change only slightly, since actual 1981 sales reflect Koppers seasonal patterns, and only because the rate of inflation increased at a faster pace during the first nine months of 1981 than during the last three months.

Within operating expenses, the major factor, cost of sales, would normally show only a slight impact from inflation because the LIFO method of inventory costing used by Koppers recognizes current costs of employment and materials in cost of sales. However, the more substantial increase in adjusted cost of sales in 1981 resulted from the beneficial effect on historical-cost earnings of liquidating LIFO inventory quantities carried at lower costs prevailing in prior years, as compared with the cost of 1981 purchases. These benefits could not be recognized under either the current-cost or the constant-dollar approach. This, in turn, increased inflation-adjusted current costs of sales over historical-cost figures by $9.2 million, and by $11.4 million on a constant-dollar basis.

For assets involved in the consolidation or disposition of operations, a write-down is required for the reduction of property, plant and equipment from its constant-dollar or current-cost amount to its lower recoverable amount. This results principally from the recognition that even under constant-dollar or current-cost accounting, assets held for sale should be shown at net realizable value as recorded on the books of the Company and not at inflated current-cost or constant-dollar amounts. Recognition of the reduction of the value of certain assets the Company is considering for disposition in 1982 resulted in the lower level of other income under constant-dollar and current-cost accounting.

The five-year comparisons shown in Table B similarly show restated dollar information in average 1981 dollar values.

Mineral Reserves
Information on Koppers mineral reserves is on page 40.

A. William Capone
Senior Vice President and
Chief Financial Officer

February 22, 1982

Methods of Computation
The adjusted information shown in Table A was prepared by converting historical amounts into dollars with purchasing power equivalent to that of average 1981 dollars (the constant-dollar method) or adjusted for "changes in specific prices" (the current-cost method).

In 1981, two items had significant effects upon both the constant-dollar and current-cost financial statements in comparison with historical cost and prior-year statements: (1) the beneficial effect on historical-cost earnings of liquidating LIFO inventory quantities carried at lower costs prevailing in prior years, as compared with the cost of 1981 purchases could not be recognized under either the constant-dollar or current-cost approach; (2) a write-down was required for the reduction of property, plant and equipment from its current-cost or constant-dollar amount to its lower recoverable amount. Under both accounting methods, assets held for sale should be shown at net realizable value, the amount of cash, or its equivalent, expected to be derived from the anticipated sale of the asset.

Constant-Dollar Method
We used the Consumer Price Index—All Urban Consumers (CPI-U) to measure general inflation in arriving at the constant-dollar restatement.

Current-Cost Method
Under the current-cost approach, property, plant and equipment (including mineral resources) current cost was estimated by using various indices published by the federal government, private organizations and internal sources. The indexing approach most closely reflects reproduction cost and does not necessarily take into consideration any technological changes and associated cost efficiencies that may be experienced when modern assets are used to replace existing assets. The restatement of historically reported depreciation, depletion and amortization, to both constant dollar and current cost, was based on the above restatements of property, plant and equipment using the same useful lives and depreciation methods as used in the primary financial statements.

Inventory restatement on a current-cost basis involves two types of adjustments: (1) to reflect depreciation allocated to inventories at current cost, and (2) a time-lag adjustment to reflect increases or decreases in other cost components occurring between the time the inventories are acquired or produced and average costs for the year using specific price indices.

Cost of sales on a current-cost basis was determined by combining the cost of LIFO-based inventories with FIFO-based inventories. Cost of sales under the LIFO inventory method was assumed to already approximate the current cost at date of sale and thus was only adjusted into average dollars for the year. FIFO inventories were adjusted to reflect standard costs in effect at the time sales were made and when end-of-year inventory was produced.

Other income and certain other expenses do not require adjustment, as they are considered to have occurred proportionately over the year, thus already reflecting average 1981 dollars.

The actual provision for taxes on income is not adjusted since companies are not permitted to recognize any general inflation effects for tax purposes.

Table B Comparison of Selected Supplementary Financial Data Adjusted for Effects of Changing Prices

($ Thousands, except per share figures)	As Reported in 1981 Financial Statements (Historical Cost)	Years Ended December 31, (In Average 1981 Dollars) 1981	1980*	1979*	1978*	1977
Net Sales	**$2,018,562**	$2,023,902	$2,124,956	$2,283,326	$2,197,585	$2,029,969
Historical-cost information:						
Adjusted for general inflation:						
Net assets at year end	**$ 719,052**	$1,072,346	$1,034,043	$ 865,665		
Income (loss) from operations	**$ 51,642**	$ (28,866)	$ 35	$ 57,273		
Income (loss) from operations per common share	**$ 1.58**	$ (1.33)	$ (.02)	$ 2.16		
Gain from decline in purchasing power of net amounts owed	**—**	$ 21,365	$ 27,235	$ 20,959		
Adjusted for changes in specific prices:						
Net assets at year end	**$ 719,052**	$1,094,399	$1,058,175	$ 913,042		
Income (loss) from operations	**$ 51,642**	$ (18,762)	$ 2,960	$ 56,685		
Income (loss) from operations per common share	**$ 1.58**	$ (.96)	$ .09	$ 2.13		
Excess (deficit) of increase/decrease in specific prices over increase in general price level	**—**	$ 19,328	$ (18,148)	$ 19,534		
Other information:						
Cash dividends declared per common share	**$ 1.40**	$ 1.41	$ 1.56	$ 1.58	$ 1.58	$ 1.43
Market price per common share at year end	**$ 17.00**	$ 16.45	$ 26.35	$ 32.05	$ 27.02	$ 33.21
Average Consumer Price Index		272.4	246.8	217.4	195.4	181.5

*Restated to reflect compliance with Statement of Financial Accounting Standards No. 43, Accounting for Compensated Absences (Note 1, page 30).

Koppers 10-Year Financial Highlights and Operating Statistics

($ millions, except per share data)		1981	1980*	1979*	1978*	1977	1976	1975	1974	1973	1972
Sales by Business Group	Organic Materials	$ 678.1	$ 577.2	$ 556.6	$ 482.5	$ 427.8	$ 384.4	$ 323.3	$285.8	$173.4	$139.6
	Road Materials	$ 541.9	$ 531.7	$ 454.1	$ 304.1	$ 174.1	$ 134.7	$ 111.8	$117.4	$ 92.2	$ 72.0
	Forest Products	$ 379.8	$ 380.9	$ 368.8	$ 313.7	$ 296.3	$ 261.2	$ 244.7	$270.4	$193.7	$167.4
	Engineered Metal Products	$ 342.5	$ 358.1	$ 328.2	$ 285.6	$ 265.4	$ 267.5	$ 240.3	$158.4	$119.5	$105.7
	Engineering and Construction	$ 58.6	$ 64.6	$ 113.8	$ 192.0	$ 189.8	$ 138.8	$ 153.8	$ 80.5	$ 62.2	$ 62.7
	Miscellaneous	$ 17.7	$ 16.7	$ 6.8	$ 4.0	$ 2.3	$ 2.6	$ 1.6	$ 1.7	$ 82.9	$ 65.4
	Total corporate sales	$2,018.6	$1,929.2	$1,828.3	$1,581.9	$1,355.7	$1,189.2	$1,075.5	$914.2	$723.9	$612.8
Corporate Operating Expenses	Wages, salaries and pension expense	$ 449.6	$ 428.4	$ 427.0	$ 359.1	$ 304.7	$ 276.0	$ 248.5	$202.2	$189.6	$166.0
	Materials, supplies and services	$1,337.2	$1,280.3	$1,164.2	$1,020.1	$ 866.2	$ 746.4	$ 675.1	$594.7	$432.8	$368.2
	Depreciation, depletion and amortization	$ 83.6	$ 78.9	$ 63.6	$ 52.7	$ 42.6	$ 37.8	$ 30.3	$ 27.8	$ 28.7	$ 24.5
	Taxes, other than income taxes	$ 49.2	$ 44.3	$ 40.1	$ 33.0	$ 26.2	$ 22.2	$ 19.7	$ 16.5	$ 14.9	$ 12.6
	Total corporate operating expenses	$1,919.6	$1,831.9	$1,694.9	$1,464.9	$1,239.7	$1,082.4	$ 973.6	$841.2	$666.0	$571.3
	Operating profit	$ 98.9	$ 97.3	$ 133.4	$ 117.0	$ 116.0	$ 106.8	$ 101.9	$ 73.0	$ 57.9	$ 41.5
	Other income	$ 20.7	$ 7.6	$ 14.5	$ 24.9	$ 9.2	$ 15.1	$ 10.8	$ 15.8	$ 3.3	$ 1.7
Operating Income By Business Group (before corporate overhead)	Organic Materials	$ 29.2	$ 47.2	$ 55.6	$ 43.5	$ 49.8	$ 55.8	$ 49.4	$ 48.8	$ 21.1	$ 14.0
	Road Materials	$ 57.9	$ 57.2	$ 55.0	$ 36.2	$ 21.0	$ 17.1	$ 12.0	$ 14.0	$ 12.9	$ 11.1
	Forest Products	$ 42.9	$ 21.3	$ 31.9	$ 26.2	$ 25.8	$ 18.6	$ 25.4	$ 17.6	$ 20.7	$ 13.4
	Engineered Metal Products	$ 12.7	$ (1.1)	$ 11.4	$ 13.6	$ 17.5	$ 20.8	$ 20.0	$ 8.4	$ 7.0	$ 5.6
	Engineering and Construction	$ (7.5)	$ (.4)	$ 10.5	$ 18.2	$ 20.1	$ 13.0	$ 7.7	$ 2.8	$ (2.7)	$ (1.2)
	Miscellaneous	$ 6.9	$ 4.8	$ 5.7	$ 22.1	$ 3.8	$ 8.5	$ 8.6	$ 13.2	$ 13.2	$ 5.9
	Total operating income	$ 142.1	$ 129.0	$ 170.1	$ 159.8	$ 138.0	$ 133.8	$ 123.1	$104.8	$ 72.2	$ 48.8
Corporate Income	Corporate overhead (included in above expenses)	$ 22.5	$ 24.1	$ 22.2	$ 17.9	$ 12.8	$ 11.9	$ 10.4	$ 16.0	$ 11.0	$ 5.5
	Income before income taxes and interest expense	$ 119.6	$ 104.9	$ 147.9	$ 141.9	$ 125.2	$ 121.9	$ 112.7	$ 88.6	$ 61.2	$ 43.2
	Interest expense	$ 34.1	$ 33.2	$ 20.6	$ 13.2	$ 11.8	$ 12.6	$ 11.8	$ 12.6	$ 10.1	$ 7.5
	Income taxes	$ 33.9	$ 17.7	$ 42.4	$ 52.7	$ 47.0	$ 41.8	$ 40.6	$ 28.4	$ 21.6	$ 12.6
	Net income	$ 51.6	$ 54.0	$ 84.9	$ 76.0	$ 66.4	$ 67.5	$ 60.3	$ 47.8	$ 29.5	$ 23.1
	Preference and preferred dividends	$ 7.9	$ .6	$ .6	$ .6	$ .6	$ .6	$ .6	$ .6	$ .6	$ .6
	Income to common shareholders	$ 43.7	$ 53.4	$ 84.3	$ 75.4	$ 65.8	$ 66.9	$ 59.7	$ 47.2	$ 28.9	$ 22.5
Financial Position At December 31,	Current assets	$ 542.8	$ 644.9	$ 535.3	$ 530.4	$ 438.9	$ 427.1	$ 369.4	$339.1	$255.1	$236.0
	Current liabilities	$ 272.1	$ 319.9	$ 270.0	$ 247.7	$ 208.3	$ 167.7	$ 150.6	$144.0	$107.0	$ 70.4
	Working capital	$ 270.7	$ 325.0	$ 265.3	$ 282.7	$ 230.7	$ 259.3	$ 218.8	$195.1	$148.0	$165.6
	Property, plant and equipment—net	$ 679.1	$ 667.0	$ 555.8	$ 457.7	$ 378.1	$ 325.5	$ 255.3	$226.7	$240.3	$210.1
	Total assets	$1,328.2	$1,389.5	$1,140.7	$1,036.1	$ 870.3	$ 783.6	$ 679.7	$647.9	$520.2	$470.8
	Long-term debt and capital lease obligations	$ 288.9	$ 308.7	$ 224.2	$ 233.6	$ 152.0	$ 159.7	$ 132.6	$166.6	$112.8	$120.8
	Total debt—% of total capitalization	30%	32%	29%	32%	26%	28%	27%	35%	30%	33%
	Common shareholders' equity	$ 629.1	$ 619.5	$ 582.2	$ 498.3	$ 454.8	$ 410.2	$ 353.3	$297.1	$259.0	$238.1
Data Per Common Share	Earnings	$ 1.58	$ 1.98	$ 3.21	$ 3.01	$ 2.64	$ 2.70	$ 2.49	$ 2.04	$ 1.28	$ 1.00
	Common stock dividends	$ 1.40	$ 1.40	$ 1.25	$ 1.125	$ .95	$ .80	$ .65	$ .535	$ .45	$ .415
	Shareholders' equity	$ 22.58	$ 22.41	$ 21.81	$ 20.12	$ 18.21	$ 16.50	$ 14.57	$ 12.81	$ 11.39	$ 10.58
Other Statistics	Capital expenditures	$ 182.1	$ 230.9	$ 177.1	$ 144.5	$ 104.5	$ 90.6	$ 62.2	$ 80.3	$ 61.7	$ 47.1
	Cash flow	$ 132.1	$ 134.6	$ 141.5	$ 141.7	$ 114.8	$ 107.3	$ 94.3	$ 72.5	$ 59.8	$ 51.3
	Current ratio	1.99-to-1	2.02-to-1	1.98-to-1	2.14-to-1	2.11-to-1	2.55-to-1	2.45-to-1	2.35-to-1	2.38-to-1	3.35-to-1
	Return on average invested capital	6.7%	7.7%	12.0%	12.1%	12.4%	13.4%	13.6%	12.2%	9.1%	7.5%
	Return on average common equity	7.2%	9.0%	15.8%	16.2%	15.6%	17.6%	18.5%	17.1%	11.8%	9.9%
	Average common shares outstanding (thousands)	27,667	26,989	26,228	25,031	24,886	24,809	24,002	23,141	22,531	22,502
	Shareholders at year end	20,326	18,362	18,115	17,729	17,553	16,729	15,352	15,164	15,639	15,755
	Average number of employees	20,113	21,029	22,087	20,858	18,168	17,880	17,549	15,763	15,921	15,456

* Restated to reflect compliance with Statement of Financial Accounting Standards No. 43, Accounting for Compensated Absences, and reclassified to conform with 1981 classification.

Index to Financial Statements

Koppers Company, Inc. Covered by Report of Certified Public Accountants

Schedules I, II, IV, VII, XI, XII and XIII are not given, as the subject matter thereof either is not present or is not present in amounts sufficient to require submission of the schedules or because the information required is included in the financial statements or the notes thereto.

Statement of Accounting Policies

Koppers Company, Inc. and Subsidiaries

The major accounting policies of the Company are set forth below. The word "Company" as used in this report includes consolidated entities as well as Koppers Company, Inc.

Principles of Consolidation—The consolidated statements include the accounts of the Company and all of its subsidiaries. All intercompany transactions have been eliminated.

Inventories—Inventories are valued at the lower of cost or market. Cost for approximately 67% of inventories for both 1981 and 1980 is determined by the LIFO (last-in, first-out) method. Cost for the remainder of the inventories represents average costs or standard costs, which approximate actual on the FIFO (first-in, first-out) basis. Market is replacement cost for raw materials and net realizable value for work in process and finished goods.

Investments—Companies owned between 20% and 50% are accounted for on the equity method except for certain foreign investments accounted for at cost because of repatriation regulations.

Fixed Assets—Buildings, machinery and equipment are depreciated on the straight-line method over their useful lives. All ordinary maintenance and repair expenses are charged to operations. Timber and mineral properties are depleted on the basis of units produced.

When land, standing timber or property units are sold, the difference between selling price and cost, after recognition of accumulated depreciation and depletion, is reflected as Other income.

Long-Term Contracts—Sales and income on long-term construction contracts are accounted for on the percentage-of-completion basis; losses are recognized as soon as they are determined.

Pension Plans—The Company has pension plans covering substantially all employees. The Company provides for amortization of unfunded prior service costs over periods up to 40 years and pays provisions for pension expense into trust funds annually.

Income Taxes—Benefits from investment tax credit are reflected currently in income.

Earnings Per Share—Earnings per share have been computed on the basis of the average number of common shares outstanding. The effect on earnings resulting from the assumed conversion of preference stock is antidilutive.

Report of Certified Public Accountants

Arthur Young & Company
Certified Public Accountants

The Board of Directors and Shareholders
Koppers Company, Inc.:

We have examined the consolidated financial statements of Koppers Company, Inc. and subsidiaries listed in the accompanying Index to Financial Statements. 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 financial statements listed in the accompanying Index to Financial Statements present fairly the consolidated financial position of Koppers Company, Inc. and subsidiaries 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 after restatement of the consolidated financial statements for years prior to 1981 to give retroactive effect to the change, with which we concur, in the method of accounting for compensated absences as described in Note 1 to the financial statements.

Arthur Young & Company

2400 Koppers Building
Pittsburgh, Pennsylvania 15219
January 22, 1982

Consolidated Statement of Income

Years ended December 31, 1981	1980*	1979*	Koppers Company, Inc. and Subsidiaries	
($ Thousands, except per share figures)				
$2,018,562	$1,929,190	$1,828,268	Net sales	1
			Operating expenses:	2
1,597,556	1,534,150	1,436,267	Cost of sales	3
83,564	78,860	63,599	Depreciation, depletion and amortization	4
49,155	44,320	40,084	Taxes, other than income taxes	5
189,358	174,600	154,935	Selling, research, general and administrative expenses	6
1,919,633	1,831,930	1,694,885		
98,929	97,260	133,383	Operating profit	
			Other income:	7
7,019	(6,499)	3,928	Profit (loss) on disposal of net assets of discontinued operations (Note 10)	8
5,207	3,795	3,221	Profit on sales of capital assets	9
(3,023)	—	—	Provision for decline in value of investment	
5,369	5,138	2,527	Equity in earnings of affiliates (dividends received: 1981—$8,304; 1980—$4,328; 1979—$1,994)	10
4,698	3,526	3,850	Interest income	11
1,390	1,651	1,033	Miscellaneous	
20,660	7,611	14,559		
119,589	104,871	147,942	Income before interest expense and provision for income taxes	
			Interest expense:	12
28,578	23,192	17,800	Term debt	
5,483	9,998	2,796	Other	
34,061	33,190	20,596		
85,528	71,681	127,346	Income before provision for income taxes	
33,886	17,721	42,496	Provision for income taxes (Note 11)	13
$ 51,642	$ 53,960	$ 84,850	Net income for the year	14
			Dividends on:	
7,285	—	—	Redeemable convertible preference stock	15
600	600	600	Cumulative preferred stock	15
$ 43,757	$ 53,360	$ 84,250	Net income applicable to common stock	16
27,667	26,989	26,228	Average number of shares of common stock outstanding during year (in thousands)	
$1.58	$1.98	$3.21	Earnings per share of common stock	

*Restated (Note 1) and reclassified to conform with 1981 classifications (Note 10).
(See accompanying statement of accounting policies and notes to financial statements.)

Explanations

1. Total received, or receivable, from customers.

2. Costs related to the year's operations.

3. Directly related to operating levels: wages, salaries, raw materials, energy, transportation, pensions, supplies and services.

4. Related to the Company's investment in fixed assets—this portion of the original cost of machinery, plants, etc. has been allocated against the year's income.

5. Not closely related to operating levels: social security and unemployment taxes, state and local franchise and real estate taxes.

6. Salesmen's compensation, research activities and such other costs to support operations as corporate staff and officers' salaries, pensions, and other general expenses.

7. Not resulting directly from sale of Company products, although most is included in operating income of business segments; see page 33.

8. Gain or loss realized from sale or write-off of assets of discontinued business lines or facilities.

9. Profit on sales of equipment, facilities, etc. no longer needed in ongoing operations.

10. Represents Koppers portion of earnings of companies in which it has 20%-50% ownership interest.

11. Realized from short-term investment of cash.

12. Cost of borrowed funds.

13. Total income taxes: federal, state and foreign.

14. This was earned for all shareholders.

15. In 1981, $7.9 million in dividends was paid to preferred and preference shareholders.

16. This portion of net income was available to common shareholders; in 1981, $38.8 million was paid in dividends, the remainder reinvested in Koppers operations.

Consolidated Balance Sheet

Assets

December 31, 1981	1980*	Koppers Company, Inc. and Subsidiaries	Note
($ Thousands)			
		Current assets:	1
$ 46,824	$ 84,377	Cash, including short-term investments of $41,458 in 1981 and $64,755 in 1980	2
264,874	298,370	Accounts receivable, principally trade, less allowance for doubtful accounts of $4,720 in 1981 and $4,875 in 1980 (Note 2)	3
		Inventories (Note 3):	4
		At cost—FIFO (first-in, first-out) basis:	
160,367	177,512	Product	
50,732	50,112	Work in process	
129,492	122,020	Raw materials and supplies	
340,591	349,644		
126,836	109,305	Less excess of FIFO cost over LIFO (last-in, first-out)	5
213,755	240,339		6
17,297	21,769	Prepaid expenses	7
542,750	644,855	Total current assets	8
		Investments:	9
83,304	50,780	Affiliated companies, at equity (Note 4)	
6,816	2,697	Affiliated and other, at cost	
90,120	53,477		
		Fixed assets, at cost:	10
123,669	115,849	Buildings	
907,211	857,413	Machinery and equipment	
1,030,880	973,262		
493,955	438,900	Less accumulated depreciation	11
536,925	534,362		
12,997	16,438	Assets under capital leases, net of accumulated amortization of $10,316 in 1981 and $9,609 in 1980 (Note 6)	
87,597	81,795	Depletable properties, less accumulated depletion of $14,826 in 1981 and $19,667 in 1980	12
41,558	34,420	Land	
679,077	667,015		
16,228	24,139	Other assets	
$1,328,175	$1,389,486		13

*Restated—Note 1.
(See accompanying statement of accounting policies and notes to financial statements.)

Explanations

This portion of balance sheet shows what Koppers owned.

1. Likely to be converted into cash within one year.

2. Primarily kept in bank accounts for normal business use or invested in short-term notes.

3. Amounts owed to Company by customers and others.

4. Goods being stockpiled or used in the process of manufacturing or held for sale. Value of these inventories is based on the FIFO accounting method, which reflects the most recent cost of goods.

5. Company uses LIFO accounting for substantially all domestic inventories to charge current income with most recent costs of goods, thus eliminating illusory inventory profits.

6. LIFO value of inventory results in understatement of Company assets. See discussion on page 16.

7. Amounts paid in advance for items to be rendered in the future, such as insurance premiums, property taxes and rents.

8. See discussion of working capital on page 16.

9. Koppers equity ownership in other companies.

10. The original amount paid for Company-owned buildings, machinery and equipment.

11. Accumulation of the portion of the original amount paid for fixed assets that has been allocated to operating costs since the assets were purchased.

12. Cost of properties having exhaustible resources, such as timber, coal and stone, reduced for value of resources used in the past.

13. The total net cost assigned to everything Koppers owns.

Consolidated Balance Sheet

Liabilities and Shareholders' Equity

December 31, 1981	1980*	Koppers Company, Inc. and Subsidiaries	Note
($ Thousands, except per share figures)			
		Current liabilities:	1
$ 75,699	$ 96,717	Accounts payable, principally trade	2
		Accrued liabilities:	3
17,414	6,764	Income taxes	
28,901	32,191	Pensions (Note 5)	
18,608	15,271	Insurance	
38,576	39,931	Payroll and other compensation costs (Note 1)	
49,733	59,029	Other accruals	
15,168	22,805	Advance payments received on contracts	4
22,227	21,874	Term debt and obligations under capital leases due within one year	5
5,750	25,294	Short-term debt	
272,076	319,876	Total current liabilities	6
278,090	296,151	Term debt, due after one year (Note 7)	7
10,839	12,519	Obligations under capital leases (Note 6)	8
13,948	12,336	Deferred compensation (Note 9)	
34,170	39,129	Deferred income taxes	9
75,000	75,000	Redeemable convertible preference stock, no par value, stated value $100 per share: issued and outstanding 750,000 shares, 10% series (Note 8)	
15,000	15,000	Cumulative preferred stock (not subject to mandatory redemption), $100 par value: authorized 300,000 shares; issued and outstanding 150,000 shares, 4% series	
34,819	34,558	Common stock, $1.25 par value: authorized 60,000,000 shares; issued 27,857,138; and outstanding 27,855,478 shares in 1981 and 27,646,563 shares in 1980	10
132,935	128,608	Capital in excess of par value	10
461,298	456,309	Earnings retained in the business (Note 7)	10
$1,328,175	$1,389,486		

*Restated—Note 1.
(See accompanying statement of accounting policies and notes to financial statements.)

Explanations

This portion of balance sheet shows everything Koppers owed.

1. These are liabilities payable within one year.

2. Due to suppliers for goods and services provided.

3. Amounts owed but not required to be paid at year end.

4. For services and products paid for by customers, which Koppers will provide in the near future.

5. Repayment of long-term debt and capital lease obligations required during coming year.

6. Amounts payable within one year; Company's current assets at year-end 1981 covered these liabilities by a current ratio of 1.99-to-1. See discussion on page 16.

7. Borrowings used to expand Koppers income-producing base. Shareholders can benefit as this added capital generates earnings in excess of interest costs on the debt.

8. The Company leases land, buildings, machinery and equipment. As with long-term debt, there is an obligation to pay off portions of these leases each year. This represents the present value of lease payments that will be made in the future.

9. Differences in accounting rules and tax regulations result in certain income and expenses in financial reports that are not included in tax reports in the same year. This total represents the taxes on the difference that will be paid in future years.

10. The total of these items, $629.1 million, represents the total common shareholders' ownership in Koppers at the close of 1981. Common equity was equal to $22.58 for each share of common stock outstanding at the close of 1981, versus $22.41 at the end of 1980.

Consolidated Statement of Changes in Financial Position

1981	1980*	1979*	Koppers Company, Inc. and Subsidiaries	
	($ Thousands)			
			Source of funds:	1
			Operations:	
$ 51,642	$ 53,960	$ 84,850	Net income	2
83,564	78,860	63,599	Depreciation, depletion and amortization	3
4,975	5,174	7,842	Deferred income taxes and other expenses	4
7,114	—	—	Provision for plant dispositions and decline in value of investment	5
4,615	(810)	(533)	Equity in earnings of affiliated companies, less dividends received	6
151,910	137,184	155,758	Funds provided from operations	
1,602	134,558	29,565	Term debt and obligations under capital leases issued	7
5,821	26,413	32,243	Common stock issued	8
—	72,590	—	Preference stock issued, net of associated expenses	
38,344	10,899	15,247	Book value of fixed assets and other noncurrent assets disposed of or sold	9
197,677	381,644	232,813		10
			Disposition of funds:	11
182,106	230,871	177,125	Capital investments	12
21,343	50,065	39,018	Term debt and capital leases retired	13
46,653	38,387	33,174	Dividends paid	14
1,233	2,347	—	Treasury stock acquired	
647	253	1,006	Other	
251,982	321,923	250,323		
$ (54,305)	$ 59,721	$ (17,510)	Increase (decrease) in working capital	15
			Changes in components of working capital:	16
			Increase (decrease) in current assets:	
$ (37,553)	$ 73,665	$ (95)	Cash and short-term investments	
(33,496)	3,163	(52,452)	Accounts receivable	
(26,584)	28,459	48,927	Inventories	
(4,472)	4,313	8,432	Prepaid expenses	
(102,105)	109,600	4,812		
			Increase (decrease) in current liabilities:	
(21,018)	(2,713)	16,337	Accounts payable	
46	20,128	3,144	Accrued liabilities	
(7,637)	2,674	(4,767)	Advance payments received on contracts	
353	4,521	7,583	Term debt and obligations under capital leases due within one year	
(19,544)	25,269	25	Short-term debt	
(47,800)	49,879	22,322		
$ (54,305)	$ 59,721	$ (17,510)	Increase (decrease) in working capital	

Years ended December 31.

*Restated—Note 1.
(See accompanying statement of accounting policies and notes to financial statements.)

Explanations

1. Where the funds came from:

2. From line 14 of the income statement on page 25.

3. This operating cost does not require the payment of funds, which are retained for use in the business.

4. Taxes and other expenses not paid currently, available for use in operations until the time when payment becomes due.

5. Plant write-offs and write-down of investment reduced Company income but did not result in an outflow of funds. The amount by which income was reduced represents funds retained for use in the business.

6. Income actually received from affiliated companies greatly exceeded dividends in 1981. See page 25.

7. Borrowings explained on page 16.

8. Negotiated value of companies acquired in exchange for shares of common stock, plus value of shares contributed to Employee Stock Ownership Plan as determined by federal tax regulations.

9. Disposal of equipment, facilities, etc. no longer needed in operations.

10. Total of cash generated from all sources.

11. Where the funds went:

12. Capital investments to provide further growth.

13. Repayment of debt and capital lease obligations.

14. Returns to common, preference and preferred shareholders per Explanations 14 and 15 on page 25.

15. Result of subtracting funds paid out from funds generated.

16. This is how the change in working capital at year end affected the items in current assets and current liabilities.

Consolidated Statement of Shareholders' Equity Other Than Redeemable Convertible Preference Stock

Koppers Company, Inc. and Subsidiaries (Amounts in thousands, except outstanding shares and per share figures)

	Outstanding Shares						
	Cumulative Preferred Stock	Common Stock	Cumulative Preferred Stock	Common Stock	Capital in Excess of Par Value	Earnings Retained in the Business	Total
Balance at January 1, 1979 as previously reported	150,000	25,087,492	$15,000	$31,359	$ 80,476	$392,822	$519,657
Adjustment for cumulative effect on prior years of retroactive accrual of vacation earned (Note 1)			—	—	—	(6,330)	(6,330)
Balance at January 1, 1979 as restated	150,000	25,087,492	15,000	31,359	80,476	386,492	513,327
Net income for the year 1979 (restated, Note 1)			—	—	—	84,850	84,850
Cash dividends paid:							
On preferred stock, $4.00 per share			—	—	—	(600)	(600)
On common stock, $1.25 per share			—	—	—	(32,574)	(32,574)
Common stock issued during 1979:							
Acquisitions accounted for as purchases		1,383,551	—	1,730	27,097	—	28,827
Acquisition accounted for as a pooling		201,309	—	252	—	2,568	2,820
Contributed to Employee Stock Ownership Plan		25,976	—	32	564	—	596
Balance at December 31, 1979	150,000	26,698,328	15,000	33,373	108,137	440,736	597,246
Net income for the year 1980 (restated, Note 1)			—	—	—	53,960	53,960
Cash dividends paid:							
On preferred stock, $4.00 per share			—	—	—	(600)	(600)
On common stock, $1.40 per share			—	—	—	(37,787)	(37,787)
Expenses associated with redeemable convertible preference shares issued			—	—	(2,410)	—	(2,410)
Purchase of common stock for treasury		(95,374)	—	(119)	(2,228)	—	(2,347)
Common stock issued during 1980:							
Acquisitions accounted for as purchases		905,546	—	1,132	21,657	—	22,789
Contributed to Employee Stock Ownership Plan		42,689	—	53	1,148	—	1,201
Common stock issued from treasury to Employee Savings and Profit Sharing Plan		95,374	—	119	2,304	—	2,423
Balance at December 31, 1980	150,000	27,646,563	15,000	34,558	128,608	456,309	634,475
Net income for the year 1981			—	—	—	51,642	51,642
Cash dividends paid:							
On preference stock, $10.00 per share			—	—	—	(7,285)	(7,285)
On preferred stock, $4.00 per share			—	—	—	(600)	(600)
On common stock, $1.40 per share			—	—	—	(38,768)	(38,768)
Purchase of common stock for treasury		(58,443)	—	(73)	(1,160)	—	(1,233)
Common stock issued during 1981:							
Acquisitions accounted for as purchases		166,499	—	208	3,532	—	3,740
Contributed to Employee Stock Ownership Plan		44,076	—	55	815	—	870
Common stock issued from treasury to Employee Savings and Profit Sharing Plan		56,783	—	71	1,140	—	1,211
Balance at December 31, 1981	150,000	27,855,478	$15,000	$34,819	$132,935	$461,298	$644,052

(See accompanying statement of accounting policies and notes to financial statements.)

Notes to Financial Statements

December 31, 1981, 1980 and 1979

1. Compensated Absences—In compliance with Statement of Financial Accounting Standards No. 43, Accounting for Compensated Absences, the financial statements have been restated to reflect the Company's obligation for the accrual of all vacation earned. In 1981, this change reduced net income by $289,000, or $.01 per share. For prior years, the effect was as follows:

($ Thousands)	Decrease in Net Income and Retained Earnings	Decrease in Earnings Per Share
1978 and prior years	$6,330	NA
1979	1,621	$.06
1980	1,029	.04

2. Accounts Receivable—Receivables include the following amounts applicable to long-term construction contracts:

($ Thousands)	1981	1980
Billed or billable	**$26,659**	$34,827
Retainage:		
Due after one year	**$ 1,501**	$ 3,474
Due within one year	**11,930**	16,463
Total	**$13,431**	$19,937

3. Inventories—The Company reports lower earnings and current tax liabilities by using the LIFO method for most inventories, through which current costs are charged to current revenue, than it would by using other inventory methods. The effect of using the LIFO inventory method (compared with the FIFO method) reduced the Company's net income per share by $.31 in 1981, $.32 in 1980 and $.50 in 1979.

During 1981, certain inventories were reduced. This reduction resulted in a liquidation of LIFO inventory quantities carried at lower costs prevailing in prior years as compared with the cost of 1981 purchases, the effect of which increased net earnings in 1981 by approximately $3,769,000, or $.14 per share.

4. Investments—In February, 1981, the Company increased its equity investment in Richmond Tank Car Company common stock from $14,000,000 (500,000 shares, or 9%) at year-end 1980 to $48,825,000 (1,550,000 shares, or 23%). After this additional purchase, the Company's total investment exceeded the underlying net assets by $26,096,000, which is being amortized against income over 30 years. The quoted market value of this investment at December 31, 1981 was $20,538,000 ($13.25 per share). Management considers this reduced market value to represent a temporary decline.

5. Retirement Plans

Company Plans—Total pension expense in 1981 was $27,727,000, as compared with $31,192,000 and $28,301,000 in 1980 and 1979, respectively. In 1981, the Company changed its investment return assumption from 6% to 8% and increased the salary scale rate from 4% to 6% to reflect current pension fund earnings experience and salary increases. The net effect of these changes was to reduce pension expense for the year by $7,524,000 and increase net income by $3,738,000, or $.14 per share. A comparison of accumulated plan benefits and plan net assets for the Company's defined benefit plans as of December 31, 1981 and 1980 is presented below.

($ Thousands)	1981	1980
Actuarial present value of accumulated plan benefits:		
Vested	**$189,331**	$205,227
Nonvested	**28,079**	29,543
	$217,410	$234,770
Net assets available for benefits	**$258,794**	$258,976

The rate used in determining the actuarial present value of accumulated plan benefits was 10% for 1981 and 8% for 1980.

The Company has an Employee Stock Ownership Plan (ESOP) for the benefit of employees upon retirement. Contributions to the ESOP are offset by additional investment tax credit.

Multiemployer Plans—In addition to the expense for the Company-sponsored plans, the Company had pension expense for full-time employees of $5,444,000, $5,704,000 and $6,301,000 in 1981, 1980 and 1979, respectively, for contributions to multiemployer plans as determined by various collective bargaining agreements. The relative position of the Company regarding the accumulated plan benefits and plan net assets of multiemployer plans is not determinable by the Company and is not included in the above information.

6. Leases—The Company, as lessee, has entered into various lease arrangements covering land, buildings, machinery and equipment. The following is an analysis of the property under capital leases:

($ Thousands)	1981	1980
Land and buildings	**$16,813**	$16,804
Machinery and equipment	**6,500**	9,243
	23,313	26,047
Less accumulated amortization	**10,316**	9,609
	$12,997	$16,438

The following is a schedule by years of future minimum lease payments as of December 31, 1981.

($ Thousands)	Capital Leases	Operating Leases
1982	$ 3,121	$ 3,931
1983	2,424	2,214
1984	1,253	1,512
1985	1,058	922
1986	934	777
1987 and later	14,214	2,647
Total minimum lease payments	$23,004	$12,003
Less amount representing executory costs	77	
Net minimum lease payments	22,927	
Less amount representing interest	10,037	
Present value of net minimum lease payments (including $2,051 classified as current obligations under capital leases)	$12,890	

Debts issued by municipal authorities and guaranteed by the Company are not considered lease agreements even though the legal form of the transaction is a lease. Such obligations are classified as term debt.

7. Term Debt—Term debt due after one year consists of the items shown in Table 1.

The aggregate term debt maturity in the years 1982 through 1986, respectively, is $20,176,000, $10,365,000, $11,532,000, $11,312,000 and $17,974,000.

Additional Debt Information—In 1981, the Company amended its revolving credit bank loan agreement. The agreement as amended provides the Company with $100,000,000 of credit that would not have been available under the old agreement until December 28, 1983. This agreement provides for revolving credit loans of up to $200,000,000 until September 30, 1986. Commitment fees of up to ⅜ of 1% per annum are required on any unborrowed amounts. Any loans outstanding on September 30, 1986 may be converted to term loans payable during the succeeding three years. The agreement calls for interest at one of three options chosen by the Company, those being the prime rate, the certificate of deposit rate or the Eurorate, with factors up to $\frac{7}{10}$ of 1% added to these rates after September 30, 1985. The Company had no borrowings under this agreement at December 31, 1981 and 1980.

