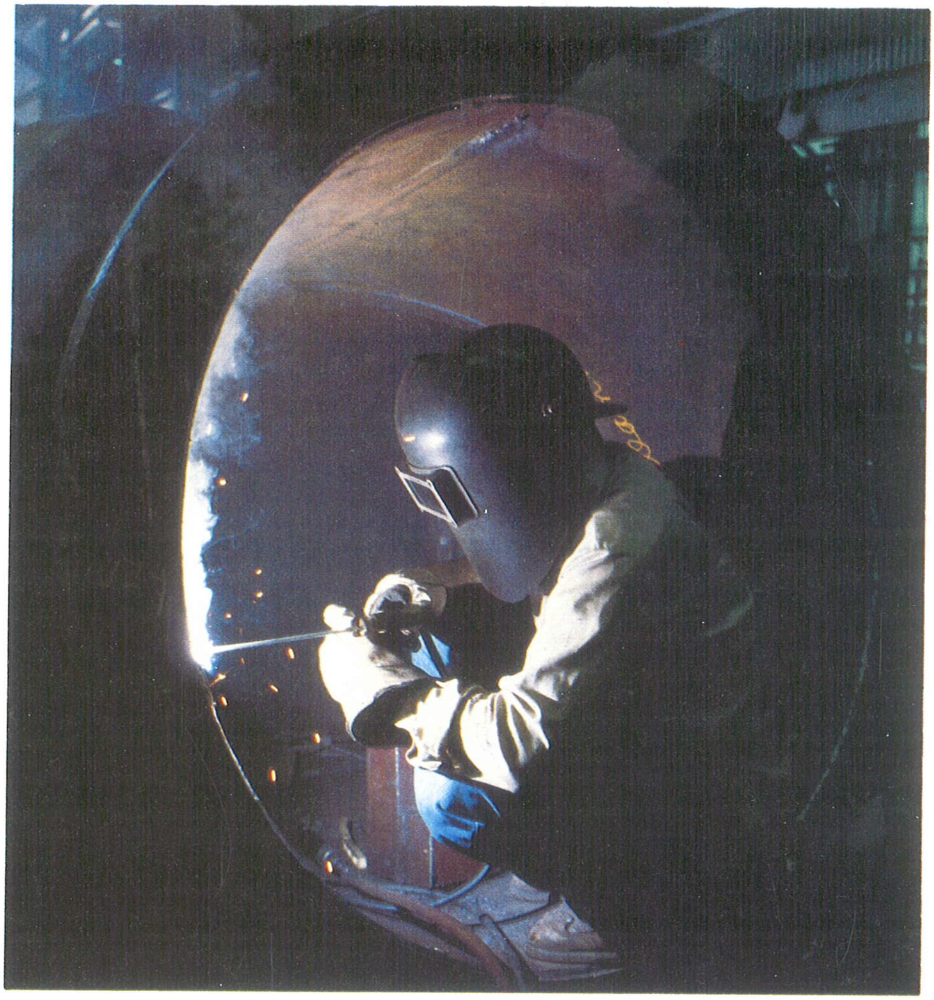
As part of a major project at American Bridge Division's Orange (Texas) Plant, an exhaust manifold duct is being welded for the U. S. Air Force Aero Propulsion System Test Facility near Tullahoma, Tenn.



since commencement of operations in 1976. With the latest brought on stream in the third quarter of 1979, production capacity has grown to 1.5 million pounds annually, compared with 275,000 pounds annually in 1976.

In 1979, U. S. Steel continued to participate with other companies in oil and gas exploration and drilling. Half the drillings were successful. Revenues from these ventures will play a significant role in Resource Development's future profitability and cash flow.

Highlights

A major extension of dock loading facilities is currently under way at Port Cartier, a commercial port on the St. Lawrence River owned and operated by QCM. Upon completion in late 1980, the port will have loading capability for over 29 million tons of bulk commodities and will also be able to handle efficiently the growing number of grain carriers, oil tankers and general cargo vessels that use the port on a fee basis.

In November, U. S. Steel's Whitwell, Tennessee coal property was leased to Tennessee Consolidated Coal Company (TCC), a wholly owned subsidiary of St. Joe Minerals Corporation. TCC will extend its adjacent current mining operations to the Whitwell reserve. The lease arrangement will provide income for the Corporation over the next 28 years.

Improved Profitability: Target for the 1980's

Resource Development has continued performing geological surveys, mine planning and other pre-engineering to enable quick reaction to anticipated growing markets for coal and other commercial minerals. Profitability will be further enhanced by securing long-term contracts for most future uranium production, by concentrating oil and gas exploration activities in proven producing areas and by increasing participation in the international bulk shipping market.

FABRICATING & ENGINEERING and OTHER

	$ Millions	
	1979	1978
Sales	**$2,333**	$1,971
Operating Income	**91**	88

Benefits from business planning decisions and capital investments in recent years began to materialize in 1979, as both sales and operating income increased.

As a result of facility expansions over the past four years, as well as the introduction of new products into new market areas, Oilwell Division again achieved record sales and operating income. The order backlog for drilling rig units extends into 1981.

Improved results were also reported by U. S. Steel's real estate operations as its activities continued to grow. A new joint venture shopping center near Pittsburgh, Pa., was opened in 1979. The shopping center includes the largest enclosed mall in Pennsylvania and will be one of the largest shopping complexes in the United States.

Alside, Inc., continued its expansion program during 1979 through the addition of four new retail warehouses. Over the past five years, 26 new retail outlets have been opened for the distribution of siding and related building materials as well as installation service.

At mid-year, U. S. Steel's container manu-

J. Robert Ferguson, Jr.
Senior Vice President and Assistant to President

Earl L. Simanek
Group Vice President—Manufacturing Divisions & Associated Subsidiaries

A view of the recently opened Century III Mall near Pittsburgh, Pa., a joint venture between USS Realty Development and a national real estate developer.

Fabricating & Engineering and Other—
Sales by Product Grouping

	Percent of Total Dollars				
	1979	1978	1977	1976	1975
Manufactured & Fabricated Products	**51%**	51%	52%	50%	57%
Buildings & Bridges	**14**	16	14	20	10
Services & Technical Assistance	**25**	23	24	21	24
Cement & Other	**10**	10	10	9	9
	100%	100%	100%	100%	100%

facturing unit was merged into its steel service center division, United States Steel Supply Division (USD). The merger provides opportunities for improved utilization of the resources of both units. Advantages will occur in product planning, design, development, transportation, customer services and marketing. USD has continued to increase emphasis on the sale of carbon steel sheet products, which represent a significant portion of the domestic steel service center market. USD's carbon sheet shipments in 1979 were over 20 percent higher than in 1978. USD was formerly included in the Steel Manufacturing industry segment.

American Bridge Division (ABD) order bookings, though down from 1978, remained above the depressed levels experienced in 1976 and 1977. Significant projects booked included a series of bridges near Mobile, Ala.; a 4,000-foot bridge across the Mississippi River near St. Louis, Mo.; and two 20-story office buildings for the Renaissance Center in Detroit, Mich. The barge construction business continues strong and ABD's backlog extends through 1980.

In February 1980, U. S. Steel signed a letter of intent to sell its Universal Atlas Cement Division to Heidelberger Zement A.G. of Heidelberg, Germany. The sale price substantially exceeds $100 million. Heidelberger Zement intends to continue to operate the Universal Atlas Cement facilities with substantially the present organization, thereby boding well for the communities in which they are located. No decision has been made by Heidelberger with respect to the facilities whose discontinuance had been previously announced by U. S. Steel.

Improved Profitability: Target for the 1980's

Manufacturing and marketing activities for U. S. Steel's wire rope—a specialty product—have recently been consolidated under a single responsibility. Production capability for larger diameter, high strength special purpose ropes is also being expanded to meet growing demand. Upon completion, U. S. Steel will be the only domestic producer capable of manufacturing large diameter 8-strand wire rope which provides consumers with a more flexible, higher strength product.

During the 1980's, Oilwell Division will continue to expand its domestic manufacturing facilities to meet growing energy-related markets and will actively pursue new international manufacturing ventures. ABD has been reorganized to emphasize fabrication and construction activities as two separate profit responsibilities. This action will enable the division to serve its customers more effectively. USS Engineers and Consultants, Inc., will pursue the worldwide sale of technical assistance, management services and complete industrial plants through increased participation with multinational engineering firms, construction companies, and equipment suppliers. Alside, Inc., whose business is not tied to new housing starts, will continue to penetrate the home improvement market. USS Realty Development will further expand in the domestic real estate market and profitably reemploy other unused Corporate properties. International Manufacturing operations will stress increased growth through self-supporting expansions of existing businesses.

DOMESTIC TRANSPORTATION & UTILITY SUBSIDIARIES

	$ Millions	
	1979	1978
Sales	**$663**	$549
Operating Income	**152**	120

Record sales and operating income were achieved again in 1979, reflecting increased rail and river shipments, authorized tariff rate changes and improved operating efficiency.

Performance of these subsidiaries continues to be outstanding. Since 1975, operating income has increased over 170 percent. During the same period, total sales have risen approximately 75 percent. Sales to non-affiliated customers have also increased, amounting to 34 percent of total sales in 1979.

Highlights

New taconite pellet storage and shiploading facilities of the Duluth, Missabe and Iron Range Railway Company at the port of Two Harbors, Minn., were operated throughout 1979. The complex, honored by the National Society of Professional Engineers as one of the Ten Outstanding Engineering Achievements of 1978, is well equipped to handle efficiently the increasing taconite production from U. S. Steel and others in Minnesota.

Expansion of Bessemer and Lake Erie Railroad's coal handling and storage facilities at Conneaut, Ohio, was completed in 1979. With capability increased by 50 percent, the facilities will be able to handle increases expected in Great Lakes coal movements.

Improved Profitability: Target for the 1980's

The companies will continue an aggressive marketing program to obtain maximum utilization of existing facilities and equipment. This, in conjunction with ongoing emphasis on increased productivity, should lead to further improvement in the 1980's.

Thomas Marshall
President—
Barge Line Subsidiaries

M. Spalding Toon
President—
Railroad Subsidiaries

An Ohio Barge Line, Inc. tow of 25 barges heads south on the Mississippi River for New Orleans, La.

Domestic Transportation & Utility Subsidiaries—
Sales by Commodity Handled

	Percent of Total Dollars				
	1979	1978	1977	1976	1975
Iron Ore & Agglomerates	**26%**	26%	23%	25%	28%
Coal	**15**	14	16	14	15
Steel & Other Metals	**8**	10	10	10	11
Switching, Demurrage & All Other	**51**	50	51	51	46
	100%	100%	100%	100%	100%

Corporate Matters

EMPLOYEE RELATIONS

It is regrettable that it was necessary during 1979 to announce the shutdown of a number of operations which, in total, have been unprofitable and offered no realistic hope of future economic survival.

In analyzing these decisions, some real-life economic truths are evident. Labor cost must be competitive. Higher labor rates can be justified only if that labor is more productive and can provide a product or service which is competitive. Hourly employment cost (rate of pay and benefits) must, in the long run, be competitive for those product groups with which it competes; i.e., fabricating labor with fabricating—not steel production workers; cement with cement; container producers with container producers; wire manufacturers with wire manufacturers; and steelworkers with steelworkers worldwide—not auto workers or rubber workers, etc. These are the hard but realistic facts that must be faced. No nation or company can long survive if the price and productivity of its labor is non-competitive.

The union member who organizes to sell his labor without regard to cost competition is the same consumer who demands price competition when he buys back his labor in the marketplace. American industry and American labor must confront some new realities in the Eighties. The marketplace is international. Our standard of living must be produced in the mine, the mill, the laboratory, and on the farm by highly productive people utilizing the best tools and equipment that a favorable economic environment can foster.

Guaranteed annual wage raises, compounded on top of guaranteed cost-of-living wage escalators, on top of guaranteed percent pension formulas, on top of guaranteed health and medical care benefits, can only be acceptable if productivity gains, shared with investors and customers, competitively justify such guarantees. Unfortunately, since the early Seventies, there has been little productivity improvement in steel and a decade-long decline in coal productivity. The result has been closed steel mills, closed coal mines, rising unemployment, rising imports, declining trade balances, and a declining American presence in the world.

Labor Negotiations

The Basic Labor Agreement between U. S. Steel and the United Steelworkers of America expires July 31, 1980. Negotiations are currently under way between the Coordinating Committee Steel Companies and the Union. Under the terms of the Experimental Negotiating Agreement (ENA), if a settlement is not reached by April 15, 1980, the issues will be submitted to an impartial arbitration panel for final and binding decision—thus avoiding the possibility of an industry-wide strike or lockout.

The ENA provides for a three percent increase in each of the next three contract years. For the first time, the parties are free to negotiate the increases in the form of wages or benefits rather than strictly increased wages. The ENA also provides again for a one-time bonus of $150 for each eligible employee and continuation of the existing provision for cost-of-living adjustments.

The compensation and benefit program that currently covers steelworkers is one of the most comprehensive in American industry. In addition to those items provided under the ENA, this program includes benefits covering pensions, unemployment, vacation, hospitalization, major medical, eye and dental care, and life insurance.