The Company's term debt agreements contain various restrictions as to dividend payments and incurrence of additional indebtedness. As of December 31, 1981, under the most restrictive provisions, $170,534,000 of consolidated earnings retained in the business was available for the payment of cash dividends, and the Company could incur additional indebtedness of approximately $158,523,000.

The Company has guaranteed $9,885,000 of the indebtedness of affiliated and other corporations as of December 31, 1981.

8. Redeemable Convertible Preference Stock—On December 23, 1980, the Company issued 750,000 shares of convertible preference stock (preference stock), with each share convertible into 3.48 shares of the Company's common stock. The Company may redeem the preference shares beginning in 1983 at $107 per share, declining by $1 per share each year through 1990. Beginning in 1990, the Company is required to make sinking fund payments at $100 per share sufficient to retire 37,500 shares of preference stock annually except that prior redemptions or conversions may be applied to such requirements at the Company's option.

The Company may not pay common or preference stock dividends if required sinking fund payments are not made. If preference stock dividends are in arrears for an amount equal to more than six quarterly dividends, the holders of preference stock may then elect two directors.

The Company has authorized but unissued an additional 250,000 shares of preference stock.

Table 1. Term Debt

($ Thousands)	1981	1980
11.25% promissory notes due $6,500 annually beginning 1986, $9,000 balance due in 2000	**$100,000**	$100,000
8.95% promissory notes due $4,000 annually beginning 1984	**60,000**	60,000
6% notes due $3,000 annually	**32,000**	35,000
Pollution control bonds and notes:		
8.25% bonds due 1983-2002	**39,000**	39,000
5.875% tax-exempt bonds due 1998-2017	**16,350**	16,350
5.9% and 6% notes due 1983-1998	**10,600**	10,600
	65,950	65,950
10% term loan payable	**—**	9,795
Other	**20,140**	25,406
	$278,090	$296,151

9. Employee Compensation Plans

Deferred Compensation Plan—The Company has a Deferred Compensation Unit Plan for officers and other key employees. Operating expense has been charged with $2,139,000, $1,881,000 and $1,504,000 to provide for the benefits accrued during 1981, 1980 and 1979, respectively.

Incentive Plans—The Company has an Incentive Plan for key employees that is based upon the attainment of a specific return on invested capital using income before interest expense and income taxes. Operating expense was charged with $2,430,000 in 1979. There was no charge to operating expense in 1980 or 1981 because of the Company's insufficient return on investment.

Performance Share Plan—The Company has a Performance Share Plan for key employees that provides for an award of performance shares (up to a maximum of 500,000 shares), each equivalent to one share of the Company's common stock and cash. Distribution of the common stock plus cash equal to the fair market value of the common stock will be made at the end of designated periods if specified earnings are attained.

In 1980, $2,418,000 previously charged to operating expenses in 1979 for benefits under the plan were credited against expense as the Company did not expect to reach the required growth rate. The related 1979 cycle performance shares expired on December 31, 1981.

Currently, 74,050 performance shares awarded in 1981 for the award period ending December 31, 1983 are outstanding. No provision has been made in 1981 based on profit performance for that year.

Savings and Profit Sharing Plan—Effective January 1, 1980, the Company initiated a Savings and Profit Sharing Plan for all eligible employees. Participating employees may elect to contribute up to 6% of their salaries, and the Company contributes an amount equal to a specified percentage, based on Company earnings, of the employees' contributions to a limit of $6,000 per employee. The Company's contributions may be made in cash or common stock of the Company. The Company's contribution amounted to $1,923,000 in 1981 and $4,375,000 in 1980.

10. Discontinued Operations—In 1981, the Company discontinued or disposed of several operating locations and portions of business segments that did not meet management's objectives. The effect on operations and the related profit or loss on disposition for these locations, and similar dispositions in prior years, is shown in Table 2.

The more significant dispositions included: Forest Products. The Canadian spruce lumber operations were sold in 1981, resulting in a gain of $20,196,000, or $6,757,000 after tax ($.24 per share).

Organic Materials. Operations discontinued in 1981 resulted in a loss of $12,371,000, or $6,573,000 after tax ($.24 per share). Organic Materials also had losses on dispositions of $2,374,000 and $1,494,000, or $1,281,000 and $777,000 after tax in 1980 and 1979 ($.05 and $.03 per share), respectively.

Engineered Metal Products. Costs in 1981 related to discontinued operations were

Table 2. Discontinued Operations

($ Thousands)	1981	1980	1979
Net sales	**$34,182**	$ 47,484	$88,420
Operating expenses	**40,414**	52,061	78,381
Operating profit (loss)	**(6,232)**	(4,577)	10,039
Profit (loss) on disposal of net assets	**7,019**	(6,499)	3,928
	$ 787	$(11,076)	$13,967

$806,000, or $435,000 after tax ($.02 per share). Operations discontinued in 1980 resulted in a loss of $4,125,000, or $2,228,000 after tax ($.08 per share).
Road Materials. The bituminous liquids operation was sold in 1979 at a profit of $5,866,000, or $3,140,000 after tax ($.12 per share).

Table 3. Components of Income Taxes

($ Thousands)	1981	1980 (restated)	1979 (restated)
Income before provision for income taxes:			
Domestic operations	**$71,290**	$61,354	$109,625
Foreign operations*	**14,238**	10,327	17,721
Total	**$85,528**	$71,681	$127,346
Income tax expense:			
Current:			
Federal	**$25,550**	$ 8,607	$ 33,825
Foreign	**2,964**	2,353	6,594
State	**1,901**	4,390	8,421
	30,415	15,350	48,840
Deferred:			
Federal	**4,044**	1,478	(6,940)
Foreign	**(573)**	893	596
	3,471	2,371	(6,344)
Total	**$33,886**	$17,721	$ 42,496

*Foreign operations income before the provision for income taxes includes equity income from foreign investments of $11,178,000, $5,683,000 and $2,579,000 for 1981, 1980 and 1979, respectively.

Table 4. Deferred Tax Expense

($ Thousands)	1981	1980 (restated)	1979 (restated)
Excess of tax over book depreciation	**$ 6,064**	$ 7,991	$ 7,838
Anticipated expenses provided in advance of deductibility for tax purposes	**(4,303)**	(4,358)	(3,150)
Difference in book and tax income recognition:			
—Sale of investment in Cutler-Hammer, Inc.	**—**	—	(8,706)
—Construction contracts	**3,399**	1,308	(399)
—Inventory timing difference	**(1,303)**	(857)	(451)
Other—net	**(386)**	(1,713)	(1,476)
	$ 3,471	$ 2,371	$ (6,344)

Table 5. Statutory and Effective Income Tax Rates

	1981	1980 (restated)	1979 (restated)
Statutory tax rate:			
Federal	**46.0%**	46.0%	46.0%
State, net of federal tax benefit	**1.2%**	3.3%	3.6%
Effect of additional taxes on gain from the sale of a Canadian subsidiary	**3.8%**	—	—
Investment tax credit	**(7.3%)**	(14.8%)	(10.8%)
Nontaxable earnings of Domestic International Sales Corporation	**(1.2%)**	(2.1%)	(1.0%)
Effect of percentage over cost depletion	**(3.6%)**	(4.5%)	(2.4%)
Effect of lower statutory tax rate applicable to capital gain income	**(1.5%)**	(1.8%)	(.8%)
Other—net	**2.2%**	(1.4%)	(1.2%)
	39.6%	24.7%	33.4%

11. Income Taxes—Income before provision for income taxes and the components of income tax expense are shown in Table 3.

The components of deferred tax expense and related tax effect are shown in Table 4.

The differences between the statutory and effective income tax rates are shown in Table 5.

The provisions for income taxes for the years 1981, 1980 and 1979 have been reduced by $6,423,000, $11,066,000 and $14,435,000, respectively, for investment tax credit.

At December 31, 1981, 1980 and 1979, consolidated earnings retained in the business included approximately $25,230,000, $25,041,000 and $19,494,000, respectively, on which federal income tax has not been provided since the Company has reinvested such earnings and intends to continue such investment permanently in export activities.

12. Acquisitions—In 1981, the Company's Road Materials Group acquired three companies for a total of 166,499 shares of Company common stock and $21,213,000 in cash. The acquisitions were accounted for using the purchase method of accounting, and results of operations have been included from the respective dates of these acquisitions.

In 1980, the Company's Road Materials Group acquired five companies for a total of 905,546 shares of Company common stock and $594,000 in cash. The acquisitions were accounted for using the purchase method of accounting, and results of operations have been included from the respective dates of these acquisitions. One of the acquisitions provides for the issuance of up to 250,000 additional shares of Company common stock if and when a net recovery is received from claims on certain construction contracts that are in litigation.

Pro forma results of operations for acquisitions made in 1981 and 1980 have not been reflected because the effects are not material.

13. Operations by Business Segments—The Company operates principally in five business segments. Financial information about each segment is provided in Table 6 on the following page. Information relating to the products and services provided by these segments is located on pages 41 through 45 of this annual report and 10-K. Intersegment sales are not disclosed because of immateriality.

14. Litigation—Inland Steel Company has asserted a claim against the Company in the amount of $100 million for delay damages under a construction contract. The Company and its legal advisors believe there are sound defenses against Inland's claim. The Company has filed a claim against Inland to recover $17 million, representing fees on the contract.

Table 6. Operations by Business Segments

($ Thousands)	Organic Materials	Road Materials	Forest Products	Engineered Metal Products	Engineering and Construction	Misc.	Consolidated
Year ended December 31, 1981:							
Net sales	$678,099	$541,920	$379,823	$342,464	$ 58,567	$ 17,689	$2,018,562
Operating profit before general corporate overhead	$ 42,238	$ 46,647	$ 19,652	$ 12,941	$ (6,601)	$ 6,583	$ 121,460
Other income (expense) (Note 10)	(15,030)	3,334	22,209	(157)	28	4,907	15,291
Equity in earnings (loss) of affiliates	2,023	7,908	1,048	(50)	(1,000)	(4,560)	5,369
Operating income (loss)	$ 29,231	$ 57,889	$ 42,909	$ 12,734	$ (7,573)	$ 6,930	$ 142,120
General corporate overhead							22,531
Interest expense							34,061
Income before provision for income taxes							$ 85,528
Identifiable assets as of December 31, 1981	$377,156	$346,701	$203,077	$195,620	$ 22,596	$124,873	$1,270,023
General corporate assets							58,152
Total assets							$1,328,175
Depreciation, depletion and amortization	$ 29,932	$ 29,077	$ 14,274	$ 8,259	$ 264	$ 721	$ 82,527
Depreciation and amortization of general corporate assets							1,037
							$ 83,564
Capital investment	$ 37,895	$ 52,770	$ 23,798	$ 18,795	$ 588	$ 48,260	$ 182,106
Year ended December 31, 1980 (restated):							
Net sales	$577,196	$531,729	$380,862	$358,067	$ 64,601	$ 16,735	$1,929,190
Operating profit before general corporate overhead	$ 47,598	$ 52,096	$ 17,223	$ 2,032	$ (1,854)	$ 4,289	$ 121,384
Other income (expense) (Note 10)	(2,432)	2,620	3,257	(3,293)	1,403	918	2,473
Equity in earnings (loss) of affiliates	2,016	2,533	842	164	—	(417)	5,138
Operating income (loss)	$ 47,182	$ 57,249	$ 21,322	$ (1,097)	$ (451)	$ 4,790	$ 128,995
General corporate overhead							24,124
Interest expense							33,190
Income before provision for income taxes							$ 71,681
Identifiable assets as of December 31, 1980	$410,229	$334,963	$225,316	$206,218	$ 29,523	$ 85,369	$1,291,618
General corporate assets							97,868
Total assets							$1,389,486
Depreciation, depletion and amortization	$ 27,364	$ 27,289	$ 13,655	$ 7,509	$ 227	$ 746	$ 76,790
Depreciation and amortization of general corporate assets							2,070
							$ 78,860
Capital investment	$ 40,955	$ 78,614	$ 31,705	$ 14,302	$ 42	$ 65,253	$ 230,871
Year ended December 31, 1979 (restated):							
Net sales	$556,583	$454,102	$368,858	$328,181	$113,790	$ 6,754	$1,828,268
Operating profit before general corporate overhead	$ 54,619	$ 46,818	$ 29,476	$ 10,768	$ 10,409	$ 3,450	$ 155,540
Other income (expense) (Note 10)	(1,278)	7,724	2,048	810	153	2,575	12,032
Equity in earnings (loss) of affiliates	2,230	455	374	(182)	—	(350)	2,527
Operating income	$ 55,571	$ 54,997	$ 31,898	$ 11,396	$ 10,562	$ 5,675	$ 170,099
General corporate overhead							22,157
Interest expense							20,596
Income before provision for income taxes							$ 127,346
Identifiable assets as of December 31, 1979	$386,511	$256,291	$199,053	$205,342	$ 38,599	$ 26,511	$1,112,307
General corporate assets							28,404
Total assets							$1,140,711
Depreciation, depletion and amortization	$ 22,576	$ 18,580	$ 13,143	$ 6,640	$ 810	$ 397	$ 62,146
Depreciation and amortization of general corporate assets							1,453
							$ 63,599
Capital investment	$ 64,136	$ 63,091	$ 28,228	$ 16,929	$ 113	$ 4,628	$ 177,125

Schedules for Form 10-K
Koppers Company, Inc. and Subsidiaries

Investments in Affiliated Companies at Equity (SEC Schedule III)

($ Thousands)	Classified as Long-Term Assets: Richmond Tank Car Company (RTC)*	Classified as Long-Term Assets: Other investments	Classified as Long-Term Assets: Total	Contract joint ventures classified as current assets	Total
Balance at December 31, 1980	$14,000	$36,780	$50,780	$ —	$50,780
Additional investments	34,825	6,156	40,981	1,853	42,834
Equity in earnings of investments	1,509	(3,540)**	(2,031)	7,400	5,369
Dividends received	(1,162)	(2,241)	(3,403)	(4,901)	(8,304)
Provision for decline in value	—	(3,023)	(3,023)	—	(3,023)
Balance at December 31, 1981	$49,172	$34,132	$83,304	$ 4,352	$87,656

*Because of the time lag in receiving Richmond Tank Car Company's statements, the Company is recording equity income on a one-month lag basis. For additional information on Richmond Tank Car Company, see Note 4 to financial statements.
**Includes $6,362,000 of expenses incurred for synthetic fuel projects.

Property, Plant and Equipment (SEC Schedule V)

($ Thousands)

Classification	Balance at beginning of year	Additions at cost	Retirements or sales	Transfers and other additions (deductions) (2)	Balance at close of year
Year ended December 31, 1981					
Land	$ 34,420	$ 2,827	$ 1,152	$ 5,463	$ 41,558
Buildings	115,849	8,869	7,486	6,437	123,669
Machinery and equipment	857,413	85,447	52,792	17,143	907,211
Depletable mineral properties	70,173	4,242	566	2,716	76,565
Depletable timber properties	31,289	6,917	12,348	—	25,858
Capitalized leases	26,047	123	1,927	(930)	23,313
	$1,135,191	$108,425	$76,271(1)	$30,829	$1,198,174
Year ended December 31, 1980					
Land	$ 25,598	$ 7,817	$ 313	$ 1,318	$ 34,420
Buildings	87,581	15,385	1,106	13,989	115,849
Machinery and equipment	745,924	101,562	10,588	20,515	857,413
Depletable mineral properties	40,941	26,405	46	2,873	70,173
Depletable timber properties	26,812	7,707	2,894	(336)	31,289
Capitalized leases	30,577	137	1,190	(3,477)	26,047
	$ 957,433	$159,013	$16,137	$34,882	$1,135,191
Year ended December 31, 1979					
Land	$ 24,855	$ 1,921	$ 517	$ (661)	$ 25,598
Buildings	73,428	10,914	1,618	4,857	87,581
Machinery and equipment	626,548	112,598	13,666	20,444	745,924
Depletable mineral properties	32,784	964	—	7,193	40,941
Depletable timber properties	23,980	9,336	6,702	198	26,812
Capitalized leases	29,497	1,050	2,395	2,425	30,577
	$ 811,092	$136,783	$24,898	$34,456	$ 957,433

(1) Includes $44,650,000 from discontinued operations.
(2) Property acquired through acquisitions, 1981—$26,899,000; 1980—$34,979,000; 1979—$34,329,000.

Accumulated Depreciation, Depletion and Amortization (SEC Schedule VI)

($ Thousands)

Description	Balance at beginning of year	Additions charged to income	Retirements	Other additions	Balance at close of year
Year ended December 31, 1981					
Depreciation and amortization	$438,900	$75,182	$29,827	$ 9,700	$493,955
Depletion	19,667	4,869	9,814	104	14,826
Amortization of capital leases	9,609	2,105	1,058	(340)	10,316
	$468,176	$82,156	$40,699(1)	$ 9,464	$519,097
Year ended December 31, 1980					
Depreciation and amortization	$373,461	$70,234	$ 5,019	$ 224	$438,900
Depletion	15,865	4,391	1,065	476	19,667
Amortization of capital leases	12,336	2,195	992	(3,930)	9,609
	$401,662	$76,820	$ 7,076	$(3,230)	$468,176
Year ended December 31, 1979					
Depreciation and amortization	$327,591	$55,656	$10,375	$ 589	$373,461
Depletion	12,997	5,021	2,153	—	15,865
Amortization of capital leases	12,852	1,712	2,228	—	12,336
	$353,440	$62,389	$14,756	$ 589	$401,662

(1) Includes $20,739,000 from discontinued operations.

Valuation and Qualifying Accounts (SEC Schedule VIII)

($ Thousands)

Description	Balance at beginning of year	Additions charged to income	Deductions(1)	Balance at close of year
Year ended December 31, 1981				
Allowance for doubtful accounts	$4,875	$2,555	$2,710	$4,720
Allowance for doubtful notes receivable	3,000	2,929	5,929	—
Allowance for decline in value of investment	—	3,023	—	3,023
	$7,875	$8,507	$8,639	$7,743
Year ended December 31, 1980				
Allowance for doubtful accounts	$4,295	$1,235	$ 655	$4,875
Allowance for doubtful notes receivable	—	3,000	—	3,000
	$4,295	$4,235	$ 655	$7,875
Year ended December 31, 1979				
Allowance for doubtful accounts	$3,907	$2,027	$1,639	$4,295

(1) Accounts written off, less recoveries.

Short-Term Borrowings (SEC Schedule IX)

Category of Short-Term Borrowings ($ Thousands)	Balance at end of period	Weighted average interest rate	Maximum amount outstanding during the period	Average amount outstanding during the period[3]	Weighted average interest rate during the period[3]
Year ended December 31, 1981					
Amounts payable to banks	$ —	—	$ 5,914	$ 2,036	18.5%
Commercial paper	$ —	—	$43,000	$10,360	17.3%
Other	$ 5,750[1]	15.2%	$24,000	$ 7,917	15.4%
Year ended December 31, 1980					
Amounts payable to banks	$ 1,294	18.3%	$ 7,192	$ 3,075	14.6%
Commercial paper	$ —	—	$96,000	$50,540	11.4%
Other	$24,000[2]	10.8%	$24,000	$ 5,063	10.5%
Year ended December 31, 1979					
Amounts payable to banks	$ —	—	$ 4,518	$ 1,112	12.9%
Commercial paper	$ —	—	$29,000	$ 8,956	11.1%
Other	$ 25	—	$ 25	$ 13	—

(1) Includes $5,650,000 payable on demand to Genex Corporation upon prior notification.
(2) Includes $10,000,000 payable on demand to Genex Corporation upon prior notification. $14,000,000 is payable to a third party for the 500,000 shares of common stock of Richmond Tank Car Company purchased on December 5, 1980.
(3) The average amount outstanding for each period was computed by using a daily average during the year. The weighted average interest rate for each period was computed by weighing the effective interest rate over the year.

Supplementary Income Statement Information (SEC Schedule X)

Item	($ Thousands) Charged to expenses		
Years ended December 31,	1981	1980	1979
Maintenance and repairs	$110,320	$108,014	$97,112
Rents	$ 23,611	$ 28,428	$28,153
Research and development	$ 18,286	$ 16,411	$13,693

Koppers Board of Directors And Officers

Directors

Charles F. Barber 65
Chairman and Chief Executive Officer, ASARCO Inc.
Nonferrous metals producer

Evelyn Berezin 56
President, Greenhouse Management Corporation, venture capital investment, and Potech Corporation, consulting; former Director—Long-Range Planning for Office Automation Systems, Burroughs Corporation; former President, Redactron Corporation

†Fletcher L. Byrom 63
Chairman of the Board, Koppers Company, Inc.

***Dr. Richard M. Cyert 60**
President, Carnegie-Mellon University

†*Douglas Grymes 68
Retired Vice Chairman of the Board, Koppers Company, Inc.

Terrance Hanold 69
President and Director, The Arter Company
Capital management and investment

†*Curtis E. Jones 63
Retired President and Director, Mellon Bank N. A.

William H. Knoell 57
President, Chief Executive Officer and Director, Cyclops Corporation
Basic and specialty steels and steel products

†*Andrew W. Mathieson 53
Executive Vice President, Richard K. Mellon and Sons
Investment management

†*Nathan W. Pearson 70
Financial Advisor, Paul Mellon family interests

†Charles R. Pullin 58
Vice Chairman of the Board, Koppers Company, Inc.

†Executive Committee
*Audit Committee

This list reflects all title changes as of February 28, 1982.

Corporate Officers

Fletcher L. Byrom 63
Chairman of the Board (Chief Executive Officer) since 1970. Joined Koppers in 1947.

Charles R. Pullin 58
Vice Chairman of the Board since 1981; formerly President (Chief Operating Officer)—Road Materials Group since 1978; formerly Vice President and General Manager. Joined Koppers in 1946.

Burnett G. Bartley, Jr. 57
Deputy Chairman since 1978; formerly Group Vice President. Joined Koppers in 1949.

William B. Jackson 60
Deputy Chairman since 1978; formerly Group Vice President. Joined Koppers in 1943.

B. Otto Wheeley 60
Deputy Chairman since 1978; formerly Senior Vice President—Marketing. Joined Koppers in 1943.

Edward D. Losch 53
President (Chief Operating Officer)—Organic Materials Group since 1978; formerly Vice President and General Manager. Joined Koppers in 1949.

Thomas M. St. Clair 46
President (Chief Operating Officer)—Engineered Metal Products Group since 1978; formerly Corporate Comptroller. Joined Koppers in 1958.

Richard E. Spatz 56
President (Chief Operating Officer)—Forest Products Group since 1978; formerly Vice President and General Manager. Joined Koppers in 1951.

Jack L. Wilks 63
President (Chief Operating Officer)—Road Materials Group since 1981; formerly Vice President and Manager—Operations. Joined Koppers in 1941.

Robert G. Wilson 59
President (Chief Operating Officer)—Engineering and Construction Group since 1978; formerly Vice President and General Manager. Joined Koppers in 1952.

A. William Capone 62
Senior Vice President since 1978; Chief Financial Officer; formerly Vice President and Treasurer. Joined Koppers in 1946.

Thomas C. Cochran, Jr. 61
Senior Vice President since 1978; Secretary and General Counsel; formerly Vice President, Secretary and General Counsel. Joined Koppers in 1956.

Organic Materials Group

Paul L. Bost 58
Vice President and General Manager—Industrial Products Division since 1978; formerly Vice President. Joined Koppers in 1948.

Charles P. Dorsey 54
Vice President and General Manager—Coatings and Resins Division since 1978; formerly Vice President. Joined Koppers in 1966.

Thomas M. June 53
Vice President and General Manager—Building Materials Division since 1978; formerly Manager. Joined Koppers in 1951.

Lawrence L. Nagel 58
Vice President and Manager—Operations, Industrial Products Division since 1978; formerly Manager—Foundry Products, then Vice President and Manager—Technical Services. Joined Koppers in 1949.

Dr. Randall L. C. Russell 37
Vice President and General Manager—Chemical Division since 1978; formerly General Purchasing Agent, Purchasing and Traffic Department. Joined Koppers in 1970.

Francis J. Sullivan 57
Vice President and Manager—Marketing, Industrial Products Division since 1978; formerly Sales Manager—Foundry Products Group. Joined Koppers in 1955.

Charles H. Teller, Jr. 39
Vice President and Marketing Manager—Chemical Division since 1980; formerly Manager. Joined Koppers in 1970.

Glen C. Tenley 54
Vice President and General Manager—Foundry and Industrial Supply Division since 1980; formerly Vice President and Manager—Purchasing Department. Joined Koppers in 1955.

Subsidiary and Other Officers

Peter Barry 54
President—Thiem Corporation, acquired by Koppers in 1976.

Edward C. Hills 60
President—Parr, Inc., acquired by Koppers in 1977.

Joseph M. Madeira 45
President—U.S. Plastic and Chemical Corporation, acquired by Koppers in 1965.

Brooks C. Wilson 48
Managing Director—Koppers Australia Pty. Ltd. Joined Koppers in 1965.

Road Materials Group

R. Kenneth MacGregor 59
Vice President and Manager—West Coast Operations, and President and General Manager—Sully-Miller Contracting Company, acquired by Koppers in 1978.

Frederick C. Moore 48
Assistant to the Road Materials Group President, and Chairman of the Board—The General Crushed Stone Company; formerly President and General Manager—The General Crushed Stone Company, acquired by Koppers in 1970.

Alvin L. Walters 53
Vice President and Manager—Western Operations; formerly President and General Manager—Western Paving Construction Company, acquired by Koppers in 1976.

Subsidiary Officers

Lloyd D. Ahnstedt 49
President and General Manager—Western Paving Construction Company, acquired by Koppers in 1976.

Marvin E. Browning 56
President and General Manager—Sim J. Harris Company, acquired by Koppers in 1976; formerly Vice President.

Broadus N. Davidson 57
President and General Manager—The Kentucky Stone Company, acquired by Koppers in 1977; formerly Vice President—Engineering, then Executive Vice President and Assistant General Manager.

Bernard E. Elmer 54
President and General Manager—The General Crushed Stone Company; formerly Executive Vice President.

Roger W. Farris 39
President and General Manager—Fairfield Bridge Company, Inc., acquired by Koppers in 1980.

Robert A. Good 45
President and General Manager—Kaiser Sand and Gravel Company, acquired by Koppers in 1977; formerly Executive Vice President.

W. Ansel Gower 57
President and General Manager—Broderick and Gibbons, Inc., acquired by Koppers in 1980.

George V. LaBonte, Jr. 57
President and General Manager—Echols Brothers, Inc., acquired by Koppers in 1980.

Pierce E. Marks, Jr. 53
President and General Manager—Ivy Corporation, acquired by Koppers in 1979.

J. Paul Martin 56
President and General Manager—Lycoming Silica Sand Company, acquired by Koppers in 1966; formerly Vice President and Manager—Pennsylvania for The General Crushed Stone Company.

Jack W. McMichael, Jr. 58
President and General Manager—The McMichael Company, acquired by Koppers in 1979; formerly Vice President.

Sidney E. Smith, Jr. 56
President and General Manager—Erie Sand and Gravel Company and Erie Sand Steamship Company, both acquired by Koppers in 1967; formerly Vice President—Erie Sand Steamship Company.

Nello L. Teer, Jr. 67
President and General Manager—Nello L. Teer Company, acquired by Koppers in 1980.

Carl L. Todd 60
President—The Sterling Companies, acquired by Koppers in 1981.

Raymond C. Wiley 56
President and General Manager—Eastern Rock Products, Inc. and The Buffalo Slag Company, Inc., both acquired by Koppers in 1967; formerly Vice President and General Manager—Eastern Rock Products, Inc.

A. Gordon Willis, Jr. 60
President and General Manager—Culpeper Stone Company, Inc., acquired by Koppers in 1974; formerly Executive Vice President.

Forest Products Group

James R. Batchelder 46
Vice President and General Manager—Western Wood Products Division since 1978; formerly Manager—Plant Services. Joined Koppers in 1959.

Earl A. Clendaniel 51
Vice President and Manager—Utility and Heavy Construction Department, Treated Wood Products Division since 1979; formerly Manager. Joined Koppers in 1949.

Robert B. Dehls 57
Vice President and Manager—Transportation Sales and Planning since 1978; formerly Manager. Joined Koppers in 1950.

Robert J. Dingman 40
Vice President and General Manager—Architectural Building Products Division since 1979; formerly Assistant Vice President. Joined Koppers in 1966.

Donald G. Hallahan 51
Vice President and Manager—Marketing since 1978; formerly Manager. Joined Koppers in 1958.

Robert G. Hamilton 37
Vice President and General Manager—Timberlands and Hardwood Lumber Division since 1979; formerly Assistant Vice President. Joined Koppers in 1969.

John D. Hite, Jr. 44
Vice President and General Manager—Specialty Wood Chemicals Division since 1978; formerly Manager. Joined Koppers in 1960.

Gerald L. Reynolds 54
Vice President and Manager—Raw Materials Department since 1975; formerly Manager. Joined Koppers in 1951.

Robert K. Wagner 50
Vice President and General Manager—Treated Wood Products Division since 1978; formerly Vice President. Joined Koppers in 1953.

Subsidiary Officers

C. R. Mallory Smith 51
President—Koppers International Canada Ltd., a wholly owned subsidiary since 1969. Joined Koppers in 1957.

Engineered Metal Products Group

Donald L. DeVries 64
Senior Vice President and consultant—advisor to the President since 1978; formerly Vice President and General Manager—Engineered Metal Products. Joined Koppers in 1940.

Walter C. Arnold 57
Vice President and General Manager—Container Machinery Division since 1978; formerly Manager. Joined Koppers in 1962.

Hugh J. Blecki 51
Vice President and General Manager—Piston Ring and Seal Division since 1978; formerly Vice President—Marketing and Sales, Engineered Metal Products. Joined Koppers in 1956.

Gerald Champness 43
Vice President and General Manager—Mineral Processing Systems Division since 1980; formerly Operations Manager—Sprout-Waldron. Joined Koppers in 1956.

Richard E. Hug 47
Vice President—Koppers since 1973; President—Environmental Elements Corporation, a subsidiary, since 1974. Joined Koppers in 1957.

Samuel W. Koster 62
Vice President and General Manager—Power Transmission Division since 1978; formerly Manager. Joined Koppers in 1974.

Lester L. Murray 53
Vice President and General Manager—Sprout-Waldron Division since 1978; formerly Vice President and Chief Executive Officer—Sprout-Waldron and Company, Inc., acquired by Koppers in 1975. Joined Sprout-Waldron in 1956.

Engineering and Construction Group

James A. Harris 47
Vice President and General Manager since 1981; formerly Vice President—Executive Department. Joined Koppers in 1965.

Jack D. Rice 60
Vice President and Assistant General Manager since 1966. Joined Koppers in 1946.

Corporate Staff Officers

J. Roger Beidler 46
Vice President—Investor Relations since 1980; formerly Manager. Joined Koppers in 1960.

Jay A. Best 48
Vice President and Manager—Traffic and Transportation Department since 1978; formerly General Traffic Manager. Joined Koppers in 1956.

Fitzhugh L. Brown 49
Comptroller and Assistant Treasurer since 1978; formerly Manager—Administration, Engineering and Construction Group. Joined Koppers in 1962.

Arthur W. Cowles 63
Vice President—Executive Department since joining Koppers in 1965.

Frank E. Davis, Jr. 57
Vice President and Manager—Advertising and Public Relations Department since 1972. Joined Koppers in 1962.

William T. Hawkins 55
Vice President and General Manager—Natural Resources Division since 1978; formerly Manager. Joined Koppers in 1950.

Dr. Alonzo Wm. Lawrence 44
Vice President—Science and Technology since 1981; formerly Vice President—Environmental Resources and Occupational Health Department. Joined Koppers in 1976.

Dr. William N. Maclay 57
Vice President and Manager—Research and Development Department since 1981; formerly Vice President and Director—Research. Joined Koppers in 1959.

John P. McCarthy 55
Vice President; Co-ordinator, Product Safety and Regulatory Affairs for Organic Materials Group since 1981; formerly Vice President. Joined Koppers in 1947.

Andrew C. Middleton 33
Vice President and Manager—Environmental Resources Department since 1981; formerly Manager. Joined Koppers in 1978.

Andrew J. Pepper 58
Vice President—Management Information Systems, Finance Department since 1980; formerly Assistant Vice President and Director—Systems, Methods and Data Processing. Joined Koppers in 1950.

John F. Ramser 49
Vice President and Manager—Human Resources Department since 1980; formerly Assistant Secretary—Law Department. Joined Koppers in 1970.

Walter R. Vogler 58
Treasurer since 1978; formerly Director—Financial and Administrative Services, Finance Department. Joined Koppers in 1951.

Raymond R. Wingard 51
Vice President and Manager—Marketing Services and Corporate Growth Planning since 1980; formerly Vice President and Manager—Human Resources Department. Joined Koppers in 1952.

Description of Koppers Business

General Development of Koppers Business
Koppers Company, Inc. was incorporated on September 30, 1944. It succeeded by merger to the properties and business of four predecessor companies. Those companies grew logically out of Koppers original business, established in 1907, to design and build chemical-recovery coke plants for the American steel industry.

Prior to 1965, Koppers was highly dependent upon its original steel plant construction business for earnings growth. This accounted for as much as 40% of the Company's annual earnings. It was a cyclical business that had a disconcerting roller-coaster effect on the Company's prospects for growth.

In 1965, the Company began to build a manufacturing organization that would produce consistent earnings growth and thereby reduce Koppers dependence upon the steel industry capital investment cycle. Koppers today is a diversified manufacturing corporation offering specialized engineering and construction capabilities. Over the past five years, its manufacturing groups have provided nearly 95% of its total operating income. Headquartered in Pittsburgh, Pennsylvania, it has 293 operating locations and makes more than 100 types of products.

Pursuit of the Company's objective to expand its manufacturing businesses to achieve consistent earnings growth has been characterized by rising levels of capital investment.

This expansion program has increased the total investment in Koppers operations from $190 million in 1964 to $1,030 million at the close of 1981.

Employment
The average number of persons employed by the Company was 20,113 in 1981 and 21,029 in 1980.

Approximately 8,100 of the Company's employees are covered by 146 different collective bargaining agreements, scheduled to expire at various times during the course of the next three years.

Successful labor contract negotiations were completed at 42 locations in 1981.

Mineral Assets Price and Quantity Information
The table below provides information relating to Koppers mineral reserves. Estimates for proven and probable mineral reserves were obtained at the times of acquisition of the reserves, which range from 1967 to the present.

(Volumes are in thousands of tons; $ are per-ton values.)	Years Ended December 31, 1981	1980	1979	1978	1977
Proven and probable reserves at beginning of year					
Coal	**145,009**	71,048	72,619	2,619	250
Stone	**1,834,450**	1,480,014	1,286,701	1,255,504	1,162,857
Sand and gravel	**438,982**	388,211	400,433	392,708	242,300
Additions resulting from purchases of in-place mineral reserves					
Coal	**2,009**	76,000	—	70,000	2,375
Stone	**49,454**	387,081	223,875	54,120	112,744
Sand and gravel	**21,872**	70,295	9,580	24,740	162,814
Reductions resulting from production					
Coal	**2,616**	2,039	1,571	—	6
Stone	**23,887**	32,645	30,562	22,923	20,097
Sand and gravel	**13,679**	19,524	21,802	17,015	12,406
Proven and probable reserves at end of year					
Coal	**144,402**	145,009	71,048	72,619	2,619
Stone	**1,860,017**	1,834,450	1,480,014	1,286,701	1,255,504
Sand and gravel	**447,175**	438,982	388,211	400,433	392,708
Average market price					
Coal*	**$33.20**	$30.49	$25.99	—	$22.70
Stone	**$ 3.69**	$ 3.68	$ 3.23	$2.78	$ 2.50
Sand and gravel	**$ 3.48**	$ 3.22	$ 2.68	$2.39	$ 2.33
Average royalty rate					
Coal*	**$ 2.72**	$ 2.52	$ 1.94	—	$ 2.27

*Koppers primarily acts as a lessor to coal mining companies and receives a royalty fee on each ton sold.

Research and Development
The Company conducts its research activities at two locations in suburban Pittsburgh, Pennsylvania as well as through special projects at a number of universities and at Genex Corporation. The corporate research laboratories perform studies aimed at the exploration of advanced technologies, the development of new products and the improvement of manufacturing processes. Special services, such as pollution control and analytical and engineering support, are provided to all operations of the Company. Development laboratories at several locations support each of the Company's business segments. The amount spent on research and development activities was approximately $18.3 million in 1981, $16.4 million in 1980 and $13.7 million in 1979.

Financial Information By Industry Segment
Selected financial information for each of Koppers operating groups for a 10-year period appears on page 22. Additional financial information on the operating groups appears in the table "Operations by Business Segments" on page 33.

Patents and Licensing
Koppers owns more than 900 existing United States patents and a large number of foreign patents covering many products and processes. Some of the Company's patents and technology are licensed to other companies. The Company makes few of its products under licenses from other companies with respect to patents they own or technology they have supplied. No single patent or license is considered material in relation to the Company's overall performance.

Properties
The Company's 293 operating locations include: Organic Materials, 39; Road Materials, 156; Forest Products, 82; Engineered Metal Products, 14; and Natural Resources, 2. Engineering, drafting, estimating, procurement and scheduling personnel for the Engineering and Construction business segment are headquartered in Pittsburgh, Pennsylvania. Field forces are employed as they are required for particular projects.

In the opinion of management, the production capacities in Koppers various business segments are adequate to operate at a significantly higher volume than in 1981.

Organic Materials Group

Organic Materials Business
Organic Materials has interrelated businesses using the technology associated with the manufacture and use of products derived from coal. Over half of the present product mix is manufactured from coal or such derivative products as coal tar and naphthalene. Other lines serve specialty markets. The group has five operating divisions and three wholly owned subsidiaries.

Industrial Products Division operates six tar processing plants and is a major producer of such coal tar derivatives as:

Coal tar pitches used by the aluminum and commercial carbon industries as binders in the manufacture of electrodes;

Creosote, a complex mixture of chemicals, used primarily as a wood preservative, half for Forest Products operations; and

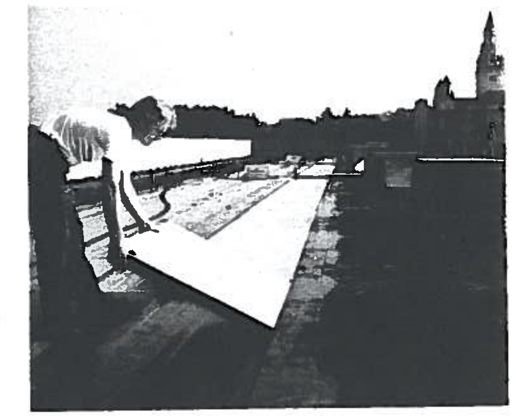
Chemical oil, a raw material for Koppers chemicals operations.

Foundry and Industrial Supply Division operates three coke plants and is among the largest merchant producers of foundry coke, one of the principal products used for melting metal in foundries and other industrial operations. Other grades of coke are manufactured for reducing iron ore in steelmaking, for melting in rock wool operations, for nonferrous metal smelting and in sugar beet refining.

A subsidiary in the division, Thiem Corporation, produces binder systems and coatings for molding metal in foundries, as well as refractory systems for casting iron and steel.

Chemical Division operates four plants and is a major supplier of naphthalene (used to produce phthalic anhydride and agricultural chemicals); phthalic anhydride (used in the production of alkyd and polyester resins and of plasticizers for plastics); resorcinol (used primarily to produce adhesives used in rubber tires and laminated wood); antioxidants (used in rubber, plastics and other products); and a group of intermediate chemicals.

Coatings and Resins Division is a growing supplier of polyester resins (used in glass-reinforced and nonreinforced plastics); bituminous coatings (for underground pipelines, tanks and severe industrial applications); and chemical-based coatings (used on swimming pools, water storage tanks, sewage treatment facilities and marine and industrial applications).



New phenolic foam board provides superior insulation and fire resistance.

Building Materials Division makes cold-applied roofing and maintenance products to supplement high-performance roofing and waterproofing products based on pitches (primarily commercial and industrial). The division also produces a new phenolic foam fire-retardant insulation board in a semi-commercial plant.

Other subsidiaries manufacture polyester button blanks and buttons and other lines related to protective coatings, roofing and waterproofing systems.

Raw Materials and Fuel
Organic Materials depends heavily upon coal and coal-derived products for raw materials. Most coal tar processed is purchased from steelmaking operations, under contract arrangements with varying periods and conditions. Purchasing agreements cover such other important raw materials as coal, benzene, orthoxylene and additional materials from the petrochemical industry. Long-term commitments for raw materials from various sources of supply have been made in the past and will continue to be made. With existing arrangements, no major disruption of business in 1982 is expected as a result of shortages of raw materials or energy. The group's energy needs are supplied by natural gas, fuel oil, coal, and coke oven gas.

Organic Materials 1981 Sales by End Market	($ Millions)	%
Chemicals, Plastics and Rubber	$205.0	30%
Iron and Steel	122.4	18
Architectural Construction	109.1	16
Nonferrous Metals and Mining	93.9	14
Engineered Construction	59.5	9
Lumber and Wood Products	27.3	4
Utilities	21.0	3
Transportation	16.2	2
Other	23.7	4
	$678.1	100%

Competitive and Seasonal Conditions
Most of Organic Materials products are sold in highly competitive markets. Except for certain proprietary items, there are at least five or six suppliers of identical products in all business areas, as well as competition from alternative materials performing the same function and a substantial quantity of imported material. The principal factors in competition are price and product performance. In a number of cases, service also is important. In certain product lines, Koppers has an advantage because of multiple production locations or because it has manufacturing plants near the markets it serves. In others, Koppers has an advantage because of continuing internal requirements within the group or other Koppers operations.

Most of Organic Materials business is not affected by seasonal variations, but winter does reduce volume in certain roofing, coating and other construction product lines.

Products are generally marketed nationwide through the group's sales organization. Certain lines are marketed through independent distributors and agents.

The group maintains substantial inventories of critical raw materials and finished products, but it is not the practice to carry customer inventories or to provide financing.

Backlog
Organic Materials 1981 year-end backlog was $88.0 million, versus $115.3 million a year earlier. The backlog normally increases substantially during the month of January, and at the close of January, 1982, the backlog was $305.7 million, versus $300.8 million a year earlier. This is derived from the detailed analysis of each customer's expected 1982 requirements. The total backlog is expected to be shipped during 1982, although most unfilled orders are subject to cancellation at the option of the buyer.

Road Materials Group

Road Materials Business

Road Materials is made up of 156 domestic facilities that serve roadbuilding and construction markets in 18 states as well as operations in Central and South America, Africa and the Middle East. About 85% of sales are from aggregates (crushed stone, sand, gravel and slag), bituminous concrete, ready-mix concrete and paving services. The balance is from welded wire fabric and related specialty products.

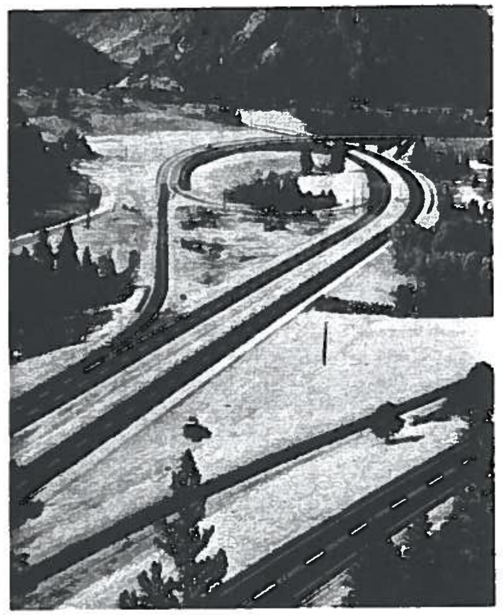
The group's civil construction services account for 37% of total sales including some product cost (paving materials, concrete, etc.). Among these services are road and bridge building, other paving activities, nonresidential building construction and dam building.

About 50% of Road Materials sales result from publicly funded road maintenance and construction projects. The remainder is from privately funded work in many segments of the construction market.

Transportation is a major factor in total product cost. The delivered price doubles when crushed stone is transported 20 to 30 miles. Aggregate markets, therefore, are localized, and the Company generally supplies markets near its quarries in California, Colorado, Florida, Georgia, Indiana, Kansas, Kentucky, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Virginia and Wyoming. Six facilities in the Southeast and Southwest produce and distribute welded wire fabric and other concrete-reinforcing and forming accessories.

Raw Materials and Fuel

Aggregate raw materials consist of sand and gravel, granite, limestone, trap rock and sandstone, which come from quarries, mines or Great Lakes dredging operations. Most of Koppers quarries are on land either owned by the Company or held under long-term leases. It is estimated that the present reserves of aggregates will be sufficient for more than 25 years at current production rates. Other major raw materials include asphalt, slag, cement and steel rod, which are purchased from oil companies, steel producers and cement suppliers. Adequate supplies of raw materials and fuel are expected to continue. Fuel oil satisfies nearly half of Road Materials energy requirements; natural gas and diesel fuel, each about 20%.



Acquisition of The Sterling Companies strengthened Colorado and Wyoming roadbuilding activities.

Road Materials 1981 Sales by End Market	($ Millions)	%
Engineered Construction	$440.5	81%
Architectural Construction	89.4	16
Agriculture	3.9	1
Other	8.1	2
	$541.9	100%

Competitive and Seasonal Conditions

Road Materials operations are geographically diversified, with limited vertical integration within individual regional markets. Because mineral reserves are limited within regional areas, the Company commonly holds a high share of those regional markets in which it competes.

Principal factors in competition are price and service. Prices for aggregates are determined by local conditions and are not subject to wide fluctuations created by nationwide demand, supply and capacity factors. Increasingly, this business has become service-oriented, calling for on-time delivery from a guaranteed source of supply.

Road Materials business is highly seasonal, with more than 70% of sales occurring during the peak construction period from May 1 to November 30.

Product inventories are controlled at volumes that reflect a balance between the most efficient production level and supplying peak demand. Inventories normally grow substantially during spring months in anticipation of high summer demand. It is not customary, however, to carry inventories or provide financing for customers.

Backlog

Road Materials backlog at the end of 1981 was $100.8 million, versus $106.4 million a year earlier. The normal tendency is for this backlog to increase during the first six months of the year and to decline thereafter. Orders in the backlog are considered firm, and more than 95% of the year-end backlog is expected to result in 1982 sales.

Forest Products Group

Forest Products Business

Koppers is a major producer of chemically treated wood, specialty wood-treating chemicals and laminated wood products, supplying both U.S. and Canadian markets.

Chemical treatment of wood under pressure results in resistance to decay, to invasion by insects and to damage from fire. Products include railroad crossties; utility, transmission, distribution and lighting poles and accessory equipment; building poles and timbers; fence posts; foundation and marine piling; red cedar shakes and shingles; and construction lumber and plywood. Koppers also provides contract wood-treating services for industrial and commercial customers. Conventional wood pressure treatments use creosote, pentachlorophenol and waterborne salt preservatives. Koppers also has proprietary processes using specialty chemicals under such trademarks as CELLON, DRICON, NCX and WOLMAN. Koppers also licenses these proprietary processes and their trademarks and produces and supplies a broad range of chemicals used in pressure treatment, primarily to the more than 80 licensees using Koppers wood-treating processes and trademarks.

The Company engineers and manufactures glue-laminated wood products for industrial, commercial and residential applications, such as structural wood beams, arches, columns, girders, trusses and lighting standards, and power transmission structures.

Koppers International Canada Ltd., a wholly owned subsidiary, manufactures laminated wood products and corrugated metal pipe for sewer and drainage lines.

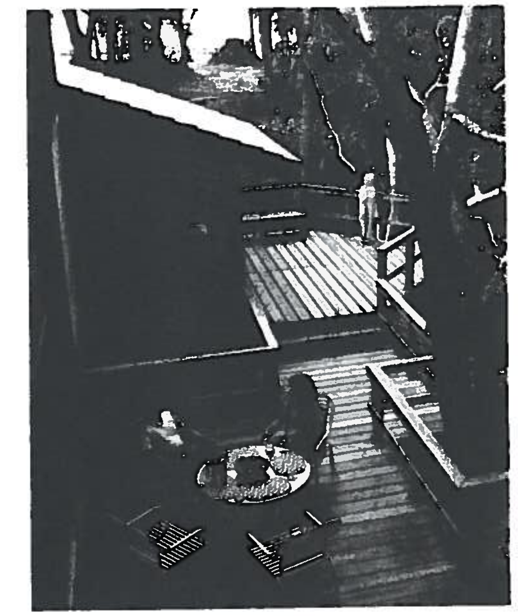
U.S. sawmills, operated primarily to produce railroad crossties, also manufacture hardwood lumber sold for flooring, furniture, pallets, paneling and other end products.

Raw Materials and Fuel

Timber is the main raw material used by Forest Products. The major requirements are Eastern and Southern hardwood to supply railroad crossties and furniture products; and softwood timber, primarily Southern yellow pine and West Coast species, to supply utility poles and construction lumber. Approximately 10% of the group's hardwood and softwood needs are met from Company-owned timberlands or by negotiated cutting rights. Demand and price for softwood are directly influenced by housing. Thanks to the breadth of Koppers product mix and location of processing plants, the Company is able to purchase the necessary timber and finished raw materials. The long-term availability of Eastern hardwood is adequate, since the timber growth rate currently exceeds the rate of cut.

Preservative raw materials are supplied from both Company and outside sources. A fully integrated arsenic acid plant provides raw material stability for WOLMAN wood preservatives.

On the basis of Btu quantities, natural gas accounts for about 40% of Forest Products fuel, wood waste for 30% and oil for 25%. All major plants are equipped to operate on alternative types of fuel. Fuel supply is adequate in all cases. In recent years, several plants have developed wood-waste burning systems in order to lower costs and lessen risk of shutdown due to lack of fuel.



Stronger remodeling and home addition markets resulted in increased use of pressure-treated wood.

Forest Products 1981 Sales by End Market	($ Millions)	%
Transportation	$144.2	38%
Lumber and Wood Products	82.6	22
Utilities	55.1	14
Architectural Construction	53.0	14
Engineered Construction	29.4	8
Other	15.5	4
	$379.8	100%

Competitive and Seasonal Conditions

The wood-preserving industry is highly competitive and fragmented. As the major nationwide supplier, Koppers usually has competition from regional operators. In addition, treated and laminated wood products compete against such other materials as steel, concrete and aluminum. Price and service are the principal requirements for competition. Koppers broad range of products and strategic plant locations provide a significant competitive advantage in this business.

Most products supplied by Forest Products are sold directly to the end user by the group's sales force. Much of Forest Products business is seasonal, since most products are related to the building industry. Sales are reduced during winter months, usually by about 30%, from the peak level of sales through summer months. Although sales of lumber are relatively stable, production is, for the most part, controlled by weather conditions.

Inventory represents a significant factor in the total investment of Forest Products. Sizable inventories must be maintained in some product areas to ensure prompt, dependable service.

Backlog

Forest Products year-end backlog was $88.1 million, versus $74.3 million a year earlier. The total backlog is expected to be shipped during 1982 and, although all orders are considered firm, cancellation can be effected at any time except on finished material or that in process. Forest Products backlog peaks in the first quarter, and the high point represents approximately 50% of annual sales.

Engineered Metal Products Group

Engineered Metal Products Business
Engineered Metal Products designs and manufactures processing machinery systems, machine components and environmental control systems. These business lines are generally characterized by high-value-added, precision-engineered, high-quality products designed to rigid customer specifications.

Sprout-Waldron products include processing machinery for the formula feed, food, chemical, pulp and paper, and other basic industries. Sprout-Waldron also designs and builds complete feed mills, material handling and storage facilities, pulping plants and industrial processing installations.

Mineral processing equipment, such as crushers and Hardinge grinding mills, is manufactured for the processing of coal and for hard-rock applications.

Koppers manufactures corrugated container machinery, which converts kraft paper into corrugated board. The Company also manufactures machinery to make the board into finished containers for packaging producers.

The Company is a major producer of industrial piston rings for diesel engines and shaft seals for use in aircraft engines, pumps and compressors, as well as seal rings for hydraulic cylinders, valves and other industrial and aircraft applications.

Koppers supplies a broad range of power transmission products, including couplings, coupling grease, adjustable-speed drives and torque sensors. Couplings transmit power from one rotating shaft to another and compensate for misalignment. Applications include high-speed compressors, pumps, conveyors, cranes, blowers, boiler feed pumps, paper mill refiners, and main drives in steel rolling mills.

Environmental control capabilities include design, manufacture, erection and marketing of systems for air cleaning, air handling, sound control, water treatment and waste disposal. Products include electrostatic precipitators, baghouses and other air cleaning systems for utilities and industry; sound control systems for jet aircraft, engine test facilities and gas turbine applications; water and wastewater treatment systems for municipal and industrial plants; air handling mechanisms and control units for air distribution systems; and waste disposal equipment to compact refuse and systems to incinerate hazardous materials and industrial waste.

The group also produces medium- and large-size gray iron and ductile castings for use in various areas of the Engineered Metal Products and Engineering and Construction Groups, as well as selling castings directly to outside customers.

Piston rings for diesel engines are precision-engineered to exacting specifications and critical tolerances.

Engineered Metal Products
1981 Sales by End Market

	($ Millions)	%
Paper and Packaging	$ 82.1	24%
Machinery	35.8	11
Iron and Steel	33.7	10
Transportation	29.4	9
Architectural Construction	29.0	8
Nonferrous Metals and Mining	28.5	8
Agriculture	27.6	8
Utilities	15.8	5
Chemicals, Plastics and Rubber	13.7	4
Engineered Construction	11.0	3
Other	35.9	10
	$342.5	100%

Raw Materials and Fuel
Principal raw materials, such as metal castings and forgings, are produced within Engineered Metal Products facilities, with some quantities purchased from commercial producers. Steel bars, billets, plates, structural forms and aluminum are purchased from mill and warehouse suppliers. Fuel oil, gas and electricity are the major fuels used, and the natural gas supply is backed up in some locations by propane stored in-plant and in reserve storage.

Competitive and Seasonal Conditions
There is significant competition in each of Engineered Metal Products business lines. Certain of the group's products generally sell at premium prices, and Koppers strong market position is based upon demonstrated excellence in design, performance, technical support and other specific factors.

Principal products and services are distributed mainly through the group's sales force, augmented in some lines by agents and distributors. Most business lines are not affected by seasonal fluctuations, although activity in certain environmental control equipment lines is affected by winter slowdowns in commercial and manufacturing plant construction.

Working capital amounts include repair parts inventories required for field service activities, as well as inventory parts kept on hand for standard machines to meet competitive delivery schedules. In certain lines, such as electrostatic precipitators and sound control products, working capital amounts include retainages that are receivable upon satisfactory performance of the installation.

Backlog
Engineered Metal Products backlog at the end of 1981 was $215.0 million, compared with $169.7 million a year earlier. Total backlog is believed to be firm, and approximately 90% is expected to be shipped in 1982. No significant seasonal factors influence the backlog.

Engineering and Construction Group

Engineering and Construction Business
Koppers is one of the world's largest designers and builders of basic steel plants, including coke ovens and related by-product chemical plants, blast furnaces, basic oxygen furnaces, continuous casting installations, sinter plants and pollution control equipment for the steelmaking process. Licensing arrangements permit the group to market electric arc furnaces and related steelmaking equipment in the Western Hemisphere.

The group is engaged, through KBW Gasification Systems, Inc., in the development of engineering and construction services for the production of synthetic fuels based on the entrained-bed coal gasification process, to produce gas for medium-Btu industrial fuels, for fuel to drive power-generating turbines, for use as chemical feedstocks, and for direct reduction of ores. The group also markets a reclaimer system for bulk material handling.

Current business is directly related to capital expenditures in the primary end of the steel industry. Most of the group's annual sales volume results from work on a relatively small number of large contracts, with a modest volume coming from repair work and replacement equipment. Potential synthetic fuels projects are dependent on actions by various government agencies for loan and price guarantees.

Raw Materials and Fuel
Large quantities of structural and fabricated steel, reinforcing bar, refractories, pipe, electrical wire and conduit are used in the group's construction work. These materials are purchased from others or supplied by subcontractors. No material shortages adversely affected operations in 1981, and it is expected that adequate supplies will be available in 1982 and beyond.

Engineering and construction capabilities encompass a broad range of expertise vital to industrial expansion.

Competitive and Seasonal Conditions
Koppers competes against other U.S. construction companies and against foreign design companies currently working in conjunction with U.S. builders on engineering and construction of domestic steel plant projects. Several large steel producers have internal engineering and construction capabilities. Competition for North American business has been intensified by a lack of capital spending in the world steel industry. Price and performance are major determinants in competition, although the amount of financial risk that the contractor is willing to assume has become a significant factor. Engineering and construction services are sold directly by the group's sales organization. Certain portions of any project may be subcontracted on a project-by-project basis.

Engineering and Construction business is seasonal to the extent that most construction activity is subject to disruptions from severe weather. Every effort is made in planning construction schedules to minimize the possible effects of weather.

Working capital employed in Engineering and Construction work is basically a function of billings rendered on contracts but not yet received. This varies with the volume of construction under way and also with a recent tendency of customers to increase the period between billing and reimbursement, particularly during periods of high interest costs.

Engineering and Construction
1981 Sales by End Market

	($ Millions)	%
Iron and Steel	$55.8	95%
Nonferrous Metals and Mining	1.5	3
Other	1.3	2
	$58.6	100%

Backlog
The construction backlog was $23.5 million at the close of 1981, compared with $58.8 million a year earlier. The entire backlog is considered firm, and nearly all of the work is expected to be performed in 1982. The backlog is totally dependent upon the capital investment plans of the steel industry, which are currently at a depressed level. Potential exists for contracts involving engineering and construction of synthetic fuels plants.

Additional Description Of Koppers Business

Legal Proceedings

On July 13, 1979, Tyco Laboratories, Inc. initiated a complaint in the Court of Chancery of New Castle County, Delaware against Koppers and the directors of Cutler-Hammer, Inc. The complaint alleged essentially that the directors of Cutler-Hammer, in a civil conspiracy with Koppers, attempted to "chill the market" for Cutler-Hammer common stock owned or controlled by Tyco in order to deter further purchases by Tyco and thus to entrench the existing management of Cutler-Hammer. On March 2, 1981, the complaint was voluntarily dismissed by Tyco with prejudice to plaintiffs.

Commencing in 1976 and continuing into 1981, a total of 27 women had filed seven different lawsuits in the Court of Common Pleas in Allegheny County, Pennsylvania claiming damages in connection with the deaths of their husbands, allegedly induced by emissions from coke ovens built by Koppers for its customers between 1918 and 1958. Of these claims, 24 were finally dismissed on October 29, 1981 with prejudice to plaintiffs. Koppers insurance carrier is defending the remaining three suits with reservations of coverage. Koppers believes that it has valid defenses to the remaining claims (particularly since Koppers never operated the ovens) or, alternatively, that it has insurance coverage. Koppers management holds the view that this litigation will not result in any material liability to Koppers.

On September 17, 1981, Koppers filed a petition to the Supreme Court of the United States for review of Koppers conviction of having engaged in a combination and conspiracy in restraint of interstate trade in violation of Section 1 of the Sherman Act. This conviction was affirmed by the United States Court of Appeals for the Second Circuit on June 29, 1981 and involved charges that Koppers and another company engaged in collusive bidding and geographic allocation of road tar in sales to the State of Connecticut and its political subdivisions. On November 30, 1981, the United States Supreme Court denied Koppers petition. On October 8, 1981, Koppers agreed to a consent judgment for $100,000 in a companion civil action arising out of the same investigation filed by the State of Connecticut on August 14, 1979 in the United States District Court for the District of Connecticut.

On August 7, 1981, Inland Steel Corporation filed an action against Koppers in the Lake Superior Court, East Chicago, Indiana, alleging that delay in construction of a coke oven battery and blast furnace by Koppers at Inland's Indiana Harbor Works had caused Inland damages in the amount of $100 million. Venue in this action has been moved to the La Porte Circuit Court, La Porte, Indiana. Koppers management and legal advisors believe there are sound defenses against Inland's claim. Koppers has counterclaimed to recover $17 million still unpaid by Inland on the contract for construction of the coke oven battery and blast furnace.

Koppers is involved in environmental proceedings at a small percentage of its plants. These in the aggregate are not material to the business or financial condition of Koppers, nor will their total cost to Koppers exceed 10% of the current assets of Koppers and its subsidiaries on a consolidated basis. Koppers has no reason to believe that any governmental authority will impose sanctions in any such proceedings in excess of $100,000.

Environmental, Occupational Health and Safety Regulations

The Company is subject to federal, state and local regulations on the environmental impacts of solid waste disposal; air and water quality impacts of its manufacturing operations; toxic substance control; and occupational health and safety of its employees. About $4 million, or 4.5%, of Koppers capital investments for plant and equipment in 1981 went to eliminate pollution or to bring it within satisfactory levels. Environmental improvements are expected to account for a comparable proportion of the total funds invested in new facilities in 1982. No estimates are available for subsequent years. Operating expenses attributable to pollution control equipment are increasing at a rate roughly equivalent to the increases in the cumulative capital base of the Company. Although environmental regulations have not yet had a material adverse effect on operations, governmental action has required and may continue to require the Company to modify, supplement, replace or abandon equipment and facilities and may delay or impede construction and operation of new facilities. These potential costs cannot be forecast with precision.

Koppers, in common with many other enterprises, is subject to evolving regulations under the federal Occupational Safety and Health Act. Health and safety regulations have not materially affected the Company's operations in the past. If the standards applicable to chemical processors continue to be made more stringent, these regulations could affect certain of Koppers businesses more significantly in the future.

Some aspects of the Company's business will be affected by U.S. Environmental Protection Agency (EPA) regulations requiring premarket disclosure of the potential health and environmental impact of new chemicals and environmental and health testing of some existing chemicals. The promulgation of stringent federal regulations on chemical solid waste disposal under the Resource Conservation and Recovery Act will add substantially to operating costs in a number of Koppers chemically related businesses and may also require some remedial environmental cleanup at existing Company waste disposal sites. In related matters, ground water quality investigations have been or are being conducted at a number of current manufacturing sites as well as inactive plant sites.

As part of its continuing review of all pesticides, the EPA has issued "Rebuttable Presumption Against Re-registration" notice against three wood preservatives used or produced by Koppers—creosote, pentachlorophenol and arsenicals. The review process, which was begun in 1978, may be completed during 1982.

While the EPA has tentatively concluded that these wood preservatives should be reregistered, the conditions and use restrictions of that reregistration have not yet been settled. It is expected that the final conditions of reregistration will impose additional cost on the manufacturers and users of these preservatives. However, Koppers believes that the costs associated with implementing the final EPA regulations will not be substantial. Thus the market impact on these products will be small and will not have a material effect on the Company's earnings.

Exhibits for Form 10-K

The following exhibits are included as a part of the 1981 Form 10-K Report as required by Item 7 of Regulation S-K. Shareholders may obtain copies of the exhibits not presented here upon written request to: Secretary, Koppers Company, Inc., Koppers Building, Pittsburgh, Pa. 15219.

Exhibit A—3.1 Koppers Certificate of Incorporation, as amended, and the Certificate of Resolution, dated December 16, 1980, setting forth certain terms of Koppers $10 convertible preference stock, filed as exhibits 4.1 and 4.2 to Koppers Registration Statement No. 2-70174 and incorporated herein by this reference.

Exhibit B—3.2 Koppers By-Laws as amended to February 23, 1981, filed as exhibit 3.1 to Koppers Form 10-Q for the quarter ended March 31, 1981 and incorporated herein by this reference.

Exhibit C—10.1 An Incentive Plan for 1982 has been authorized by unanimous action of the Board of Directors for 92 key employees, of whom 22 are officers and two others are officers and directors of the Company, with the following method of determining incentive payments: There shall be credited to the incentive fund an amount equal to 4.3% of the Company's total income before any provision for incentive payments, interest, income taxes and extraordinary items, after deducting 12% of invested capital as defined in the Plan until the fund reaches $1.6 million and thereafter, 1.5% of income shall be credited to the fund. This credit is not to reduce the net income to common stock below an amount equivalent to 125% of the amount needed to cover the regular common stock cash dividends. Calculations will be reported on by the Company's certified public accountants. Participation in the Plan and distribution of the fund to the participants are determined by Company management except that participation by and distribution to the Chairman, Vice Chairman, Deputy Chairmen and the Presidents of the Groups are determined by the Compensation Committee of the Board of Directors. Only officers and other key employees are eligible to participate in the Plan. The members of the Compensation Committee do not participate in the Plan.

Exhibit D—10.2 Koppers Deferred Compensation Unit Plan.

Exhibit E—10.3 Koppers Deferred Compensation Plan for Directors.

Exhibit F—22.1 Koppers has the following subsidiaries whose accounts are included in its consolidated financial statements. The Company also has 46 other subsidiaries, which are not named here because all of them, considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary.

Subsidiary and Jurisdiction of Incorporation

Broderick and Gibbons, Inc.—Colorado
The Buffalo Slag Co., Inc.—New York
Cherokee Crushed Stone, Inc.—Delaware
Culpeper Stone Company, Inc.—Virginia
Dantzler Lumber & Export Company—Florida
Eastern Rock Products, Inc.—New York
Echols Brothers, Inc.—Delaware
Environmental Elements Corporation—Delaware
Erie Sand and Gravel Company—Pennsylvania
- **Erie Sand Steamship Co.**—Delaware
- **Ontario-Lake Erie Sand Ltd.**—Canada

Fairfield Bridge Company, Inc.—Delaware
The General Crushed Stone Company—Delaware
- **Chester Carriers, Inc.**—Delaware
- **Easton Mack Truck Sales, Inc.**—Pennsylvania
- **The Stone Man, Inc.**—Delaware

Sim J. Harris Company—Delaware
Honolulu Wood Treating Co., Ltd.—Hawaii
Ivy Corporation—Delaware
- **Davidson Meadow Corporation**—Delaware (a holding company)
- **Davidson Mineral Properties, Inc.**—Delaware
  - **The Atlanta, Stone Mountain and Lithonia Railway Company**—Georgia
- **Gainesville Stone Company, Incorporated**—Georgia
- **Meadow Steel Products, Inc.**—Delaware
- **Meadow Steel Products, Inc. (Texas)**—Texas
- **North Georgia Crushed Stone Corporation**—Georgia

Kaiser Sand and Gravel Company—Delaware
The Kentucky Stone Company—Kentucky
Koppers Engineered Products Limited—Ontario, Canada
Koppers International Canada Ltd.—Canada
Lycoming Silica Sand Company—Pennsylvania
The McMichael Company—Delaware
- **McMichael Asphalt Sales Co.**—Oklahoma
- **McMichael Concrete Co.**—Oklahoma
- **Tulsa Concrete Co.**—Oklahoma
- **Tulsa Paving Co.**—Oklahoma
- **Tulsa Rock Co.**—Oklahoma

Parr, Inc.—Delaware
Sterling Paving Co.—Colorado
Sterling Sand & Gravel Co.—Colorado
Sterling Sand & Gravel Co. of Wyoming—Wyoming
Sully-Miller Contracting Company—California
- **P&K Materials, Inc.**—California
- **South Coast Asphalt Products Co.**—California
- **Southern Pacific Milling Co.**—California

Susquehanna Quarry Co.—Pennsylvania
Nello L. Teer Co.—Delaware
- **Central Engineering and Contracting Corporation**—North Carolina
- **Romeo Guest Associates, Inc.**—North Carolina
- **Nello L. Teer International, Inc.**—Delaware
- **Webster County Coal Company**—North Carolina

Thiem Corporation—Delaware
U.S. Plastic and Chemical Corporation—Delaware
Western Paving Construction Co.—Colorado
- **Mid-Kansas Construction Company, Inc.**—Kansas

Signatures Required for Form 10-K

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Koppers has duly caused this Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, on February 22, 1982.

Koppers Company, Inc.

By
A. William Capone
Senior Vice President and
Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Form 10-K has been signed below by the following persons on behalf of Koppers and in the capacities indicated on February 22, 1982.

Fletcher L. Byrom
Chairman of the Board of Directors
(Chief Executive Officer)

Fitzhugh L. Brown
Comptroller

Curtis E. Jones, Director

Richard M. Cyert, Director

Andrew W. Mathieson, Director

Douglas Grymes, Director

Nathan W. Pearson, Director

Koppers Company, Inc.
Koppers Building
Pittsburgh, Pa. 15219
Area Code 412/227-2000

Common Stock
Symbol: KOP

Exchange Listings:
New York Stock Exchange
Midwest Stock Exchange
Pacific Stock Exchange

Transfer Agents:
Mellon Bank N.A.
Mellon Square
Pittsburgh, Pa. 15230

Bradford Trust Company
2 Broadway
New York, N.Y. 10004

Harris Trust and Savings Bank
111 West Monroe Street
Chicago, Ill. 60690

Bank of America National Trust and Savings Association
55 Hawthorne Street
San Francisco, Cal. 94105

Stock Registrars:
Pittsburgh National Bank
P. O. Box 340746P
Pittsburgh, Pa. 15230

Morgan Guaranty Trust Company of New York
30 West Broadway
New York, N.Y. 10015

Continental Illinois National Bank and Trust Company of Chicago
231 South LaSalle Street
Chicago, Ill. 60601

Wells Fargo Bank, National Association
420 Montgomery Street
San Francisco, Cal. 94144

Dividend Disbursing Agent:
Mellon Bank N.A.
Mellon Square
Pittsburgh, Pa. 15230

General Subject Index

To aid the annual report reader who is interested in general subject areas, the following index is an alphabetical guide with specific page references. It is based upon a judgment as to those items most often referred to and should not be considered a complete listing.

Information on Koppers Operations:

For information on the above subjects as they relate to individual Koppers operating groups, consult the following:

KOPPERS

1982 Annual Report and Form 10-K

"The decisions carried out in 1982, or now in the process of being implemented, will make Koppers leaner, more aggressive and more profitable."

Securities and Exchange Commission Washington, D.C. 20549

Form 10-K Annual Report

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the Fiscal Year Ended

December 31, 1982

Commission File Number 1-3224

Koppers Company, Inc.

A Delaware Corporation
IRS Employer Identification No. 25-0904665

Koppers Building, Pittsburgh, Pennsylvania 15219 (412) 227-2000

Securities registered pursuant to Section 12(b) of the Act:

Common Stock $1.25 Par Value	Registered: New York Stock Exchange Midwest Stock Exchange Pacific Stock Exchange
Cumulative Preferred Stock 4% Series, $100 Par Value	Registered: New York Stock Exchange
$10 Convertible Preference Stock No Par Value	Registered: New York Stock Exchange

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION, NOR HAS THE COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS REPORT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months, and (2) has been subject to such filing requirements for the past 90 days.
Yes X No __

As of March 7, 1983, 27,910,834 shares of common stock were outstanding, and the aggregate market value of the shares of Koppers common stock (based upon the closing price of these shares on the New York Stock Exchange/composite tape) held by nonaffiliates was approximately $474.4 million. For this computation, Koppers has excluded the market value of all common stock beneficially owned by officers and directors of Koppers and their associates as a group, and all common stock held by Mellon Bank N.A. Such exclusion is not to signify in any way that any of such persons are "affiliates" of Koppers.

Documents Incorporated by Reference	Part
Koppers 1982 annual report to shareholders and Form 10-K are combined in this document.	
Koppers proxy statement dated March 18, 1983 for the 1983 annual meeting.	I, III

Annual Report and Form 10-K

This 1982 annual report to shareholders incorporates all material required in Koppers 1982 Form 10-K filed with the Securities and Exchange Commission. **The table of contents for Koppers 1982 Form 10-K is on page 21.** Koppers 1982 Annual Report and Form 10-K are combined in this document to provide all Koppers shareholders, as well as others interested in Koppers, timely access to this comprehensive material. (Portions of the 1982 annual report to shareholders, such as the "Chairman's Letter to Koppers Shareholders," are not required by the Form 10-K and are not "filed" with the Securities and Exchange Commission. Only those sections of the annual report referenced in the 10-K index on page 21 and in the index on page 24 are part of the Form 10-K and filed with the Securities and Exchange Commission.)

Koppers Company, Inc./1982 at a Glance

($ Millions, except per share figures)	1982	1981
Total sales from continuing operations	$1,585.2	$1,909.7
Net income (loss) from continuing operations	$ (31.1)	$ 52.1
Earnings (loss) per share of common stock:		
From continuing operations	$ (1.41)	$ 1.60
Net to common stock	$ (1.67)	$ 1.58
Dividends per share of common stock	$ 1.40	$ 1.40
Return on average common equity	(7.8%)	7.2%
Capital expenditures	$ 76.7	$ 182.1
Backlog at year end	$ 369.2	$ 437.2

Koppers is a diversified manufacturing company with specialized engineering and construction capabilities. Its more than 100 types of products and services go into four major segments of the economy: architectural construction, nonbuilding construction, manufacturers' capital equipment and industrial production.

The Company has endured three consecutive years of progressively worsening recession. Management's determined efforts have succeeded in maintaining Koppers traditionally strong financial condition. With a recently expanded, efficient manufacturing base that has substantial unused capacity, Koppers immediate performance goals include:

- **Aggressively using its leadership position in major businesses to gain more efficient levels of operation;**
- **Moving its depressed return on equity back into a range of 15%-18%;**
- **Further streamlining and tailoring existing operations to cope with structural changes in the economy and other business changes.**

With economic recovery will come the high levels of funds realized from Koppers operations prior to 1982 and therewith the renewed potential for increasing capital expansion. Investments will be made in projects that:

- **Relate to what Koppers knows through experience with raw materials, market participation, production or technology;**
- **Make Koppers a low-cost producer;**
- **Give Koppers a leadership position in major market segments served.**

Discussion of the Company's business appears in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Description of Koppers Business."

Annual Meeting

The annual meeting of the shareholders of the Company will be held at 11 a.m. on Monday, April 25, 1983 in the Pittsburgh Room of The William Penn Hotel, Pittsburgh, Pennsylvania.

Inside This 1982 Annual Report

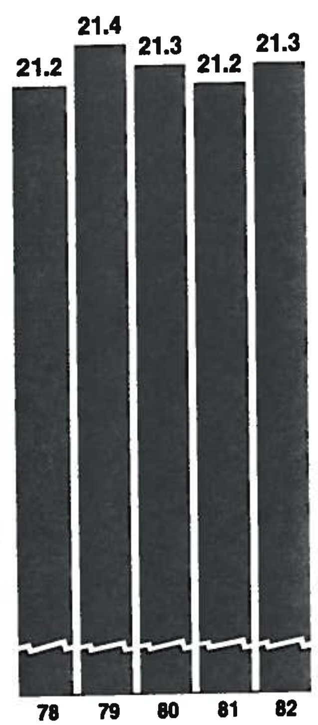
To Our Shareholders:

Declining domestic and world economic activity since 1979 has severely tested the ability of U.S. corporations to survive. The year just past brought the greatest challenges of all.