Improved Productivity Essential

For the coming decade, it is quite clear that collective bargaining improvements must be earned by improved productivity. It follows also that productivity improvements must be shared with consumers and investors. To survive and thrive, industries and unions must moderate their arrangements to accommodate these objectives.

Safety

During 1979, U. S. Steel continued to stress employee safety. The number of lost workday cases was less than half the average rate of competitor companies in both the domestic steel and underground bituminous coal industries.

RESEARCH AND DEVELOPMENT

U. S. Steel's research efforts in 1979 continued to be directed both toward projects which will in the near term result in improved productivity and improved product quality and toward long-range research activities. Expenditures for research and development totaled $57 million in 1979, compared with $53 million in 1978.

During 1979, technology transferred from the laboratory to practical applications aided in increasing blast furnace efficiency, in improving steelmaking practices and in energy conservation.

Research implemented a computerized raw material and energy balance information system on U. S. Steel's five largest blast furnaces. With this system, the furnace operator can quickly adjust practices to optimize furnace operations. This system will be implemented on

Steel from a bench-scale Q-BOP steelmaking furnace is tapped at U. S. Steel's Monroeville (Pa.) Research Laboratory.

other Corporate blast furnaces in 1980.

Research assisted in developing an improved operating control system for basic oxygen steelmaking which already is resulting in decreased steelmaking time, reduced oxygen usage, improved product yield and increased furnace lining life.

Long-range research activities in both steel and nonsteel are under way in areas such as raw materials processing, production systems control, product improvement, and new product development.

GOVERNMENT ACTIVITY

Communication with various government officials and agencies on matters affecting the Corporation, the domestic steel industry and the nation have long been part of management's responsibility. This activity intensified in 1979, and there are signs government is beginning to recognize some of the problems confronting capital intensive industries like steel.

Numerous meetings were held with Federal, state and local government officials around the country, including key Administration leaders; testimony was given before U. S. Senate and House of Representatives committees and subcommittees; and government officials were invited to visit and gain first hand knowledge of Corporation facilities and problems. U. S. Steel's views on international trade, tax reform, capital formation, wage-price guidelines, energy policy, and environmental control regulations were among some of the subjects stressed.

Representing the American Iron and Steel Institute, David M. Roderick recently participated in a panel discussing Capital Formation before the U. S. Senate Finance Subcommittee on Taxation and Debt Management.

WAGE-PRICE GUIDELINE PROGRAM

During the first Program Year of the Administration's Voluntary Wage-Price Guideline Program, which ended September 30, 1979, steel cost increases were 20 percent higher than allowable price increases, creating a serious cost-price squeeze. Steel profit margins are already too low to withstand any further squeezing.

Steelmaking costs rose almost 12 percent after recognition of long-term productivity gains, primarily reflecting cost-of-living increases and rapidly escalating energy prices. During the year, the Corporation requested permission from the Council on Wage and Price Stability to use the profit margin exception for steel operations. The modified profit margin standard granted by the Council, while an improvement over the price deceleration standard, fell far short of allowing price increases sufficient to cover cost increases.

At this time, there is no solid evidence that inflation in 1980 will be noticeably less than in 1979. Steel profit margins cannot withstand further deterioration, and without relief, could become virtually nonexistent.

U. S. Steel believes that, as a minimum, steel and other low profit industries should be allowed percentage price increases equal to the percentage increase in costs, market conditions permitting.

FOREIGN COMPETITION

Steel imports totaled 17.5 million tons in 1979, accounting for 15.2 percent of apparent domestic supply. Although below the record level of 21.1 million tons in 1978, imports during

USS Chemicals' expanded synthetic phenol unit at Haverhill, Ohio is now in full operation. This expansion, the fourth since the plant started in 1969, boosts phenol production capacity by 195 million pounds per year.

the second half of 1979 increased significantly —amounting to an annualized rate of almost 20 million tons.

U. S. Steel is a strong advocate of free trade, as long as it is also fair trade. Our objection to imported steel is that much of it is "dumped" in U.S. markets—contrary to the clear intent of U. S. trade laws. "Dumping" occurs when foreign producers sell in this country at prices below their home market prices, or below their real costs of production plus the cost of shipping those products into this country.

The Trigger Price Mechanism (TPM) was devised by the Federal government late in 1977 to provide early warning of dumping. As designed, the TPM cannot accomplish its goal because the system is tied to yen-dollar relationships and is based on theoretical Japanese costs. As a result, TPM automatically provides an umbrella for other foreign producers, whose production costs are higher than the Japanese, permitting them to dump in the U. S. market without fear of the government initiating dumping investigations. In addition, the system makes no attempt to check import prices with foreign home market prices—the classic method of identifying dumping.

Clearly, if dumped imports are not more effectively curtailed through the TPM system, then we must pursue other available remedies such as filing anti-dumping suits.

Selected Highlights — Trends

	Dollars in Millions (except as noted)				
SUMMARY OF OPERATIONS	**1979**	1978	1977	1976	1975
Sales	**$12,929.1**	$11,049.5	$9,609.9	$8,607.8	$8,171.3
Operating Costs					
Cost of Sales (Excludes items shown below)	**10,705.3**	9,046.4	7,944.5	6,720.1	6,174.5
Selling, General and Administrative Expenses	**423.5**	372.4	349.5	318.8	320.7
Pensions, Insurance and Other Employee Benefits	**769.4**	693.6	572.1	538.7	494.6
Wear and Exhaustion of Facilities	**531.5**	435.6	372.0	308.6	297.2
State, Local and Miscellaneous Taxes	**237.9**	215.4	196.3	197.1	180.1
Operating Income (Excludes items shown below)	**261.5**	286.1	175.5	524.5	704.2
Interest, Dividends and Other Income	**196.0**	155.3	81.2	108.2	138.6
Interest and Other Financing Costs	**(184.0)**	(191.4)	(154.8)	(114.4)	(82.9)
Gain from Sale of Timberland	**—**	—	—	—	63.7
Income Before Items Shown Below	**273.5**	250.0	101.9	518.3	823.6
Unusual Items	**(949.9)**	—	—	—	—
Provision (Credit) for Taxes on Income	**(293.0)**	8.0	(36.0)	108.0	264.0
Income (Loss) Before Cumulative Effect on Prior Years of Changes in Accounting Principles	**(383.4)**	242.0	137.9	410.3	559.6
Cumulative Effect on Prior Years of Changes in Accounting Principles	**90.4**	—	—	—	—
Income (Loss)	**$ (293.0)**	$ 242.0	$ 137.9	$ 410.3	$ 559.6
Income (Loss) Per Common Share in Dollars—Primary					
—Before Cumulative Effect on Prior Years of Changes in Accounting Principles	**$ (4.46)**	$ 2.85	$ 1.66	$ 5.03	$ 6.89
—Cumulative Effect on Prior Years of Changes in Accounting Principles	**1.05**	—	—	—	—
—Income (Loss)	**$ (3.41)**	$ 2.85	$ 1.66	$ 5.03	$ 6.89
Dividends Per Common Share (in dollars)	**$ 1.60**	$ 1.60	$ 2.20	$ 2.12	$ 1.87
TAXES					
Provision (Credit) for Taxes on Income	**$ (293.0)**	$ 8.0	$ (36.0)	$ 108.0	$ 264.0
Social Security Taxes	**276.6**	234.6	199.6	180.9	161.9
Property Taxes	**114.0**	112.0	113.6	114.7	100.0
Other State, Local and Miscellaneous Taxes	**123.9**	103.4	82.7	82.4	80.1
Total Taxes	**$ 221.5**	$ 458.0	$ 359.9	$ 486.0	$ 606.0
EMPLOYEE MATTERS					
Wages and Salaries	**$ 3,905.5**	$ 3,472.6	$3,072.8	$2,795.7	$2,582.3
Employee Benefits	**$ 1,153.4***	$ 1,012.6	$ 844.7	$ 782.6	$ 708.0
Average Number of Employees for Year	**171,654**	166,848	165,845	166,645	172,796
Index of Total Corporate Man-Hours—1967=100	**88.3**	85.8	83.3	83.3	84.9
Average Hourly Employment Cost (in dollars)	**$ 15.73**	$ 14.36	$ 12.97	$ 11.97	$ 10.70
Number of Pensioners—Year-End	**89,299**	86,725	84,090	81,311	77,707
Savings Fund Plan:					
Participating Salaried Employees	**30,957**	30,993	31,895	32,380	32,254
Amount Saved by Employees	**$ 37.8**	$ 35.9	$ 37.0	$ 34.3	$ 32.1
% U. S. Steel Common Stock Held in Fund—Year-End	**14.8%**	13.1%	12.5%	12.3%	12.8%
CAPITAL SPENDING & AUTHORIZATIONS					
Plant and Equipment**					
Authorizations	**$ 964.0**	$ 712.8	$ 739.7	$ 852.3	$ 562.4
Spent in Year	**979.0**	667.8	864.7	957.3	787.4
Authorized but Unexpended—Year-End	**1,030.0**	1,045.0	1,000.0	1,125.0	1,230.0
OTHER HIGHLIGHTS—YEAR-END					
Working Capital	**$ 1,045.9**	$ 1,363.8	$1,350.0	$1,169.2	$1,224.7
Total Assets	**$11,029.9**	$10,536.3	$9,914.4	$9,167.9	$8,155.0
Long-Term Debt	**$ 2,307.8**	$ 2,194.5	$2,300.2	$1,959.9	$1,542.5
Stockholders' Ownership	**$ 4,894.6**	$ 5,281.0	$5,141.7	$5,129.0	$4,850.2
Number of Stockholders	**255,340**	258,239	248,986	243,017	258,419

* Excludes employee related costs attributable to shutdown of facilities and occupational disease claims (see Notes 19 and 20 to Financial Statements).

** Data for 1979 not directly comparable with prior years' data due to changes in accounting principles adopted in 1979 (see Note 21 to Financial Statements).

Supplementary Information on Changing Prices (Unaudited)

Financial Accounting Standard No. 33 was established in 1979. It requires two supplemental statements and explanations of certain financial data aimed at portraying the effect of general price level changes. Supplementary information of this type should be viewed with caution as it provides only a partial analysis. It does not reflect all of the relevant factors bearing on economic performance. However, for profitable businesses having plant, equipment or inventory acquired in prior years, statements of this type clearly demonstrate that reported profits, and hence reported taxes, are overstated.

INCOME ADJUSTED FOR CHANGES IN THE CONSUMER PRICE INDEX
For the Year Ended December 31, 1979

	(In Millions)	
	As Reported in Financial Statements	**Adjusted for Changes in Consumer Price Index (Average 1979 Dollars)**
Sales	$12,929.1	$12,929.1
Costs		
Cost of sales	10,705.3	10,812.1
Wear & exhaustion	531.5	859.7
All other	2,075.7	2,075.7
(Loss) before cumulative effect on prior years of changes in accounting principles	$ (383.4)	$ (818.4)
Gain from decline in purchasing power of net amounts owed		$ 283.3

Current year statement—The second column shows cost of sales and wear and exhaustion restated to reflect consumption of inventory and amortization of facilities at original cost adjusted for general inflation (based on the Consumer Price Index for All Urban Consumers). The disclosure rules preclude adjustments to the actual provision for taxes on income.

The gain from decline in purchasing power of net amounts owed indicates that the total liabilities requiring future fixed cash settlement could theoretically be repaid with dollars having a lesser value than at the beginning of the year. This represents a hypothetical and unrealized gain.

FIVE-YEAR COMPARISON OF SELECTED SUPPLEMENTARY FINANCIAL DATA ADJUSTED FOR CHANGES IN THE CONSUMER PRICE INDEX*

	All Dollars in Millions Except Per Share Amounts				
	1979**	1978	1977	1976	1975
Sales	$12,929.1	$12,293.5	$11,510.7	$10,975.7	$11,020.0
Cash dividends declared per common share	$ 1.58	$ 1.77	$ 2.62	$ 2.69	$ 2.52
Market price per common share at year-end	$ 16½	$ 22¾	$ 36¾	$ 62	$ 56¾
Average Consumer Price Index (1967=100)	217.4	195.4	181.5	170.5	161.2

*The comparison restates financial data to average 1979 dollar values based on the Consumer Price Index for All Urban Consumers.

**Items required to be reported only for 1979 include (a) the loss before cumulative effect on prior years of changes in accounting principles $(818.4), and per common share $(9.51), (b) gain from decline in purchasing power of net amounts owed $283.3, and (c) net assets at year-end $10,033.6. The net assets reflect the net worth after general inflation adjustment to revalue inventory and net property, plant and equipment.

Management's Report—
Independent Accountant's Report

Management's Report—

The Corporation believes that the accompanying consolidated financial statements of United States Steel Corporation and Subsidiary Companies have been prepared in conformity with generally accepted accounting principles. They necessarily include some amounts that are based on best judgments and estimates. The financial information displayed in other sections of this Annual Report is consistent with that in the consolidated financial statements.

The Corporation seeks to assure the objectivity and integrity of its financial records by careful selection of its managers, by organizational arrangements that provide an appropriate division of responsibility and by communications programs aimed at assuring that its policies and methods are understood throughout the organization.