In 1982, as in the two preceding years, management successfully maintained Koppers strong financial position despite seriously depressed business levels in a number of our major end markets. That success demanded—and got—stern measures on the part of management. Such measures point in one certain direction:

The decisions carried out in 1982, or now in the process of being implemented, will make Koppers leaner, more aggressive and more profitable.

Gross Operating Profit Margin
(Percentage)



Nonrecurring Expenses Lowered Income

We accomplished extensive cost reductions. A number of assets were sold, written off, or written down in value at year end. This accounted for nearly one-third of the $46.2 million (after taxes) in nonrecurring charges against 1982 income, charges that produced a net loss of $31.1 million from continuing operations. More than one-half of the nonrecurring charges resulted from recognition of the decline in the value of our Richmond Tank Car Company investment. The balance was due to severance and other one-time costs.

However, the reported $1.41 per common share net loss from continuing operations does not tell the whole story. Comparison of total funds generated by Koppers from all sources against funds paid out, as discussed on page 19, reveals a positive cash flow. As a result, the Company has adequate liquidity to fund higher operating levels should the expected economic recovery get under way and/or to increase capital expenditures should appropriate growth opportunities develop.

As in any year, our 1982 performance must be assessed against the background of prevailing business conditions, which were exceptionally unfavorable to Koppers end markets.

All of our operating groups registered reduced sales and income in 1982. The 17% drop in Koppers sales was due primarily to declines in unit volumes, although disposals and closings of certain operations also contributed.

Cost Reductions Extensive

As the economic decline deepened during the year, Koppers intensified its countermeasures, especially through efforts to lower break-even points throughout its operations.

- We lowered the number of our employees by more than 20%. Total wages and salaries paid dropped by $47 million. Certain employee benefits were reduced.
- We closed or sold more than a dozen operating units in 1982 or early 1983 and are currently negotiating the sale of others. These were among the "targets for correction" cited in our last annual report. Collectively, they accounted for $7.7 million in operating losses in 1982 and have not operated profitably in the past three years.
- We scheduled a number of other plants for either shutdown or substantial streamlining in 1983.
- In addition, we made provision at year end for the sale of the environmental control and mineral processing equipment operations. Negotiations for their sale are still proceeding. Nevertheless, accounting procedures instruct that sales and operating losses, as well as losses on planned disposal of these businesses, be excluded from Koppers operating results in 1982 and the two previous years. The after-tax effect of this provision further lowered 1982 earnings to a $1.67 per share loss.

On January 31, 1983, the Board of Directors voted to lower the quarterly dividend to 20¢ from 35¢. Postponed as long as possible, the decision recognized concern about the prospects for a sustained economic upturn.

The impact of our cost reductions will grow in 1983 and beyond, especially as unit sales improve. The chart at the left, which traces the five-year relationship of Koppers Cost of Sales to Sales, provides visible evidence of the effect on 1982 results. In spite of the continuing deterioration in our unit sales over the past three years, and especially in 1982, our gross operating profit margin (Sales less Cost of Sales divided by Sales) recorded a modest improvement in 1982.

Charles R. Pullin

Preparing for Change

We believe that our existing operational strengths will find their best use in those sectors of the economy that are fundamental to the nation's productive base, primarily industries that are vital to the American infrastructure.

It is management's responsibility, however, to monitor contemporary change and to reduce Koppers dependence on end markets with diminished growth potentials. Over the past few years, almost all of our sales have gone to some of the most battered sectors of the economy.

These sectors have remained in a trough for most of the past two years. While we feel that their cycles will rise again, we do not expect them to reach their former crests for some time to come.

We have for several years been adapting to perceived changes, a process slowed by the depressed state of the economy. We will nevertheless continue to concentrate on those businesses in which our strengths give us a unique competitive position and in which there is good potential for acceptable growth. The following section, "Looking Back, Planning Ahead", provides an assessment of Koppers progress along this front.

As we move ahead, we will profit from the management philosophy bequeathed to us by Fletcher L. Byrom, who retired as Chairman of the Board in 1982. (Please see page 37.) This does not mean that we will be frozen in our present position. Neither will we cling to traditional business segments when circumstances indicate that we should strike out in new directions, de-emphasizing areas whose economic cycles hamper the Company's prospects.

In late 1982, we signed a letter of intent with the U.S. Synthetic Fuels Corporation for adequate loan and price guarantees to justify our participation in a North Carolina project for the conversion of peat into methanol. This project, which calls on our KBW coal gasification technology, provides an excellent opportunity, at acceptable risk, for Koppers to establish a foothold in an emerging industry.

The Outlook

The current outlook is similar to that which prevailed at this same point in each of the past two years, when the economists' encouraging projections were dashed by the reality of recession.

This coincidence alone is cause for concern. We still feel that those factors which Koppers management can directly control are moving along a favorable path. We will continue to operate as a lean enterprise. We will closely limit our investment in fixed assets and working capital in 1983 so long as observable business conditions dictate that we should do so. We will further reduce operating costs and pursue vigorous marketing strategies to improve our market positions.

Within this atmosphere of caution, there resides some reason for optimism. The 5¢-per-gallon increase in the federal tax on transportation fuels will improve the prospects in markets for our road maintenance and construction materials and services. Initiation of the North Carolina synthetic fuels project in 1983 would benefit the Company as supplier, operator and equity holder. The recent declines in interest and inflation rates are certainly positive indications. Still needed, however, is a solution of the possible conflict between federal fiscal and monetary policies that would permit these favorable trends to lead to a sustainable recovery.

If the domestic economy in 1983 proceeds on a course of moderate recovery, which the consensus now foresees, Koppers will show a significant improvement from the depressed results of 1982.

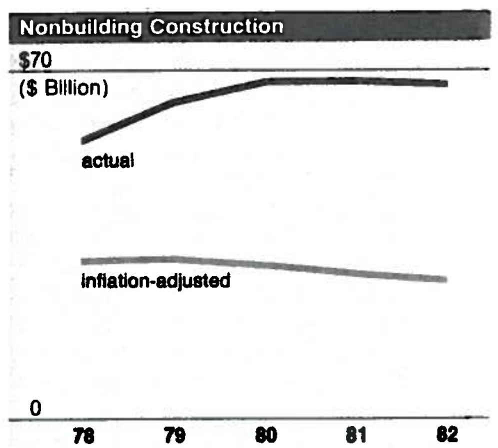
C R Pullin

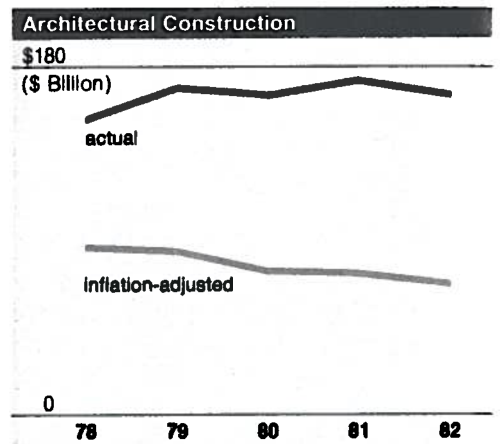
Charles R. Pullin
Chairman of the Board

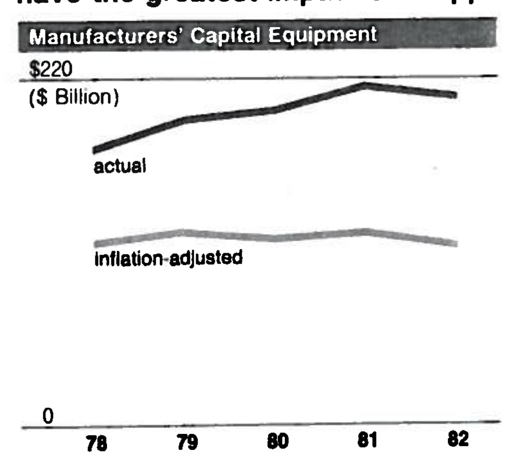
February 15, 1983

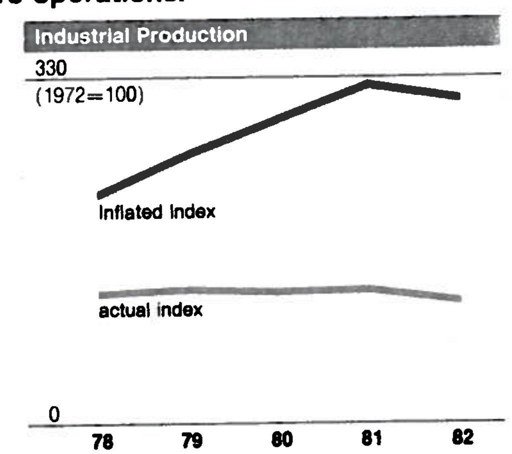
Looking Back, Planning Ahead

These four economic segments, depressed by the prolonged recession, have the greatest impact on Koppers operations.









■ ***Nonbuilding construction—Housing starts stimulate work on roads, streets, sewers, utility lines and other projects that are part of the nearly 45% of Company sales. Koppers is especially oriented toward highway construction and repair, aware that more than 60% of the nation's two million miles of paved roads are rated fair to poor. The 5¢-per-gallon gasoline tax boost is expected to spur highway construction and maintenance for a number of years. Also important to Koppers is the nation's rail system. Upgrading of deteriorated track systems, active for a while, was interrupted by the rail industry's decline in 1982. Crosstie sales are expected to pick up as economic recovery develops.***

■ ***Architectural construction—Although our direct participation in housing is modest, new starts trigger the need for shopping centers, office complexes and other commercial and institutional structures to strengthen Koppers sales that go into building and construction materials.***

■ ***Industrial production—Sustained recovery in such industries as autos, consumer durables, aluminum, tires and steel would begin to utilize the operating leverage that exists in Organic Materials. This could lead to strong income improvements.***

■ ***Manufacturers' capital equipment—Prospects are not as favorable in this sector although disposal of several unprofitable businesses and marginal plants should prove helpful. Industries important to Koppers here include paper and packaging, diesel and aircraft engine manufacture, food and grain processing, and petroleum and steel production. Sustained recovery could bring renewed investment in capital equipment in late 1983 and beyond.***

Koppers remains convinced that the United States, in order to restore its economic health, must modernize its aging production base and revitalize the decaying elements—from highways to sewage systems—that constitute its infrastructure.

The table on page 7 shows that the diversified manufacturing base Koppers has formed now serves four basic sectors of the economy encompassing many of the industries that compose the production base and infrastructure of our nation.

As the adjacent charts show, little progress has been made in the past five years toward improving these fundamental segments of our economic society. High interest rates, inflation and other factors have held down needed investment. Overall business volumes in the four segments are measured in actual and inflation-adjusted dollars and production levels.

Nonbuilding Construction activity, adjusted for inflation, has been declining for the past three years. With three-fourths of all money spent on roads coming from state or local governments, fuel tax revenues have fallen.

Architectural Construction has stagnated, as housing has recovered only slowly. Widespread weakness in commercial and industrial construction was masked by strong office-complex activity.

Manufacturers' Capital Equipment has suffered a three-year drop in demand. Capacity utilization within the manufacturing sector has fallen to below 70%, a record. Structural changes within the economy are creating permanent declines in numerous basic industries.

Industrial Production in 1982, adjusted for inflation, was less than in 1977, as the need to reduce inventories has cut output. The greatest weaknesses were in autos and consumer durables, along with metals and building products. Changes and dislocations in certain industries will not be sorted out for years.

What We Have Done

In response to these and other developments, Koppers has reassessed its operating and growth strategies, withdrawing from nearly 10 businesses, selling or closing more than a dozen marginal plants and reducing operations at numerous others. At the end of 1982, negotiations were under way to sell the environmental systems and mineral processing equipment businesses, as well as other Company assets.

With depressed businesses streamlined, the Company has fought to strengthen the market positions of its core operations, determined to emerge in better operating and financial shape than when the current recession began.

Organic Materials continued to enhance its leadership position in major end markets for coal tar pitches, thanks to high product quality and efficient, well-located plants.

The group has eliminated marginal chemical lines, shifted from petroleum feedstocks to more internally generated raw materials, and slashed plant operating costs. Overcapacity in certain commodity chemicals is producing stiff price competition.

The group has increased its share of the foundry coke market through superior product quality. Weak demand and intense price competition continue.

Two major new products—a cold-applied roofing system and phenolic foam insulation—are designed to strengthen Koppers lead as a supplier of premium building materials.

With modern plants, certain unprofitable businesses eliminated and capacity utilization at less than 50%, Organic Materials has the potential for a dramatic earnings turnaround during an economic recovery.

Road Materials—This group has cut operating costs and competed strenuously for available business. Emphasis on greater integration of certain regional operations has helped to expand Koppers position from a supplier of crushed aggregates into additional materials processing and into construction contracting services.

The group has withdrawn in recent years from four geographic markets that no longer fit its strategies and will continue to explore opportunities in new, fast-growing regions.

Forest Products—To improve its return on investment, this group has closed or is selling eight U.S. treating plants, sold Canadian spruce lumber operations and withdrawn from the Canadian wood-treating market. Hardwood timberlands and sawmills are being disposed of. Internally developed wood-waste burning systems now save more than $4 million annually in plant fuel costs. Plant productivity has steadily improved.

Forest Products has maintained its leadership in wood treatment and wood-treating chemicals. That position could improve as other companies withdraw in the face of competitive or environmental problems and with the favorable acceptance of new products.

Engineered Metal Products—This group is being streamlined. The Company has sold or closed several plants and disposed of one business. As noted earlier, we are in the process of negotiating to sell the environmental systems and mineral processing equipment operations. The container machinery business has been scaled back to supply spare parts and selected machinery. The group's strongest product lines are intact.

A new piston ring plant will improve overall efficiencies and help to advance Koppers technological lead in the diesel engine industry. Backward integration has increased the value added in our power transmission couplings operations.

Sprout-Waldron has greatly modernized and expanded its facilities for the production of materials processing equipment. Its improved technology for the pulp and paper industry has firmly established Koppers world leadership.

Engineering and Construction—This group has been hard hit by the prolonged depression in the domestic steel industry. With virtually no backlog of steelmaking projects, the group has cut employment by about 60% in the past year. Capabilities are now concentrated on the synthetic fuels project in which Koppers will hold a major equity position.

Koppers Prospects

In the short run, Koppers will be smaller and more concentrated in businesses in which its leadership derives from efficient plants, low production costs, high product quality and strong market shares. It will be a more profitable company, well-armed to compete in an uncertain, potentially volatile economy.

The Company could resume its profitability in 1983 if interest rates continue downward and if trends currently in motion continue favorable in certain of the economic sectors in which Koppers is positioned. These are discussed in the charts above.

Also promising is the possible investment in a synthetic fuels project in North Carolina. Initially, Koppers will receive design, engineering and construction revenues that could total $200 million in the next three years. Site preparation was started in 1982, with operation scheduled to begin in 1986. The unit will convert peat into about 60 million gallons of methanol annually for use as a motor fuel or as an additive to raise the octane rating of gasoline.

Venture Capital Investments

For some years to come, the largest share of our strength and growth will derive from the businesses we have in place today, supported by the most modern and efficient physical plant in our history and by a reputation for quality and market leadership.

We are still convinced that energetic development of our existing capabilities will bring forth opportunities for long-term growth. In addition, we have invested in venture capital operations to expand our technological scope. These continued to progress in 1982.

Genex, with Koppers owning a major share, is a leading genetic engineering organization. Genex has two products in pilot production and has a high level of research under way.

DNAP, active in agricultural biotechnology, is carrying on research for major food companies to develop new, disease-resistant varieties of tomatoes, coffee, sugar cane, tobacco and other plants.

Engenics concentrates on translating laboratory results in genetic engineering into production, moving through process design and scale-ups into full-scale manufacturing aided by continuous analytical hardware.

Ceramatec, a researcher-manufacturer in high-technology ceramics, carries out industry and government projects covering a range from microelectronics to aerospace fuel cells and high-temperature diesel engines.

EOTec is a leader in fiber optics research in communications, sensors and specialty glass. It develops and sells short-range data cables for process controls and computer-networking. It also offers proprietary technology for telecommunication networks.

American Robot is a developer of electric motor drive robots for the high-precision electronics and auto industries. "MERLIN," its modular, expandable robot line, won acclaim after its commercial introduction.

METCAL produces space-age metallurgical materials with unique energy and process control efficiencies. It combines exotic metallic materials into heating elements and electrical connections that can reach a given temperature, sense it, and then self-regulate to reduce power.

We remain confident that Koppers will continue to find ways of adapting certain of these technologies to our businesses that will achieve lasting benefits.

Koppers Operating Results by Business Segments

($ Millions)	Year	Sales	Operating Income (Loss)	During 1982	Near-Term Outlook
Organic Materials	**82** 81	**$ 535.3** $ 678.1	**$ 8.5** $ 29.2	Income declined as weak demand reduced sales. Nonrecurring expenses lowered income in each year. Chemical plant capacity utilization fell to 42%. Drop in furnace coke sales deepened losses. Binder pitch volume was off 38%; creosote, 21%. Favorable mix in coatings, polyester resins improved income. New foam insulation product was introduced.	**Major end markets continue depressed. Improving signs in auto, tire, aluminum, consumer durables production could begin income turnaround. Lower interest rates would aid building materials upturn, introduction of new foam insulation products. Cost reductions will contribute to recovery.**
Road Materials	**82** 81	**$ 485.9** $ 541.9	**$ 38.9** $ 57.9	Severe weather in Western markets, weak demand in nonbuilding construction, nonrecurring expenses resulted in lower earnings. Intense competition offset cost reductions. Shipments of aggregates fell 10%. Income also was reduced by lower overseas construction volume.	**Gasoline tax increase will add $4.4 billion annually to federal funds for highway and road improvements starting in 1983. Gains in housing construction, lower interest rates should lead to pickup in other nonbuilding construction.**
Forest Products	**82** 81	**$ 297.1** $ 379.8	**$ 10.3** $ 42.9	Weak demand in railroad, utility, construction markets lowered sales and income in the treated-wood business. Cost reductions helped offset lower crosstie shipments. Depressed demand for wood-treating chemicals began to improve near year end. Plant closings, other nonrecurring expenses cut income.	**Lower railroad carloadings point to continued low crosstie sales. Early signs are visible of improving railroad shipments. Actions to close marginal plants, other cost reductions should benefit performance. Lower interest rates should renew demand for treated lumber, wood-treating chemicals.**
Engineered Metal Products	**82** 81	**$ 215.5** $ 233.6	**$ 4.9** $ 13.4	Demand fell for industrial capital equipment, components. Income was penalized also by disposal of businesses, severance, other nonrecurring charges. Results rose in Sprout-Waldron as demand was high for advanced pulping systems for paper industry. Piston rings, couplings, container machinery operated at lower levels.	**With backlogs low in most product lines, 1983 improvement will rely on favorable impact of disposals, other cost reductions, moderate demand upturn. Future improvements will result from recoveries in such industries as paper, diesel and aircraft engines, food and grain processing, petroleum, steel.**
Engineering and Construction	**82** 81	**$ 32.9** $ 58.6	**$(16.3)** $ (7.6)	Depressed conditions in steel industry resulted in lack of new contracts in 1982. Sales fell to substantially less than break-even. Much of loss was from severance costs. Capabilities are now concentrated on potential synthetic fuels project.	**Low capacity utilization in steel industry, intense competition are expected to hold construction volume at a low level. Anticipated start of North Carolina synfuels project could help construction volume during 1983-1985.**
Miscellaneous	**82** 81	**$ 18.5** $ 17.7	**$(46.0)** $ 6.9	Slack demand in utility, other markets reduced income from coal operations. Loss resulted from write-down of investment in Richmond Tank Car Company, development costs on synthetic fuels project.	**Recovery should improve demand for coal. Agreement on loan and price guarantees for synthetic fuels project could result in equity investment. Methanol seen as emerging transportation fuel.**
Total	**82** 81	**$1,585.2** $1,909.7	**$ 0.3** $142.7		
	82 81		**$ 25.5** $ 22.5	**General Corporate Overhead**	
	82 81		**$(25.2)** $120.2	**Income (Loss) Before Interest Expense and Income Taxes**	

Koppers Sales to Major Economic Sectors

As the following table shows, Koppers sales go to four broad segments of the U.S. economy. The specific end markets within each segment that are most important to Koppers are listed in parentheses.

($ Millions)	Year	Sales	% Total	During 1982	Near-Term Outlook
Nonbuilding Construction (Products and construction services used in highways, roads, bridges, streets and such other infrastructure facilities as railroads, utilities and pipelines; iron and steel)	**82** 81	**$711.4** $824.3	**44.9** 43.2	Total sales in the nonbuilding construction sector fell by nearly 5% in inflation-adjusted dollars. Highway spending continued near the same low level as the previous year, weakening demand for aggregates. Steel industry expenditures were slightly higher than in 1981, but projects in primary production met with delays and cancellations. Railroads and utilities curtailed spending for maintenance and new facilities, reduced sales of treated wood products.	**The newly enacted transportation fuels tax will improve state and local financing for highway construction and maintenance, with the greater effect to start in the last half of 1983. Steel industry investment will remain extremely low because of continued financial weakness and marginal operating rates. Railroads and utilities are expected to make further cutbacks in expenditures before recovery stimulates an upturn in demand.**
Architectural Construction (Building materials for commercial, industrial and residential structures)	**82** 81	**$217.2** $273.9	**13.7** 14.3	Housing starts were at depressed levels for most of the year, with expenditures down 16% for new homes, additions and alterations. Office building construction peaked with a 30% rise during the year, but most other areas of nonresidential building activity declined from the previous year's levels. Overall reduction in architectural construction activity was more than 7% in 1982, resulting in general weakness for Company's construction products.	**New housing starts are forecast to rise 25% to 30% in 1983, with deferred demand supported by lower mortgage rates and improving real incomes. The office building boom has ended, with activity expected to drop by 10% or more. The total of nonresidential building will be lower after adjusting for inflation. This is expected to include a drop in new factory construction, stores, schools, hospitals, other types of buildings.**
Manufacturers' Capital Equipment (Components and machinery used in paper and packaging, transportation, agriculture, food and grain processing, steel, pipelines)	**82** 81	**$215.6** $233.7	**13.6** 12.2	Businesses reduced new equipment investments by 6% to 7% because of weak end-market demand and lower profits. Capacity utilization dropped to the lowest level in nearly 40 years and borrowing costs were high throughout the year, further eroding incentives to expand.	**Major capacity expansions will not be triggered until operating rates climb substantially higher. Real interest rates remain high and cash flow, though expected to improve, is still sluggish. Recovery in capital equipment markets is not foreseen before late 1983 or 1984.**
Industrial Production (Products used by producers of chemicals, plastics, rubber, lumber and wood, ferrous and nonferrous metals, mineral ores)	**82** 81	**$441.0** $577.8	**27.8** 30.3	Total industrial output dropped 8%, but declines were even more severe for a number of key markets: automobiles, basic chemicals, steel mills, foundries, aluminum, railroad equipment, metal mining. Coal mining and utilities held about even with the previous year's output, but all other sectors declined. Prices were weaker for most Company products sold to the industrial sector.	**Industry output is forecast to rise 2% to 3% in 1983. Auto sales are expected to increase by about one million units, mostly domestic production. Steel and iron castings markets should bounce back from depressed levels. Moderate improvement is expected for paper, chemicals, tires and rubber, lumber and coal, but recovery in the machinery sector is likely to lag.**
Total Sales	**82** 81	**$1,585.2** $1,909.7	**100%** 100%		

Shareholder Information

Market for Koppers Common Stock and Related Security Holder Information
Koppers common stock, $1.25 par value, is principally traded on the New York Stock Exchange and is listed also on the Midwest and Pacific stock exchanges. The tables below present its high and low market prices, and dividend information. Cash dividends have been paid on these shares every year since 1944, the year the Company was incorporated.

Long-term debt agreements and the terms of Koppers cumulative preferred stock, $100 par value, 4% Series, and Koppers $10 convertible preference stock, no par value, include certain restrictive covenants. These, among other things, prohibit certain aggregate amounts of the Company's dividends and distributions on its stock from exceeding specified levels. The most restrictive provision, contained in a long-term debt agreement that matures in the year 1998, permitted $110,035,000 of consolidated earnings retained in the business to be available for cash dividends in 1982.

Cumulative Preferred Stock
The outstanding shares of cumulative preferred stock, $100 par value, 4% Series, may be redeemed at the option of the Company, as a whole or in part, at any time upon not less than 30 nor more than 60 days' notice, at $107.75 per share, together with accrued and unpaid dividends to the date fixed for redemption. Although the Company also has the right, with the approval of the Board of Directors, to repurchase cumulative preferred shares in the open market, it has no current plans to redeem or repurchase shares.

$10 Convertible Preference Stock
The outstanding shares of $10 convertible preference stock, no par value, may be converted into shares of common stock of the Company at any time, unless previously redeemed, at the conversion price of $28.75 per share, subject to adjustment in certain events. The preference stock is not redeemable prior to December 15, 1983 and, on and after such date, is redeemable on not less than 30 days' notice at the option of the Company at a price beginning at $107.00 per share and declining by $1 per share each year through 1990.

Equity Security Holders

Title of Class	Number of Shareholders of Record on March 7, 1983
Common Stock, $1.25 Par Value	20,491
Cumulative Preferred Stock, $100 Par Value	1,286
Convertible Preference Stock	501

Continuing Growth of Participation in Dividend Reinvestment Plans
More than 14% of Koppers shareowners participated in the Company's cost-free Dividend Reinvestment/Cash Payment Plan in 1982. The number of participants grew by more than 31% during the year, to nearly 3,000. Participating shareholders invested nearly $1 million to purchase almost 70,000 additional shares during 1982. These plans enable shareholders, on a cost-free basis, to:

- Elect to invest common and/or preferred dividends in shares of Koppers common stock; and/or
- Purchase additional Koppers common stock by making voluntary cash payments of $25 to $1,000 in any month.

Shareholders may obtain further information on these plans by writing to Mellon Bank N.A., Stock Transfer Section, P.O. Box 444, Pittsburgh, Pennsylvania 15230.

Koppers Common Stock Statistics

	1982	1981	1980	1979	1978
Common stock price ranges on NYSE/Composite:					
High	$18¼	$27⅞	$35¼	$27⅝	$24⅝
Low	11¼	16⅛	19	17⅜	18¾
Close	16	17	25	27	20⅛
Volume traded (in thousands)	11,445	8,781	7,780	4,183	4,684
% of shares outstanding	41%	32%	29%	16%	19%

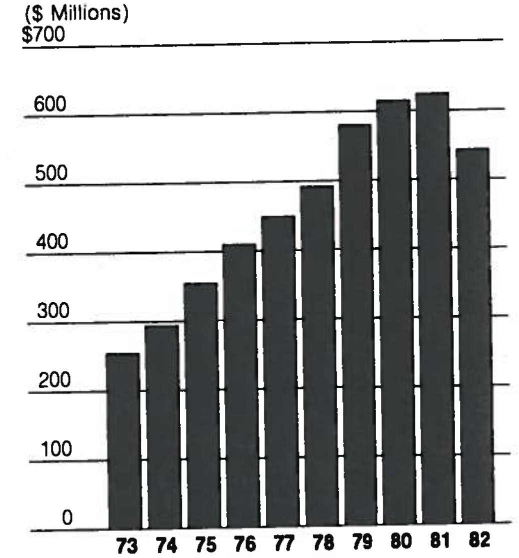
Quarterly Common Stock Price Ranges and Dividends

	1982			1981		
Quarter	High	Low	Dividend	High	Low	Dividend
1st	$17⅞	$14	$0.35	$27⅞	$20¾	$0.35
2nd	16¼	13	0.35	27¼	22½	0.35
3rd	14⅜	11¼	0.35	24⅞	17¼	0.35
4th	18¼	12⅜	0.35	18¾	16⅛	0.35

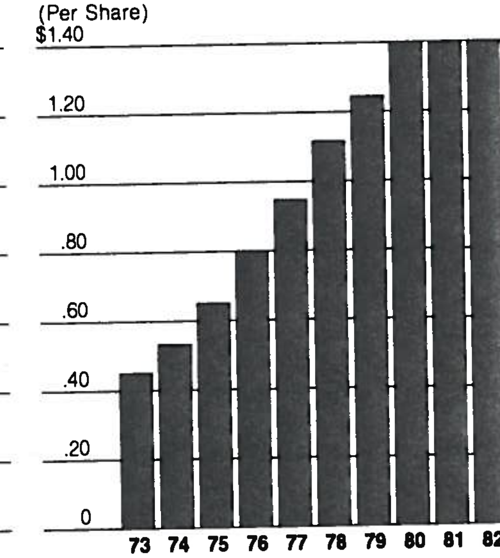
The Shareholders' Scorecard

This series of charts illustrates how owners of Koppers common stock have fared over the past 10 years. Value of the Company's common equity, although slightly reduced by the 1982 loss, has substantially more than doubled. The dividend has plateaued for three years, yet continued ahead of inflation and increased threefold in the recent decade. Price of the common stock fluctuated widely in recent years and, despite the 1981-1982 decline, continues ahead of leading market indices. The total return (stock appreciation plus dividends reinvested) also has kept Koppers shareholders ahead of inflation. This chart shows in effect that $1,000 invested in Koppers common stock at the start of 1973 would have grown to $3,059 at the close of 1982.

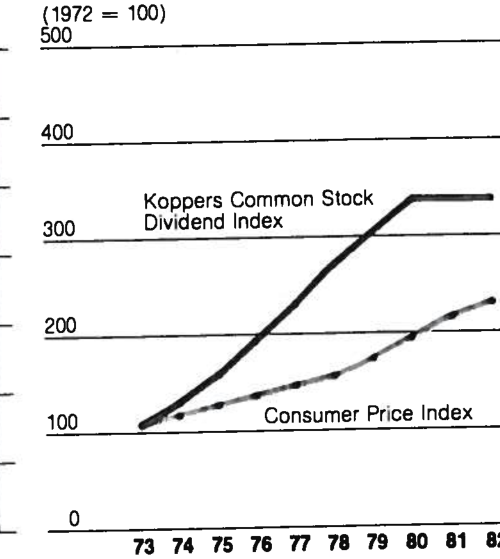
Common Shareholders' Equity
($ Millions)



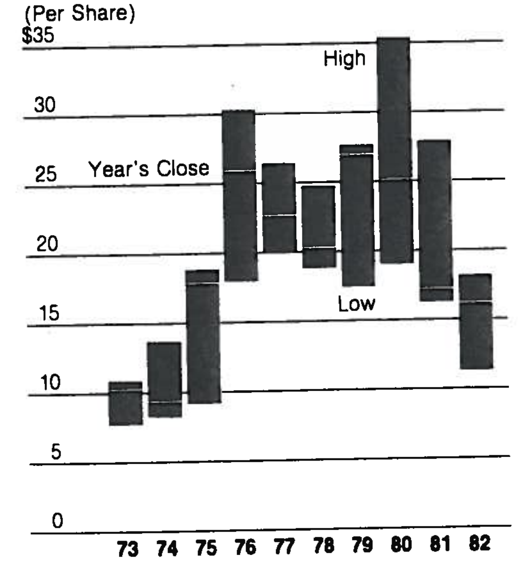
Annual Common Dividend
(Per Share)



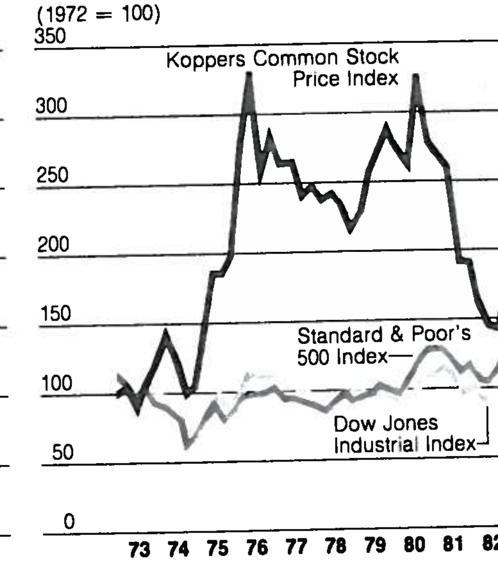
Dividends Outgrew Inflation
(1972 = 100)



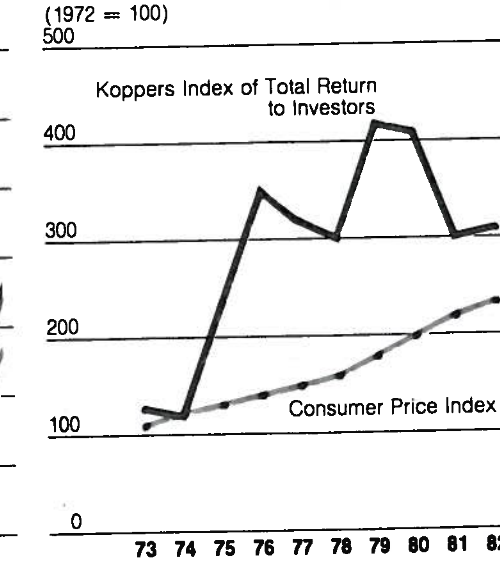
Common Stock Price Trend
(Per Share)



Common Stock vs. Market Indices
(1972 = 100)



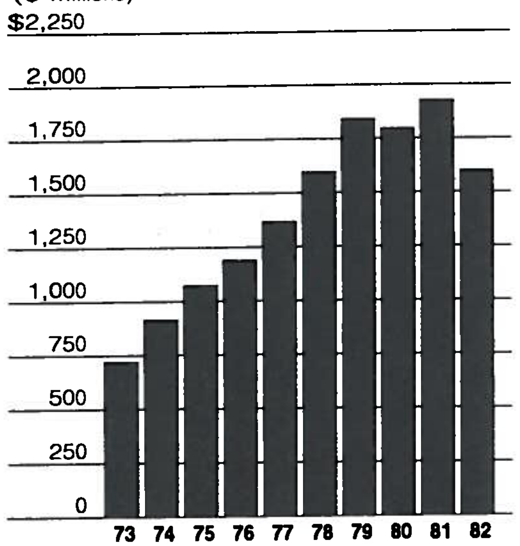
Annual Total Returns to Shareholders
(1972 = 100)



Management's Discussion and Analysis of Financial Condition and Results of Operations

The discussion and analysis in this section cover, for the period 1980-1982, the performance of Koppers business segments, other factors in the income statement (page 25) that materially influenced the Company's financial results, and changes in liquidity and use of capital resources that had a meaningful effect on Koppers financial condition at the close of 1982.

Koppers Sales From Continuing Operations
($ Millions)



Results of Continuing Operations

Net Sales and Income
Company sales declined by 17% in 1982 as all operating groups had lower sales. Weak market demand lowered unit volumes and caused increased pricing pressures in most business segments, compared with 1981 and 1980, when price increases largely accounted for overall sales growth in many product lines. Added factors in the lower sales total were discontinuation of certain product lines, divestitures, and cutbacks in marginal operations. Acquisitions in 1981 and 1980 added about 5% to Koppers sales in each of the past three years; there were no sizable acquisitions in 1982. As the result of anticipating the discontinuation of two major Company businesses at the end of 1982, the quarterly sales, profit, net income and earnings per share in the table below have been restated to exclude the results of those businesses.

Normally, Koppers annual sales are lowest in the first quarter and reach their peak during the second and third quarters, then begin to decline in the fourth quarter because of seasonal influences. Usually, the Company's income also follows this pattern, which is shown in the Quarterly Financial Data below. In 1982, however, there was an unusually large fourth-quarter loss due to various write-offs and write-downs at year end. Gross profit remained at a high level in the 1981 fourth quarter as a result of unusual income and expenses and of efforts to improve operating efficiencies.

Following are discussions of the performance of each of Koppers operating groups.

Organic Materials

($ Millions)	1982	1981	1980
Sales	**$535.3**	$678.1	$577.2
Operating income	**$ 8.5**	$ 29.2	$ 47.2

In 1980 and 1981, Organic Materials product lines felt the impact of the recession, with lower volumes and income from automotive, steel, housing and related markets. Demand for nearly all products worsened in 1982, with resulting income declines. Chemicals and roofing materials, which began to slump in 1981, were joined in the downward trend in 1982 by pitches, creosote and coke. Only coatings and polyester resins were able to exceed 1981 income levels in 1982. The sharp drop in 1982 operating income, in addition to weaker business performances, included nonrecurring expenses of $14.3 million from the shutdown of marginal facilities and write-offs of intangible and other assets, as compared with similar expenses in 1981 of $14.1 million for write-offs and a write-down. In 1980, nonrecurring income of $3.5 million was received from insurance claim recoveries. Inventory reductions that generated favorable LIFO reserve adjustments in each of the past two years partly offset the effects of nonrecurring expenses.

Chemical operations declined in 1982 after a small gain in 1981 and strong income performance in 1980. Write-offs of certain chemical operations in 1982 and 1981 should improve profitability in this business.

Chemical prices weakened in 1982 after improvements in 1981 and 1980, with the added burden of higher fixed costs, as well as increased costs of most raw materials, energy and labor. Chemical plant capacity utilization was 42% in 1982, down from 52% in the prior year and 63% in 1980.

The roofing materials business continued weak as a result of depressed construction markets. Interest rates, which rose steadily in 1980 and 1981 and contributed to lagging construction demand, began to recede in mid-1982; however, improvement in roofing materials sales was not evident at the end of 1982. Income dropped for the second consecutive year as declines in nonresidential construction and reroofing, which began in late 1980, continued in 1981 and 1982. The Company began commercial production in 1982 of its new phenolic foam insulation board, which offers superior thermal and fire-resistant properties. Initial markets are commercial roofing and residential sidewall insulation.

The coke operations loss worsened in 1982 after near break-even results in 1981 that benefited significantly from inventory LIFO liquidations. Unit sales dropped 33% in 1982 as against an impressive 83% rise in 1981. Weak industry demand, combined with the continuing problem of overcapacity in foundry coke, resulted in intense price competition. Blast furnace coke sales dropped 56% in 1982; foundry coke volume was near the 1981 level; and industrial coke showed a small gain for 1982. Sales and income in specialty foundry products declined, reversing the 1981 performance improvement.

The weakening trend in carbon binder pitch demand that began in mid-1981 continued throughout 1982 as aluminum industry production fell. Unit sales of pitch dropped 38% in 1982, following a 2% decline in 1981. Creosote had good sales gains in 1980 and 1981, but felt the effects of railroad and utility industry cutbacks as 1982 sales were 20% below the 1981 level.

Protective coatings and polyester resins reported higher income despite a 13% sales volume decline, as 1982 results were aided by a more favorable sales mix and inventory reductions. Coatings business benefited from continued strong demand in underground pipeline construction and in defense and original equipment markets. Polyester resin sales declined 11% in 1982 after a 14% rise in 1981, which had benefited from high volumes in specialty polyester resins. Lower 1982 sales and income also occurred in specialty coating, sealant and adhesive lines.

Road Materials

($ Millions)	1982	1981	1980
Sales	**$485.9**	$541.9	$531.7
Operating income	**$ 38.9**	$ 57.9	$ 57.2

After improvements in 1981 and 1980, Road Materials 1982 sales and income dipped because of widespread weaknesses in the U.S. nonresidential construction market. Sales declined 10% for the year, compared with increases of 2% in 1981 and 17% in 1980. In 1982, Eastern operations maintained income near 1981 levels while Southern and Western operations declined. The construction slowdown that began in mid-1981 continued during 1982, and bad weather early in the year hindered Western operations. Income in 1982 suffered as the volume of overseas construction work carried out by foreign subsidiaries declined from a high 1981 level. Operating income in 1982 was reduced also by $3.2 million in nonrecurring charges that resulted from losses on the sale of certain operations in New York and Virginia, equipment write-offs and employment severance costs. There were no comparable expenses in the two prior years.

Koppers total shipments of aggregates fell to 44 million tons in 1982, from 49 million tons in 1981 and 50 million tons in 1980. Construction services, which have been growing in volume in recent years, accounted for 35% of Road Materials sales total in 1982, slightly less than the 37% in both 1981 and 1980. Responding to decreased demand, work schedules were reduced and other cost-cutting measures lowered break-even levels. Capital expenditures in 1982 were restricted to replacement equipment necessary to maintain capacity or support existing business. In 1981, acquisitions included a Florida aggregates producer and a supplier of road materials and construction services in the Western Overthrust Belt of Wyoming-Colorado.

Forest Products

($ Millions)	1982	1981	1980
Sales	**$297.1**	$379.8	$380.9
Operating income	**$ 10.3**	$ 42.9	$ 21.3

Forest Products sales and income declined in 1982 as unit sales were lower in most business lines because of weak demand for crossties, utility poles, construction products and wood-treating services. The specialty wood-treating chemical unit performed at near 1981 levels, helping to offset losses in building products and hardwood lumber businesses. Operating income in 1982 was reduced by $5.1 million in nonrecurring charges that resulted from the sale or the expected closing of several plants and other facilities. Income in 1981 was increased by $20.2 million by the sale of Canadian spruce lumber operations.

Railroad crosstie sales rose steadily in 1980, leveled off in 1981, and dropped by 25% in 1982. Railroads cut back on track improvement programs during 1982 as revenues declined. Utility pole and piling sales also were lower as excess production capacity in the industry and lower demand resulted in severe price competition. In spite of unit sales declines, operating income did not fall proportionately as lower raw materials costs, improved plant efficiencies and energy and other cost reductions partly offset the lower volumes. The year-end backlog for treated wood products was lower.

After gradual rises in 1981 and 1980, sales of wood-treating chemicals leveled off through much of 1982 because of very low activity levels in housing and light-frame construction. Activity picked up noticeably in the fourth quarter, however. Koppers continued its efforts to increase raw material integration in production of these specialty chemicals. A new fire-retardant for use primarily in interior construction was introduced during 1982 with good initial market acceptance.

Losses continued in timberland and hardwood operations, although they were partly offset by income from sales of sawmill facilities and timberlands.

Koppers Quarterly Financial Data (from continuing operations)

($ Millions, except per share data)	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Total	
	1982	1981*	**1982**	1981*	**1982**	1981*	**1982**	1981*	**1982**	1981*
Net sales	**$330.7**	$399.0	**$418.8**	$509.9	**$455.4**	$515.1	**$380.3**	$485.7	**$1,585.2**	$1,909.7
Gross profit**	**34.7**	43.1	**68.8**	79.5	**77.1**	85.1	**45.4**	83.9	**226.0**	291.6
Net income (loss)	**(10.3)**	(3.3)	**8.3**	16.1	**20.1**	25.5	**(49.2)**	13.8	**(31.1)**	52.1
Earnings (loss) per common share	**$(0.44)**	$(0.18)	**$ 0.22**	$ 0.51	**$ 0.65**	$ 0.85	**$(1.84)**	$ 0.42	**$ (1.41)**	$ 1.60

*Restated operating results to reflect continuing operations only.
**Net sales less Cost of sales (including allocable portion of Depreciation, depletion and amortization and Taxes, other than income taxes).

Engineered Metal Products

($ Millions)	1982	1981	1980
Sales	**$215.5**	$233.6	$229.1
Operating income	**$ 4.9**	$ 13.4	$ 9.5

Operating income for continuing operations fell in almost all business segments in 1982, reversing the group's slight recovery in 1981. Markets for industrial capital equipment deteriorated as a result of the recession and low industry capacity utilization. However, the 1982 decline was increased by $5.3 million in charges from losses anticipated or realized on the curtailment of certain operations, from severance costs, and from write-downs of inventories. Income in 1981 was reduced $3.7 million primarily from losses realized from the bankruptcy of a former affiliate.

Sales of diesel piston rings and shaft seals dropped by 11% after growing by more than 20% in 1981 from a weakened 1980 level. Demand was depressed for rings in the truck, construction equipment, farm, marine, and oil and gas industries. Shaft seal operations remained high as aircraft jet engine production continued strong in military markets.

A new manufacturing plant, completed in Georgia in 1982, increased Koppers capacity for piston rings used in medium-sized diesel engines, a market expected to have good growth in coming years. The facility also will significantly increase Koppers overall efficiency in this business.

Power transmission couplings sales and income declined in 1982 after a gain in 1981. With the exception of strong sales to the petrochemical industry, end-market demand for couplings was weak. The year-end couplings backlog was down 27%, compared with gains of 16% in 1981 and 11% in 1980.

Sales and income improved in 1982 for the Sprout-Waldron materials processing equipment lines as the result of strong demand for the unit's innovative, cost-saving technology in thermomechanical pulping systems, used by paper manufacturers to convert wood chips to pulp. The 12% sales increase reversed an 11% drop in 1981. Income rose substantially in 1982 from the nearly equal totals in the previous two years. New orders decreased during the year as capital investment slowed in pulp and paper and feed and grain mill businesses.

A major foundry expansion at Sprout-Waldron was completed during 1982, with plans to expand into commercial production of castings in addition to the division's proprietary castings line.

Container machinery operated at a loss. Market conditions deteriorated in the final six months of the year and the 1982 year-end backlog was reduced more than 50% from a year earlier. Weak market demand and overcapacity in this industry have created intense pricing competition.

Negotiations were under way at year end on the possible sale of the environmental systems and mineral processing equipment businesses. Combined sales of $90.2 million and net operating losses of $3.1 million after tax from these businesses were not included in the group results, nor were amounts relative to 1981 and 1980 included.

Engineering and Construction

($ Millions)	1982	1981	1980
Sales	**$ 32.9**	$58.6	$64.6
Operating loss	**$(16.3)**	$(7.6)	$(0.4)

Losses deepened in Koppers engineering and construction activity as steel industry spending continued to decline, reaching extremely low levels. Employment was significantly reduced, and $5.4 million of the 1982 loss resulted from nonrecurring charges, most of which were severance costs. The 1981 loss included a nonrecurring expense of $2.3 million from an unfavorable lawsuit settlement. Actions to enter new business areas, begun in 1981, were continued. The group acquired an exclusive U.S. license for process control systems with application in metals, automotive and cement industries. A joint venture with a Japanese company will provide technology and financing arrangements for domestic steelmaking projects.

The KBW (Koppers-Babcock and Wilcox) gasification process will be used in the synthetic fuels plant planned for construction in North Carolina to convert peat to methanol. Koppers is in a position to supply technology, engineering and construction services and equipment for the project.

Miscellaneous Sales and Operating Income

($ Millions)	1982	1981	1980
Sales	**$ 18.5**	$17.7	$16.7
Operating income (loss)	**$(46.0)**	$ 6.9	$ 4.8

Miscellaneous sales and operating income includes revenues received by Koppers that are not the result of group operations. Revenues and income from Koppers investment in Tennessee coal lands come under this heading and account for the majority of 1981 and 1980 results. Koppers leases these lands for production to independent coal operators. Income from coal operations in 1982 dropped nearly 50% from 1981 levels because of low demand from utilities and other industries.

Most of the loss in this category in 1982 resulted from the $39.3 million write-down of the Company's investment in Richmond Tank Car Company. Other amounts included a nonrecurring charge that arose from employee severances and losses incurred by companies in which Koppers has equity investments. A portion of this equity loss, $5.8 million, was related to the Company's interest in synfuels projects.

Most of the expenses incurred on the development of synthetic fuels projects arose from Koppers equity interest in Peat Methanol Associates, a project in North Carolina for the construction of a facility costing in excess of $500 million to convert peat into methanol. Methanol is widely used to improve gasoline octane or to fully power fleets of automobiles. A letter of intent to build the plant was signed with the Synthetic Fuels Corporation in December, 1982 and construction was commenced at the site. Construction is scheduled to accelerate in 1983, assuming efforts to obtain loan and price guarantees from the Synthetic Fuels Corporation are completed as expected in the first half of the year.

Financial Results

Operating Expenses

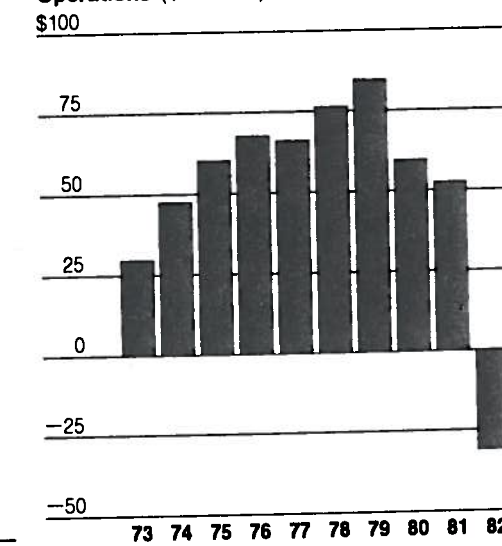
The various trends in profitability in Koppers major product lines during 1980-1982 were discussed in the preceding section. These individual performances combine to form Koppers overall profit performance, which is most accurately reflected in the relationship between the Company's Sales and Cost of sales, shown in Operating expenses in the income statement (page 25). Cost of sales is made up of expenses directly incurred by the Company's operating units in a given year: wages, salaries and pensions; raw materials; energy; transportation and other supplies and services.

Subtracting Cost of sales from Sales provides the Gross operating profit, which, expressed as a percentage of sales, is the Gross operating profit margin:

	1982	1981	1980
Gross operating profit margin	**21.3%**	21.2%	21.3%

As shown above, the Company's Gross operating profit margin stayed within a narrow range over the past three years in spite of continued declines in unit sales in the Company's business lines. Nonrecurring expenses influenced Cost of sales in each of the past three years, and the net effect these had on Cost of sales is shown in the table in the far right column. Costs were increased in 1982 by certain of the nonrecurring charges

Net Income (Loss) From Continuing Operations ($ Millions)



taken at year end related to employment severance costs and write-offs of several nonfixed assets. Costs were reduced in 1981 by adjustments that lowered pension expenses and by a recovery on an insurance claim, which were somewhat offset by an unfavorable lawsuit settlement. The 1980 cost increase resulted primarily from equipment replacement guarantees that were not totally matched by insurance claim recoveries.

Also shown in the table in the third column is the Adjusted gross operating profit margin that reflects the Company's performance in each year before the impact of the nonrecurring expenses. This shows more clearly how Koppers operating managers have progressed in recent years in measures to reduce costs, including closing plants and discontinuing businesses, in order to offset the combined effects of a severe recession and inflation.

($ Millions)	1982	1981	1980
Nonoperating expenses (income)	**$ 8.4**	($2.7)	$ 8.3
Adjusted gross operating profit margin	**21.8%**	21.0%	21.7%

In each of the past two years, Cost of sales has benefited from the Company's efforts to reduce inventories. (See Note 1 on page 30.) The liquidation of last-in, first-out (LIFO) inventory quantities results in inventory costs charged against current sales that are older, therefore lower than current actual raw material costs. This lowers Cost of sales. In order to reduce inventories, however, plant production is held at a lower level than market demand, usually at an inefficient level that increases unit cost of sales. In 1980, inventory reduction was not a factor.

The improving trend in the Company's Gross operating profit margin was not carried through to Operating profit over the past three years. With the significant decline in unit sales and increasing cost pressures in recent years, it was not possible for management to proportionately reduce other, more entrenched operating costs that were not directly related to the Company's volume of operations. In total, however, these expenses declined in 1982 for the first time in the past 10 years.

Although Depreciation, depletion and amortization rose slightly, it was the smallest increase in the past decade. The Company's high levels of capital investment in that period have greatly expanded the depreciable asset base. Depreciation increases have slowed as Koppers has reduced its capital investments in 1981 and 1982.

Taxes, other than income taxes, declined in 1982 for the first time in the past decade, although they continued to rise in relation to sales. In the two prior years, these

Foreign Operations*

($ Millions) Year ended December 31,	1982	1981**	1980**
Koppers identifiable assets:			
Foreign operations	**$51.6**	$79.1	$109.2
% of consolidated identifiable assets	**4%**	6%	8%
Canadian identifiable assets included in above	**$16.1**	$23.5	$ 58.9
% of foreign operations identifiable assets	**31%**	30%	54%
Koppers revenues (net sales):			
From foreign operations	**$47.4**	$85.3	$ 95.5
% of consolidated revenues	**3%**	4%	5%
From Canadian operations included in above	**$25.5**	$59.8	$ 70.0
% of foreign revenues	**54%**	69%	73%
Koppers income (after foreign and applicable U.S. income taxes):			
From foreign operations	**$ 5.6**	$ 9.4	$ 2.6
% of total net income	**—**	18%	4%
From Canadian operations included in above	**—**	$ 1.3	$ 0.8
% of foreign income	**—**	13%	29%

* Koppers export sales are not included in this presentation as they constitute less than 6% of the Company's total sales and are not material.

**Results have been reclassified to conform with 1982 classifications (Note 8).

expenses rose more than twice as fast as the growth in sales because of rising real estate, personal property and Social Security taxes. Each of these taxes declined modestly in 1982.

Selling, research, general and administrative expenses also continued to increase in relation to sales in 1982, but declined in total dollars. The reduction was accomplished even though research expenditures rose by $6 million, or 34%, after another increase in 1981. General and administrative expenses were down in 1982, primarily because of a reduction in wages and salaries.

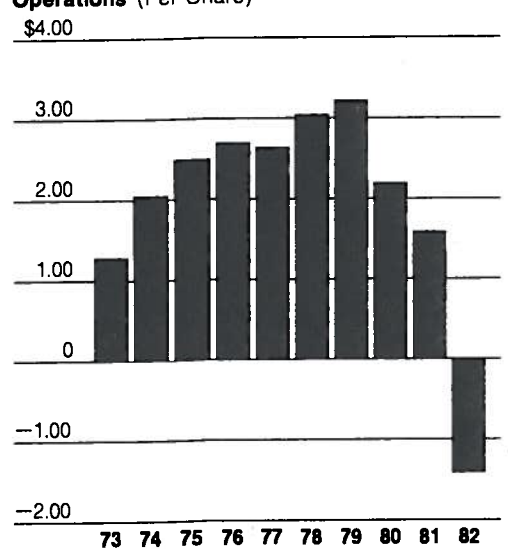
In spite of the control exercised in these last three categories of Operating expenses, they continued to reduce Koppers profit margin on sales, which declined to 2.2% in 1982 from 5.2% in 1981 and 5.8% in 1980.

Other Income

The Company incurred a sizable loss in Other income in 1982 as the result of decisions to dispose of, or close, numerous operations, and to write down an investment, as well as losses incurred in the Company's equity in earnings of affiliates. The Company's Other income has varied significantly in each of the past three years because of a number of factors.

- Provisions were made in 1982 for the closing or disposal of numerous plant operations, including units in each operating group. The $21.5 million loss incurred from these actions was a substantial change from the $7.4 million gain realized in 1981, when a $12.8 million write-off from the disposal of operations was more than offset by a $20.2 million gain realized on the sale of the Company's Canadian lumber business. This compared with a $2.4 million loss on disposal of operations in 1980. Note 8 (page 31) provides more detailed information on the operating losses incurred from operations disposed of or closed.
- The large Provision for decline in value of investment resulted from the Company's $39.3 million write-down of its investment in Richmond Tank Car Company. Additional information on this write-down is in Note 2 (page 30). The 1981 loss was from a write-off of an investment in a dyestuffs subsidiary.
- The large loss in the Company's Equity in earnings of affiliates resulted primarily from the Company's investments in Richmond Tank Car Company, in synthetic fuels projects and in various venture capital companies.

Earnings (Loss) From Continuing Operations (Per Share)



The distribution of Koppers Other income by individual business segment for the past three years is shown in Table 6 (page 33).

Interest Expense

Koppers 1982 Interest expense declined by $4.1 million, or 12.1%, as the result of a $43 million decline in average debt outstanding from 1981, as both short-term and long-term borrowings were reduced. This is a reversal of a rising trend in interest expense for several years as the Company used debt in order to finance its high level of capital spending. The last debt issue was in 1980, when $100 million in 11¼% promissory notes was placed privately. During this period, Koppers also substantially raised its use of commercial paper to meet increased working capital needs. The growth in Interest expenses moderated in 1981 as short-term debt was reduced and long-term debt was lowered by $20 million. In the past two years, Koppers has reduced its total short- and long-term debt by $68.8 million.

Income Taxes

Koppers had a $23.8 million income tax credit in 1982 on the $54.9 million pretax loss from continuing operations, incurred as the result of numerous nonrecurring charges taken near year end. Since the Company had no income, the 1982 investment tax credit, net operating loss and foreign tax credits were carried back to prior years and benefited income in the current year by $13.7 million. In 1981, the Company's Provision for income taxes, and its effective tax rate, rose significantly from the prior year because of the high tax rate encountered on the sale of Canadian lumber operations and because lower capital investments and weaker export sales substantially reduced tax credits. The lower tax rate in 1980 was from higher benefits from investment tax credits, from the effect of percentage depletion over cost depletion and from the effect of the lower tax rate on capital gain income. The various factors that influenced the Company's effective tax rate for the past three years are shown in Note 9 (page 32).

Discontinued Operations

The Company decided in late 1982 to dispose of two major operations in the Engineered Metal Products group: the environmental systems and mineral processing equipment businesses. A total pretax reserve of $7.5 million was set up at year end for the expected losses on these disposals.

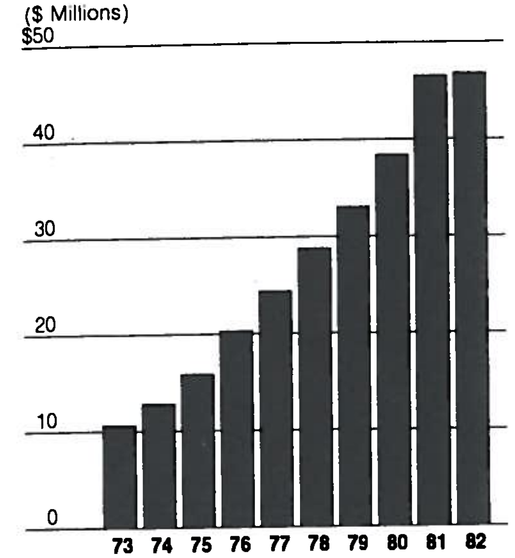
These operations are not included in Koppers sales and income for 1982, 1981 and 1980. Sales applicable to the discontinued operations were $90.2 million, $108.8 million and $128.9 million for 1982, 1981 and 1980, respectively. As shown in the income statement, these units had losses in the same three years of $3.1 million, $0.4 million and $5.8 million. In addition, a $4.3 million loss on disposal was provided in the fourth quarter of 1982, discussed in Note 8 (page 31).

Koppers Selected Financial Data (from continuing operations)

($ Millions, except per share data)	1982	1981*	1980*	1979	1978
***Operating results:**					
Net sales	**$1,585.2**	$1,909.7	$1,800.2	$1,828.3	$1,581.9
Income (loss) from operations	**$ (31.1)**	$ 52.1	$ 59.7	$ 84.9	$ 76.0
Income (loss) from operations —per common share	**$ (1.41)**	$ 1.60	$ 2.19	$ 3.21	$ 3.01
At year end:					
Total assets	**$1,192.9**	$1,328.2	$1,389.5	$1,140.7	$1,036.1
Long-term debt	**$ 275.7**	$ 288.9	$ 308.7	$ 224.2	$ 233.6
Redeemable convertible preference stock	**$ 75.0**	$ 75.0	$ 75.0	—	—
Total long-term debt and redeemable preference stock	**$ 350.7**	$ 363.9	$ 383.7	$ 224.2	$ 233.6
Cash dividends declared per common share	**$ 1.40**	$ 1.40	$ 1.40	$ 1.25	$ 1.125

* Results have been reclassified to conform with 1982 classifications (Note 8).

Total Dividends Paid
($ Millions)



Financial Condition

This is a discussion of how Koppers management has conducted its affairs during 1980-1982 in order to finance the Company's capital expenditures, to provide working capital needed to support sales, to repay debt and to compensate shareholders through dividend payments, all with the objective of maintaining a strong financial position.

The table below is a summary showing the funds generated by Koppers over the past three years and the ways in which these funds were used.

The first two years in the period encompassed the highest annual levels of capital expenditures in Company history. During the period, the level of funds paid to holders of the Company's common stock increased only modestly, but the issuance of 750,000 shares of convertible preference stock near the close of 1980 produced a significant rise in total dividend payout over the three-year period, as shown in the graph to the left.

As indicated in the table below, funds generated from the Company's operations have provided a high proportion of the Company's total financial needs over the past three years. Term debt, used to finance part of the high levels of capital expenditures carried out during 1980 and 1981, peaked in 1980 and has been reduced in the past two years. Funds received from the convertible preference issue went largely toward the Company's investment in Richmond Tank Car Company and to the reduction of debt.

Koppers management follows a number of criteria to ensure that the Company's ability to maintain the required liquidity remains strong. Cash flow from operations is an important indicator. The levels of investment in components of working capital are

Funds Generated by Koppers

($ Millions)	1982	1981	1980
Sources of cash:			
Funds from operations			
Net income (loss) from continuing operations	$(31.1)	$ 52.1	$ 59.7
Depreciation, depletion and amortization	82.2	81.6	76.7
Deferred taxes and other expenses	(7.0)	4.9	5.1
Provisions for operations disposed of or closed and decline in value of investment	50.0	7.1	—
Equity in earnings (losses) of affiliates, less dividends received	15.0	4.6	(0.8)
Total from continuing operations	**$109.1**	**$150.3**	**$140.7**
Loss from discontinued operations	(7.4)	(0.4)	(5.8)
Depreciation, depletion and amortization	2.1	2.0	2.2
Deferred taxes and other expenses	2.4	0.8	4.2
Total from discontinued operations	**$ (2.9)**	**$ 2.4**	**$ 0.6**
Funds provided from operations	106.2	152.7	141.3
Term debt and capital leases	23.2	1.6	134.6
Sale of fixed assets	20.5	39.3	7.8
Common stock issued	2.2	5.8	26.4
Preference stock issued	—	—	72.6
Net decrease in working capital, excluding cash	55.0	16.7	13.9
Total	**$207.1**	**$216.1**	**$396.6**
Uses of cash:			
Capital expenditures*	76.7	182.1	230.9
Term debt and capital leases retired	33.2	21.3	50.1
Dividends paid	47.1	46.7	38.4
Issuance of receivables due after one year	17.8	1.7	1.0
Other	4.3	1.9	2.5
Total	**$179.1**	**$253.7**	**$322.9**
Increase/(decrease) in cash	$ 28.0	$(37.6)	$ 73.7
*Portion represented by issuance of common stock	$ —	$ 3.7	$ 22.8

another, and the Company's debt-equity position and borrowing capacity round out the criteria. Each of these influences the Company's liquidity.

Cash Flow

In order to remove the distortion that nonrecurring charges had on the cash flow reported in 1982 and the Company's financial performance, the table on the previous page of Funds generated by Koppers in 1982 has been assembled to show that, in spite of a reported loss, the Company had a positive flow of cash in 1982. As is shown in the line "Provisions for operations disposed of or closed and decline in value of investment," a major portion of the nonrecurring charges in 1982 did not result in any outflow of Company funds.

Depreciation has been the most consistent component of cash flow. Its growth has moderated in the past two years as Koppers capital spending levels have been reduced. Depreciation in 1983 is expected to remain at approximately its current level.

Working Capital

Koppers management has concentrated on controlling its investment in working capital over the past three years. Working capital is the surplus of current assets over current liabilities and indicates the amount of financial flexibility a company has to meet day-to-day business obligations, to withstand adversity and to pay dividends.

Programs to reduce inventory levels at least in line with weakening business conditions have been consistently applied. Close attention has been paid also to accounts receivable, so that in a declining business and financial environment, payments due from customers would not tie up Company funds excessively. The combined reduction of investment in inventories and trade accounts receivable from 1981 freed more than $99 million in cash in 1982. The overall decline in working capital was only $27 million, however, as funds were used to reduce accounts payable and debt by about $34 million, and the balance of cash held at year end was increased by $28 million.

($ Millions)	**1982**	1981	1980
Working Capital	**$243.7**	$270.7	$325.0

The large increase in 1980 working capital was a temporary condition that resulted when $53 million from the issuance of convertible preference stock in December of 1980 was held in cash at year end. These funds were intended for use in completing the purchase of stock in Richmond Tank Car Company and for the reduction of corporate debt. Excluding these funds temporarily held in cash, working capital at the close of 1980 would have been $272 million.

In the past, a widely accepted rule of thumb within the investment and financial community stated that a prudently run corporation should maintain a ratio of current assets to current liabilities of approximately 2-to-1, or better. As has been pointed out in past annual reports, this rule cannot be rigidly applied to companies that have been on LIFO accounting for a number of years. The use of LIFO accounting, while it recognizes the current costs of labor and materials in the Cost of sales, results in an understatement of the Company's current assets, specifically its value of inventories (on the balance sheet). This, therefore, leads to understatement of the level of day-to-day business a company's working capital can realistically support. Had the FIFO method of accounting been continued since 1974, the Company's tax liability would have been substantially increased together with the need for increased long-term funding to maintain the necessary level of working capital.

It should, therefore, be recognized that companies using LIFO accounting can have a strong liquidity position with a current ratio of less than 2-to-1. It is more important in considering the financial condition of a company that the current ratio should be maintained at a reasonably stable level over an extended period of time. The following comparison of the Company's current ratio, using both types of inventory valuation, illustrates the significant variation that can exist.

Current Ratio	**1982**	1981	1980
Inventory Value:			
FIFO	**2.54-to-1**	2.41-to-1	2.34-to-1
LIFO	**1.99-to-1**	1.99-to-1	2.02-to-1

Koppers ability to meet its short-term obligations remains excellent.

Borrowed Funds

Koppers uses commercial paper and revolving bank credit during the course of any year to cover peak working capital requirements. As shown in the chart on page 17, use of this type of short-term debt occurs most heavily during the second and third quarters of the year. In 1982, the Company's average level of commercial paper issued was 50% less than the 1981 average and was sold at substantially lower rates of interest. In 1982, the maximum amount of revolving credit loans outstanding was $21 million. No comparable loans were outstanding for 1981.

During 1980, Koppers received $100 million from the issuance of 11.25% promissory notes and two 10% $9.8 million term loans. That was the last increase in term borrowings by the Company. In the past two years, term debt has been reduced by $26.4 million. In the same two years, the Company has eliminated its short-term debt obligations totaling $25.3 million.

Financial Structure

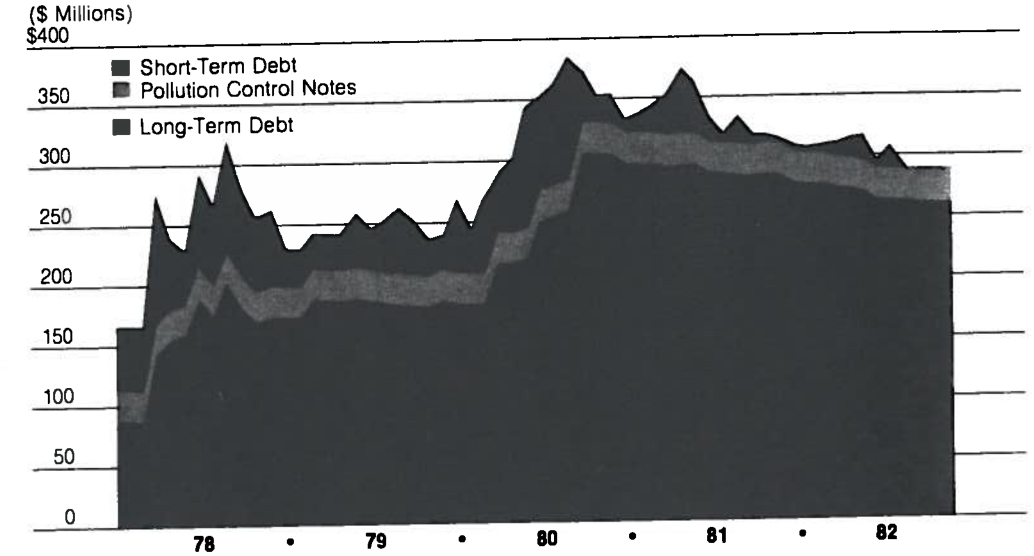
Throughout its recent history, Koppers has maintained the debt portion of its total capitalization within a narrow range, about 30%. This is well within the Company's self-imposed limit of debt to 35% of total capitalization.

Liquidity

At the close of 1982, the Company was in a highly liquid position and had good flexibility to fund future growth. Of total current assets of $490.1 million, nearly $88 million, or 18%, was held in such highly liquid forms as cash or tax refunds receivable. This compared with similar types of funds that accounted for approximately $46.8 million, or 9% of current assets, in 1981. In addition, the Company has a bank credit agreement that provides for revolving credit loans of up to $200 million until September 30, 1986. The agreement was unused at the close of 1982. As a result of the Company's decision to dispose of two major operations, expected to be concluded in early 1983, the Company would receive approximately $11 million in cash and an equal amount in promissory notes and preferred stock. Other discussions now being held could lead to the sale of additional assets during 1983.

Koppers expects to be able to finance any increase in capital expenditures and working capital with internally generated funds and the use of current credit arrangements. The Company is continually looking ahead to possible investment opportunities and, therefore, is constantly examining the options available for future financing. Substantial capacity exists within the Company's economic structure to finance a major expansion. To maintain liquidity and the flexibility desired in Koppers economic structure, however, management could elect to secure external financing during the coming year, or beyond. There are, however, no immediate plans for doing so.

Debt Used to Support Operations*



*Does not include obligations under certain leases.

Koppers Total Capitalization

December 31,	1982 $ Millions	1982 % of Total	1981 $ Millions	1981 % of Total	1980 $ Millions	1980 % of Total
Total Debt						
11.25% Promissory notes	**$100.0**	**10.9%**	$ 100.0	9.7%	$ 100.0	9.6%
8.95% Note	**60.0**	**6.5**	60.0	5.8	60.0	5.8
Industrial development bonds	**38.1**	**4.1**	40.0	3.9	40.0	3.9
6% Notes	**29.0**	**3.2**	32.0	3.1	35.0	3.4
Pollution control loans	**25.2**	**2.7**	25.4	2.5	26.0	2.5
8% Notes	**1.0**	**0.1**	2.2	0.2	4.4	0.4
5.8% Notes	**2.0**	**0.2**	2.6	0.3	3.3	0.3
Capital lease obligations	**6.0**	**0.7**	10.8	1.0	12.5	1.2
Other	**14.4**	**1.6**	16.0	1.5	17.6	1.7
Term loans payable to banks	**—**	**—**	—	—	9.8	0.9
Debt due within one year	**11.3**	**1.2**	22.2	2.2	21.9	2.1
Total	**$287.0**	**31.2%**	$ 311.2	30.2%	$ 330.5	31.8%
Equity						
Common	**$544.1**	**59.1%**	$ 629.1	61.1%	$ 619.5	59.6%
Preference*	**75.0**	**8.1**	75.0	7.3	75.0	7.2
Preferred	**15.0**	**1.6**	15.0	1.4	15.0	1.4
Total	**$634.1**	**68.8%**	$ 719.1	69.8%	$ 709.5	68.2%
Total Capitalization	**$921.1**	**100.0%**	**$1,030.3**	**100.0%**	**$1,040.0**	**100.0%**

*SEC regulations require that capitalization ratios also be shown with redeemable preference stock included in debt. On this basis, 1982 debt would be 39.3% of total capitalization, with equity being 60.7%.

Capital Expenditures

Koppers lower 1982 capital expenditures were directed toward improving plant efficiencies and carrying out projects associated with new or rapidly growing products. Reduced expenditures in 1982 and 1981 reversed the increasing trend in expenditures, which peaked in 1980, as management acted to assure the Company's strong financial position and maintain good liquidity during the prolonged business recession.

Capital Expenditures ($ Millions)	1982	1981	1980
Expenditures	**$76.5**	$147.3	$216.9
Investment in Richmond Tank Car Co.	**0.2**	34.8	14.0
Total	**$76.7**	$182.1	$230.9

Through extensive modernization efforts in the past five years, Koppers today has sufficient available capacity in nearly all product lines to supply increasing customer needs as the economy improves. The reported capital investment figures include the Company's investment in the common stock of Richmond Tank Car Company. The accompanying table separates that investment from total capital expenditures to better illustrate the three-year trend in capital expenditures for property, plant and equipment.

Capital expenditures by operating group are shown in Table 6 (page 33). As shown on SEC Schedule V (page 34), most expenditures are devoted to increases in Koppers property, plant and equipment to modernize, to increase production capacity, or to improve efficiency at Company facilities. During the three-year period, the Company's expenditures to eliminate pollution or bring it to satisfactory levels ranged from 4.5% to 8% of the total spent for capital investments. Major expenditures or acquisitions completed in each of the past three years are summarized below.

1982—Organic Materials started production at one of two new plants built to produce the Company's new phenolic foam insulation board; the second opened in early 1983.

Road Materials increased aggregate reserves in California and added new facilities and equipment at several crushing plants.

Forest Products installed additional wood-waste-fired boiler systems at plants to achieve energy savings.

Engineered Metal Products completed a new diesel piston ring manufacturing plant in Georgia during 1982, significantly increasing capacity and improving the overall efficiency of this product line. The Sprout-Waldron foundry was expanded to manufacture castings for their own products in addition to castings for customers.

The Company's venture capital program added investments in manufacturers of industrial robots and metallurgical materials. Koppers had previously acquired interests in such areas as genetic engineering, fiber optics and advanced ceramics.

1981—Road Materials acquired three companies in Florida and Colorado-Wyoming that produce aggregates and bituminous and ready-mix concrete and that supply civil construction services. The group also increased aggregate reserves in Denver and completed several expansion and modernization programs at various crushing plants.

A project was under way in Organic Materials to modernize an important tar processing plant, and construction was started on two facilities that will produce the Company's new phenolic foam insulation board. Forest Products started up a plant about mid-1981 that improved its raw material position in its wood-treating chemical operations. The group also was active on several projects to use wood wastes as fuel and reduce plant energy costs.

In Engineered Metal Products, two projects modernized and expanded the Company's Baltimore piston ring and shaft seal facilities. In addition, construction was started on a completely new plant in Georgia that will further increase Koppers capacity to produce high-speed diesel piston rings.

A small addition was made to the Company's coal properties, a modest investment in Genex Corporation was completed, and Koppers purchased additional stock in Richmond Tank Car Company early in the year, increasing its ownership of that company to 23%.

1980—Road Materials acquired companies in North Carolina and Colorado that produce aggregates and supply civil construction services, and two companies in Virginia specializing in highway and bridge construction. The group also increased sand and gravel reserves in Los Angeles and completed several expansion and modernization programs at crushing plants.

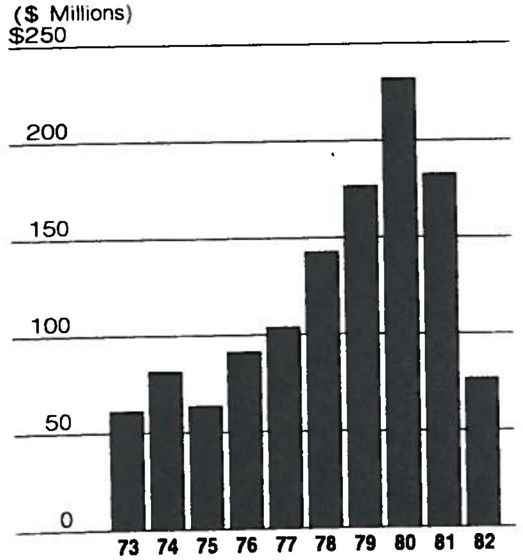
Expenditures to modernize several chemical and tar processing facilities were carried out in Organic Materials.