The Corporation has a comprehensive formalized system of internal accounting controls designed to provide reasonable assurance that assets are safeguarded and that its financial records are reliable. Appropriate management monitors the system for compliance, and the internal auditors independently measure its effectiveness and recommend possible improvements thereto. In addition, as part of their examination of the consolidated financial statements, the Corporation's independent public accountants, who are elected by the stockholders, review and test the internal accounting controls on a selective basis to establish a basis of reliance thereon in determining the nature, extent and timing of audit tests to be applied.

The Board of Directors pursues its oversight role in the area of financial reporting and internal accounting control through its Audit Committee. This committee, composed solely of non-management directors, regularly meets (jointly and separately) with the independent public accountants, management and internal auditors to monitor the proper discharge by each of its responsibilities relative to internal accounting controls and consolidated financial statements.

B D Smith
Vice President and Comptroller

W B Thomas
Executive Vice President—
Accounting and Finance

Price Waterhouse & Co.

600 GRANT STREET
PITTSBURGH, PENNSYLVANIA 15219
412-355-6000

February 12, 1980

To the Stockholders of
United States Steel Corporation:

We have examined the Consolidated Balance Sheet of United States Steel Corporation and Subsidiary Companies as of December 31, 1979 and December 31, 1978 and the related Statements of Income and Income Reinvested in Business and Statement of Changes in Financial Position for the years then ended. Our examinations of these statements 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.

The method of accounting for own engineering costs, blast furnace linings and interest costs was changed in 1979, as described in Note 21 to the financial statements.

In our opinion, the accompanying financial statements present fairly the financial position of United States Steel Corporation and Subsidiary Companies at December 31, 1979 and December 31, 1978 and the results of operations and changes in financial position for the years then ended in conformity with generally accepted accounting principles consistently applied during the period except for the changes, with which we concur, referred to in the preceding paragraph.

Price Waterhouse & Co.

Summary of Principal Accounting Policies

Principles applied in consolidation—Majority owned subsidiaries are consolidated, except for leasing and finance companies.

Investments—Investments in leasing and finance companies are at U. S. Steel's equity in the net assets plus advances to such companies. Investments in other companies, in which U. S. Steel has significant influence in the management and control, are also accounted for by the equity method. Marketable equity securities are at the lower of cost or market and other investments are at cost.

Inventories—Since 1941, the cost of inventories has been determined primarily under the last-in, first-out (LIFO) method which, in the aggregate, is lower than market.

Income recognition—Sales and related cost of sales are included in income when goods are shipped or services are rendered to the customer, except those related to construction projects which are accounted for on the completed contract method.

Property, plant and equipment—Generally, depreciation is computed on the straight-line method, based on estimated lives (usually the mid-point established under Guideline and Asset Depreciation Range systems). For the most part, depreciation expense is related to rates of operation, within a limited range.

Depletion of the cost of mineral properties is computed on the unit of production method based on estimated mineral reserves of the particular property.

For disposition of a plant or a major facility within a plant, the resultant gain or loss is reflected in income. Proceeds from other sales of facilities depreciated on a group basis are credited to the depreciation reserve. When facilities depreciated on an individual basis are sold, the difference between the selling price and the undepreciated cost is included in income.

Expenditures for renewals and betterments are capitalized. Costs of repairs and maintenance are expensed. The amortization of capital leases is included in Wear and exhaustion of facilities.

Mineral exploration and development—General prospecting costs are charged to expense as incurred. Exploration and development costs of domestic projects (except oil and gas) are expensed as incurred, but when projects are determined to be commercially feasible, these exploration costs are capitalized. Domestic oil and gas and foreign exploration and development costs are capitalized as incurred. If such projects are determined commercially unfeasible, these costs are expensed.

Pensions—Non-contributory pension provisions of the U. S. Steel Plan for Employee Pension Benefits cover substantially all employees and, in addition, participating salaried employees are also covered by the contributory pension provisions.

Pension costs under this plan are determined by an independent actuary based upon an acceptable actuarial method and various actuarial factors which, from time to time, are adjusted in light of actual experience. Pension costs reflect current service and a 25-year amortization of the frozen initial unfunded accrued liability. The funding policy provides that payments to the pension trusts shall be equal to the minimum funding requirements of ERISA plus additional amounts which may be approved from time to time.

Insurance—For the most part, U. S. Steel does not insure for property and casualty losses. Certain risks, including those required to be insured by law or contract and catastrophe casualty exposures, are insured. Costs resulting from non-insured losses are charged against income upon occurrence.

Deferred income taxes—These taxes result from recognizing certain items of income and expense in the consolidated financial statements in different years than they are recognized for income tax purposes.

Investment credit—Investment tax credits are recognized under the flow-through method whereby the provision for income taxes is reduced in the year these tax credits become allowable.

Consolidated Statements of Income and Income Reinvested in Business

	(In millions) 1979	1978
SALES	**$12,929.1**	$11,049.5
OPERATING COSTS		
Cost of sales (excludes items shown below)	**10,705.3**	9,046.4
Selling, general and administrative expenses	**423.5**	372.4
Pensions, insurance and other employee benefits	**769.4**	693.6
Wear and exhaustion of facilities	**531.5**	435.6
State, local and miscellaneous taxes	**237.9**	215.4
	12,667.6	10,763.4
OPERATING INCOME *(Excludes items shown below—Note 23)*	**261.5**	286.1
Interest, dividends and other income *(Note 18)*	**196.0**	155.3
Interest and other financing costs *(Note 18)*	**(184.0)**	(191.4)
INCOME BEFORE UNUSUAL ITEMS, TAXES ON INCOME AND CUMULATIVE EFFECT ON PRIOR YEARS OF CHANGES IN ACCOUNTING PRINCIPLES	**273.5**	250.0
UNUSUAL ITEMS		
Estimated provision for costs attributable to shutdown of facilities *(Note 19)*	**(808.6)**	–
Estimated provision for occupational disease claims *(Note 20)*	**(88.1)**	–
Revaluation of other investments *(Note 3)*	**(53.2)**	–
	(949.9)	–
INCOME (LOSS) BEFORE TAXES ON INCOME AND CUMULATIVE EFFECT ON PRIOR YEARS OF CHANGES IN ACCOUNTING PRINCIPLES	**(676.4)**	250.0
Provision (credit) for estimated United States and foreign income taxes *(Note 16)*		
Current	**(6.3)**	6.7
Deferred	**(286.7)**	1.3
	(293.0)	8.0
INCOME (LOSS) BEFORE CUMULATIVE EFFECT ON PRIOR YEARS OF CHANGES IN ACCOUNTING PRINCIPLES	**(383.4)**	242.0
Cumulative effect on prior years of changes in accounting principles *(Note 21)*	**90.4**	–
INCOME (LOSS)	**$ (293.0)**	$ 242.0
INCOME (LOSS) PER COMMON SHARE (in dollars) *(Note 13)*		
Primary:		
Income (loss) before cumulative effect on prior years of changes in accounting principles	**$ (4.46)**	$ 2.85
Cumulative effect on prior years of changes in accounting principles	**$ 1.05**	$ –
Income (loss)	**$ (3.41)**	$ 2.85
Fully diluted:		
Income (loss) before cumulative effect on prior years of changes in accounting principles	**$ (4.46)**	$ 2.78
Cumulative effect on prior years of changes in accounting principles	**$ .98**	$ –
Income (loss)	**$ (3.41)**	$ 2.78
PRO FORMA AMOUNTS ASSUMING ACCOUNTING CHANGES WERE APPLIED RETROACTIVELY		
Income (loss)	**$ (383.4)**	$ 256.5
Income (loss) per common share (in dollars)		
Primary	**$ (4.46)**	$ 3.02
Fully diluted	**$ (4.46)**	$ 2.94

INCOME REINVESTED IN BUSINESS

	1979	1978
Balance at beginning of year	**$ 3,518.8**	$ 3,412.7
Income (loss)	**(293.0)**	242.0
	3,225.8	3,654.7
Less—Dividends on common stock $1.60 and $1.60 per share	**137.5**	135.9
Balance at end of year	**$ 3,088.3**	$ 3,518.8

Consolidated Balance Sheet

	(In millions) December 31 1979	1978
ASSETS		
Current Assets:		
Cash *(Note 1)*	$ **410.9**	$ 377.6
Marketable securities, at cost (approximates market)	**196.5**	338.4
Receivables, less allowance for doubtful accounts of $13.9 and $15.2	**1,598.8**	1,433.9
Inventories *(Note 2)*	**1,250.5**	1,257.0
Total Current Assets	**3,456.7**	3,406.9
Long-term receivables and other investments, less estimated losses of $6.1 and $32.3 *(Note 3)*	**758.6**	748.1
Property, plant and equipment, less accumulated depreciation of $7,064.9 and $7,208.6 *(Note 4)*	**6,415.9**	5,975.0
Operating parts and supplies	**119.9**	113.8
Costs applicable to future periods	**278.8**	292.5
Total Assets	**$11,029.9**	$10,536.3
LIABILITIES		
Current Liabilities:		
Notes payable *(Note 7)*	$ **195.2**	$ 163.8
Accounts payable	**971.4**	827.7
Payroll and benefits payable	**673.2**	638.0
Accrued taxes *(Note 6)*	**403.4**	339.1
Long-term debt due within one year *(Note 8)*	**44.5**	74.5
Current portion of estimated provision for costs attributable to shutdown of facilities *(Note 19)*	**123.1**	–
Total Current Liabilities	**2,410.8**	2,043.1
Long-term debt, less unamortized discount *(Note 8)*	**2,307.8**	2,194.5
Deferred income taxes	**162.8**	416.8
Deferred credits and other liabilities *(Note 20)*	**236.6**	100.9
Estimated provision for costs attributable to shutdown of facilities *(Note 19)*	**517.3**	–
Redeemable preferred stock of consolidated subsidiary *(Note 9)*	**500.0**	500.0
Total Liabilities	**6,135.3**	5,255.3
OWNERSHIP EVIDENCED BY		
Common stock (par value $1 per share, authorized 150,000,000 shares) outstanding—86,756,062 shares and 85,567,163 shares, stated at $20 per share *(Note 11)*	**1,735.1**	1,711.3
Capital in excess of stated value *(Note 11)*	**71.2**	70.0
Net unrealized loss on marketable equity securities *(Note 3)*	–	(19.1)
Income reinvested in business	**3,088.3**	3,518.8
Total Ownership	**4,894.6**	5,281.0
Total Liabilities and Ownership	**$11,029.9**	$10,536.3

Statement of Changes in Consolidated Financial Position

	(In millions) 1979	1978
ADDITIONS TO WORKING CAPITAL		
Income (loss)	**$ (293.0)**	$ 242.0
Add (deduct)—Wear and exhaustion of facilities	**531.5**	435.6
Deferred taxes on income (includes effect of changes in accounting principles)	**(262.2)**	(27.3)
Unusual items (excludes current portion of $123.1)	**826.8**	–
Cumulative effect on prior years of changes in accounting principles (excludes tax effects)	**(159.4)**	–
Working capital from operations	**643.7**	650.3
Increases in long-term debt due after one year	**239.9**	226.5
Proceeds from sales of common stock	**25.0**	36.8
Proceeds from sales and salvage of plant and equipment	**15.7**	22.6
Issuance of redeemable preferred stock of consolidated subsidiary	**–**	250.0
Decreases in costs applicable to future periods	**13.7**	–
Total additions	**938.0**	1,186.2
DEDUCTIONS FROM WORKING CAPITAL		
Expended for property, plant and equipment	**979.0**	667.8
Dividends paid on common stock	**137.5**	135.9
Decrease in long-term debt due after one year	**126.6**	332.2
Miscellaneous deductions (net)	**12.8**	36.5
Total deductions	**1,255.9**	1,172.4
INCREASE (DECREASE) IN WORKING CAPITAL	**$ (317.9)**	$ 13.8

ANALYSIS OF INCREASE (DECREASE) IN WORKING CAPITAL

	1979	1978
WORKING CAPITAL AT BEGINNING OF YEAR	**$1,363.8**	$1,350.0
Cash and marketable securities	**(108.6)**	17.1
Receivables, less allowance for doubtful accounts	**164.9**	347.3
Inventories	**(6.5)**	2.2
Notes payable	**(31.4)**	4.1
Accounts payable	**(143.7)**	(176.6)
Payroll and benefits payable	**(35.2)**	(79.2)
Accrued taxes	**(64.3)**	(108.7)
Long-term debt due within one year	**30.0**	7.6
Current portion of estimated provision for costs attributable to shutdown of facilities	**(123.1)**	–
INCREASE (DECREASE) IN WORKING CAPITAL	**(317.9)**	13.8
WORKING CAPITAL AT END OF YEAR	**$1,045.9**	$1,363.8

1. CASH—Included in cash are interest-bearing, short-term time deposits of $313.9 million and $312.4 million at December 31, 1979 and December 31, 1978, respectively.

2. INVENTORIES—

	(In millions)	
	December 31	
	1979	1978
Raw materials	**$ 226.5**	$ 169.2
Semi-finished products	**401.8**	511.7
Finished products	**345.8**	337.1
Supplies and sundry items	**244.3**	206.9
Construction contracts in progress	**222.8**	183.5
Less invoices rendered	**(190.7)**	(151.4)
Total	**$1,250.5**	$1,257.0

Under the LIFO method, current acquisition costs are estimated to exceed the inventory value at December 31, 1979 as shown above by approximately $2,100 million.

Included in Cost of sales and Income (Loss) Before Taxes On Income And Cumulative Effect On Prior Years Of Changes In Accounting Principles are estimated credits of $118.7 million in 1979 and $124.5 million in 1978 from LIFO inventory liquidations. Inventory quantity liquidations are a common and frequent occurrence in U. S. Steel and generally result from planned inventory programs to support changes in process technology, customer product specifications and market conditions, and because of the discontinuance of product lines.

The net of construction contracts in progress less invoices rendered includes $40.0 million in 1979 and $43.5 million in 1978 related to contracts for which cumulative costs exceed cumulative invoices rendered and $(7.9) million in 1979 and $(11.4) million in 1978 applicable to contracts for which cumulative invoices rendered exceed cumulative costs.

3. LONG-TERM RECEIVABLES AND OTHER INVESTMENTS—

	(In millions)	
	December 31	
	1979	1978
Receivables due after one year	**$ 88.9**	$104.2
Trusteed funds for environmental improvements	**308.0**	283.8
Other trusteed funds and statutory deposits	**39.7**	38.9
Investments:		
Wholly owned leasing and finance companies—equity method	**48.3**	42.7
Partnership interests	**26.6**	24.5
Other partially owned companies—		
Equity method	**184.1**	184.0
Cost method	**34.9**	37.4
Other	**28.1**	32.6
Total	**$758.6**	$748.1

Income from investments accounted for by the equity method amounted to $31.7 million in 1979 and $15.6 million in 1978 and dividends received in 1979 and 1978 were $4.4 million and $6.3 million, respectively. Geographic areas and industries in which equity companies operate are shown on page 35.

U. S. Steel's investment in an inactive partially owned company accounted for under the equity method was written down to a nominal value in 1979. This resulted in a $19.4 million charge to pre-tax income.

Investments in partially owned companies (cost method) include marketable equity securities of $2.9 million for 1979 and $7.1 million for 1978. Cost exceeded market value by $33.8 million at December 31, 1979 and $27.4 million at December 31, 1978. In 1979 management concluded that the value of the marketable equity security was permanently impaired and charged pre-tax income with the writedown to market value. In 1978 the decline in market value had been considered temporary and the excess of cost over market value was credited to the investment and an unrealized loss, net of deferred tax, was reflected in stockholders' equity.

Guarantees by U. S. Steel of the liabilities of other companies, most of which are accounted for by the equity method, were $330.3 million at December 31, 1979 and $205.7 million at December 31, 1978.

4. PROPERTY, PLANT AND EQUIPMENT—

	(In millions)	
	December 31	
	1979	1978
Land	**$ 302.5**	$ 293.1
Buildings	**1,445.4**	1,451.4
Machinery & equipment	**11,616.9**	11,342.5
Capital leases—machinery & equipment	**116.0**	96.6
Total (at cost)	**13,480.8**	13,183.6
Less accumulated depreciation:		
Buildings	**695.0**	703.6
Machinery & equipment	**6,321.0**	6,469.0
Capital leases—machinery & equipment	**48.9**	36.0
Total	**7,064.9**	7,208.6
Net	**$ 6,415.9**	$ 5,975.0

Depreciable lives are at the midpoint under the IRS Asset Depreciation Range System: primary metals—18 years for additions prior to 1979 and 15 years subsequent thereto; chemicals—11 years for additions prior to 1979 and 9.5 years subsequent thereto; mining—10 years; etc. Building lives average 40 years.

5. CAPITAL AUTHORIZATIONS—At December 31, 1979, the estimated amount required to complete authorized projects for property, plant and equipment was $1,030 million. Refer to Note 17 for information regarding contingencies related to environmental and safety laws.

6. ACCRUED TAXES—Details of accrued taxes at December 31, were as follows:

	(In millions) 1979	1978
Income taxes—Current	**$287.8**	$243.4
—Deferred	**(42.3)**	(47.5)
Other taxes	**157.9**	143.2
Total	**$403.4**	$339.1

7. NOTES PAYABLE—Notes payable at December 31, 1979 includes $38.8 million payable to an unconsolidated subsidiary at 16.25% interest. All other notes were payable to banks (principally demand basis) and had average interest rates at year-end of 12.2% for 1979 and 10.2% for 1978.

	($ millions) 1979	1978
Maximum aggregate amount at any month-end	**$195.2**	$167.4
Weighted daily average:		
Borrowing	**$175.0**	$164.0
Interest rate*	**11.1%**	8.0%

*Computed by relating interest expense to average daily borrowing.

8. LONG-TERM DEBT—A summary of long-term debt, except for leasing and finance companies, outstanding at December 31, is as follows:

	Interest Rates	Years of Maturity	(In millions) 1979	1978
United States Steel Corporation				
Sinking Fund Debentures (callable)	4	1983	**$ 52.2**	$ 54.9
Sinking Fund Debentures (callable)	4½	1986	**59.3**	74.0
Sinking Fund Debentures (callable)	7¾	2001	**124.5**	130.5
Subordinated Debentures (callable) (sinking fund began 1976)	4⅝	1996	**403.4**	437.6
Convertible Subordinated Debentures (callable) (a)	5¾	2001	**360.7**	384.9
Obligations relating to Industrial Development and Environmental Improvement Bonds and Notes	$4^1/_5$-$8^1/_{10}$	1980-2009	**742.4**	602.3
Notes payable to others (b)	7⅜-9	1980-1995	**256.4**	262.0
Mortgages, purchase money obligations and contracts	3½-10¼	1980-2002	**8.3**	21.7
Capital lease obligations		1980-2007	**42.4**	46.4
Consolidated subsidiaries				
Obligations relating to Industrial Development Bonds	5½-$11^1/_{10}$	1981-1989	**65.4**	67.4
Railroads First Mortgage Bonds (callable)	2⅞-3	1980-1996	**3.9**	7.2
Notes payable to banks	3-$16^3/_{10}$	1980-1989	**122.4**	135.2
Notes payable to others	5½-9½	1980-1994	**59.6**	—
Mortgages, purchase money obligations and contracts	5¾-15½	1980-2002	**32.9**	39.7
Capital lease obligations		1980-1989	**30.9**	19.2
Total (c)			**2,364.7**	2,283.0
Less unamortized discount (d)			**12.4**	14.0
			2,352.3	2,269.0
Less amount due within one year			**44.5**	74.5
Long-term debt due after one year			**$2,307.8**	$2,194.5

U. S. Steel has no immediate plans of utilizing $265 million of existing bank lines of credit.

(a) Convertible into common stock at $62.75 per share. Sinking fund begins 1987. The Corporation repurchased $24.2 million in 1979 and $15.1 million in 1978.

(b) Includes $100 million 8¼% note which matures 1986-1995 and a $150 million 7⅜% note which matures 1985-1987, both of which were privately placed in 1977 with financial institutions.

(c) Required payments of long-term debt for the years 1981-1984 are $47.0 million, $63.6 million, $122.8 million, and $73.5 million.

(d) Unamortized discount (principally on 4⅝% Subordinated Debentures) is being amortized over the lives of the related debt.

9. REDEEMABLE PREFERRED STOCK OF CONSOLIDATED SUBSIDIARY—Quebec Cartier Mining Company (QCM) has outstanding, 5,000,000 shares of U. S. $100 par, non-voting, floating rate, cumulative, redeemable preferred stock. Two and one-half million of these shares were issued in 1977 and a like amount in 1978. This financing allowed QCM to replace substantial amounts of its existing long-term debt at a lower carrying cost and also to provide financing for current expenditures.

Shares may be tendered by the holders at specified series installment dates from 1982 through 1985 and are redeemable at any time by QCM. U. S. Steel has agreed that upon the happening of certain stated events, it will, upon tender by any holder, purchase such shares at par plus 200% of accrued and unpaid dividends.

Quarterly dividends, charged to Interest and other financing costs, were paid based on annual floating rates ranging from 5.90% to 7.04% in 1979 and 4.71% to 5.52% in 1978.

10. NON-REDEEMABLE PREFERRED STOCK—U. S. Steel is authorized to issue 20,000,000 shares of non-redeemable preferred stock, without par value. At December 31, 1979, none of this stock had been issued.

11. COMMON STOCK—At December 31, 1979, the status of authorized shares of common stock reserved for specific purposes was as follows:

	Shares Reserved	Shares Issued To Date
Conversion of convertible subordinated debentures	6,374,502	–
Dividend reinvestment plan	6,000,000	3,380,892
Savings fund plan	4,000,000	2,120,977
1976 stock option incentive plan	3,000,000	–
Total	19,374,502	5,501,869

Shares issued at market prices under the Corporation's Dividend Reinvestment Plan were 1,188,899 in 1979 and 851,262 in 1978. In 1978 the Savings Fund Plan purchased 546,502 reserved shares. However, commencing in May 1978, the Savings Fund Plan began purchasing shares on the open market. As a result of the above issuances, capital in excess of stated value increased by $1.2 million in 1979 and $8.9 million in 1978.

12. STOCK OPTION INCENTIVE PLAN—The 1976 Stock Option Incentive Plan was approved by stockholders on May 3, 1976. Under this plan, the Compensation Committee of the Board of Directors may grant to key management employees options to purchase, in the aggregate up to 3,000,000 shares, unissued or reacquired common stock at not less than 100% of market value at date of grant. Options are exercisable after one year, but not to exceed ten years, from date of grant. The Compensation Committee may authorize the surrender of the right to exercise an option or portion thereof in exchange for an amount of stock and/or cash equal to the excess of the fair market value at the time of surrender over the aggregate option price of such shares. Unoptioned shares available at December 31, 1979 were 838,600 and at December 31, 1978 were 1,352,600. No options have been exercised or surrendered through 1979. Transactions during 1979 and 1978 were as follows:

	Number Shares	Option Price Per Share	Value at Date of Grant (In millions)
Shares under option 12/31/77	1,113,000	$38.8125-53.50	$51.3
Granted 5/30/78	543,900	28.875	15.7
Canceled in 1978	(9,500)	28.875-53.50	(.4)
Shares under option 12/31/78	1,647,400	28.875-53.50	66.6
Granted 5/29/79	563,000	22.3125	12.6
Canceled in 1979	(49,000)	22.3125-53.50	(1.8)
Shares under option 12/31/79	2,161,400	22.3125-53.50	$77.4

The market price per share at date options became exercisable was $21⅞ for 539,400 shares exercisable in 1979 and $26⅝ for 559,000 shares exercisable in 1978.

13. INCOME PER COMMON SHARE—Primary income per common share is based on the weighted average number of common shares outstanding which was 86,030,306 in 1979 and 84,961,076 in 1978.

Fully diluted income per share assumes full conversion of the 5¾% convertible subordinated debentures outstanding. In 1979, the conversion of these convertible debentures was excluded from computation of fully diluted income per share because of anti-dilutive effects. In 1978, the income for computation of primary income per share was adjusted by $11.6 million for assumed reduction of interest and other related costs of these debentures. The weighted average number of shares used to compute fully diluted income per share was 91,095,738.

14. PENSION COSTS—The provision for costs of pension plans administered by United States Steel and Carnegie Pension Fund was $353.5 million in 1979 and $331.7 million in 1978. The 1979 cost excludes pension costs attributable to shutdown of facilities. The increase in costs resulted principally from higher payrolls coupled with an increase in non-contributory pension benefits negotiated in 1977.

In addition, for certain other employees, U. S. Steel made provision of approximately $36 million in 1979 and $32 million in 1978 for multi-employer retirement benefit plans and other pension plans qualified under the laws of the countries involved.

Pension trust assets for the U. S. Steel Plan are valued for actuarial purposes on a 5-year moving average of quarterly market values for quoted securities and at estimated current value for other assets. The actuarially computed value of (a) vested benefits as estimated at December 31, 1979 exceeded the average value of trust assets by approximately $1.0 billion and (b) the unfunded accrued liability was approximately $1.3 billion at December 31, 1979.

15. LEASE COMMITMENTS—At December 31, 1979, U. S. Steel's future total minimum lease payments and the present value of net minimum capital lease payments were:

	(In millions)	
	Capital Leases	Operating Leases
1980	$ 20.3	$ 59.5
1981	16.9	48.0
1982	14.0	38.6
1983	14.1	31.3
1984	12.0	32.3
Later years	58.7	178.2
Sublease rentals (decrease)	—	(3.6)
Total minimum lease payments	136.0	$384.3
Less: Estimated executory costs	26.1	
Net minimum lease payments	109.9	
Less: Imputed interest costs	36.6	
Present value of net minimum lease payments included in long-term debt	$ 73.3	

As to operating leases, approximately 74% of such rentals involve vessel charters, 15% railway equipment leases and the balance covers a variety of facilities and equipment. Most long-term vessel charters and railway equipment leases include purchase options.