Forest Products had work under way on a plant to produce treating chemicals and on projects that will reduce plant energy costs by burning wood wastes. Additions were made to the Company's Canadian lumber facilities and its coal reserves, and an investment in Genex Corporation, a genetic engineering research company, was increased. Koppers established an initial investment in Richmond Tank Car Company.

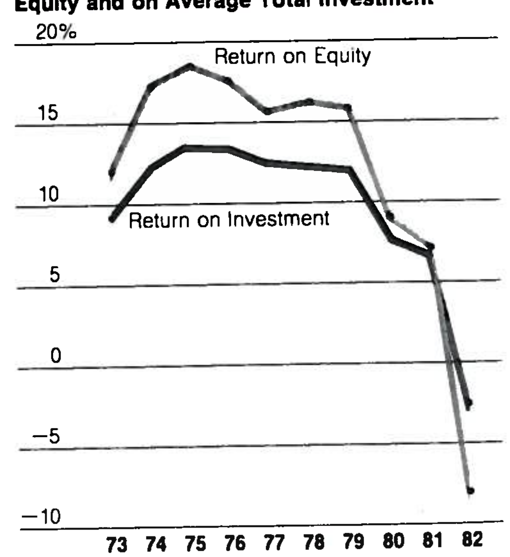
Effects of Inflation

A discussion of the effects of changing prices and inflation on the Company's business begins in the letter following.

Capital Expenditures
($ Millions)



Returns on Average Common Shareholders' Equity and on Average Total Investment



Chief Financial Officer's Letter

To Our Shareholders:

Our 1981 annual report discussed the actions taken by management to cope with unfavorable conditions in those sectors of the domestic economy in which our end markets lie. We recognized then a precarious balance of economic forces that, while they might lead to recovery, could just as likely push the country backward into recession. We pledged that we would not "mark time until external conditions provide a more congenial environment for our activities." Rather, we said, "We will continue to exert every effort to strengthen this enterprise, especially under the currently depressed state of the economy."

As we had feared, economic trends in 1982 began to worsen. In response, we inaugurated a number of additional measures to maintain Koppers strong operating and financial posture. These are summarized in the Chairman's letter on page 2. Their benefits should begin to be felt in 1983 and will continue thereafter.

Collectively, these measures penalized our 1982 financial results. The fact is that the loss reported in our income statement does not truly convey the Company's financial accomplishments during the year. More accurate is the table on page 15, which shows how the high level of funds generated by Koppers operations, along with stringent controls on investments and expenses, was more than sufficient to support those operations. At year end, cash held by the Company was up by $28 million over the close of 1981.

The table shows also that the sources of cash from continuing operations totaled $109.1 million, as contrasted with the $31.1 million loss from continuing operations reported in the income statement. This difference is traceable to the nonrecurring charges against income, almost none of which created any actual outflow of Company funds. Thus, $50 million was available to the Company as a source of cash. The same effect occurs with depreciation, which remained at a high level in 1982.

Of the other sources of funds, the most meaningful were the close controls that recaptured $99 million from trade receivables and inventories. After we used some of this to reduce debt and accounts payable, the net decrease in working capital (excluding cash) totaled $55 million. This was the major reason that 1982's figure of $207.1 million for Total funds generated was only slightly lower than 1981's $216.1 million.

The Company significantly reduced its use of cash. A cut of more than $105 million in capital investments far offset the increased use of funds to repay debt and support the issuance of long-term receivables. The $28 million increase in cash at year end further boosted our liquidity.

Current plans are to control capital spending so that internally generated funds will be sufficient to finance capital expenditures and any increase in working capital.

Effects of Changing Prices

The Financial Accounting Standards Board (FASB) requires supplementary disclosure of selected historical financial data on an

Table A. Consolidated Statement of Income From Continuing Operations Adjusted for Changing Prices

For the Year Ended December 31, 1982 ($ Thousands, except per share figures)	Dollars of Current Purchasing Power*: As Reported in 1982 Financial Statements (Historical Cost)	Adjusted for General Inflation (Constant Dollars)	Adjusted for Changes in Specific Prices (Current Cost)
Net sales	**$1,585,206**	$1,586,505	$1,586,505
Operating expenses:			
Cost of sales	**1,247,719**	1,273,941	1,276,082
Depreciation, depletion and amortization	**82,223**	150,089	149,499
Taxes, other than income taxes	**44,242**	44,242	44,242
Selling, research, general and administrative expenses	**175,697**	175,697	175,697
	1,549,881	1,643,969	1,645,520
Operating profit	**35,325**	(57,464)	(59,015)
Other expense	**60,570**	65,988	65,694
Interest expense	**29,676**	29,676	29,676
Loss before income taxes	**(54,921)**	(153,128)	(154,385)
Provision for income tax benefit from continuing operations	**(23,790)**	(23,790)	(23,790)
Loss from continuing operations	**$ (31,131)**	$ (129,338)	$ (130,595)
Dividends on:			
Redeemable convertible preference stock	**7,500**	7,500	7,500
Cumulative preferred stock	**600**	600	600
Loss applicable to common stock	**$ (39,231)**	$ (137,438)	$ (138,695)
Average number of shares of common stock outstanding during year (thousands)	**27,854**	27,854	27,854
Loss per share of common stock	**$ (1.41)**	$ (4.93)	$ (4.98)
Gain from decline in purchasing power of net amounts owed		$ 3,186	$ 3,186
Decrease in current cost of inventory and property, plant and equipment held during the year**			$ (31,773)
Effect of increase in general price level			103,591
Decrease in specific prices net of increase in general price level			$ (135,364)

*Current-cost and constant-dollar amounts are expressed in average 1982 dollars. Changes are measured by the Consumer Price Index.

**At December 31, 1982, the current cost of inventories was $281,378, and the current cost of property, plant and equipment, net of accumulated depreciation, was $848,585.

adjusted basis to recognize the effect of inflation in times of change in the general price level (constant-dollar method) and changes in specific prices. Koppers endorses attempts to present the effects of inflation on a company's reported financial results. However, the present state of the art leaves much to be desired as it involves the use of assumptions, approximations and estimates. Consequently, the Company believes these indicators may be misleading in determining the effects of inflation.

Koppers, in complying with FASB Statement No. 33, has elected to restate only inventories; sales; cost of sales; property, plant and equipment, net of accumulated depreciation; and depreciation, depletion and amortization. These areas are most affected by inflation. Restatement of other accounts would not materially affect the results. Other data in the five-year summary also are restated for purposes of comparison.

Some Conclusions Concerning the Effect of Inflation on Koppers

The Company's results of operations, as adjusted for general inflation, illustrate some of the more obvious effects of the declining purchasing power of the dollar. Profits have been eroded by inflation, while income taxes as a percentage of pretax earnings have risen considerably. Because the effects of inflation are not deductible for income tax purposes and a larger portion of the Company's earnings is a return of capital, income taxes are, in effect, confiscating capital. Consequently, the maintenance of capital and the potential for growth continue to be adversely affected.

Koppers does not believe, however, that the impact of inflation on the Company's performance and financial condition during the past four years was as severe as the inflation-adjusted income data, taken alone, would indicate.

Mineral Reserves

Information on Koppers mineral reserves is on page 40.

A. William Capone
Senior Vice President and
Chief Financial Officer

February 15, 1983

Table B. Comparison of Selected Supplementary Financial Data Adjusted for Effects of Changing Prices

($ Thousands, except per share figures)	As Reported in 1982 Financial Statements (Historical Cost)	Years Ended December 31, (In Average 1982 Dollars) 1982	1981*	1980*	1979	1978
Net Sales	**$1,585,206**	$1,586,505	$2,031,990	$2,113,513	$2,423,310	$2,332,313
Historical-cost information:						
Adjusted for general inflation:						
Net assets at year end	**$ 634,055**	$ 974,251	$1,094,005	$1,053,940	$ 883,043	
Income (loss) from continuing operations	**$ (31,131)**	$ (129,338)	$ (29,087)	$ 8,133	$ 60,784	
Income (loss) from continuing operations per common share	**$ (1.41)**	$ (4.93)	$ (1.35)	$ (0.28)	$ 2.29	
Gain from decline in purchasing power of net amounts owed	**—**	$ 3,186	$ 22,675	$ 28,905	$ 22,244	
Adjusted for changes in specific prices:						
Net assets at year end	**$ 634,055**	$ 960,664	$1,117,410	$1,079,551	$ 933,325	
Income (loss) from continuing operations	**$ (31,131)**	$ (130,595)	$ (18,408)	$ 11,183	$ 60,160	
Income (loss) from continuing operations per common share	**$ (1.41)**	$ (4.98)	$ (0.97)	$ 0.39	$ 2.26	
Excess (deficit) of increase/decrease in specific prices net of increase in general price level	**—**	$ (135,364)	$ 20,513	$ (19,260)	$ 20,731	
Other information:						
Cash dividends declared per common share	**$ 1.40**	$ 1.40	$ 1.49	$ 1.66	$ 1.68	$ 1.68
Market price per common share at year end	**$ 16.00**	$ 15.82	$ 17.46	$ 27.97	$ 34.01	$ 28.67
Average Consumer Price Index		289.1	272.4	246.8	217.4	195.4

* Adjusted to conform with 1982 classifications (Note 8).

Methods of Computation

The adjusted information shown in Table A was prepared by converting historical amounts into dollars with purchasing power equivalent to that of average 1982 dollars (the constant-dollar method) or adjusted for "changes in specific prices" (the current-cost method).

In 1982 and 1981, two items had significant effects upon both the constant-dollar and current-cost financial statements in comparison with historical cost and prior-year statements: (1) the beneficial effect on historical-cost earnings of liquidating LIFO inventory quantities carried at lower costs prevailing in prior years, as compared with the cost of 1981 purchases, could not be recognized under either the constant-dollar or current-cost approach; (2) a write-down was required for the reduction of property, plant and equipment from its current-cost or constant-dollar amount to its lower recoverable amount. Under both accounting methods, assets held for sale should be shown at net realizable value, the amount of cash, or its equivalent, expected to be derived from the anticipated sale of the asset.

Constant-Dollar Method

The Consumer Price Index—All Urban Consumers (CPI-U) was used to measure general inflation in arriving at the constant-dollar restatement.

Current-Cost Method

Under the current-cost approach, property, plant and equipment (including mineral resources) current cost was estimated by using various indices published by the federal government, private organizations and internal sources. The indexing approach most closely reflects reproduction cost and does not necessarily take into consideration any technological changes and associated cost efficiencies that may be experienced when modern assets are used to replace existing assets. The restatement of historically reported depreciation, depletion and amortization, to both constant dollar and current cost, was based on the above restatements of property, plant and equipment using the same useful lives and depreciation methods as used in the primary financial statements. Inventory restatement on a current-cost basis involves two types of adjustments: (1) to reflect depreciation allocated to inventories at current cost, and (2) a time-lag adjustment to reflect increases or decreases in other cost components occurring between the time the inventories are acquired or produced and average costs for the year using specific price indices.

Cost of sales on a current-cost basis was determined by combining the cost of LIFO-based inventories with FIFO-based inventories. Cost of sales under the LIFO inventory method was assumed to already approximate the current cost at date of sale and thus was only adjusted into average dollars for the year. FIFO inventories were adjusted to reflect standard costs in effect at the time sales were made and when end-of-year inventory was produced.

Other income and certain other expenses do not require adjustment, as they are considered to have occurred proportionately over the year, thus already reflecting average 1982 dollars.

The actual provision for taxes on income is not adjusted since companies are not permitted to recognize any general inflation effects for tax purposes.

Table of Contents
Form 10-K Report
Koppers Company, Inc./1982

Koppers 10-Year Financial Highlights and Operating Statistics

($ Millions, except per share data)		1982	1981*	1980*	1979	1978	1977	1976	1975	1974	1973
Sales by Business Group	Organic Materials	**$ 535.3**	$ 678.1	$ 577.2	$ 556.6	$ 482.5	$ 427.8	$ 384.4	$ 323.3	$285.8	$173.4
	Road Materials	**$ 485.9**	$ 541.9	$ 531.7	$ 454.1	$ 304.1	$ 174.1	$ 134.7	$ 111.8	$117.4	$ 92.2
	Forest Products	**$ 297.1**	$ 379.8	$ 380.9	$ 368.8	$ 313.7	$ 296.3	$ 261.2	$ 244.7	$270.4	$193.7
	Engineered Metal Products	**$ 215.5**	$ 233.6	$ 229.1	$ 328.2	$ 285.6	$ 265.4	$ 267.5	$ 240.3	$158.4	$119.5
	Engineering and Construction	**$ 32.9**	$ 58.6	$ 64.6	$ 113.8	$ 192.0	$ 189.8	$ 138.8	$ 153.8	$ 80.5	$ 62.2
	Miscellaneous	**$ 18.5**	$ 17.7	$ 16.7	$ 6.8	$ 4.0	$ 2.3	$ 2.6	$ 1.6	$ 1.7	$ 82.9
	Total sales from continuing operations	**$1,585.2**	$1,909.7	$1,800.2	$1,828.3	$1,581.9	$1,355.7	$1,189.2	$1,075.5	$914.2	$723.9
Corporate Operating Expenses	Wages, salaries and pension expense	**$ 369.8**	$ 416.8	$ 390.6	$ 427.0	$ 359.1	$ 304.7	$ 276.0	$ 248.5	$202.2	$189.6
	Materials, supplies and services	**$1,053.7**	$1,265.7	$1,188.0	$1,164.2	$1,020.1	$ 866.2	$ 746.4	$ 675.1	$594.7	$432.8
	Depreciation, depletion and amortization	**$ 82.2**	$ 81.6	$ 76.7	$ 63.6	$ 52.7	$ 42.6	$ 37.8	$ 30.3	$ 27.8	$ 28.7
	Taxes, other than income taxes	**$ 44.2**	$ 46.3	$ 41.1	$ 40.1	$ 33.0	$ 26.2	$ 22.2	$ 19.7	$ 16.5	$ 14.9
	Total corporate operating expenses	**$1,549.9**	$1,810.4	$1,696.4	$1,694.9	$1,464.9	$1,239.7	$1,082.4	$ 973.6	$841.2	$666.0
	Operating profit	**$ 35.3**	$ 99.3	$ 103.8	$ 133.4	$ 117.0	$ 116.0	$ 106.8	$ 101.9	$ 73.0	$ 57.9
	Other income (expense)	**$ (60.5)**	$ 20.9	$ 11.7	$ 14.5	$ 24.9	$ 9.2	$ 15.1	$ 10.8	$ 15.8	$ 3.3
Operating Income (Loss) by Business Group (before corporate overhead)	Organic Materials	**$ 8.5**	$ 29.2	$ 47.2	$ 55.6	$ 43.5	$ 49.8	$ 55.8	$ 49.4	$ 48.8	$ 21.1
	Road Materials	**$ 38.9**	$ 57.9	$ 57.2	$ 55.0	$ 36.2	$ 21.0	$ 17.1	$ 12.0	$ 14.0	$ 12.9
	Forest Products	**$ 10.3**	$ 42.9	$ 21.3	$ 31.9	$ 26.2	$ 25.8	$ 18.6	$ 25.4	$ 17.6	$ 20.7
	Engineered Metal Products	**$ 4.9**	$ 13.4	$ 9.5	$ 11.4	$ 13.6	$ 17.5	$ 20.8	$ 20.0	$ 8.4	$ 7.0
	Engineering and Construction	**$ (16.3)**	$ (7.6)	$ (0.4)	$ 10.5	$ 18.2	$ 20.1	$ 13.0	$ 7.7	$ 2.8	$ (2.7)
	Miscellaneous	**$ (46.0)**	$ 6.9	$ 4.8	$ 5.7	$ 22.1	$ 3.8	$ 8.5	$ 8.6	$ 13.2	$ 13.2
	Total operating Income from continuing operations	**$ 0.3**	$ 142.7	$ 139.6	$ 170.1	$ 159.8	$ 138.0	$ 133.8	$ 123.1	$104.8	$ 72.2
Corporate Income (Loss)	Corporate overhead (included in above expenses)	**$ 25.5**	$ 22.5	$ 24.1	$ 22.2	$ 17.9	$ 12.8	$ 11.9	$ 10.4	$ 16.0	$ 11.0
	Income (loss) before taxes and interest expense	**$ (25.2)**	$ 120.2	$ 115.5	$ 147.9	$ 141.9	$ 125.2	$ 121.9	$ 112.7	$ 88.8	$ 61.2
	Interest expense	**$ 29.7**	$ 33.7	$ 32.9	$ 20.6	$ 13.2	$ 11.8	$ 12.6	$ 11.8	$ 12.6	$ 10.1
	Income taxes (benefit)	**$ (23.8)**	$ 34.4	$ 22.9	$ 42.4	$ 52.7	$ 47.0	$ 41.8	$ 40.6	$ 28.4	$ 21.6
	Net income (loss) from continuing operations	**$ (31.1)**	$ 52.1	$ 59.7	$ 84.9	$ 76.0	$ 66.4	$ 67.5	$ 60.3	$ 47.8	$ 29.5
	Preference and preferred dividends	**$ 8.1**	$ 7.9	$ 0.6	$ 0.6	$ 0.6	$ 0.6	$ 0.6	$ 0.6	$ 0.6	$ 0.6
	Income (loss) to common shareholders	**$ (39.2)**	$ 44.2	$ 59.1	$ 84.3	$ 75.4	$ 65.8	$ 66.9	$ 59.7	$ 47.2	$ 28.9
Financial Position At December 31,	Current assets	**$ 490.1**	$ 542.8	$ 644.9	$ 535.3	$ 530.4	$ 438.9	$ 427.1	$ 369.4	$339.1	$255.1
	Current liabilities	**$ 246.4**	$ 272.1	$ 319.9	$ 270.0	$ 247.7	$ 208.3	$ 167.7	$ 150.6	$144.0	$107.0
	Working capital	**$ 243.7**	$ 270.7	$ 325.0	$ 265.3	$ 282.7	$ 230.7	$ 259.3	$ 218.8	$195.1	$148.0
	Property, plant and equipment—net	**$ 633.6**	$ 679.1	$ 667.0	$ 555.8	$ 457.7	$ 378.1	$ 325.5	$ 255.3	$226.7	$240.3
	Total assets	**$1,192.9**	$1,328.2	$1,389.5	$1,140.7	$1,036.1	$ 870.3	$ 783.6	$ 679.7	$647.9	$520.2
	Long-term debt and capital lease obligations	**$ 275.7**	$ 288.9	$ 308.7	$ 224.2	$ 233.6	$ 152.0	$ 159.7	$ 132.6	$166.6	$112.8
	Total debt—% of total capitalization	**31%**	30%	32%	29%	32%	26%	28%	27%	35%	30%
	Common shareholders' equity	**$ 544.1**	$ 629.1	$ 619.5	$ 582.2	$ 498.3	$ 454.8	$ 410.2	$ 353.3	$297.1	$259.0
Data Per Common Share	Earnings (loss) from continuing operations	**$ (1.41)**	$ 1.60	$ 2.19	$ 3.21	$ 3.01	$ 2.64	$ 2.70	$ 2.49	$ 2.04	$ 1.28
	Common stock dividends	**1.40**	$ 1.40	$ 1.40	$ 1.25	$ 1.125	$ 0.95	$ 0.80	$ 0.65	$ 0.535	$ 0.45
	Shareholders' equity	**$ 19.49**	$ 22.58	$ 22.41	$ 21.81	$ 20.12	$ 18.21	$ 16.50	$ 14.57	$ 12.81	$ 11.39
Other Statistics	Capital expenditures	**$ 76.7**	$ 182.1	$ 230.9	$ 177.1	$ 144.5	$ 104.5	$ 90.6	$ 62.2	$ 80.3	$ 61.7
	Cash flow	**$ 18.6**	$ 132.8	$ 134.6	$ 141.5	$ 141.7	$ 114.8	$ 107.3	$ 94.3	$ 72.5	$ 59.8
	Current ratio	**1.99-to-1**	1.99-to-1	2.02-to-1	1.98-to-1	2.14-to-1	2.11-to-1	2.55-to-1	2.45-to-1	2.35-to-1	2.38-to-1
	Return on average invested capital	**(2.4%)**	6.7%	7.7%	12.0%	12.1%	12.4%	13.4%	13.5%	12.2%	9.1%
	Return on average common equity	**(7.8%)**	7.2%	9.0%	15.8%	16.2%	15.6%	17.6%	18.5%	17.1%	11.8%
	Average common shares outstanding (thousands)	**27,854**	27,667	26,989	26,228	25,031	24,886	24,809	24,002	23,141	22,531
	Shareholders at year end	**22,489**	20,326	18,362	18,115	17,729	17,553	16,729	15,352	15,164	15,639
	Average number of employees	**17,334**	20,113	21,029	22,087	20,858	18,168	17,880	17,549	15,763	15,921

*Reclassified to conform with 1982 classifications

Index to Consolidated Financial Statements

Koppers Company, Inc. Covered by Report of Certified Public Accountants

Schedules I, II, III, IV, VII, XI, XII and XIII are not given, as the subject matter thereof either is not present or is not present in amounts sufficient to require submission of the schedules or because the information required is included in the financial statements or the notes thereto.

Statement of Accounting Policies

Koppers Company, Inc. and Subsidiaries

The major accounting policies of the Company are set forth below. The word "Company" as used in this report includes consolidated entities as well as Koppers Company, Inc.

Principles of Consolidation—The consolidated statements include the accounts of the Company and all of its subsidiaries. All intercompany transactions have been eliminated.

Inventories—Inventories are valued at the lower of cost or market. Cost for approximately 65% and 67% of inventories for 1982 and 1981, respectively, is determined by the LIFO (last-in, first-out) method. Cost for the remainder of the inventories represents average costs or standard costs, which approximate actual on the FIFO (first-in, first-out) basis. Market is replacement cost for raw materials and net realizable value for work in process and finished goods.

Investments—Companies owned between 20% and 50% are accounted for on the equity method except for certain foreign investments accounted for at cost because of repatriation regulations.

Fixed Assets—Buildings, machinery and equipment are depreciated on the straight-line method over their useful lives. All ordinary maintenance and repair expenses are charged to operations. Timber and mineral properties are depleted on the basis of units produced.

When land, standing timber or property units are sold, the difference between selling price and cost, after recognition of accumulated depreciation and depletion, is reflected as Other income.

Long-Term Contracts—Sales and income on long-term construction contracts are accounted for on the percentage-of-completion basis; losses are recognized as soon as they are determined.

Pension Plans—The Company has pension plans covering substantially all employees. The Company provides for amortization of unfunded prior service costs over periods up to 40 years and pays provisions for pension expense into trust funds annually.

Income Taxes—Benefits from investment tax credit are reflected currently in income.

Earnings Per Share—Earnings (loss) per share have been computed on the basis of the average number of common shares outstanding. The effect on earnings resulting from the assumed conversion of preference stock is antidilutive.

Report of Certified Public Accountants

Arthur Young & Company
Certified Public Accountants

The Board of Directors and Shareholders
Koppers Company, Inc.:

We have examined the consolidated financial statements of Koppers Company, Inc. and subsidiaries listed in the accompanying Index to Financial Statements. 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 financial statements listed in the accompanying Index to Financial Statements present fairly the consolidated financial position of Koppers Company, Inc. and subsidiaries at December 31, 1982 and 1981 and the consolidated results of operations and changes in financial position for each of the three years in the period ended December 31, 1982, in conformity with generally accepted accounting principles applied on a consistent basis during the period.

Arthur Young & Company

2400 Koppers Building
Pittsburgh, Pennsylvania 15219
January 21, 1983

Consolidated Statement of Operations

Years ended December 31, 1982	1981*	1980*	Koppers Company, Inc. and Subsidiaries	Explanations
($ Thousands, except per share figures)				
$1,585,206	$1,909,744	$1,800,250	Net sales	1
			Operating expenses:	
1,247,719	1,505,488	1,417,084	Cost of sales	2
82,223	81,570	76,659	Depreciation, depletion and amortization	3
44,242	46,270	41,092	Taxes, other than income taxes	4
175,697	177,083	161,605	Selling, research, general and administrative expenses	5
1,549,881	1,810,411	1,696,440		
35,325	99,333	103,810	Operating profit	
			Other income (expense):	6
(21,506)	7,433	(2,374)	Profit (loss) on operations disposed of or closed (Note 8)	7
4,187	5,164	3,792	Profit on sales of capital assets	8
(40,362)	(3,023)	—	Provision for decline in value of investment (Note 2)	9
(7,722)	5,369	5,138	Equity in earnings (losses) of affiliates (dividends received: 1982—$9,204; 1981—$8,304; 1980—$4,328)	10
4,372	4,635	3,458	Interest income	11
461	1,350	1,632	Miscellaneous	
(60,570)	20,928	11,646		
(25,245)	120,261	115,456	Income (loss) before interest expense and provision for income taxes	
			Interest expense:	12
26,907	28,560	23,164	Term debt	
2,769	5,194	9,700	Other	
29,676	33,754	32,864		
(54,921)	86,507	82,592	Income (loss) from continuing operations before provision for income taxes	
(23,790)	34,445	22,867	Provision (benefit) for income taxes (Note 9)	13
$ (31,131)	$ 52,062	$ 59,725	Income (loss) from continuing operations	14
			Discontinued operations (Note 8):	15
(3,096)	(420)	(5,765)	Loss from discontinued operations (less applicable income tax benefit: 1982—$2,633; 1981—$559; 1980—$5,146)	
(4,305)	—	—	Loss on disposal of discontinued operations (less applicable income tax benefit of $2,378)	
$ (38,532)	$ 51,642	$ 53,960	Net income (loss) for the year	16
			Dividends on:	
7,500	7,285	—	Redeemable convertible preference stock	
600	600	600	Cumulative preferred stock	
$ (46,632)	$ 43,757	$ 53,360	Net income (loss) applicable to common stock	17
27,854	27,667	26,989	Average number of shares of common stock outstanding during year (in thousands)	
			Earnings (loss) per share of common stock:	
$(1.41)	$1.60	$2.19	From continuing operations	
$(1.67)	$1.58	$1.98	Net earnings (loss) to common stock	

*Results have been reclassified to conform with 1982 classifications (Note 8).
(See accompanying statement of accounting policies and notes to financial statements.)

Explanations

1. Total received, or receivable, from customers. Excludes discontinued operations.

2. Directly related to operating levels: wages, salaries, raw materials, energy, transportation, pensions, supplies and services.

3. Related to the Company's investment in fixed assets—this portion of the original cost of machinery, plants, etc. has been allocated against the year's income.

4. Not closely related to operating levels: social security and unemployment taxes, state and local franchise and real estate taxes.

5. Salesmen's compensation, corporate staff and officers' salaries, pensions, and other general expenses.

6. Not resulting directly from sale of Company products, although most is included in operating income of business segments; see page 33.

7. Gain or loss realized from sale or write-off of assets of business lines or facilities.

8. Profit on sales of equipment, facilities, etc. no longer needed.

9. Recognition that the realizable value of an investment (Explanation 10, page 26) has fallen below the value carried on the balance sheet.

10. Represents Koppers portion of earnings or losses of companies in which it has 20%-50% ownership.

11. From short-term cash investments.

12. Cost of borrowed funds.

13. Total income taxes and credits: federal, state and foreign.

14. This was earned for all shareholders by businesses that will continue to be operated in future.

15. After-tax effect of decisions made in 1982 not to remain in certain businesses.

16. After including all operations.

17. This portion of net income (loss) was applicable to common shareholders; in 1982, $39.0 million was paid in dividends; the sum of the net loss and all dividends was charged against retained earnings, thus reducing common shareholders' equity.

Consolidated Balance Sheet

Assets

December 31, 1982	1981	Koppers Company, Inc. and Subsidiaries	
($ Thousands)			
		Current assets:	1
$ 74,858	$ 46,824	Cash, including short-term investments of $65,739 in 1982 and $41,458 in 1981	2
207,529	264,874	Accounts receivable, principally trade, less allowance for doubtful accounts of $5,015 in 1982 and $4,720 in 1981	3
13,102	—	Refundable federal income taxes (Note 9)	4
		Inventories (Note 1):	5
		At cost—FIFO (first-in, first-out) basis:	
134,604	160,367	Product	
36,036	50,732	Work in process	
98,271	129,492	Raw materials and supplies	
268,911	340,591		
97,253	126,836	Less excess of FIFO cost over LIFO (last-in, first-out)	6
171,658	213,755		7
22,980	17,297	Prepaid expenses	8
490,127	542,750	Total current assets	9
		Investments:	10
35,756	83,304	Affiliated companies, at equity (Note 2)	
6,889	6,816	Affiliated and other, at cost	
42,645	90,120		
		Fixed assets, at cost:	11
130,161	123,669	Buildings	
940,961	907,211	Machinery and equipment	
1,071,122	1,030,880		
572,336	493,955	Less accumulated depreciation	12
498,786	536,925		
6,926	12,997	Assets under capital leases, net of accumulated amortization of $5,134 in 1982 and $10,316 in 1981 (Note 4)	
84,444	87,597	Depletable properties, less accumulated depletion of $14,584 in 1982 and $14,826 in 1981	13
43,446	41,558	Land	
633,602	679,077		
26,550	16,228	Other assets	
$1,192,924	$1,328,175		14

(See accompanying statement of accounting policies and notes to financial statements.)

Explanations

This portion of balance sheet shows what Koppers owned.

1. Likely to be converted into cash within one year.

2. Primarily kept in bank accounts for normal business use or invested in short-term notes.

3. Amounts owed to Company by customers and others.

4. Funds to be received in 1983 from overpayment of taxes during 1982.

5. Goods being stockpiled or used in the process of manufacturing or held for sale. Value of these inventories is based on the FIFO accounting method, which reflects the most recent cost of goods.

6. Company uses LIFO accounting for substantially all domestic inventories to charge current income with most recent costs of goods, thus eliminating illusory inventory profits.

7. LIFO value of inventory results in understatement of Company assets. See discussion on page 16.

8. Amounts paid in advance for items to be rendered in the future, such as insurance premiums, property taxes and rents.

9. See discussion of working capital on page 16.

10. Koppers ownership in other companies.

11. The original amount paid for Company-owned buildings, machinery and equipment.

12. Accumulation of the portion of the original amount paid for fixed assets that has been allocated to operating costs since the assets were purchased.

13. Cost of properties having exhaustible resources, such as timber, coal and stone, reduced for value of resources used in the past.

14. The total net cost assigned to everything Koppers owns.

Consolidated Balance Sheet

Liabilities and Shareholders' Equity

December 31, 1982	1981	Koppers Company, Inc. and Subsidiaries	
($ Thousands, except per share figures)			
		Current liabilities:	1
$ 58,693	$ 75,699	Accounts payable, principally trade	2
		Accrued liabilities:	3
4,485	17,414	Income taxes	
29,446	28,901	Pensions (Note 3)	
28,021	18,608	Insurance	
40,553	38,576	Payroll and other compensation costs	
54,001	49,733	Other accruals	
19,883	15,168	Advance payments received on contracts	4
11,292	22,227	Term debt and obligations under capital leases due within one year	5
—	5,750	Short-term debt	
246,374	272,076	Total current liabilities	6
269,764	278,090	Term debt, due after one year (Note 5)	7
5,959	10,839	Obligations under capital leases (Note 4)	8
15,619	13,948	Deferred compensation (Note 7)	
21,153	34,170	Deferred income taxes	9
75,000	75,000	Redeemable convertible preference stock, no par value, stated value $100 per share: authorized 1,000,000 shares; issued and outstanding 750,000 shares, 10% series (Note 6)	
15,000	15,000	Cumulative preferred stock (not subject to mandatory redemption), $100 par value: authorized 300,000 shares; issued and outstanding 150,000 shares, 4% series	
34,889	34,819	Common stock, $1.25 par value: authorized 60,000,000 shares; issued and outstanding 27,910,834 shares in 1982; issued 27,857,138 and outstanding 27,855,478 shares in 1981	10
133,501	132,935	Capital in excess of par value	10
375,665	461,298	Earnings retained in the business (Note 5)	10
$1,192,924	$1,328,175		

(See accompanying statement of accounting policies and notes to financial statements.)

Explanations

This portion of balance sheet shows everything Koppers owed

1. These are liabilities payable within one year.

2. Due to suppliers for goods and services provided

3. Amounts owed but not required to be paid at year end

4. For services and products paid for by customers, which Koppers will provide in the near future

5. Repayment of long-term debt and capital lease obligations required during coming year.

6. Company's current assets at year-end 1982 covered these liabilities by a current ratio of 1.99-to-1. See discussion on page 16

7. Borrowings used to expand Koppers income-producing base. Shareholders can benefit as this added capital generates earnings in excess of interest costs on the debt.

8. The Company leases land, buildings, machinery and equipment. As with long-term debt, there is an obligation to pay off portions of these leases each year. This represents the present value of lease payments that will be made in the future.

9. Differences in accounting rules and tax regulations result in certain income and expenses in financial reports that are not included in tax reports in the same year. This total represents the taxes on the difference that will be paid in future years.

10. The total of these items, $544.1 million, represents the total common shareholders' ownership in Koppers at the close of 1982. Common equity was equal to $19.49 for each share of common stock outstanding at the close of 1982, versus $22.58 at the end of 1981. The reduction is discussed in explanation 17 on page 25.

Consolidated Statement of Changes in Financial Position

Years ended December 31, 1982	1981*	1980*	Koppers Company, Inc. and Subsidiaries	
($ Thousands)				
			Source of funds:	1
			Operations:	
$ (31,131)	$ 52,062	$ 59,725	Income (loss) from continuing operations	2
82,223	81,570	76,659	Depreciation, depletion and amortization	3
(7,015)	4,975	5,174	Deferred income taxes and other expenses	4
50,037	7,114	—	Provision for operations disposed of or closed and decline in value of investments	5
14,988	4,615	(810)	Equity in (earnings) losses of affiliated companies, less dividends received	6
109,102	150,336	140,748	Total from continuing operations	
(7,401)	(420)	(5,765)	Loss from discontinued operations	7
2,059	1,994	2,201	Depreciation, depletion and amortization	
2,439	782	4,125	Deferred income taxes and other expenses	
(2,903)	2,356	561	Total from discontinued operations	7
106,199	152,692	141,309	Funds provided from operations	
23,232	1,602	134,558	Term debt and capital leases issued	8
2,165	5,821	26,413	Common stock issued	9
—	—	72,590	Preference stock issued, net of associated expenses	
20,546	39,313	7,812	Book value of fixed assets and other noncurrent assets disposed of or sold	10
152,142	199,428	382,682		11
			Disposition of funds:	12
76,677	182,106	230,871	Capital investments	13
33,157	21,343	50,065	Term debt and capital leases retired	14
47,101	46,653	38,387	Dividends paid	15
1,529	1,233	2,347	Treasury stock acquired	
17,839	1,751	1,038	Issuance of receivables due after one year	16
2,760	647	253	Other	
179,063	253,733	322,961		
$ (26,921)	$ (54,305)	$ 59,721	Increase (decrease) in working capital	17
			Changes in components of working capital:	18
			Increase (decrease) in current assets:	
$ 28,034	$ (37,553)	$ 73,665	Cash and short-term investments	
(44,243)	(33,496)	3,163	Accounts receivable	
(42,097)	(26,584)	28,459	Inventories	
5,683	(4,472)	4,313	Prepaid expenses	
(52,623)	(102,105)	109,600		
			Increase (decrease) in current liabilities:	
(17,006)	(21,018)	(2,713)	Accounts payable	
3,274	46	20,128	Accrued liabilities	
4,715	(7,637)	2,674	Advance payments received on contracts	
(10,935)	353	4,521	Term debt and obligations under capital leases due within one year	
(5,750)	(19,544)	25,269	Short-term debt	
(25,702)	(47,800)	49,879		
$ (26,921)	$ (54,305)	$ 59,721	Increase (decrease) in working capital	

(See accompanying statement of accounting policies and notes to financial statements.)
*Results have been reclassified to conform with 1982 classifications (Note 8).

Explanations

1. Where the funds came from:
2. From line 14 on page 25.
3. This operating cost does not require the payment of funds, which are retained for use in the business.
4. Taxes and other expenses not paid currently, available for use in operations until the time when payment becomes due.
5. Plant write-offs and write-downs of investments reduced income but did not result in an outflow of funds. The amount by which income was reduced represents funds retained for use in the business.
6. Includes cash dividends received from certain equity affiliates plus the Company's portion of the losses incurred by affiliated companies that reduced Koppers income but did not result in an outflow of funds.
7. Losses reported on income statement include certain expenses that did not require payment of funds, as explained in 3 and 4 above.
8. Borrowings explained on page 16.
9. Negotiated value of companies acquired in exchange for shares of common stock, plus value of shares contributed to Employee Stock Ownership Plan.
10. Received from disposal of equipment, facilities, etc. no longer needed in operations.
11. Total funds from all sources.
12. Where the funds went:
13. To provide further growth.
14. Repayment of obligations.
15. Returns to common, preference and preferred shareholders.
16. Includes notes received on sale of certain investments and assets.
17. Subtracting funds paid out from funds generated results in a change in working capital employed.
18. This section shows how the change in working capital affected the items in current assets and current liabilities.