Total rental expense for operating leases amounted to $88.4 million in 1979 and $91.0 million in 1978 including reduction of sublease rentals of $1.3 million in 1979 and $1.0 million in 1978. The non-cancelable lease portion amounted to $56.7 million in 1979 and $62.1 million in 1978 of which $52.3 million and $57.8 million, respectively, represented minimum rentals.

16. TAX PROVISION—The provision (credit) for estimated United States and foreign taxes on income was:

	(In millions)	
	1979	1978
Currently payable (refundable):		
U. S. Federal		
Current year	**$ .2**	$ 20.8
Operating loss carryback effects	**(26.7)**	(34.9)
Adjustment of prior years	**(4.1)**	(1.9)
	(30.6)	(16.0)
U. S. State and Local	**9.9**	8.0
Foreign	**14.4**	14.7
Total	**(6.3)**	6.7
Deferred:		
U. S. Federal	**(294.5)**	(1.3)
U. S. State and Local	**1.2**	2.0
Foreign	**6.6**	.6
Total	**(286.7)**	1.3
Total provision (credit)	**$(293.0)**	$ 8.0

The components of the deferred tax provision (credit) resulting from timing differences were:

	(In millions)	
	1979	1978
Depreciation	**$ 130.5**	$ 107.3
Investment credit	**(10.6)**	(119.9)
Interest costs	**.2**	24.7
Unremitted earnings of foreign consolidated subsidiaries	**15.7**	2.3
Intercompany profit in inventory	**2.1**	3.9
Estimated provision for shutdown of facilities	**(354.1)**	—
Estimated provision for occupational disease claims	**(49.3)**	—
Revaluation of other investments	**(14.2)**	—
Reduction of deferred taxes resulting from operating loss	**(20.0)**	—
Adjustment of prior years	**2.4**	(24.5)
Other	**10.6**	7.5
Total deferred tax provision (credit)	**$(286.7)**	$ 1.3

The primary reasons that the provision (credit) for income taxes differs from the amount computed by applying the basic Federal income tax (FIT) rates to Income (Loss) Before Taxes On Income And Cumulative Effect On Prior Years Of Changes In Accounting Principles are as follows:

	(In millions)	
	1979	1978
U. S. statutory rate (1979—46%; 1978—48%) applied to income (loss) before tax	**$(311.1)**	$120.0
Investment credit	**—**	(81.2)
Excess wear and exhaustion	**(44.3)**	(26.3)
Unremitted earnings of certain foreign subsidiaries	**4.3**	9.8
Minimum income tax	**1.0**	12.1
Foreign income taxes	**5.8**	5.6
State and local income taxes after FIT benefit	**6.0**	5.6
Adjustment of prior years	**(1.7)**	(26.4)
Operating loss limitation	**45.6**	—
Other	**1.4**	(11.2)
Total provision (credit)	**$(293.0)**	$ 8.0

As a result of an operating loss, $3.0 million of investment credit recognized in previous years was reversed in 1979 and in addition, $66.4 million of current year investment credit was unused in determining the tax provision for 1979. The unused investment credits expire in 1985 and 1986, respectively.

The 1979 tax provision includes a $46.8 million deferred tax credit offset to the tax effect on prior years changes in accounting principles as a result of the 1979 loss carryback.

At December 31, 1979, for financial reporting purposes, U. S. Steel had an unused operating loss carryforward of $113 million and for tax reporting purposes, there was an unused 1979 net operating loss carryforward of $142 million which expires in 1986.

The U. S. income tax liabilities for all tax years prior to 1964 have been paid except for an additional $15.6 million assessment applicable to 1957-1960 involving an issue which has been appealed to the U. S. Court of Appeals for the Second Circuit. The government has also filed an appeal for those years, which would increase the assessment to $18.5 million. A suit for refund of $20.0 million in taxes and interest has been filed with the U. S. Court of Claims for the years 1962-1963 on an issue on which the Corporation expects a favorable decision. The tax years 1964-1975 are in various stages of audit or administrative review. The Corporation believes it has made adequate provision for income taxes and any interest which may become payable on account of those years not yet settled.

U. S. income taxes have not been provided on unremitted earnings of a foreign subsidiary, as these earnings are considered to be permanently invested by the subsidiary. On a consolidated basis, the earnings totaled $93.4 million through 1979.

17. CONTINGENCIES—Many uncertainties exist concerning the capital requirements of and operating costs associated with the implementation of environmental and safety laws. These government-imposed requirements stem from various legislative enactments including the Federal Water Pollution Control Act, the Federal Clean Air Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, the Occupational Safety and Health Act, the Coal Mine Health & Safety Act, and the Surface Mining Control and Reclamation Act. In some instances, regulations have not been issued, performance standards have not been established, and equipment requirements have not been defined. In other areas, administrative or judicial proceedings are pending to clarify or establish the extent and type of facilities or facility modifications required for compliance.

Predictions beyond 1980 can only be broad-based estimates by the Corporation, in many cases without any detailed engineering or other documentary support. Such estimates indicate requirement for expenditures for bringing into compliance with the above mentioned legislative requirements those existing facilities which are currently expected to be economically operational ranging from $1,370 million to $1,920 million through 1984 (in 1979 dollars, and includes capitalization of own engineering and interest costs). These estimates assume (a) only minor changes in operating procedures, (b) no process changes and (c) compliance by all Corporation facilities with such environmental and safety laws and regulations, as presently enforced. The economics of the required investment may dictate that certain facilities be abandoned instead of modified to comply with the requirements. The substantial sums required for these non-income generating expenditures will restrict the ability of the Corporation to continue to modernize and expand its facilities. To preclude a negative impact upon the Corporation's earnings in future years, unless there is a substantial increase in productivity, the costs associated with compliance with all these regulations will have to be recovered through cost-covering price increases, market conditions permitting.

The outcome of pending and potential administrative and judicial proceedings, as well as future legislative and regulatory changes, will be significant factors in determining the specific amount of expenditures required for this purpose and the periods of time for achieving legislatively established goals. Federal laws and regulations provide for the assessment of substantial civil penalties for noncompliance with environmental requirements under specified circumstances. It is not possible at this time to estimate the specific amount of such penalties that might be assessed against U. S. Steel or the outcome of any pending or future proceeding in which penalties are sought. However, it is not anticipated that the outcome of such proceedings should result in a material adverse effect upon the consolidated net worth of U. S. Steel.

18. OTHER ITEMS—*Operating costs:* Maintenance and repairs of plant and equipment totaled $1,672.8 million in 1979 and $1,417.8 million in 1978.

Research and development costs totaled $56.6 million in 1979 and $52.5 million in 1978.

Interest, dividends and other income: Gains resulting from the repurchase of debt securities, primarily to satisfy sinking fund requirements, amounted to $23.2

million in 1979 and $35.6 million in 1978. In 1978, a profit of $11.7 million was realized from the sale of U. S. Steel's investment in FLO-CON Systems.

Interest and other financing costs: Expenses included in this account were as follows:

	(In millions)	
	1979	1978
Interest on debt—incurred	**$173.3**	$157.5
Less interest capitalized (Note 21)	**21.7**	—
Net interest expense	**151.6**	157.5
Redeemable preferred stock dividend of QCM (Note 9)	**32.8**	22.1
Foreign exchange losses (gains) related to debt	**(1.3)**	9.1
Other	**.9**	2.7
Total	**$184.0**	$191.4

Other: The aggregate foreign exchange loss (gain) included in income was $(5.5) million in 1979 and $16.1 million in 1978.

In June 1979, U. S. Steel purchased all the common stock of Novamont Corporation, a member of the Montedison Group, for $72.8 million. The newly acquired subsidiary is included in the Chemicals segment as USS Novamont, Inc.

19. ESTIMATED PROVISION FOR COSTS ATTRIBUTABLE TO SHUTDOWN OF FACILITIES—During the fourth quarter 1979, U. S. Steel announced the permanent shutdown of several steel and nonsteel plants and manufacturing facilities which will be disposed of in accordance with a formal approved plan. These shutdowns resulted in a charge against pre-tax income in 1979 of $808.6 million, a minor portion of which was paid out in 1979. A significant portion represents long-term liabilities for employee related costs to be paid out in later years. Most of the related tax benefits should be realized in the future.

These shutdown costs were estimated as follows:

	(In millions)
Employee related costs (includes pensions, insurance, severance, unemployment benefits, etc.)	$413.3
Writedown of facilities to estimated recoverable value	218.7
Estimated operating results during shutdown period	176.6
Total	$808.6

20. ESTIMATED PROVISION FOR OCCUPATIONAL DISEASE CLAIMS—Amendments, effective in 1978, to the Federal Coal Mine Health and Safety Act of 1969, together with administrative actions, have resulted in a dramatic increase during 1979 in claims for alleged pneumoconiosis (Black Lung) from former employees. An estimated accrual of $88.1 million was provided in 1979 for potential awards. Commencing in 1979, a provision for future claims is being accrued over the remaining service life of present employees and is reflected in *Pensions, insurance and other employee benefits.*

21. CHANGES IN ACCOUNTING PRINCIPLES—Prior to 1979, U. S. Steel's own engineering costs associated with capital projects were charged to cost in the year incurred. In 1979, to better reflect its total investment in facilities and to achieve a better matching of expense with revenue, the Corporation began capitalizing these engineering costs and depreciating them as part of the asset acquired. This treatment parallels the accounting for outside engineering services for capital projects.

Blast furnace linings, which are normally replaced on a six-year cycle, had been charged to operations at the time of relining. Furthermore, advancing technology and increases in size of furnaces could result in longer lining lives and greater reline costs. Therefore, to better reflect its investment in facilities and to achieve a better matching of expense with revenue, in 1979 the Corporation capitalized these reline costs and is amortizing them over the estimated life of the linings.

These changes are considered by management and concurred in by its independent accountants to be preferred accounting practices. The prior years' cumulative effect increased income by $90.4 million net of $69.0 million related income taxes. Approximately 71% of this effect resulted from capitalization of own engineering costs and 29% from capitalization of blast furnace lining costs. The current year effect of these two changes was to increase 1979 pre-tax income by $21.0 million.

U. S. Steel adopted in 1979 Financial Accounting Standard No. 34, Capitalization of Interest Cost. This standard requires capitalization of an interest cost as part of the historical cost of qualifying assets that require a period of time to get them ready for their intended use. The standard specifies prospective application and therefore there is no cumulative effect on prior years. See Note 18 for current year effect.

22. QUARTERLY FINANCIAL DATA (Unaudited)—

	1979				1978			
(In millions except per share data)	**4th Qtr.(a)**	**3rd Qtr.(a)**	**2nd Qtr.(a)**	**1st Qtr.(a)**	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.
Sales	**$3,031.9**	**$3,225.0**	**$3,606.5**	**$3,065.7**	$2,955.4	$2,788.0	$2,878.2	$2,427.9
Cost of sales	**2,642.9**	**2,652.1**	**2,881.3**	**2,529.0**	2,379.7	2,265.9	2,284.0	2,116.8
Provision (credit) for income taxes	**(369.0)**	**—**	**57.0**	**19.0**	29.0	(9.0)	21.0	(33.0)
Income (loss)(e)	**(668.9)(b)**	**88.2**	**150.4**	**137.3(d)**	94.6	88.8	117.3	(58.7)
Per share data:								
Primary income(e)	**$ (7.74)**	**$ 1.02**	**$ 1.75**	**$ 1.60(d)**	$ 1.11	$ 1.04	$ 1.38	$ (.70)
Fully diluted income(e)	**(7.74)(f)**	**.99**	**1.67**	**1.53(d)**	1.07	1.00	1.32	(.70)(f)
Dividends paid	**.40**	**.40**	**.40**	**.40**	.40	.40	.40	.40
Price range of common stock(c)								
—Low	**16¾**	**21¼**	**21⅜**	**21½**	21⅛	25	24⅞	25
—High	**24½**	**24⅜**	**24¾**	**26⅛**	28⅜	30¼	30⅝	32⅞

(a) Restated for changes in accounting principles (Note 21). Prior years effect of $90.4 million is included in 1st quarter 1979.

(b) Includes $(949.9) million for unusual items (Notes 3, 19 and 20).

(c) Composite tape.

(d) Data on changes in accounting principles—first quarter 1979:

		Income Per Share	
	Amount	Primary	Fully Diluted
Income before cumulative effect on prior years of changes in accounting principles	$ 46.9	$ .55	$ .54
Cumulative effect on prior years of changes in accounting principles	90.4	$1.05	$ .99
Income	$137.3	$1.60	$1.53

(e) Comparative data on changes in accounting principles:

	1979				1978			
	4th Qtr.	**3rd Qtr.**	**2nd Qtr.**	**1st Qtr.**	4th Qtr.	3rd Qtr.	2nd Qtr.	1st Qtr.
Data as previously reported:								
Income (loss)	**$(561.7)**	**$81.3**	**$145.4**	**$42.0**	$94.6	$88.8	$117.3	$(58.7)
Income (loss) per common share—								
primary	**(6.50)**	**.94**	**1.69**	**.49**	1.11	1.04	1.38	(.70)
fully diluted	**(6.50)(f)**	**.91**	**1.61**	**.49(f)**	1.07	1.00	1.32	(.70)(f)
Pro forma amounts assuming accounting changes were applied retroactively:								
Income (loss)	**$(668.9)**	**$88.2**	**$150.4**	**$46.9**	$98.6	$91.8	$121.1	$(55.0)
Income (loss) per common share—								
primary	**(7.74)**	**1.02**	**1.75**	**.55**	1.15	1.08	1.43	(.65)
fully diluted	**(7.74)(f)**	**.99**	**1.67**	**.54**	1.11	1.04	1.36	(.65)(f)

(f) Conversion of convertible debentures excluded from fully diluted computation because of anti-dilutive effects.

23. INDUSTRY SEGMENT & GEOGRAPHIC AREA INFORMATION (In millions)

By Industry Segment: (1976 and 1975 Unaudited)

	Sales			Operating Income (Loss)(2)	Identifiable Assets	Wear and Exhaustion	Capital Expenditures
	Unaffiliated Customers	Between Segments	Total				
Steel Manufacturing:(1)							
1979	**$ 9,022.5**	**$ 731.1**	**$ 9,753.6**	**$(102.5)(3)**	**$ 5,890.2**	**$375.2**	**$524.3**
1978	8,135.6	684.5	8,820.1	25.5	5,736.7	316.7	395.2
1977	7,021.7	553.8	7,575.5	(59.9)	5,514.8	265.7	599.0
1976	6,313.4	522.1	6,835.5	145.0	5,121.0	228.2	659.0
1975	5,815.6	607.2	6,422.8	272.5	—	—	—
Chemicals:							
1979	**$ 1,207.1**	**$ 48.5**	**$ 1,255.6**	**$ 57.9**	**$ 794.3**	**$ 44.2**	**$280.5**
1978	763.1	44.7	807.8	21.0	457.3	23.6	100.0
1977	664.5	35.4	699.9	32.7	353.6	17.5	67.5
1976	609.3	38.8	648.1	62.4	270.8	16.1	49.9
1975	621.6	34.1	655.7	124.8	—	—	—
Resource Development:							
1979	**$ 433.3**	**$ 143.0**	**$ 576.3**	**$ 55.4**	**$ 1,066.9**	**$ 48.8**	**$ 78.7**
1978	271.1	124.9	396.0	25.1	1,085.7	41.3	54.1
1977	242.1	143.4	385.5	26.3	1,057.8	38.0	65.0
1976	198.9	160.2	359.1	68.5	1,063.6	23.8	143.7
1975	247.1	106.2	353.3	69.3	—	—	—
Fabricating & Engineering and Other:(1)							
1979	**$ 2,040.7**	**$ 292.1**	**$ 2,332.8**	**$ 90.7**	**$ 1,105.9**	**$ 38.3**	**$ 53.5**
1978	1,705.9	264.6	1,970.5	88.1	1,029.2	35.2	33.8
1977	1,545.7	272.3	1,818.0	95.4	870.8	34.8	39.3
1976	1,357.7	307.6	1,665.3	163.9	845.5	24.2	48.6
1975	1,367.1	222.1	1,589.2	192.9	—	—	—
Domestic Transportation & Utility Subsidiaries:							
1979	**$ 225.5**	**$ 437.6**	**$ 663.1**	**$ 152.2**	**$ 743.6**	**$ 25.8**	**$ 42.0**
1978	173.8	374.7	548.5	119.9	713.1	19.5	84.7
1977	135.9	310.4	446.3	71.3	630.2	16.4	93.9
1976	128.5	317.6	446.1	81.3	562.8	15.0	56.1
1975	119.9	259.5	379.4	55.7	—	—	—
Corporate Assets, Adjustments & Eliminations:(1)							
1979	**$ —**	**$(1,652.3)**	**$(1,652.3)**	**$ 7.8**	**$ 1,429.0**	**$ (.8)**	**$ —**
1978	—	(1,493.4)	(1,493.4)	6.5	1,514.3	(.7)	—
1977	—	(1,315.3)	(1,315.3)	9.7	1,487.2	(.4)	—
1976	—	(1,346.3)	(1,346.3)	3.4	1,304.2	1.3	—
1975	—	(1,229.1)	(1,229.1)	(11.0)	—	—	—
Total Consolidated:							
1979	**$12,929.1**	**$ —**	**$12,929.1**	**$ 261.5(3)**	**$11,029.9**	**$531.5**	**$979.0**
1978	11,049.5	—	11,049.5	286.1	10,536.3	435.6	667.8
1977	9,609.9	—	9,609.9	175.5	9,914.4	372.0	864.7
1976	8,607.8	—	8,607.8	524.5	9,167.9	308.6	957.3
1975	8,171.3	—	8,171.3	704.2	8,155.0	297.2	787.4

(1) Years 1978-1975 restated to reflect transfer of steel service center operations from Steel Manufacturing segment to Fabricating & Engineering and Other.

(2) For exclusions see "General."

(3) The current year effects of accounting changes (Note 21) included in Steel Manufacturing Operating Income (Loss) was $20.4 million. The effects on other segments were immaterial.

23. INDUSTRY SEGMENT & GEOGRAPHIC AREA INFORMATION (In millions) (continued)

By Geographic Areas: (1976 Unaudited)

	Sales			Operating Income (Loss)	Identifiable Assets
	To Unaffiliated Customers	Transfers Between Geographic Areas	Total		
United States (Domestic):					
1979	**$12,335.6**	**$ 20.3**	**$12,355.9**	**$169.2**	**$ 8,433.7**
1978	10,642.6	15.6	10,658.2	239.0	7,943.9
1977	9,205.5	13.1	9,218.6	105.7	7,404.1
1976	8,369.0	7.7	8,376.7	428.8	6,835.9
North America (Excl. U.S.):					
1979	**$ 417.6**	**$ 135.9**	**$ 553.5**	**$ 82.7**	**$ 984.2**
1978	259.5	122.6	382.1	40.8	947.5
1977	254.2	145.0	399.2	56.6	909.8
1976	225.8	176.2	402.0	88.9	1,009.7
Other Foreign:					
1979	**$ 175.9**	**$ 6.6**	**$ 182.5**	**$ 1.8**	**$ 138.3**
1978	147.4	5.5	152.9	(.2)	130.6
1977	150.2	3.6	153.8	3.5	113.3
1976	13.0	—	13.0	3.4	18.1
Corporate Assets, Adjustments & Eliminations:					
1979	**$ —**	**$(162.8)**	**$ (162.8)**	**$ 7.8**	**$ 1,473.7**
1978	—	(143.7)	(143.7)	6.5	1,514.3
1977	—	(161.7)	(161.7)	9.7	1,487.2
1976	—	(183.9)	(183.9)	3.4	1,304.2
Total Consolidated:					
1979	**$12,929.1**	**$ —**	**$12,929.1**	**$261.5**	**$11,029.9**
1978	11,049.5	—	11,049.5	286.1	10,536.3
1977	9,609.9	—	9,609.9	175.5	9,914.4
1976	8,607.8	—	8,607.8	524.5	9,167.9

GENERAL—Intersegment sales and transfers, for the most part, are accounted for at commercial prices. Steel Manufacturing transfers of coal chemical by-products to the Chemicals segment reflect the current value of the raw by-product material as a replacement for purchased fuels plus the costs incurred to convert the raw material to the transferred product.

Operating income for 1979 does not include those costs included in Unusual Items, which by nature are ordinarily considered operating expenses. These costs are:

	(In millions)
Employee related costs included in provision for shutdown of facilities (Steel Mfg. $339.4, Other $73.9)	$413.3
Other costs included in provision for shutdown of facilities (Steel Mfg. $352.5, Other $63.9)	416.4
Estimated provision for occupational disease claims (Steel Mfg.)	88.1
Total	$917.8

In addition, operating income does not include revaluation of investments; profit or loss from the sale of investments and property, plant and equipment; equity

23. INDUSTRY SEGMENT & GEOGRAPHIC AREA INFORMATION (continued)

in the income of unconsolidated investees; dividend and interest income on marketable securities and other outside investments; interest and other financing costs; and income taxes and other items considered to be general corporate income or expense. Selling, general and administrative expenses have been allocated to segments.

Corporate Assets consist largely of cash, notes receivable, marketable securities and other investments.

Export sales from domestic operations were not material. U. S. Steel has no single customer from which it derives 10 percent or more of its revenue.

STEEL MANUFACTURING—Includes domestic iron ore, coal and limestone operations integrated with steel plants which produce and sell a wide range of steel mill products. Also included are the Great Lakes transportation operations, principally involving the movement of ore and limestone to steel plants, and sales of steel mill products by export distributors. Some of the steel mill products are sold to other industry segments of U. S. Steel for further processing and fabrication.

CHEMICALS—Includes the production and marketing of various industrial and coal chemicals, petrochemicals, polyolefin & styrenic plastics and agricultural chemicals.

RESOURCE DEVELOPMENT—Includes the operation of both domestic and foreign businesses, either wholly or majority owned. These involve certain iron ore, coal, uranium and other mineral properties; the development of commercial outlets for currently owned mineral resources considered as excess to U. S. Steel's requirements, either by outright sale or development; the activities of the ocean transportation companies; and the search for and development of new mineral and energy reserves.

FABRICATING & ENGINEERING AND OTHER—Includes the fabrication and erection of structural steel for buildings, bridges, storage tanks and other structures; the fabrication of barges, ship sections, transmission towers, large diameter pipe and a variety of standard fabricated steel products; sales of steel mill products by a network of domestic steel service centers; the manufacture and marketing of gas and oil field drilling and pumping equipment, electrical cable and products for residential housing; the production of cement; and technology licensing, engineering and consulting services. Also includes real estate and miscellaneous operations.

DOMESTIC TRANSPORTATION & UTILITY SUBSIDIARIES—Includes common carrier railroads, domestic barge lines, gas utility companies and a dock company. These subsidiaries, operating autonomously, serve the general public including U. S. Steel and charge for their services on the basis of rates filed with and approved by regulatory agencies as applicable or by contract rates.

24. SEC REPLACEMENT COST REQUIREMENTS (Unaudited)—Inflation continues to increase both production costs and capital spending requirements. Depreciation allowances based on the historical costs of existing facilities are inadequate to support the increasing capital requirements for replacements, modernization, and environmental control facilities at the higher current costs of the new facilities. These added costs which at present can only be recovered through depreciation over many future years, are in effect currently taxed as if they were profits. The result is the taxing away of much of the capital needed to meet the steadily rising costs of inflation. U. S. Steel's annual report on Form 10-K filed with the Securities and Exchange Commission contains quantitative replacement cost information in accordance with SEC Accounting Series Release 190. After three years of disclosure, the conceptual shortcomings of this approach have been acknowledged by the SEC. Accordingly, this requirement is terminated commencing with 1980 reporting when the Supplementary Information on Changing Prices must include the required data on a current cost basis as well as the constant dollar basis required (reported on page 19) for 1979.

Facility Projects

Major Projects Initially Operated in 1979

STEEL MANUFACTURING

Rehabilitation of Two Coke Batteries—Clairton, Pa.
Rehabilitation of Three Coke Batteries—Provo, Utah (Geneva Works)
Rehabilitation of Coke Battery—Fairfield, Ala.
Water Quality Control Facilities—Gary, Ind.; Rankin, Pa.; and Lorain, Ohio
Rehabilitation of Coke Battery—Lorain, Ohio
Coal Mine—0.5 Million Net Tons Per Year—Wyoming County, W. Va.
One 1,000-Foot Vessel (EDWIN H. GOTT)—Great Lakes Fleet

CHEMICALS

Phenol Expansion—Haverhill, Ohio
Unsaturated Polyester Resin Facilities—Neville Island, Pa.
Nitrogen Derivative Facilities—Crystal City, Mo. and Cherokee, Ala.
ABS Resin and Latex Products Facilities (Acquisition)—Baton Rouge, La. and Dalton, Ga.
Olefin Cracker and Styrene Monomer Facilities (Acquisition)—Houston, Texas
Polypropylene Resin and Acrylic Sheet Facilities (Acquisition)—La Porte, Texas; Neal, W. Va.; and Florence, Ky.

RESOURCE DEVELOPMENT

Uranium Production Facilities Expansion—Live Oak County, Texas
Two Ocean Vessels—Navios Corporation

FABRICATING & ENGINEERING AND OTHER

Vinyl Siding Manufacturing Facilities—Akron, Ohio

Major Projects Expected to be Initially Operated in 1980

STEEL MANUFACTURING

High Strength Steel Quench and Temper Line—McKeesport, Pa. (National Works)
Cold Rolled Sheet Facility Improvements—Gary, Ind.
Bloom Conditioning Facilities—Gary, Ind.
Seamless Mill Rotary Hearth Furnace—Gary, Ind.
Rehabilitation of Two Coke Batteries—Gary, Ind.
Air Quality Control Facilities for Sinter Plant—Gary, Ind.
138 K.V. Electrical Power System—Clairton, Pa.
Coal Preparation and Handling Facilities—Clairton, Pa.
Replace Two Coke Batteries—Clairton, Pa.
Water Quality Control Facilities—Dravosburg, Pa.; Duquesne, Pa.; Homestead, Pa.; and Fairless Hills, Pa.
One 1,000-Foot Vessel—Great Lakes Fleet

RESOURCE DEVELOPMENT

Iron Ore Loading Wharf Extension—Quebec Cartier Mining Company—Canada

FABRICATING & ENGINEERING AND OTHER

Sucker Rod Production Facilities Expansion—Oil City, Pa.