Consolidated Statement of Shareholders' Equity Other Than Redeemable Convertible Preference Stock

Koppers Company, Inc. and Subsidiaries

(Amounts in thousands, except outstanding shares and per share figures)

	Outstanding Shares: Cumulative Preferred Stock	Outstanding Shares: Common Stock	Cumulative Preferred Stock	Common Stock	Capital in Excess of Par Value	Earnings Retained in the Business	Total
Balance at December 31, 1979	150,000	26,698,328	$15,000	$33,373	$108,137	$440,736	$597,246
Net income for the year 1980			—	—	—	53,960	53,960
Cash dividends paid:							
On preferred stock, $4.00 per share			—	—	—	(600)	(600)
On common stock, $1.40 per share			—	—	—	(37,787)	(37,787)
Expenses associated with redeemable convertible preference shares issued			—	—	(2,410)	—	(2,410)
Purchase of common stock for treasury		(95,374)	—	(119)	(2,228)	—	(2,347)
Common stock issued during 1980:							
Acquisitions accounted for as purchases		905,546	—	1,132	21,657	—	22,789
Contributed to Employee Stock Ownership Plan		42,689	—	53	1,148	—	1,201
Common stock issued from treasury to Employee Savings and Profit Sharing Plan		95,374	—	119	2,304	—	2,423
Balance at December 31, 1980	150,000	27,646,563	15,000	34,558	128,608	456,309	634,475
Net income for the year 1981			—	—	—	51,642	51,642
Cash dividends paid:							
On preference stock, $10.00 per share			—	—	—	(7,285)	(7,285)
On preferred stock, $4.00 per share			—	—	—	(600)	(600)
On common stock, $1.40 per share			—	—	—	(38,768)	(38,768)
Purchase of common stock for treasury		(58,443)	—	(73)	(1,160)	—	(1,233)
Common stock issued during 1981:							
Acquisitions accounted for as purchases		166,499	—	208	3,532	—	3,740
Contributed to Employee Stock Ownership Plan		44,076	—	55	815	—	870
Common stock issued from treasury to Employee Savings and Profit Sharing Plan		56,783	—	71	1,140	—	1,211
Balance at December 31, 1981	150,000	27,855,478	15,000	34,819	132,935	461,298	644,052
Net loss for the year 1982			—	—	—	(38,532)	(38,532)
Cash dividends paid:							
On preference stock, $10.00 per share			—	—	—	(7,500)	(7,500)
On preferred stock, $4.00 per share			—	—	—	(600)	(600)
On common stock, $1.40 per share			—	—	—	(39,001)	(39,001)
Purchase of common stock for treasury		(101,804)	—	(127)	(1,402)	—	(1,529)
Common stock issued during 1982:							
Contributed to Employee Stock Ownership Plan		53,696	—	67	645	—	712
Common stock issued from treasury to Employee Savings and Profit Sharing Plan		103,464	—	130	1,323	—	1,453
Balance at December 31, 1982	150,000	27,910,834	$15,000	$34,889	$133,501	$375,665	$559,055

(See accompanying statement of accounting policies and notes to financial statements.)

Notes to Financial Statements

December 31, 1982, 1981 and 1980

1. Inventories—During 1982 and 1981, inventory quantities were reduced. This reduction resulted in a liquidation of LIFO inventory quantities carried at lower costs prevailing in prior years as compared with the cost of purchases in current years, the effect of which increased net earnings in 1982 and 1981 by approximately $13,297,000, or $0.48 per share, and $3,769,000, or $0.14 per share, respectively.

2. Investments—During 1982, the Company increased its equity investment in Richmond Tank Car Company (RTC) common stock from $48,825,000 (1,550,000 shares, or 23.3%) to $48,975,000 (1,575,000 shares, or 23.6%) and advanced Richmond Leasing Company (RLC), a nonconsolidated subsidiary of RTC, $2,200,000 in the form of a 16% subordinated demand note. During 1982 and 1981, the Company recognized equity income (losses) of ($4,518,000) and $1,509,000, respectively, and received dividends of $775,000 and $1,162,000 relative to their investment.

In December, 1982, the Company wrote down its investment in RTC by $39,304,000 to an estimated realizable value of $4,725,000. The write-down was in recognition of RTC's severe financial problems and the Company's belief that this situation has impaired the value of the investment. The quoted market value of this investment at December 31, 1982 was $5,316,000 ($3.375 per share). On January 7, 1983, RLC filed for protection under Chaper 11 of the Federal Bankruptcy Code.

In December, 1982, the Company, through its partnership, Peat Methanol Associates (PMA), secured a letter of intent and an agreement on terms with the Synthetic Fuels Corporation (SFC) to construct and operate a peat-to-methanol facility at a projected cost of $576,000,000. SFC has provided a commitment to guarantee up to $465,000,000 of this through loan and price guarantees.

The Company's accounting policy has been to expense all costs related to its synfuels projects because of uncertainty of ultimate realization. During 1982 and 1981, the Company recognized $6,689,000 (including $4,582,000 for PMA) and $6,632,000, respectively, of equity losses from their synthetic fuel investments. Any recovery of SFC-approved costs will be realized as a reduction of future investment and amortized over the life of the project.

3. Retirement Plans

Company Plans—Total pension expense for continuing operations in 1982 was $25,342,000, as compared with $24,998,000 and $28,068,000 in 1981 and 1980, respectively. In 1981, the Company changed its investment return assumption from 6% to 8% and increased the salary scale rate from 4% to 6% to reflect current pension funds earnings experience and salary increases. The net effect of these changes was to reduce pension expense in 1981 by $7,524,000 and increase net income by $3,738,000, or $0.14 per share. A comparison of accumulated plan benefits and plan net assets for the Company's defined benefit plans as of December 31, 1982 and 1981 is presented below.

($ Thousands)	1982	1981
Actuarial present value of accumulated plan benefits:		
Vested	**$210,499**	$189,331
Nonvested	**27,752**	28,079
	$238,251	$217,410
Net assets available for benefits	**$307,409**	$258,984

The rate used in determining the actuarial present value of accumulated plan benefits was 10%. The actuarial present value of accumulated plan benefits is less than that considered in calculating the funding requirements of the plan partly because of differences in actuarial assumptions relating to future salaries, wages and interest.

The Company has an Employee Stock Ownership Plan (ESOP) for the benefit of employees upon retirement. Contributions to the ESOP are offset by additional investment tax credit.

Multiemployer Plans—In addition to the expense for the Company-sponsored plans, the Company had pension expense for full-time employees of $4,647,000, $5,327,000 and $5,577,000 in 1982, 1981 and 1980, respectively, for contributions to multiemployer plans as determined by various collective bargaining agreements. The relative position of the Company regarding the accumulated plan benefits and plan net assets of multiemployer plans is not determinable by the Company and is not included in the above information.

4. Leases—The Company, as lessee, has entered into various lease arrangements covering land, buildings, machinery and equipment. The following is an analysis of the property under capital leases:

($ Thousands)	1982	1981
Land and buildings	**$ 7,862**	$16,813
Machinery and equipment	**4,198**	6,500
	12,060	23,313
Less accumulated amortization	**5,134**	10,316
	$ 6,926	$12,997

The following is a schedule by years of future minimum lease payments as of December 31, 1982:

($ Thousands)	Capital Leases	Operating Leases
1983	$ 2,224	$ 4,384
1984	1,046	2,627
1985	845	1,831
1986	721	1,371
1987	732	763
1988 and later	7,287	2,204
Total minimum lease payments	$12,855	$13,180
Less amount representing interest	5,321	
Present value of net minimum lease payments (including $1,575 classified as current obligations under capital leases)	$ 7,534	

Table 1. Term Debt

($ Thousands)	1982	1981
11.25% promissory notes due $6,500 annually beginning 1986, $9,000 balance due in 2000	**$100,000**	$100,000
8.95% promissory notes due $4,000 annually beginning 1984	**60,000**	60,000
6% notes due $3,000 annually	**29,000**	32,000
Pollution control bonds and notes:		
8.25% bonds due 1983-2002	**37,100**	39,000
5.875% tax-exempt bonds due 1998-2017	**16,350**	16,350
5.9% and 6% notes due 1983-1998	**10,460**	10,600
Other	**16,854**	20,140
	$269,764	$278,090

Debts issued by municipal authorities and guaranteed by the Company are not considered lease agreements even though the legal form of the transaction is a lease. Such obligations are classified as term debt.

5. Term Debt—Term debt due after one year is shown in Table 1.

The aggregate term debt maturity in the years 1983 through 1987, respectively, is $9,717,000, $12,825,000, $11,322,000, $18,004,000 and $16,881,000.

Additional Debt Information—The Company has a revolving credit bank loan agreement that provides for revolving credit loans of up to $200,000,000 until September 30, 1986. Commitment fees of up to ⅜ of 1% per annum are required on any unborrowed amounts. Any loans outstanding on September 30, 1986 may be converted to term loans payable during the succeeding three years. The agreement calls for interest at one of three options chosen by the Company, those being the prime rate, the certificate of deposit rate or the Eurorate, with factors up to $\frac{7}{10}$ of 1% added to these rates after September 30, 1985. In 1982, the average daily amount of revolving credit loans outstanding was $1,556,000, with a daily weighted average annual interest rate of 16.2%. The maximum amount of revolving credit loans outstanding during 1982 was $21,000,000, with no borrowings as of December 31, 1982. The Company had no borrowings under this agreement in 1981.

The Company's term debt agreements contain various restrictions as to dividend payments and incurrence of additional indebtedness. As of December 31, 1982, under the most restrictive provisions, $110,035,000 of consolidated earnings retained in the business was available for the payment of cash dividends, and the Company could incur additional indebtedness of approximately $134,311,000.

6. Redeemable Convertible Preference Stock—On December 23, 1980, the Company issued 750,000 shares of convertible preference stock (preference stock), with each share convertible into 3.48 shares of the Company's common stock. The Company may redeem the preference shares beginning in 1983 at $107 per share, declining by $1 per share each year through 1990. Beginning in 1990, the Company is required to make sinking fund payments at $100 per share sufficient to retire 37,500 shares of preference stock annually except that prior redemptions or conversions may be applied to such requirements at the Company's option.

The Company may not pay cash dividends on common or preference stock if required sinking fund payments are not made. If preference stock dividends are in arrears for an amount equal to more than six quarterly dividends, the holders of preference stock may then elect two directors.

7. Employee Compensation Plans

Deferred Compensation Plan—The Company has a Deferred Compensation Unit Plan for officers and other key employees. Operating expense has been charged with $2,300,000, $2,139,000 and $1,881,000 to provide for the benefits accrued during 1982, 1981 and 1980, respectively.

Incentive Plans—The Company has an Incentive Plan for key employees that is based upon the attainment of a specific return on invested capital using income before interest expense and income taxes. There was no charge to operating expense in 1982, 1981 or 1980 because of the Company's insufficient return on investment.

Performance Share Plan—The Company has a Performance Share Plan for key employees that provides for an award of performance shares (up to an aggregate maximum of 500,000 shares), each equivalent to one share of the Company's common stock and cash. Distribution of the common stock plus cash equal to the fair market value of the common stock will be made at the end of designated periods if specified earnings are attained.

Currently, 73,375 performance shares are outstanding for the award period ending December 31, 1983 and 134,650 for the period ending December 31, 1984. Based on profit performance, no provision has been made for the years 1982 and 1981.

Savings and Profit Sharing Plan—Effective January 1, 1980, the Company initiated a Savings and Profit Sharing Plan for all eligible employees. Participating employees may elect to contribute up to 6% of their salaries. The Company contributes an amount equal to a specified percentage of the employees' contributions to a limit of $6,000 per employee. The Company's contributions may be made in cash or common stock of the Company. The Company's contributions amounted to $1,724,000 in 1982, $1,923,000 in 1981 and $4,375,000 in 1980.

8. Closed Operations and Disposals

In the fourth quarter of 1982, the Company made final decisions to close, reduce operations of, or sell various operating units.

Discontinued Operations—The Company decided to divest two major operations, the Environmental Elements (ENELCO) subsidiary and the Mineral Processing Systems Division (MPSD). Reserve provisions of $4,492,000 after tax ($0.16 per share) were made in December, 1982 for the expected losses on these disposals. The total combined proceeds from these disposals, including the 1982 sale of the Titus Products Division of ENELCO, is expected to be about $33 million. The sale of Titus resulted in a small after-tax gain.

Net sales of the discontinued operations were $90,178,000, $108,818,000 and $128,940,000 for 1982, 1981 and 1980, respectively. Included in the Consolidated Balance Sheet at December 31, 1982 are assets of $46,844,000 and liabilities of $17,612,000 applicable to discontinued operations.

Amounts in the Consolidated Statement of Operations for the years 1981 and 1980 have been reclassified to conform with 1982 disclosure for discontinued operations.

Other Operations Disposed of or Closed—In addition to the discontinued operations, provisions were made for the closing or disposal of numerous plant operations in 1982. The most significant of these occurred in the Organic Materials and Forest Products Groups and resulted in a loss of $8,039,000, or $4,389,000 after tax ($0.16 per share), and a loss of $3,902,000, or $2,261,000 after tax ($0.08 per share), respectively. Provisions for severance

Table 2. Operations Disposed of or Closed

($ Thousands)	1982	1981	1980
Net sales	**$ 73,296**	$152,255	$169,539
Operating expenses	**80,997**	156,460	170,154
Operating loss	**(7,701)**	(4,205)	(615)
Profit (loss) on disposal of net assets	**(21,506)**	7,433	(2,374)
	$(29,207)	$ 3,228	$ (2,989)

Table 3. Components of Income Taxes (Benefit)
($ Thousands)

	1982	1981*	1980*
Income (loss) from continuing operations before provision for income taxes:			
Domestic operations	$(64,121)	$71,873	$71,778
Foreign operations**	9,200	14,634	10,814
Total	$(54,921)	$86,507	$82,592
Income tax expense (benefit):			
Continuing operations	$(23,790)	$34,445	$22,867
Discontinued operations	(5,011)	(559)	(5,146)
Total	$(28,801)	$33,886	$17,721
Current:			
Federal	$(13,745)	$24,781	$ 8,607
Foreign	4,049	2,964	2,353
State	1,485	1,901	4,390
	(8,211)	29,646	15,350
Deferred:			
Federal	(20,424)	4,813	1,478
Foreign	(166)	(573)	893
	(20,590)	4,240	2,371
Total	$(28,801)	$33,886	$17,721

*Reclassified to conform with 1982 classifications.
**Foreign operations income before the provision for income taxes includes equity income from foreign investments of $6,429, $11,178 and $5,683 for 1982, 1981 and 1980, respectively.

Table 4. Deferred Tax Expense (Benefit)
($ Thousands)

	1982	1981	1980
Excess of tax over book depreciation	$ 7,292	$ 6,064	$ 7,991
Anticipated expenses provided in advance of deductibility for tax purposes	950	(469)	(2,583)
Difference in book and tax income recognition:			
—Construction contracts	(4,876)	3,399	1,308
—Inventory timing difference	(603)	(1,303)	(857)
Provisions for operations discontinued, disposed of or closed	(12,205)	(3,065)	(1,775)
RTC investment provision	(11,025)	—	—
Other—net	(123)	(386)	(1,713)
	$(20,590)	$ 4,240	$ 2,371

Table 5. Statutory and Effective Income Tax (Benefit) Rates

	1982	1981*	1980*
Statutory tax rate:			
Federal	(46.0%)	46.0%	46.0%
State, net of federal tax benefit	1.5%	1.2%	2.8%
Effect of additional taxes on gain from the sale of a Canadian subsidiary	—	3.8%	—
Investment tax credit	(12.9%)	(7.1%)	(12.6%)
Nontaxable earnings of Domestic International Sales Corporation	(1.1%)	(1.1%)	(1.9%)
Effect of percentage over cost depletion	(5.7%)	(3.6%)	(3.9%)
Effect of lower statutory tax rate applicable to capital gains and equity investment transactions	15.9%	(1.6%)	(3.1%)
Other—net	5.0%	2.2%	0.4%
	(43.3%)	39.8%	27.7%

*Reclassified to conform with 1982 classifications.

costs related to the Company's closed operations resulted in a loss of $5,037,000, or $2,720,000 after tax ($0.10 per share).

In 1981, the significant dispositions included the Canadian spruce lumber operations, which were sold at a gain of $20,196,000, or $6,757,000 after tax ($0.24 per share), and operations closed or disposed of in Organic Materials Group, which resulted in a loss of $12,371,000, or $6,573,000 after tax ($0.24 per share).

The effect on operations and the related profit or loss on operations disposed of and closed, and similar disposals in prior years is shown in Table 2 (page 31).

9. Income Taxes—Income (loss) from continuing operations before provision for income taxes and the components of income tax expense are shown in Table 3.

The components of deferred tax expense and related tax effect are shown in Table 4.

The differences between the statutory and effective income tax rates applicable to continuing operations are shown in Table 5.

The provisions for income taxes for the years 1982, 1981 and 1980 have been reduced by $7,222,000, $6,423,000 and $11,066,000, respectively, for investment tax credit.

At December 31, 1982, 1981 and 1980, consolidated earnings retained in the business included approximately $27,019,000, $25,230,000 and $25,041,000, respectively, on which federal income tax has not been provided since the Company has reinvested such earnings and intends to continue such investment permanently in export activities.

10. Operations by Business Segments—The Company operates principally in five business segments. Information relating to the products and services provided by these segments is located on pages 41 through 45 of this annual report and 10-K. Intersegment sales are not disclosed because of immateriality.

11. Litigation—Inland Steel Company has asserted a claim against the Company in the amount of $100 million for delay damages under a construction contract. The Company and its legal advisors believe there are sound defenses against Inland's claim. The Company has filed a claim against Inland to recover $17 million, representing fees on the contract.

Table 6. Operations by Business Segments
($ Thousands)

Year ended December 31, 1982:	Organic Materials	Road Materials	Forest Products	Engineered Metal Products	Engineering and Construction	Misc.	Consolidated
Net sales from continuing operations	$535,323	$485,833	$297,089	$215,541	$ 32,926	$ 18,494	$1,585,206
Operating profit (loss) before general corporate overhead	$ 15,506	$ 33,843	$ 10,802	$ 8,715	$(10,868)	$ 2,899	$ 60,897
Other income (expense) (Notes 2 and 8)	(8,583)	1,075	(1,360)	(3,909)	(4,573)	(35,498)	(52,848)
Equity in earnings (loss) of affiliates	1,529	4,032	852	120	(863)	(13,392)	(7,722)
Operating income (loss)	$ 8,452	$ 38,950	$ 10,294	$ 4,926	$(16,304)	$(45,991)	$ 327
General corporate overhead							25,572
Interest expense							29,676
Loss from continuing operations before provision for income taxes							$ (54,921)
Identifiable assets as of December 31, 1982	$327,124	$328,130	$171,663	$177,264	$ 18,393	$ 80,584	$1,103,158
General corporate assets							89,766
Total assets							$1,192,924
Depreciation, depletion and amortization	$ 32,628	$ 28,271	$ 11,931	$ 7,138	$ 352	$ 596	$ 80,916
Depreciation and amortization of general corporate assets							1,307
							$ 82,223
Capital expenditures	$ 21,159	$ 15,485	$ 12,097	$ 17,164	$ 59	$ 10,713	$ 76,677
Year ended December 31, 1981 (reclassified):							
Net sales from continuing operations	$678,099	$541,920	$379,823	$233,646	$ 58,567	$ 17,689	$1,909,744
Operating profit (loss) before general corporate overhead	$ 42,238	$ 46,647	$ 19,652	$ 13,345	$ (6,601)	$ 6,583	$ 121,864
Other income (expense) (Note 8)	(15,030)	3,334	22,209	111	28	4,907	15,559
Equity in earnings (loss) of affiliates	2,023	7,908	1,048	(50)	(1,000)	(4,560)	5,369
Operating income (loss)	$ 29,231	$ 57,889	$ 42,909	$ 13,406	$(7,573)	$ 6,930	$ 142,792
General corporate overhead							22,531
Interest expense							33,754
Income from continuing operations before provision for income taxes							$ 86,507
Identifiable assets as of December 31, 1981	$377,156	$346,701	$203,077	$195,620	$ 22,596	$124,873	$1,270,023
General corporate assets							58,152
Total assets							$1,328,175
Depreciation, depletion and amortization	$ 29,596	$ 28,997	$ 14,094	$ 6,077	$ 264	$ 721	$ 79,749
Depreciation and amortization of general corporate assets							1,821
							$ 81,570
Capital expenditures	$ 37,895	$ 52,770	$ 23,798	$ 18,795	$ 588	$ 48,260	$ 182,106
Year ended December 31, 1980 (reclassified):							
Net sales from continuing operations	$577,196	$531,729	$380,862	$229,127	$ 64,601	$ 16,735	$1,800,250
Operating profit (loss) before general corporate overhead	$ 47,598	$ 52,096	$ 17,223	$ 8,582	$ (1,854)	$ 4,289	$ 127,934
Other income (expense) (Note 8)	(2,432)	2,620	3,257	742	1,403	918	6,508
Equity in earnings (loss) of affiliates	2,016	2,533	842	164	—	(417)	5,138
Operating income (loss)	$ 47,182	$ 57,249	$ 21,322	$ 9,488	$ (451)	$ 4,790	$ 139,580
General corporate overhead							24,124
Interest expense							32,864
Income from continuing operations before provision for income taxes							$ 82,592
Identifiable assets as of December 31, 1980	$410,229	$334,963	$225,316	$206,218	$ 29,523	$ 85,369	$1,291,618
General corporate assets							97,868
Total assets							$1,389,486
Depreciation, depletion and amortization	$ 27,364	$ 27,289	$ 13,655	$ 5,308	$ 227	$ 746	$ 74,589
Depreciation and amortization of general corporate assets							2,070
							$ 76,659
Capital expenditures	$ 40,955	$ 78,614	$ 31,705	$ 14,302	$ 42	$ 65,253	$ 230,871

Schedules for Form 10-K
Koppers Company, Inc. and Subsidiaries

Property, Plant and Equipment (SEC Schedule V)

($ Thousands)

Classification	Balance at beginning of year	Additions at cost	Retirements or sales	Transfers and other additions (deductions) (2)	Balance at close of year
Year ended December 31, 1982					
Land	$ 41,558	$ 1,271	$ 825	$ 1,442	$ 43,446
Buildings	123,669	10,813	7,898	3,577	130,161
Machinery and equipment	907,211	51,420	27,752	10,082	940,961
Depletable mineral properties	76,565	1,600	—	(660)	77,505
Depletable timber properties	25,858	1,776	6,111	—	21,523
Capitalized leases	23,313	210	1,167	(10,296) (3)	12,060
	$1,198,174	$ 67,090	$43,753 (1)	$ 4,145	$1,225,656
Year ended December 31, 1981					
Land	$ 34,420	$ 2,827	$ 1,152	$ 5,463	$ 41,558
Buildings	115,849	8,869	7,486	6,437	123,669
Machinery and equipment	857,413	85,447	52,792	17,143	907,211
Depletable mineral properties	70,173	4,242	566	2,716	76,565
Depletable timber properties	31,289	6,917	12,348	—	25,858
Capitalized leases	26,047	123	1,927	(930)	23,313
	$1,135,191	$108,425	$76,271 (1)	$30,829	$1,198,174
Year ended December 31, 1980					
Land	$ 25,598	$ 7,817	$ 313	$ 1,318	$ 34,420
Buildings	87,581	15,385	1,106	13,989	115,849
Machinery and equipment	745,924	101,562	10,588	20,515	857,413
Depletable mineral properties	40,941	26,405	46	2,873	70,173
Depletable timber properties	26,812	7,707	2,894	(336)	31,289
Capitalized leases	30,577	137	1,190	(3,477)	26,047
	$ 957,433	$159,013	$16,137	$34,882	$1,135,191

(1) Includes $14,058 in 1982 and $44,650 in 1981 from operations disposed of or closed.
(2) Property acquired through acquisitions, 1981—$26,899; 1980—$34,979.
(3) Primarily related to purchase of previously leased assets.

Accumulated Depreciation, Depletion and Amortization (SEC Schedule VI)

($ Thousands)

Description	Balance at beginning of year	Additions charged to income (1)	Retirements	Other additions	Balance at close of year
Year ended December 31, 1982					
Depreciation and amortization	$493,955	$75,338	$25,464	$28,507 (3)	$572,336
Depletion	14,826	3,737	3,979	—	14,584
Amortization of capital leases	10,316	1,514	1,109	(5,587) (4)	5,134
	$519,097	$80,589	$30,552 (2)	$22,920	$592,054
Year ended December 31, 1981					
Depreciation and amortization	$438,900	$75,182	$29,827	$ 9,700 (2)	$493,955
Depletion	19,667	4,869	9,814	104	14,826
Amortization of capital leases	9,609	2,105	1,058	(340)	10,316
	$468,176	$82,156	$40,699 (2)	$ 9,464	$519,097
Year ended December 31, 1980					
Depreciation and amortization	$373,461	$70,234	$ 5,019	$ 224	$438,900
Depletion	15,865	4,391	1,065	476	19,667
Amortization of capital leases	12,336	2,195	992	(3,930)	9,609
	$401,662	$76,820	$ 7,076	$ (3,230)	$468,176

(1) Includes provision relating to both continuing and discontinued operations.
(2) Includes $5,770 in 1982 and $20,739 in 1981 from operations disposed of or closed.
(3) Includes $14,492 in 1982 and $4,091 in 1981 of valuation reserves for operations disposed of or closed.
(4) Primarily related to purchase of previously leased assets.

Valuation and Qualifying Accounts (SEC Schedule VIII)

($ Thousands)

Description	Balance at beginning of year	Additions charged to income	Deductions (1)	Balance at close of year
Year ended December 31, 1982				
Allowance for doubtful accounts	$4,720	$ 3,589	$3,294	$ 5,015
Allowance for doubtful notes receivable	—	135	—	135
Allowance for decline in value of investment	3,023	40,362	3,023	40,362
	$7,743	$44,086	$6,317	$45,512
Year ended December 31, 1981				
Allowance for doubtful accounts	$4,875	$ 2,555	$2,710	$ 4,720
Allowance for doubtful notes receivable	3,000	2,929	5,929	—
Allowance for decline in value of investment	—	3,023	—	3,023
	$7,875	$ 8,507	$8,639	$ 7,743
Year ended December 31, 1980				
Allowance for doubtful accounts	$4,295	$ 1,235	$ 655	$ 4,875
Allowance for doubtful notes receivable	—	3,000	—	3,000
	$4,295	$ 4,235	$ 655	$ 7,875

(1) Accounts written off, less recoveries.

Short-Term Borrowings (SEC Schedule IX)

Category of Short-Term Borrowings	Balance at end of period	Weighted average interest rate	Maximum amount outstanding during the period ($ Thousands)	Average amount outstanding during the period[3]	Weighted average interest rate during the period[3]
Year ended December 31, 1982					
Amounts payable to banks	$ —	—	$ 1,133	$ 290	17.2%
Commercial paper	$ —	—	$31,000	$ 5,375	12.5%
Other	$ —	—	$ 5,750	$ 2,319	13.0%
Year ended December 31, 1981					
Amounts payable to banks	$ —	—	$ 5,914	$ 2,036	18.5%
Commercial paper	$ —	—	$43,000	$10,360	17.3%
Other	$ 5,750[1]	15.2%	$24,000	$ 7,917	15.4%
Year ended December 31, 1980					
Amounts payable to banks	$ 1,294	18.3%	$ 7,192	$ 3,075	14.6%
Commercial paper	$ —	—	$96,000	$50,540	11.4%
Other	$24,000[2]	10.8%	$24,000	$ 5,063	10.5%

(1) Includes $5,650 payable on demand to Genex Corporation upon prior notification.
(2) Includes $10,000 payable on demand to Genex Corporation upon prior notification. $14,000 is payable to a third party for the 500,000 shares of common stock of Richmond Tank Car Company purchased on December 5, 1980.
(3) The average amount outstanding for each period was computed by using a daily average during the year. The weighted average interest rate for each period was computed by weighting the effective interest rate over the year.

Supplementary Income Statement Information (SEC Schedule X)

Item	1982 ($ Thousands Charged to expenses)	1981*	1980*
Years ended December 31,			
Maintenance and repairs	$91,420	$108,908	$106,224
Taxes, other than payroll and income taxes	$16,908	$ 17,516	$ 14,127
Rents	$19,222	$ 22,701	$ 26,879
Research and development	$22,031	$ 16,466	$ 14,953

*Reclassified to conform with 1982 classifications.

Koppers Board of Directors And Officers

As of February 28, 1983.

On June 1, 1982, **Fletcher L. Byrom** *retired after 35 years of outstanding service to Koppers. He had been Chairman of the Board since 1970, guiding the Company through its greatest period of growth. In addition, as a world-renowned spokesman for industry, he brought honor and recognition to Koppers far out of proportion to its ranking among the nation's corporate giants. As an articulate business philosopher, he defined the societal mission of this enterprise and challenged others to do likewise with their own enterprises. Educated as a metallurgist, he extended the range of his expertise to embrace subjects from education to health care to the proper functioning of political systems. Happily for us, he has agreed to continue in service on the Board of Directors.*

Directors

Charles F. Barber 66
Director and Chairman of the Finance Committee and retired Chairman and Chief Executive Officer,
ASARCO Inc.
Nonferrous metals producer

***Evelyn Berezin 57**
President, Greenhouse Management Corporation, venture capital investment, and Potech Corporation, consulting; former Director—Long-Range Planning for Office Automation Systems, Burroughs Corporation.

Fletcher L. Byrom 64
Retired Chairman of the Board, Koppers Company, Inc.

†Dr. Richard M. Cyert 61
President,
Carnegie-Mellon University

Edmund B. Fitzgerald 57
Chairman of the Board,
Northern Telecom Inc.

***Douglas Grymes 69**
Retired Vice Chairman of the Board, Koppers Company, Inc.

***Terrance Hanold 70**
Retired President and Director,
The Arter Company
Capital management and investment

†Curtis E. Jones 64
Retired President and Director,
Mellon Bank N. A.

†William H. Knoell 58
President, Chief Executive Officer and Director, Cyclops Corporation
Basic and specialty steels and steel products

†*Andrew W. Mathieson 54
Executive Vice President,
Richard K. Mellon and Sons
Investment management

†Nathan W. Pearson 71
Financial Advisor,
Paul Mellon family interests

†Charles R. Pullin 59
Chairman of the Board,
Koppers Company, Inc.

†Executive Committee
*Audit Committee

Corporate Officers

Charles R. Pullin 59
Chairman of the Board (Chief Executive Officer) since 1982; formerly Vice Chairman of the Board since 1981 and President and Chief Operating Officer—Road Materials Group. Joined Koppers in 1946.

Burnett G. Bartley, Jr. 58
Deputy Chairman since 1978; formerly Group Vice President. Joined Koppers in 1949.

William B. Jackson 61
Deputy Chairman since 1978; formerly Group Vice President. Joined Koppers in 1943.

B. Otto Wheeley 61
Deputy Chairman since 1978; formerly Senior Vice President—Marketing. Joined Koppers in 1943.

Thomas M. St. Clair 47
President (Chief Operating Officer)—Engineered Metal Products Group since 1978; formerly Corporate Comptroller. Joined Koppers in 1958.

Richard E. Spatz 57
President (Chief Operating Officer)—Forest Products Group since 1978; formerly Vice President and General Manager. Joined Koppers in 1951.

Jack L. Wilks 64
President (Chief Operating Officer)—Road Materials Group since 1981; formerly Vice President and Manager—Operations. Joined Koppers in 1941.

Robert G. Wilson 60
President (Chief Operating Officer)—Engineering and Construction Group since 1978; formerly Vice President and General Manager. Joined Koppers in 1952.

A. William Capone 63
Senior Vice President since 1978; Chief Financial Officer; formerly Vice President and Treasurer. Joined Koppers in 1946.

Thomas C. Cochran, Jr. 62
Senior Vice President since 1978; Secretary and General Counsel; formerly Vice President, Secretary and General Counsel. Joined Koppers in 1956.

Group Officers

Organic Materials Group

Paul L. Bost 59
Vice President and General Manager—Industrial Products Division since 1978; formerly Vice President. Joined Koppers in 1948.

Charles P. Dorsey 55
Vice President and General Manager—Specialty Systems Division since 1978; formerly Vice President. Joined Koppers in 1966.

Robert G. Hamilton 38
Vice President and Assistant to the Deputy Chairman since 1982; formerly General Manager—Timberlands and Hardwood Lumber Division. Joined Koppers in 1969.

Thomas M. June 54
Vice President and General Manager—Building Materials Division since 1978; formerly Manager. Joined Koppers in 1951.

Lawrence L. Nagel 59
Vice President and Manager—Operations, Industrial Products Division since 1978; formerly Manager—Foundry Products, then Vice President and Manager—Technical Services. Joined Koppers in 1949.

Dr. Randall L. C. Russell 38
Vice President and General Manager—Chemical Division since 1978; formerly General Purchasing Agent, Purchasing and Traffic Department. Joined Koppers in 1970.

Francis J. Sullivan 58
Vice President and Manager—Marketing, Industrial Products Division since 1978; formerly Sales Manager—Foundry Products Group. Joined Koppers in 1955.

Charles H. Teller, Jr. 40
Vice President and Manager—Marketing, Chemical Division since 1980; formerly Manager. Joined Koppers in 1970.

Glen C. Tenley 55
Vice President and General Manager—Foundry and Industrial Supply Division since 1980; formerly Vice President and Manager—Purchasing Department. Joined Koppers in 1955.

Subsidiary and Other Officers

Peter Barry 55
President—Thiem Corporation, acquired by Koppers in 1976.

Joseph M. Madeira 46
President—U.S. Plastic and Chemical Corporation, acquired by Koppers in 1965.

Francis W. Neville 59
President—Parr, Inc., acquired by Koppers in 1977.

Brooks C. Wilson 49
Managing Director—Koppers Australia Pty. Ltd. Joined Koppers in 1965.

Road Materials Group

R. Kenneth MacGregor 60
Vice President and Manager—West Coast Operations since 1982, and President and General Manager—Sully-Miller Contracting Company. Joined Koppers in 1978.

Frederick C. Moore 49
Vice President and General Manager—Eastern Region Operations since 1983 and Chairman of the Board—The General Crushed Stone Company; formerly Vice President and Assistant to the Road Materials Group President. Joined Koppers in 1970.

Alvin L. Walters 54
Vice President and General Manager—Western Region Operations since 1982; formerly President and General Manager—Western Paving Construction Company. Joined Koppers in 1976.

Subsidiary Officers

Lloyd D. Ahnstedt 50
President and General Manager—Western Paving Construction Company, acquired by Koppers in 1976.

Marvin E. Browning 57
President and General Manager—Sim J. Harris Company, acquired by Koppers in 1976; formerly Vice President.

Broadus N. Davidson 58
President and General Manager—The Kentucky Stone Company, acquired by Koppers in 1977; formerly Executive Vice President and Assistant General Manager.

Bernard E. Elmer 55
President and General Manager—The General Crushed Stone Company; formerly Executive Vice President.

Roger W. Farris 40
President and General Manager—Fairfield Bridge Company, Inc., acquired by Koppers in 1980.

Robert A. Good 46
President and General Manager—Kaiser Sand and Gravel Company, acquired by Koppers in 1977; formerly Executive Vice President.

W. Ansel Gower 58
President and General Manager—Broderick and Gibbons, Inc., acquired by Koppers in 1980.

Daniel A. Hodge 42
President—Sterling Sand and Gravel Company of Wyoming, acquired by Koppers in 1981.

George V. LaBonte, Jr. 58
President and General Manager—Echols Brothers, Inc., acquired by Koppers in 1980.

Pierce E. Marks, Jr. 54
President and General Manager—Ivy Corporation, acquired by Koppers in 1979.

J. Paul Martin 57
President and General Manager—Lycoming Silica Sand Company, acquired by Koppers in 1966.

Jack W. McMichael, Jr. 59
President and General Manager—The McMichael Company, acquired by Koppers in 1979; formerly Vice President.

Homer L. Riley 60
President—Nello L. Teer Company, acquired by Koppers in 1980; formerly Vice President and Assistant Secretary.

Sidney E. Smith, Jr. 57
President and General Manager—Erie Sand and Gravel Company and Erie Sand Steamship Company, both acquired by Koppers in 1967; formerly Vice President—Erie Sand Steamship Company.

Nello L. Teer, Jr. 68
Chairman of the Board and Chief Executive Officer—Nello L. Teer Company, acquired by Koppers in 1980.

Carl L. Todd 61
President—Sterling Sand and Gravel Company and Sterling Paving Company, both acquired by Koppers in 1981.

Raymond C. Wiley 57
President and General Manager—Eastern Rock Products, Inc., acquired by Koppers in 1967.

Forest Products Group

James R. Batchelder 47
Vice President and General Manager—Western Wood Products Division since 1978; formerly Manager—Plant Services. Joined Koppers in 1959.

Earl A. Clendaniel 52
Vice President and Manager—Utility and Heavy Construction Department, Treated Wood Products Division since 1979; formerly Manager. Joined Koppers in 1949.

Robert B. Dehls 58
Vice President and Manager—Transportation Sales and Planning since 1978; formerly Manager. Joined Koppers in 1950.

Donald G. Hallahan 52
Vice President and Manager—Marketing since 1978; formerly Manager. Joined Koppers in 1958.

John D. Hite, Jr. 45
Vice President and General Manager—Specialty Wood Chemicals Division since 1978; formerly Manager. Joined Koppers in 1960.

Gerald L. Reynolds 55
Vice President and Manager—Raw Materials Department since 1975; formerly Manager. Joined Koppers in 1951.