ALL PROJECTS INCORPORATE MODERN ENVIRONMENTAL CONTROL EQUIPMENT IN ADDITION TO THOSE SPECIFICALLY IDENTIFIED AS ENVIRONMENTAL CONTROL PROJECTS

U.S. Steel's Principal Direct and Indirect Ownership Interests—Unconsolidated Companies December 31, 1979

Company	Country	% Ownership	Activity
Percy Wilson Mortgage and Finance Corp.	United States	100%	Mortgage Banking
U. S. Steel Credit Corporation	United States	100%	Leasing & Finance
Terninoss Acciai Inossidabili, S.p.A.	Italy	50%	Stainless Steel Products
Minerales Ordaz, C.A.	Venezuela	49%	Partially Reduced Iron Ore Briquettes
Oresteel Investments (Pty.) Ltd.	South Africa	49%	Holding Company—Mining
P.T. Pacific Nikkel Indonesia	Indonesia	49%	Nickel & Cobalt Exploration & Development
Prieska Copper Mines (Pty.) Ltd.	South Africa	46%	Copper & Zinc Concentrates
Feralloys Ltd.	South Africa	45%	Ferromanganese & Ferrochrome
Compagnie Miniere de l'Ogooue	Gabon	44%	Manganese Ore
[illegible]ari Agro Chemicals, Ltd.	India	36%	Fertilizer
[illegible]os Hornos de Vizcaya, S.A.	Spain	25%	Steel Products
Northern Tier Pipeline Co.	United States	25%	Crude Oil Pipeline
Associated Manganese Mines of South Africa, Ltd.	South Africa	20%	Manganese & Iron Ores
Sidbec-Normines, Inc.	Canada	8%	Iron Ore Mining & Concentrating

Organization

Officer-Directors

DAVID M. RODERICK
Chairman of the Board
United States Steel Corporation

WILLIAM R. ROESCH
President
United States Steel Corporation

W. BRUCE THOMAS
Executive Vice President—
Accounting and Finance
United States Steel Corporation

Directors

WILLIAM O. BEERS
Retired Chairman of the Board, Kraft, Inc. (a food processing company)

JOHN D. deBUTTS
Retired Chairman of the Board, American Telephone and Telegraph Company (communications)

JOHN H. FILER
Chairman, Aetna Life and Casualty Company (insurance)

EDWIN H. GOTT
Former Chairman of the Board, United States Steel Corporation

SHEARON HARRIS
Chairman of the Board, Carolina Power and Light Company (an electric utility company)

RAYMOND H. HERZOG
Chairman of the Board, Minnesota Mining and Manufacturing Company (a diversified manufacturing company)

CHARLES F. MYERS, JR.
Retired Chairman, Burlington Industries, Inc. (textiles)

WALTER H. PAGE†
Retired Chairman of the Board, Morgan Guaranty Trust Company of New York (bank)

ROBERT C. SCRIVENER
Retired Chairman of the Board, Northern Telecom Limited (communications)

MARK SHEPHERD, JR.
Chairman of the Board, Texas Instruments Incorporated (technologically based products and services)

DONALD B. SMILEY
Chairman of the Board, R. H. Macy & Co., Inc. (retail sales)

WILBERT A. WALKER
Former President, United States Steel Corporation

T. A. WILSON††
Chairman of the Board, The Boeing Company (manufacturer of commercial and military aircraft and space vehicles)

EDGAR B. SPEER
Retired as Director April 24, 1979
Died October 13, 1979

HARLLEE BRANCH, JR.
WILLIAM McC. MARTIN, JR.
JOHN M. MEYER, JR.
Retired as Directors May 7, 1979

† Elected to the Board of Directors December 11, 1979
†† Elected to the Board of Directors May 7, 1979

Committees of the Board and Membership

Executive Committee, except to the extent limited by law, exercises, during intervals between the meetings of the Board, all of the powers of the Board of Directors. Members of the Committee are: *Messrs.* Beers, deButts, Gott, Herzog, Myers, Roderick, Roesch, Scrivener, Smiley and Thomas. Mr. Roderick is Chairman.

Audit Committee *makes recommendations* to the Board of Directors regarding the independent auditors to be nominated for election by the stockholders and reviews the independence of such auditors; approves the scope of the annual audit activities of the independent auditors and the Corporation's internal auditors; approves the audit fee payable to the independent auditors; and reviews audit results. Members of the Committee are: *Messrs.* Beers, deButts, Filer, Page, Shepherd, Smiley and Walker. Mr. Smiley is Chairman.

Organization Committee makes recommendations to the Board of Directors concerning the number of directors and candidates for election as directors, the membership of committees of the Board of Directors and general executive management organization matters. The Organization Committee, in recommending candidates for election as directors, among other considerations, studies from time to time the composition of the Board and endeavors to locate candidates for Board membership whose backgrounds indicate that they have broad knowledge and experience in industry and society in general. The Organization Committee considers also nominees recommended by stockholders for election as director. Such recommendations, together with the nominee's qualifications and consent to be considered as a nominee, should be sent to the Secretary of the Corporation for presentation to the Organization Committee. *Members of the Committee are: Messrs.* deButts, Filer, Gott, Scrivener, Shepherd and Smiley. Mr. Scrivener is Chairman.

Compensation Committee is responsible for making recommendations to the Board on all matters of policy and procedures relating to compensation of executive management, for approving the salaries of officers (other than the officer-directors), and for making awards under the Incentive Compensation Plan. The Committee also grants options under, and administers, the Corporation's 1976 Stock Option Incentive Plan. Members of the Committee are: *Messrs.* Beers, deButts, Filer, Herzog, Scrivener and Wilson. Mr. Filer is Chairman.

Committee on Employee Benefits is authorized to adopt and amend, on behalf of the Corporation, employee benefit plans, to review the activities of United States Steel and Carnegie Pension Fund as administrator of such plans, and to make recommendations to the Board concerning policy matters relating to employee benefits. Members of the Committee are: *Messrs.* Gott, Harris, Myers, Shepherd, Thomas and Walker. Mr. Thomas is Chairman.

Committee on Financial Policy makes recommendations to the Board concerning dividends and matters of financial import and has authority to approve certain borrowings by the Corporation. It also approves the funding policy, accounting policy and amounts funded with respect to the United States Steel Corporation Plan for Employee Pension Benefits (Revision of 1950) as amended and approves the investment guidelines to be followed by, and reviews the performance of, United States Steel and Carnegie Pension Fund as trustee of employee benefit plans for the Corporation. Members of the Committee are: *Messrs.* Beers, Harris, Herzog, Myers, Page, Roderick, Roesch, Scrivener, Thomas, Walker and Wilson. Mr. Roderick is Chairman.

Other Officers

James E. Chenault, Jr.
Group Vice President—Resource Development

Duncan J. MacLennan
Group Vice President—Chemicals

Earl L. Simanek
Group Vice President—Manufacturing Divisions & Associated Subsidiaries

Robert W. Smith
Group Vice President—Steel

Marion G. Heatwole
General Counsel

Charles G. Schwartz
Secretary and Assistant General Counsel

Bracy D. Smith
Vice President and Comptroller

Raymond D. Ryan
Vice President and Treasurer

Dale L. Armstrong
Senior Vice President—Commercial

J. Robert Ferguson, Jr.
Senior Vice President and Assistant to President

Vice Presidents and General Managers

Giuseppe Colombari	Ores
L. Frederick Gieg, Jr.	Western Steel Division
Jimmy Hill	Central Steel Division
Alvin L. Hillegass	Eastern Steel Division
J. Bruce Johnston	Employee Relations
Dean G. Wilson	Facility Plans, Engineering and Construction

Vice Presidents

Robert J. Alberts	Operations—Central Steel Division
Charles A. Corry	Corporate Strategic Planning
Joseph R. Dembeck	Realty
Robert D. Goldbach	Shipping
Harold C. Haase	Purchasing
C. Allen Headlee	Accounting—Other Divisions
Donald H. Hoffman	Personnel
William E. Lewellen	Financial Services
Earl W. Mallick	Public Affairs
William Miller, Jr.	Labor Relations
Albert A. Monnett, Jr.	Assistant to Chairman, Board of Directors
Peter B. Mulloney	Marketing Services
Harold W. Paxton	Research
Reuben L. Perin, Jr.	Sales—Eastern Steel Division
Warren F. Renner	Accounting—Steel Divisions
Robert R. Ross	Domestic Ore & Stone
Robert L. Schneider	Operations—Eastern Steel Division
John L. Schroder, Jr.	Coal
James D. Short	Benefits Administration
Edward L. Smith	Facility Plans, Estimates & Controls
Ronald P. Tappan	Sales—Central Steel Division
Franklin B. Varner	Transportation and Traffic

Assistant General Counsel

Dominic B. King

Divisions

Division	PRESIDENT
American Bridge Division *600 Grant Street, Pittsburgh, Pa. 15230*	H. B. Crossfield
Oilwell Division *2001 North Lamar Street, Dallas, Texas 75202*	R. H. Smith
United States Steel Supply Division *13535 South Torrence Ave., Chicago, Ill. 60633*	R. J. Hahn
Universal Atlas Cement Division *600 Grant Street, Pittsburgh, Pa. 15230*	K. D. Simmons
USS Agri-Chemicals *233 Peachtree Street, N.E., Atlanta, Ga. 30303*	C. M. Henderson
USS Chemicals *600 Grant Street, Pittsburgh, Pa. 15230*	W. W. LaRoche
USS Realty Development *600 Grant Street, Pittsburgh, Pa. 15230*	J. R. Dembeck

Principal Subsidiaries

Subsidiary	PRESIDENT
Alside, Inc. *P.O. Box 2010, Akron, Ohio 44309*	J. J. Kaufman (CHAIRMAN)
Bessemer and Lake Erie Railroad Company *P.O. Box 536, Pittsburgh, Pa. 15230*	M. S. Toon
Birmingham Southern Railroad Company *6200 Flintridge Road, Fairfield, Ala. 35064*	M. S. Toon
Carnegie Natural Gas Company *3904 Main Street, Munhall, Pa. 15120*	D. T. Casaday
Duluth, Missabe and Iron Range Railway Co. *Missabe Building, Duluth, Minn. 55802*	M. S. Toon
Elgin, Joliet and Eastern Railway Co. *P.O. Box 880, Joliet, Ill. 60434*	M. S. Toon
Essex Minerals Company *600 Grant Street, Pittsburgh, Pa. 15230*	R. L. L'Espérance
Navios Corporation *P.O. Box N-7796, Nassau, Bahama Islands*	J. P. Elverdin
Navios Ship Management Services, Inc. *767 Fifth Avenue, New York, N.Y. 10022*	D. J. Szostak
Ohio Barge Line, Inc. *P.O. Box 126, Dravosburg, Pa. 15034*	T. Marshall
Percy Wilson Mortgage and Finance Corporation *221 North LaSalle Street, Chicago, Ill. 60601*	R. H. Wilson
The Pittsburgh & Conneaut Dock Company *P.O. Box 90, Conneaut, Ohio 44030*	M. S. Toon
Quebec Cartier Mining Company *Port Cartier, Province of Quebec, Canada*	G. Massobrio
Union Railroad Company *P.O. Box 536, Pittsburgh, Pa. 15230*	M. S. Toon
United States Steel International, Inc. *600 Grant Street, Pittsburgh, Pa. 15230*	D. P. Selby
USS Engineers and Consultants, Inc. *600 Grant Street, Pittsburgh, Pa. 15230*	F. A. Dudderar
U. S. Steel Credit Corporation *600 Grant Street, Pittsburgh, Pa. 15230*	W. E. Lewellen
Warrior & Gulf Navigation Company *P.O. Box 11397, Chickasaw, Ala. 36611*	T. Marshall

Effective magazine advertisements, like this one featuring Oilwell Division, focus on the many strengths of U. S. Steel.

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10 - Q

Quarterly Report Under Section 13 or 15(d)
of the Securities Exchange Act of 1934

FOR THE QUARTER ENDED September 30, 1980 COMMISSION FILE NUMBER 1-5153

UNITED STATES STEEL CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	25-0996816
(State of Incorporation)	**(I.R.S. Employer Identification No.)**

600 Grant Street, Pittsburgh, Pa. 15230

(Address of principal executive offices)

Tel. No. (412) 433-1121

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 at least the past 90 days.