Robert K. Wagner 51
Vice President and General Manager—Treated Wood Products Division since 1978; formerly Vice President. Joined Koppers in 1953.

Subsidiary Officers

Robert A. Cruise 53
President—Koppers International Canada Ltd., a wholly owned subsidiary since 1969. Joined Koppers in 1973.

Engineered Metal Products Group

Walter C. Arnold 58
Vice President and General Manager—Container Machinery Division since 1978; formerly Manager. Joined Koppers in 1962.

Hugh J. Blecki 52
Vice President and General Manager—Piston Ring and Seal Division since 1978; formerly Vice President—Marketing and Sales, Engineered Metal Products. Joined Koppers in 1956.

Gerald Champness 44
Vice President and General Manager—Mineral Processing Systems Division since 1980; formerly Operations Manager—Sprout-Waldron. Joined Koppers in 1956.

Richard E. Hug 48
Vice President—Koppers since 1973; President—Environmental Elements Corporation, a subsidiary, since 1974. Joined Koppers in 1957.

Samuel W. Koster 63
Vice President and General Manager—Power Transmission Division since 1978; formerly Manager. Joined Koppers in 1974.

Lester L. Murray 54
Vice President and General Manager—Sprout-Waldron Division since 1978; formerly Vice President and Chief Executive Officer—Sprout-Waldron and Company, Inc., acquired by Koppers in 1975. Joined Sprout-Waldron in 1956.

Engineering and Construction Group

James A. Harris 48
Vice President and General Manager since 1981; formerly Vice President—Executive Department. Joined Koppers in 1965.

Science and Technology

Dr. Alonzo Wm. Lawrence 45
Vice President—Science and Technology since 1981; formerly Vice President—Environmental Resources and Occupational Health Department. Joined Koppers in 1976.

Dr. William N. Maclay 58
Vice President and Manager—External Research since 1982; formerly Vice President and Manager—Research and Development Department. Joined Koppers in 1959.

Dr. Andrew C. Middleton 34
Vice President and Manager—Environmental Resources Department since 1981; formerly Manager. Joined Koppers in 1978.

Corporate Staff Officers

J. Roger Beidler 47
Vice President—Investor Relations since 1980; formerly Manager. Joined Koppers in 1960.

Jay A. Best 49
Vice President and Manager—Traffic and Transportation Department since 1978; formerly General Traffic Manager. Joined Koppers in 1956.

Fitzhugh L. Brown 50
Comptroller and Assistant Treasurer since 1978; formerly Manager—Administration, Engineering and Construction Group. Joined Koppers in 1962.

Arthur W. Cowles 64
Vice President—Executive Department since joining Koppers in 1965.

Frank E. Davis, Jr. 58
Vice President and Manager—Advertising and Public Relations Department since 1972. Joined Koppers in 1962.

William T. Hawkins 56
Vice President and General Manager—Natural Resources Division since 1978; formerly Manager. Joined Koppers in 1950.

Robert R. Moran 58
Vice President—Purchasing since 1982; formerly Manager—Raw Materials. Joined Koppers in 1947.

Andrew J. Pepper 59
Vice President—Management Information Systems, Finance Department since 1980; formerly Assistant Vice President and Director—Systems, Methods and Data Processing. Joined Koppers in 1950.

John F. Ramser 50
Vice President and Manager—Human Resources Department since 1980; formerly Assistant Secretary—Law Department. Joined Koppers in 1970.

Walter R. Vogler 59
Treasurer since 1978; formerly Director—Financial and Administrative Services, Finance Department. Joined Koppers in 1951.

Raymond R. Wingard 52
Vice President and Manager—Marketing Services and Corporate Growth Planning since 1980; formerly Vice President and Manager—Human Resources Department. Joined Koppers in 1952.

Description of Koppers Business

General Development of Koppers Business

Koppers Company, Inc. was incorporated on September 30, 1944. It succeeded by merger to the properties and business of four predecessor companies. Those companies grew logically out of Koppers original business, established in 1907, to design and build chemical-recovery coke plants for the American steel industry.

Prior to 1965, Koppers was highly dependent upon its original steel plant construction business for earnings growth. This accounted for as much as 40% of the Company's annual earnings. It was a cyclical business that had a disconcerting roller-coaster effect on the Company's prospects for growth.

In 1965, the Company began to build a manufacturing organization that would produce consistent earnings growth and thereby reduce Koppers dependence upon the steel industry capital investment cycle. Koppers today is a diversified manufacturing corporation offering specialized engineering and construction capabilities. Over the past five years, its manufacturing groups have provided nearly 95% of its total operating income.

Pursuit of the Company's objective to expand its manufacturing businesses to achieve consistent earnings growth has been characterized by rising levels of capital investment.

This expansion program has increased the total investment in Koppers operations from $190 million in 1964 to $1,071 million at the close of 1982.

Employment

The average number of persons employed by the Company was 17,334 in 1982, down from 20,113 in 1981. While most of the employment drop in 1982 resulted from layoffs related to weak business conditions, it also included an increase in the number of persons retiring during the year.

Approximately 8,000 of the Company's employees are covered by 150 different collective bargaining agreements. Successful labor contract negotiations were completed at 41 locations in 1982.

Financial Information By Industry Segment

Selected financial information for each of Koppers operating groups for a 10-year period appears on page 22. Additional financial information on the operating groups appears in the table "Operations by Business Segments" on page 33.

Patents and Licensing

Koppers owns more than 800 existing United States patents and a large number of foreign patents covering many products and processes. Some of the Company's patents and technology are licensed to other companies. The Company makes few of its products under licenses from other companies with respect to patents they own or technology they have supplied. No single patent or license is considered material in relation to the Company's overall performance.

Mineral Assets Price and Quantity Information

The table below provides information relating to Koppers mineral reserves. Estimates for proven and probable mineral reserves were obtained at the times of acquisition of the reserves, which range from 1967 to the present.

(Volumes are in thousands of tons; $ are per-ton values.)	Years Ended December 31, 1982	1981	1980	1979	1978
Proven and probable reserves at beginning of year					
Coal	**144,402**	145,009	71,048	72,619	2,619
Stone	**1,860,017**	1,834,450	1,480,014	1,286,701	1,255,504
Sand and gravel	**447,175**	438,982	388,211	400,433	392,708
Additions resulting from purchases of in-place mineral reserves					
Coal	**80**	2,009	76,000	—	70,000
Stone	**44,127**	49,454	387,081	223,875	54,120
Sand and gravel	**2,424**	21,872	70,295	9,580	24,740
Reductions resulting from production					
Coal	**1,883**	2,616	2,039	1,571	—
Stone	**20,505**	23,887	32,645	30,562	22,923
Sand and gravel	**8,072**	13,679	19,524	21,802	17,015
Proven and probable reserves at end of year					
Coal	**142,599**	144,402	145,009	71,048	72,619
Stone	**1,883,639**	1,860,017	1,834,450	1,480,014	1,286,701
Sand and gravel	**441,527**	447,175	438,982	388,211	400,433
Average market price					
Coal*	**$33.45**	$33.20	$30.49	$25.99	—
Stone	**$ 4.01**	$ 3.69	$ 3.68	$ 3.23	$2.78
Sand and gravel	**$ 3.64**	$ 3.48	$ 3.22	$ 2.68	$2.39
Average royalty rate					
Coal*	**$ 2.77**	$ 2.72	$ 2.52	$ 1.94	—

*Koppers primarily acts as a lessor to coal mining companies and receives a royalty fee on each ton sold.

Properties

The Company's 270 operating locations include: Organic Materials, 37; Road Materials, 151; Forest Products, 67; Engineered Metal Products, 12; and Natural Resources, 3. Engineering, drafting, estimating, procurement and scheduling personnel for the Engineering and Construction group are located in Pittsburgh, Pennsylvania.

In the opinion of management, the production capacities in Koppers various business segments are adequate to operate at a significantly higher volume than in 1982.

Research and Development

The Company conducts its research activities at two locations in suburban Pittsburgh, Pennsylvania as well as through special projects at a number of universities and at Genex Corporation, a major biotechnology firm. Koppers research laboratories explore advanced technologies, develop new products and improve manufacturing processes. Special services, such as pollution control and analytical and engineering support, are provided to all operations of the Company. Development laboratories at several locations support each of the Company's business segments. The amount spent on research and development activities was approximately $22.0 million in 1982, $16.5 million in 1981 and $15.0 million in 1980.

Organic Materials Group

Organic Materials Business

Organic Materials has interrelated businesses using the technology associated with the manufacture and use of products derived from coal. Over half of the present product mix is manufactured from coal or such derivative products as coal tar and naphthalene. Other lines serve specialty markets. The group has five operating divisions and three wholly owned subsidiaries.

Industrial Products Division operates six tar processing plants and is a major producer of such coal tar derivatives as: coal tar pitches used by the aluminum and commercial carbon industries as binders in the manufacture of electrodes; creosote, a complex mixture of chemicals, used primarily as a wood preservative; and chemical oil, a raw material for Koppers chemicals operations.

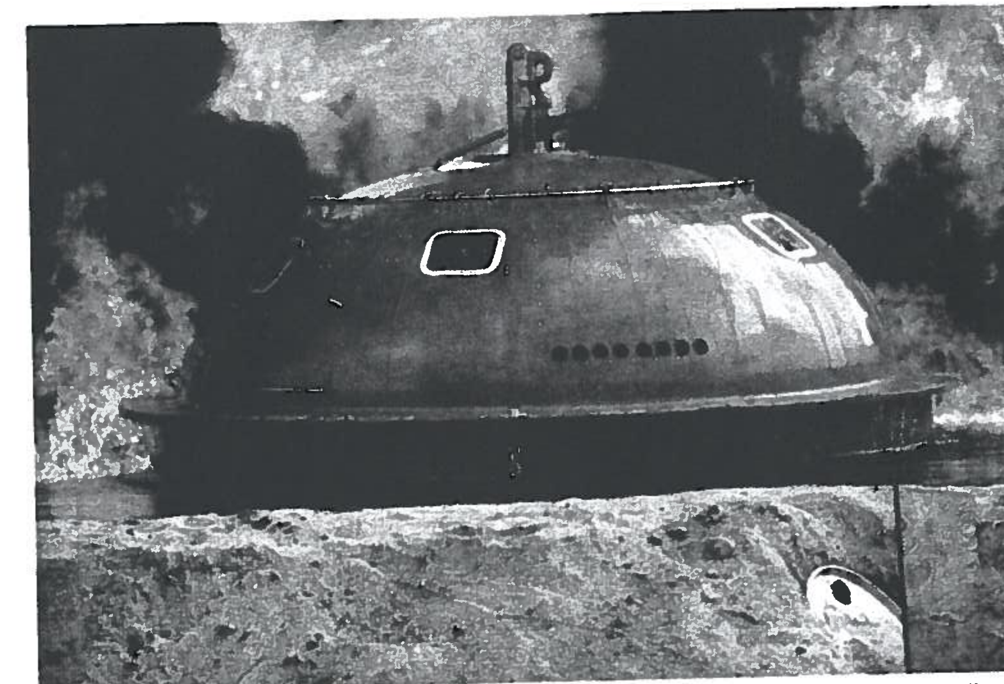
Foundry and Industrial Supply Division operates three coke plants and is among the largest merchant producers of foundry coke, one of the principal products used for melting metal in foundries and other industrial operations. Other grades of coke are manufactured for reducing iron ore in steelmaking, for melting in rock wool operations, for nonferrous metal smelting and in sugar beet refining.

A subsidiary, Thiem Corporation, produces binder systems and coatings for molding metal in foundries, as well as refractory systems for casting iron and steel.

Chemical Division operates four plants and is a major supplier of naphthalene (used to produce phthalic anhydride and agricultural chemicals); phthalic anhydride (used in the production of alkyd and polyester resins and of plasticizers for plastics); resorcinol (used primarily to produce adhesives used in rubber tires and laminated wood); antioxidants (used in rubber, plastics and other products); and a group of intermediate chemicals.

Specialty Systems Division is a growing supplier of high-performance polyester resins (used in glass-reinforced and nonreinforced plastics); bituminous coatings (for underground pipelines, tanks and severe industrial applications); and chemical-based coatings (used on swimming pools, water storage tanks, water and sewage treatment facilities and marine and industrial applications), roof coatings, lubricants, rust preventives, caulks, sealants and adhesives.

Building Materials Division makes cold-applied roofing and maintenance products to supplement high-performance roofing and waterproofing products based on pitches (primarily commercial and industrial). The division also produces a new phenolic foam fire-retardant insulation board.



Survival capsules undergoing fire tests for offshore oil rigs are among new applications for the Company's proprietary fire-retardant polyester resins.

Group subsidiaries manufacture button blanks and buttons and other lines related to specialized protective coatings.

Raw Materials and Fuel

Organic Materials depends heavily upon coal and coal-derived products for raw materials. Most coal tar processed is purchased from steelmaking operations, under contract arrangements with varying periods and conditions. Purchasing agreements cover such other raw materials as coal, benzene, orthoxylene and additional petrochemical industry materials. No major disruption of business in 1983 is expected as a result of shortages of raw materials or energy. The group's energy needs are supplied by natural gas, fuel oil, coal, and coke oven gas.

Competitive and Seasonal Conditions

Organic Materials products are sold in highly competitive markets. Except for certain proprietary items, there are suppliers of identical products in all business areas, as well as competition from alternative materials performing the same function. The principal factors in competition are price, product performance and service. In certain product lines, Koppers has an advantage because of multiple production locations or manufacturing plants near major markets.

Most Organic Materials business is not affected by seasonal variations, but winter does reduce volume in roofing, coating and other construction product lines.

Products are generally marketed nationwide through the group's sales organization. Certain lines are marketed through independent distributors and agents.

The group maintains substantial inventories of critical raw materials and finished products, but it is not the practice to carry customer inventories or to provide financing.

Organic Materials 1982 Sales by Major Economic Sectors

	($ Millions)	%
Industrial Production	$364.3	68%
Architectural Construction	93.3	17
Nonbuilding Construction	77.7	15
	$535.3	100%

Backlog

Organic Materials 1982 year-end backlog was $96.6 million, versus $92.2 million a year earlier. The backlog normally increases substantially during the month of January, and at the close of January, 1983, the backlog was $215.8 million, versus $305.7 million a year earlier. This is derived from the detailed analysis of each customer's expected 1983 requirements. The total backlog is expected to be shipped during 1983, although most unfilled orders are subject to cancellation at the option of the buyer.

Road Materials Group

Road Materials Business

Road Materials is made up of 154 domestic facilities that serve roadbuilding and construction markets in 17 states as well as operations in Central and South America, Africa and the Middle East. About 90% of sales are from aggregates (crushed stone, sand, gravel and slag), bituminous concrete, ready-mix concrete and paving services. The balance is from welded wire fabric and related specialty products.

The group's civil construction services account for 35% of total sales, including some product cost (paving materials, concrete, etc.). Among these services are road and bridge building, other paving activities, nonresidential building construction and dam building.

About 50% of Road Materials sales result from publicly funded road maintenance and construction projects. The remainder is from privately funded work in many segments of the construction market.

Transportation is a major factor in total product cost. The delivered price doubles when crushed stone is transported 20 to 30 miles. Aggregate markets, therefore, are localized, and the Company generally supplies markets near its quarries in California, Colorado, Florida, Georgia, Indiana, Kansas, Kentucky, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Virginia and Wyoming. Six facilities in the Southeast and Southwest produce and distribute welded wire fabric and other concrete-reinforcing and forming accessories.

Raw Materials and Fuel

Aggregate raw materials consist of sand and gravel, granite, limestone, trap rock and sandstone, which come from quarries, mines or Great Lakes dredging operations. Most of Koppers quarries are on land either owned by the Company or held under long-term leases. It is estimated that the present reserves of aggregates will be sufficient for more than 25 years at current production rates. Other major raw materials include asphalt, slag, cement and steel rod, which are purchased from oil companies, steel producers and cement suppliers. Adequate supplies of raw materials and fuel are expected to continue. Fuel oil satisfies nearly half of Road Materials energy requirements; natural gas and diesel fuel, each about 20%; the remainder includes gasoline, kerosene and propane.

Greater national attention, evidenced by the federal gas tax increase, is going to upgrading of the U.S. infrastructure, initially highways and bridges.

Competitive and Seasonal Conditions

Road Materials operations are geographically diversified, with limited vertical integration within individual regional markets. Because mineral reserves are limited within regional areas, the Company commonly holds a high share of those regional markets in which it competes.

Principal factors in competition are price and service. Prices for aggregates are determined by local conditions and are not subject to wide fluctuations created by nationwide demand, supply and capacity factors. Increasingly, this business has become service-oriented, calling for on-time delivery from a guaranteed source of supply.

Road Materials business is highly seasonal, with more than 70% of sales occurring during the peak construction period from May 1 to November 30.

Product inventories are controlled at volumes that reflect a balance between the most efficient production level and supplying peak demand. Inventories normally grow substantially during spring months in anticipation of high summer demand. It is not customary, however, to carry inventories or provide financing for customers.

Backlog

Road Materials backlog at the end of 1982 was $98.0 million, versus $100.8 million a year earlier. The normal tendency is for this backlog to increase during the first six months of the year and to decline thereafter. Orders in the backlog are considered firm, and more than 95% of the year-end backlog is expected to result in 1983 sales.

Road Materials 1982 Sales by Major Economic Sectors	($ Millions)	%
Nonbuilding Construction	$400.6	82%
Architectural Construction	77.6	16
Industrial Production	7.7	2
	$485.9	100%

Forest Products Group

Forest Products Business

Forest Products is a major producer of chemically treated wood, specialty wood-treating chemicals and laminated wood products, supplying both U.S. and foreign markets.

Chemical treatment of wood under pressure results in resistance to decay, to invasion by insects and to damage from fire. Products include railroad crossties; utility, transmission, distribution and lighting poles and accessory equipment; building poles and timbers; fence posts; foundation and marine piling; red cedar shakes and shingles; and construction lumber and plywood. Koppers also provides contract wood-treating services for industrial and commercial customers. Conventional wood pressure treatments use creosote, pentachlorophenol and waterborne salt preservatives. Koppers also has proprietary processes and products using specialty chemicals under such trademarks as CELLON, DRICON, NCX and WOLMAN. Koppers also licenses these proprietary processes and their trademarks and produces and supplies a broad range of chemicals used in pressure treatment, primarily to a group of licensees using Koppers wood-treating processes and trademarks. A new line of chemicals (using brush-on or dip treatment techniques) is designed to protect untreated wood and other surfaces from water damage and decay. The chemicals are marketed under the trade names RAINCOAT, WOLMAN CLEAR and WOLMAN GREEN.

The group engineers and manufactures glue-laminated wood products for industrial, commercial and residential applications, such as structural beams, arches, columns, girders, trusses and lighting standards.

Raw Materials and Fuel

Timber is the main raw material used by Forest Products. The major requirements are Eastern and Southern hardwood to supply railroad crossties and furniture products; and softwood timber, primarily Southern yellow pine and West Coast species, to supply utility poles and construction lumber. Less than 10% of the group's hardwood and softwood needs are met from Company-owned timberlands or by negotiated cutting rights. Demand and price for softwood are directly influenced by housing construction. The breadth of Koppers product mix and location of processing plants enables the group to purchase the necessary timber and finished raw materials. The long-term availability of Eastern hardwood is adequate, since the timber growth rate currently exceeds the rate of cut.

Use of pressure-treated lumber continues to increase in housing, renovation and expansion markets as awareness of cost benefits grows among consumers.

Preservative raw materials are supplied from both Company and outside sources. A fully integrated arsenic acid plant provides raw material stability for WOLMAN wood preservatives.

On the basis of Btu quantities, natural gas accounts for about 40% of Forest Products fuel, wood waste for 30% and oil for 25%. All major plants are equipped to operate on alternative types of fuel. Fuel supply is adequate in all cases. In recent years, several plants have developed wood-waste burning systems in order to lower costs and lessen risk of shutdown due to lack of fuel. Two plants operate electrical co-generation systems providing energy for processing, with the excess electric power sold to local utilities.

Competitive and Seasonal Conditions

The wood-preserving industry is highly competitive and fragmented. As the major nationwide supplier, Koppers usually has competition from regional operators. In addition, treated and laminated wood products compete against such other materials as steel, concrete and aluminum. Price and service are the principal requirements for competition. Koppers broad range of products and strategic plant locations provide a significant competitive advantage in this business.

Most products supplied by Forest Products are sold directly to the end user by the group's sales force. Much of Forest Products business is seasonal, since most products are related to the building industry. Sales are reduced during winter months, usually by about 30%, from the peak level of sales through summer months.

Inventory represents a significant factor in the total investment of Forest Products. Sizable inventories must be maintained in some product areas to ensure prompt, dependable service.

Backlog

Forest Products year-end backlog was $73.7 million, versus $83.4 million a year earlier. The total backlog is expected to be shipped during 1983 and, although all orders are considered firm, cancellation can be effected at any time except on finished material or that in process. Forest Products backlog peaks in the first quarter, and the high point represents approximately 50% of annual sales.

Forest Products 1982 Sales by Major Economic Sectors	($ Millions)	%
Nonbuilding Construction	$200.2	67%
Industrial Production	50.6	17
Architectural Construction	46.3	16
	$297.1	100%

Engineered Metal Products Group

Engineered Metal Products Business
Engineered Metal Products designs and manufactures processing machinery systems and machine components. These business lines are generally characterized by high-value-added, precision-engineered, high-quality products designed to rigid customer specifications.

Sprout-Waldron products include processing machinery for the formula feed, food, chemical, pulp and paper, and other basic industries. Sprout-Waldron also designs and builds complete feed mills, material handling and storage facilities, pulping plants and industrial processing installations.

Koppers manufactures corrugated container machinery, which converts kraft paper into corrugated board. The Company also manufactures machinery to make the board into finished containers for packaging producers.

The Company is a major producer of industrial piston rings for diesel engines and shaft seals for use in aircraft engines, pumps and compressors, as well as seal rings for hydraulic cylinders, valves and other industrial and aircraft applications.

Koppers supplies a broad range of power transmission products, including couplings, coupling grease, adjustable-speed drives, torque sensors and forgings. Couplings transmit power from one rotating shaft to another and compensate for misalignment. Applications include high-speed compressors, pumps, conveyors, cranes, blowers, boiler feed pumps, paper mill refiners, and main drives in steel rolling mills.

The group also produces medium- and large-sized gray iron and ductile castings for use in various areas of the Engineered Metal Products and Engineering and Construction Groups, as well as selling castings directly to outside customers.

Advanced energy-efficient wood pulping systems are manufactured by Koppers for U.S. and overseas paper producers.

Negotiations are currently under way to sell both the environmental control systems business and the mineral processing equipment business.

Raw Materials and Fuel
Principal raw materials, such as metal castings and forgings, are produced within the group's facilities, with some quantities supplied by commercial producers. Steel bars, billets, plates, structural forms and aluminum are purchased from mill and warehouse suppliers. Fuel oil, gas and electricity are the major fuels used, and the natural gas supply is backed up in some locations by propane stored in-plant and in reserve storage.

Engineered Metal Products 1982 Sales by Major Economic Sectors	($ Millions)	%
Manufacturers' Capital Equipment	$215.5	100%

Competitive and Seasonal Conditions
There is significant competition in each of Engineered Metal Products business lines. Certain of the group's products generally sell at premium prices, and Koppers strong market position is based upon demonstrated excellence in design, performance, technical support and other specific factors.

Principal products and services are distributed mainly through the group's sales force, augmented in some lines by agents and distributors. Most business lines are not affected by seasonal fluctuations.

Working capital amounts include repair parts inventories required for field service activities, as well as inventory parts kept on hand for standard machines to meet competitive delivery schedules. In certain lines, such as electrostatic precipitators and sound control products, working capital amounts include retainages that are receivable upon satisfactory performance of the installation.

Backlog
Engineered Metal Products backlog at the end of 1982 was $102.9 million, compared with $137.4 million a year earlier. Total backlog is believed to be firm, and approximately 90% is expected to be shipped in 1983. No significant seasonal factors influence the backlog.

Engineering and Construction Group

Engineering and Construction Business
Koppers is one of the world's largest designers and builders of basic steel plants, including coke ovens and related by-product chemical plants, blast furnaces, basic oxygen furnaces, continuous casting installations, sinter plants and pollution control equipment for the steelmaking process.

Licensing arrangements permit the group to market products and services related to steelmaking in the Western Hemisphere, including electric arc furnaces, process control systems and components, and various equipment designs.

Kop-Tech, a joint venture company with Trans Tech Corporation of Japan, has access to Japanese financing and use of Japanese technology in North America for the steel industry.

The group is engaged, through KBW Gasification Systems, Inc., in the development of engineering and construction services for the production of synthetic fuels based on the entrained-bed coal gasification process, to produce gas for medium-Btu industrial fuels, for fuel to drive power-generating turbines, for use as chemical feedstocks, and for direct reduction of ores. Koppers and other equity partners are in final negotiations with the U.S. Synthetic Fuels Corporation for loan and price guarantees for a peat-to-methanol conversion project in North Carolina utilizing the KBW (Koppers-Babcock and Wilcox) process. A contract for construction and operation of the facility is expected during 1983.

Current business is directly related to capital expenditures in the primary end of the steel industry. Most of the group's annual sales volume results from work on a relatively small number of large contracts, with a modest volume coming from repair work and replacement equipment. Synthetic fuels projects are dependent on actions by various government agencies for loan and price guarantees.

A proposed synthetic fuels facility would utilize a broad range of Koppers engineering and construction capabilities as well as demonstrate the KBW coal gasification technology.

Raw Materials and Fuel
Large quantities of structural and fabricated steel, reinforcing bar, refractories, pipe, electrical wire and conduit are used in the group's construction work. These materials are purchased from others or supplied by subcontractors. No material shortages adversely affected operations in 1982, and it is expected that adequate supplies will be available in 1983 and beyond.

Engineering and Construction 1982 Sales by Major Economic Sectors	($ Millions)	%
Nonbuilding Construction	$32.9	100%

Competitive and Seasonal Conditions
Koppers competes against other U.S. construction companies and against foreign design companies currently working in conjunction with U.S. builders on engineering and construction of domestic steel plant projects. Several large steel producers have internal engineering and construction capabilities. Competition for North American business has been intensified by a lack of capital spending in the world steel industry. Price and performance are major determinants in competition, although the amount of financial risk that the contractor is willing to assume has become a significant factor. Engineering and construction services are sold directly by the group's sales organization. Certain portions of any project may be subcontracted on a project-by-project basis.

Engineering and Construction business is seasonal to the extent that most construction activity is subject to disruptions from severe weather. Every effort is made in planning construction schedules to minimize the possible effects of weather.

Working capital employed in Engineering and Construction work is basically a function of billings rendered on contracts but not yet received. This varies with the volume of construction under way and also with a recent tendency of customers to increase the period between billing and reimbursement, particularly during periods of high interest costs.

Backlog
The construction backlog was $6.8 million at the close of 1982, compared with $25.9 million a year earlier. The entire backlog is considered firm, and nearly all of the work is expected to be performed in 1983. The backlog is totally dependent upon the capital investment plans of the steel industry, which are currently at a depressed level. Potential exists for contracts involving engineering and construction of synthetic fuels plants.

Additional Description Of Koppers Business

Legal Proceedings
On April 26, 1982, Republic Steel Corporation filed an action in the United States District Court for the Northern District of Ohio against certain of its insurance carriers seeking to recover $41 million under its contracts of insurance for damages to a coke oven battery at its Cleveland, Ohio plant resulting from its coking operations. The coke oven battery was constructed for Republic by Koppers with construction being completed in 1977. On December 28, 1982, the carriers joined Koppers as a third-party defendant to the action alleging that the coke oven battery was improperly designed or constructed. Koppers management believes that it has sound defenses to this claim and that this litigation will not result in any material liability to Koppers.

On August 7, 1981, Inland Steel Corporation filed an action against Koppers in the Lake Superior Court, East Chicago, Indiana, alleging that delay in construction of a coke oven battery and blast furnace by Koppers at Inland's Indiana Harbor Works had caused Inland damages in the amount of $100 million. Venue in this action was moved to the La Porte Circuit Court, La Porte, Indiana. Koppers management and legal advisors believe there are sound defenses against Inland's claim. Koppers has counterclaimed to recover $17 million still unpaid by Inland on the contract for construction of the coke oven battery and blast furnace.

Koppers is involved in environmental proceedings at a small percentage of its plants. These in the aggregate are not material to the business or financial condition of Koppers, nor will their total cost to Koppers exceed 10% of the current assets of Koppers and its subsidiaries on a consolidated basis. Koppers has no reason to believe that any governmental authority will impose sanctions in any such proceedings in excess of $100,000.

Environmental, Occupational Health and Safety Regulations
The Company is subject to federal, state and local regulations on the environmental impacts of solid waste disposal; air and water quality impacts of its manufacturing operations; toxic substance control; and occupational health and safety of its employees. About $4.4 million, or 6.6%, of Koppers capital investments for plant and equipment in 1982 went to eliminate pollution or to bring it within satisfactory levels. Environmental improvements are expected to account for a comparable proportion of the total funds invested in new facilities in 1983. No estimates are available for subsequent years. Operating expenses attributable to pollution control equipment are increasing at a rate roughly equivalent to the increases in the cumulative capital base of the Company. Although environmental regulations have not yet had a material adverse effect on operations, governmental action has required and may continue to require the Company to modify, supplement, replace or abandon equipment and facilities and may delay or impede construction and operation of new facilities. These potential costs cannot be forecast with precision.

Koppers, in common with many other enterprises, is subject to regulations under the federal Occupational Safety and Health Act. Health and safety regulations have not materially affected the Company's operations in the past. If the standards applicable to chemical processors are made more stringent, these regulations could affect certain of Koppers businesses more significantly in the future.

Some aspects of the Company's business will be affected by U.S. Environmental Protection Agency (EPA) regulations requiring premarket disclosure of the potential health and environmental impact of new chemicals and environmental and health testing of some existing chemicals. The promulgation of stringent federal regulations on chemical solid waste disposal under the Resource Conservation and Recovery Act has added to operating costs in a number of Koppers chemically related businesses and has required some remedial environmental cleanup at existing Company waste disposal sites. In related matters, groundwater quality investigations are continuing at a number of current manufacturing sites as well as inactive plant sites and are expected to result in some additional remedial actions.

Koppers has received seven citations under the "Superfund" or Comprehensive Environmental Response Compensation and Liability Act. This action requires the Company to conduct hydrogeological studies at each location to determine the nature of the problems and the best available solutions. The Company expects to negotiate settlements with EPA in all cases. Preliminary estimates indicate that total costs will not result in any material liability to the Company.

As part of its continuing review of all pesticides, the EPA has issued "Rebuttable Presumption Against Re-registration" notice against three wood preservatives used or produced by Koppers—creosote, pentachlorophenol and arsenicals. The review process, which was begun in 1978, may be completed during 1983.

While the EPA has tentatively concluded that these wood preservatives should be reregistered, the conditions and use restrictions of the reregistration have not yet been settled. It is expected that the final conditions of reregistration will impose additional cost on the manufacturers and users of these preservatives. Koppers believes, however, that the costs associated with implementing the final EPA regulations will not be substantial. Thus the market impact on these products will be small and will not have a material effect on the Company's earnings.

Exhibits for Form 10-K

The following exhibits are included as a part of the 1982 Form 10-K Report as required by Item 601 of Regulation S-K. Shareholders may obtain copies of the exhibits not presented here upon written request to: Secretary, Koppers Company, Inc., Koppers Building, Pittsburgh, Pa. 15219.

Exhibit A—3.1 Koppers Certificate of Incorporation, as amended, and the Certificate of Resolution, dated December 16, 1980, setting forth certain terms of Koppers $10 convertible preference stock, filed as exhibits 4.1 and 4.2 to Koppers Registration Statement No. 2-70174 and incorporated herein by this reference.

Exhibit B—3.2 Koppers By-Laws as amended to April 26, 1982, filed as exhibit 3.1 to Koppers Form 10-Q for the quarter ended March 31, 1982 and incorporated herein by this reference.

Exhibit C—10.1 Koppers Deferred Compensation Unit Plan, filed as Exhibit 10.2 to Koppers Annual Report and Form 10-K for the year ended December 31,1981 and incorporated herein by this reference.

Exhibit D—10.2 Koppers Deferred Compensation Plan for Directors, filed as Exhibit 10.3 to Koppers Annual Report and Form 10-K for the year ended December 31, 1981 and incorporated herein by this reference.

Exhibit E—10.3 Agreement dated April 26, 1982 between Koppers and Fletcher L. Byrom for consulting services, filed as exhibit 10.1 to Koppers Form 10-Q for the quarter ended June 30, 1982 and incorporated herein by this reference.

Exhibit F—22.1 Koppers has the subsidiaries listed below whose accounts are included in its consolidated financial statements. The Company also has 44 other subsidiaries, which are not named here because all of them, considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary.

Subsidiary and Jurisdiction of Incorporation
Broderick and Gibbons, Inc.—Colorado
Cherokee Crushed Stone, Inc.—Delaware
Eastern Rock Products, Inc.—New York
Echols Brothers, Inc.—Delaware
Environmental Elements Corporation—Delaware
Erie Sand and Gravel Company—Pennsylvania
Erie Sand Steamship Co.—Delaware
Ontario-Lake Erie Sand Ltd.—Canada
Fairfield Bridge Company, Inc.—Delaware
The General Crushed Stone Company—Delaware
Chester Carriers, Inc.—Delaware
Easton Mack Truck Sales, Inc.—Pennsylvania
The Stone Man, Inc.—Delaware
Sim J. Harris Company—Delaware
Honolulu Wood Treating Co., Ltd.—Hawaii
Ivy Corporation—Delaware
Davidson Mineral Properties, Inc.—Delaware
Gainesville Stone Company, Incorporated—Georgia
Meadow Steel Products, Inc.—Delaware
North Georgia Crushed Stone Corporation—Georgia
Kaiser Sand and Gravel Company—Delaware
The Kentucky Stone Company—Kentucky
Koppers Engineered Products Limited—Ontario, Canada
Koppers International Canada Ltd.—Canada
Lycoming Silica Sand Company—Pennsylvania
The McMichael Company—Delaware
McMichael Asphalt Sales Co.—Oklahoma
McMichael Concrete Co.—Oklahoma
Tulsa Concrete Co.—Oklahoma
Tulsa Paving Co.—Oklahoma
Tulsa Rock Co.—Oklahoma
Parr, Inc.—Delaware
Sterling Paving Co.—Colorado
Sterling Sand & Gravel Co.—Colorado
Sterling Sand & Gravel Co. of Wyoming—Wyoming
Sully-Miller Contracting Company—California
P&K Materials, Inc.—California
South Coast Asphalt Products Co.—California
Southern Pacific Milling Co.—California
Susquehanna Quarry Co.—Pennsylvania
Nello L. Teer Co.—Delaware
Central Engineering and Contracting Corporation—North Carolina
Romeo Guest Associates, Inc.—North Carolina
Nello L. Teer International, Inc.—Delaware
Webster County Coal Company—North Carolina
Thiem Corporation—Delaware
U.S. Plastic and Chemical Corporation—Delaware
Western Paving Construction Co.—Colorado
Mid-Kansas Construction Company, Inc.—Kansas

Exhibit G—24.1 Consent of Arthur Young & Company, Certified Public Accountants, to the incorporation by reference in the Registration Statement (Form S-8 #2-65753) and the related Prospectus pertaining to Koppers Savings and Profit Sharing Plan of their report dated January 21, 1983 included in the Form 10-K.

Signatures Required for Form 10-K

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Koppers has duly caused this Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, on February 15, 1983.

Koppers Company, Inc.

By
A. William Capone
Senior Vice President and
Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Form 10-K has been signed below by the following persons on behalf of Koppers in the capacities and on the dates indicated.

Charles R. Pullin
Chairman of the Board of Directors
(Chief Executive Officer)
February 15, 1983

Fitzhugh L. Brown, Comptroller
February 15, 1983

Curtis E. Jones, Director
February 18, 1983

Evelyn Berezin, Director
February 15, 1983

William H. Knoell, Director
February 18, 1983

Richard M. Cyert, Director
February 18, 1983

Andrew W. Mathieson, Director
February 15, 1983

Douglas Grymes, Director
February 15, 1983

Nathan W. Pearson, Director
February 18, 1983

Koppers Company, Inc.
Koppers Building
Pittsburgh, Pa. 15219
Area Code 412/227-2000

Common Stock
Symbol: KOP

Exchange Listings:
New York Stock Exchange
Midwest Stock Exchange
Pacific Stock Exchange

Transfer Agents:
Mellon Bank N.A.
Mellon Square
Pittsburgh, Pa. 15230

Bradford Trust Company
2 Broadway
New York, N.Y. 10004

Harris Trust and Savings Bank
111 West Monroe Street
Chicago, Ill. 60690

Bank of America National Trust and Savings Association
55 Hawthorne Street
San Francisco, Cal. 94105

Stock Registrars:
Pittsburgh National Bank
P. O. Box 340746P
Pittsburgh, Pa. 15230

Morgan Guaranty Trust Company of New York
30 West Broadway
New York, N.Y. 10015

Continental Illinois National Bank and Trust Company of Chicago
231 South LaSalle Street
Chicago, Ill. 60601

Wells Fargo Bank, National Association
420 Montgomery Street
San Francisco, Cal. 94144

Dividend Disbursing Agent:
Mellon Bank N.A.
Mellon Square
Pittsburgh, Pa. 15230

General Subject Index

To aid the annual report reader who is interested in general subject areas, the following index is an alphabetical guide with specific page references. It is based upon a judgment as to those items most often referred to and should not be considered a complete listing.