Yes X **No**_____

87,835,876 **shares common stock outstanding** September 30, 1980

UNITED STATES STEEL CORPORATION
SEC FORM 10-Q
QUARTER ENDED SEPTEMBER 30, 1980

INDEX

Part I - Financial Information

UNITED STATES STEEL CORPORATION AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENT OF INCOME

(Unaudited)

(In millions except for per share amounts)

	Third Quarter Ended September 30		Nine Months End[illegible] September 30	
	1980	1979*	1980	1979*
SALES	$2,761.1	$3,225.0	$9,076.5	$9,897.2
OPERATING COSTS				
Cost of sales (excludes items shown below)	2,260.0	2,652.1	7,328.1	8,062.4
Selling, general and administrative expenses	114.2	99.1	335.0	304.5
Pensions, insurance and other employee benefits	181.0	195.2	570.6	573.7
Wear and exhaustion of facilities	117.1	131.6	392.6	406.7
State, local and miscellaneous taxes	55.2	60.5	172.8	180.4
	2,727.5	3,138.5	8,799.1	9,527.7
OPERATING INCOME	33.6	86.5	277.4	369.5
Interest and dividend income	34.8	37.2	121.3	108.5
Interest and other financing costs	(55.8)	(47.8)	(155.2)	(142.7)
Other income	89.4	12.3	147.4	26.2
INCOME BEFORE TAXES ON INCOME, EXTRAORDINARY CREDIT, AND CUMULATIVE EFFECT ON PRIOR YEARS OF CHANGES IN ACCOUNTING PRINCIPLES	102.0	88.2	390.9	361.5
Provision for estimated United States and foreign income taxes	25.0	-	122.0	76.0
INCOME BEFORE EXTRAORDINARY CREDIT AND CUMULATIVE EFFECT ON PRIOR YEARS OF CHANGES IN ACCOUNTING PRINCIPLES	77.0	88.2	268.9	285.[illegible]
Extraordinary credit - tax benefit of net operating loss carryforward	-	-	45.6	-
Cumulative effect on prior years of changes in accounting principles	-	-	-	90.4
INCOME	$ 77.0	$ 88.2	$ 314.5	$ 375.9
PER COMMON SHARE DATA (in dollars)				
Income - Primary:				
Income before extraordinary credit and cumulative effect on prior years of changes in accounting principles	$ .88	$ 1.02	$ 3.09	$ 3.33
Extraordinary credit - tax benefit of net operating loss carryforward	$ -	$ -	$ .52	$ -
Cumulative effect on prior years of changes in accounting principles	$ -	$ -	$ -	$ 1.05
INCOME	$ .88	$ 1.02	$ 3.61	$ 4.38
Income - Fully Diluted:				
Income before extraordinary credit and cumulative effect on prior years of changes in accounting principles	$ .86	$ .99	$ 2.99	$ 3.21
Extraordinary credit - tax benefit of net operating loss carryforward	$ -	$ -	$ .49	$ -
Cumulative effect on prior years of changes in accounting principles	$ -	$ -	$ -	$ .98
Income	$ .86	$ .99	$ 3.48	$ 4.19
Dividends paid	$ .40	$ .40	$ 1.20	$ 1.20

*Restated to reflect 1979 and prior years' effects of accounting changes recorded in the Fourth Quarter of 1979.

Selected notes to financial statements appear on page 5.

UNITED STATES STEEL CORPORATION AND SUBSIDIARY COMPANIES

CONSOLIDATED BALANCE SHEET

(Unaudited)

	(In millions) September 30 1980	1979*
ASSETS		
Current Assets:		
Cash	$ 504.8	$ 382.6
Marketable securities, at cost (approximates market)	459.8	304.7
Receivables, less allowance for doubtful accounts of $16.2 and $16.8	1,576.5	1,633.3
Inventories, at lower of cost (primarily LIFO) or market:		
Raw materials	367.5	181.2
Semi-finished products	263.2	426.2
Finished products	276.4	337.3
Other	269.5	307.4
Total inventories	1,176.6	1,252.1
Total Current Assets	3,717.7	3,572.7
Long-term receivables and other investments, less estimated losses of $6.2 and $36.9	809.2	759.4
Property, plant and equipment, less accumulated depreciation of $7,291.4 and $7,561.6	6,447.6	6,478.4
Operating parts and supplies	123.8	115.7
Costs applicable to future periods	287.8	304.2
Total Assets	$11,386.1	$11,230.4
LIABILITIES		
Current Liabilities:		
Notes payable	$ 153.9	$ 184.7
Accounts payable	951.7	842.7
Payroll and benefits payable	845.8	731.5
Accrued taxes	424.1	451.9
Long-term debt due within one year	46.3	53.3
Current portion of estimated provision for costs attributable to shutdown of facilities	120.0	-
Total Current Liabilities	2,541.8	2,264.1
Long-term debt, less unamortized discount	2,265.2	2,285.8
Deferred income taxes	232.2	488.5
Deferred credits and other liabilities	280.1	123.2
Estimated provision for costs attributable to shutdown of facilities	440.9	-
Redeemable preferred stock of consolidated subsidiary	500.0	500.0
Total Liabilities	6,260.2	5,661.6
OWNERSHIP EVIDENCED BY		
Common stock (par value $1 per share, authorized 150,000,000 shares) outstanding - 87,835,876 shares and 86,367,405 shares, stated at $20 per share	1,756.7	1,727.3
Other stockholders' equity	3,369.2	3,841.5
Total Ownership	5,125.9	5,568.8
Total Liabilities and Ownership	$11,386.1	$11,230.4

*Restated to reflect 1979 and prior years' effects of accounting changes recorded in the Fourth Quarter of 1979.

Selected notes to financial statements appear on page 5.

UNITED STATES STEEL CORPORATION AND SUBSIDIARY COMPANIES
STATEMENT OF CHANGES IN CONSOLIDATED FINANCIAL POSITION
(Unaudited)

	(In millions) Nine Months Ended September 30 1980	1979*
ADDITIONS TO WORKING CAPITAL		
Income - Before Extraordinary Tax Credit in 1980	$ 268.9	$ 375.9
Add (deduct) - Wear and exhaustion of facilities	392.6	406.7
Deferred taxes on income (includes effect of changes in accounting principles in 1979)	115.0	73.1
Gain on disposal of assets	(90.4)	(4.8)
Cumulative effect on prior years of changes in accounting principles (excludes tax effects)	-	(159.4)
Working capital from operations (excludes extraordinary tax credit)	686.1	691.5
Increases in long-term debt due after one year	101.9	183.3
Proceeds from sales of common stock	21.4	18.3
Disposal of assets	155.2	9.6
Miscellaneous additions (net)	22.4	1.2
Total additions	987.0	903.9
DEDUCTIONS FROM WORKING CAPITAL		
Expended for property, plant and equipment	528.8	764.1
Dividends paid on common stock	104.6	103.0
Decreases in long-term debt due after one year	144.3	92.0
Decrease in estimated provision for costs applicable to shutdown of facilities (long-term portion)	79.3	-
Total deductions	857.0	959.1
INCREASE (DECREASE) IN WORKING CAPITAL	$ 130.0	$ (55.2)

ANALYSIS OF INCREASE (DECREASE) IN WORKING CAPITAL

	1980	1979*
WORKING CAPITAL AT BEGINNING OF PERIOD	$1,045.9	$1,363.8
Cash and marketable securities	357.2	(28.7)
Receivables, less allowance for doubtful accounts	(22.3)	199.4
Inventories	(73.9)	(4.9)
Notes payable	41.3	(20.9)
Accounts payable	19.7	(15.0)
Payroll and benefits payable	(172.6)	(93.5)
Accrued taxes	(20.7)	(112.8)
Long-term debt due within one year	(1.8)	21.2
Current portion of estimated provision for costs attributable to shutdown of facilities	3.1	-
INCREASE (DECREASE) IN WORKING CAPITAL	130.0	(55.2)
WORKING CAPITAL AT END OF PERIOD	$1,175.9	$1,308.6

*Restated to reflect 1979 and prior years' effects of accounting changes recorded in the Fourth Quarter of 1979.

Selected notes to financial statements appear on page 5.

UNITED STATES STEEL CORPORATION AND SUBSIDIARY COMPANIES
SELECTED NOTES TO FINANCIAL STATEMENTS
(Unaudited)

1. The information furnished in these financial statements is unaudited but, in the opinion of management, reflects all adjustments necessary to a fair statement of results for the periods covered.

2. Income per share calculations are based on the following:

	(Dollars in millions)			
	Third Quarter Ended September 30		Nine Months Ended September 30	
	1980	1979*	1980	1979*
Income before extraordinary credit and cumulative effect on prior years of changes in accounting principles	$77.0	$88.2	$268.9	$285.5
Interest expense and other costs on convertible debentures	2.8	2.9	8.3	8.6
Adjusted income for calculation of fully diluted income per share before extraordinary credit and cumulative effect on prior years of changes in accounting principles	79.8	91.1	277.2	294.1
Extraordinary credit - tax benefit of net operating loss carryforward	-	-	45.6	-
Cumulative effect on prior years of changes in accounting principles	-	-	-	90.4
Adjusted income for calculation of fully diluted income per share	$79.8	$91.1	$322.8	$384.5
Weighted average number of common shares:**				
Shares outstanding used in calculation of primary income per share	87,589,238	86,151,006	87,218,272	85,886,809
Shares issuable: Assuming conversion of 5-3/4% convertible subordinated debentures and exercise of stock option appreciation rights ..	5,627,431	5,821,529	5,623,338	5,821,529
Shares used in calculation of fully diluted income per share	93,216,669	91,972,535	92,841,610	91,708,338

*Restated to reflect 1979 and prior years' effects of accounting changes recorded in the Fourth Quarter of 1979.

**An immaterial number of shares are included in 1980 due to assuming exercise of stock option appreciation rights.

3. Interest and dividend income includes gains of $18.1 million in 1980 ($1.3 million occurred in the third quarter) resulting from the repurchase of debt securities primarily to satisfy sinking fund requirements. Similar gains for 1979 were $17.8 million ($4.8 million occurred in the third quarter).

4. Included in other income for the third quarter of 1980 are before tax gains totaling $77.8 million principally from the sale of U. S. Steel's cement business as well as its interest in a New York City office building.

5. Results for the nine months of 1979 were restated for the changes in accounting principles made in the fourth quarter of 1979 for capitalization of own engineering costs, blast furnace lining costs and interest costs.

6. The provision for income taxes is based on an effective tax rate which recognizes for the periods reported management's best estimate of annual financial and taxable income. The 1980 provision excludes $45.6 million tax benefit of a 1979 operating loss carryforward reflected as an extraordinary credit which occurred in the first half of 1980.

MANAGEMENT'S ANALYSIS OF QUARTERLY INCOME STATEMENTS

Third Quarter, 1980 Vs. Third Quarter, 1979

Income for the third quarter of 1980 is reported at $77.0 million, or $.88 per share, on sales of $2,761.1 million. These results compare with income of $88.2 million, or $1.02 per share, on sales of $3,225.0 million for the third quarter of 1979.

All industry segments, except Steel Manufacturing -- which was most severely affected by the economic conditions -- were profitable. Steel market demand was weak, characterized by an extremely rapid decline in orders starting at the end of the first quarter of 1980. Continuing inflationary cost increases could not be recovered in the marketplace. Steel operations were at 51 percent of capability in the third quarter of 1980 compared with 83 percent in the comparable 1979 period. However, despite this low operating level, significant performance improvements were realized. Without such improvements, Steel Manufacturing's loss would have been substantial.

Included in income before tax of $102.0 million for the third quarter of 1980 was other income of $89.4 million. Other income includes gains of $77.8 million from the sale of the Universal Atlas Cement business and of U. S. Steel's interest in a New York City office building.

The recognition of effects of the LIFO system of inventory valuation for interim periods involves many estimates and projections of year-end inventories. Cost of sales has been reduced by $24.0 million in the third quarter of 1980 from LIFO inventory liquidations which, in the opinion of management, are expected to exist at year-end. In the third quarter of 1979, such liquidations amounted to $13.6 million.

Steel product shipments for the third quarter of 1980 were 3.6 million tons, down 28 percent from the 5.0 million tons shipped in the third quarter of last year. Shipments for the third quarter were at the lowest level since the fourth quarter of 1971.

Capital expenditures for additions to and replacement of facilities in the third quarter of 1980 amounted to $187 million, compared with $207 million in the third quarter of 1979.

Third Quarter, 1980 Vs. Second Quarter, 1980

Income for the third quarter of 1980 is reported at $77.0 million, or $.88 per share, on sales of $2,761.1 million. This compares with income of $111.5 million, or $1.28 per share, on sales of $3,149.3 million in the second quarter of 1980.

Most of the decline in U. S. Steel's operating Income for the third quarter of 1980 compared with the second quarter of 1980 occurred in steel operations as public and affiliated shipments dropped 15 percent. Steel operated at 51 percent capability compared with 65 percent in the second quarter.

Included in income before tax of $102.0 million for the third quarter of 1980 was other income of $89.4 million. Other income includes gains of $77.8 million from the sale of the Universal Atlas Cement business and of U. S. Steel's interest in a New York City office building.

The recognition of effects of the LIFO system of inventory valuation for interim periods involves many estimates and projections of year-end inventories. Cost of sales has been reduced by $24.0 million in the third quarter of 1980 from LIFO inventory liquidations which, in the opinion of management, are expected to exist at year-end. In the second quarter of 1980, such liquidations amounted to $37.9 million.

Steel product shipments for the third quarter of 1980 were 3.6 million tons, compared with 4.2 million tons in the prior quarter.

Capital expenditures for additions to and replacement of facilities in the third quarter of 1980 amounted to $187 million, compared with $185 million in the second quarter of 1980.

First Nine Months, 1980 Vs. First Nine Months, 1979

Income for the first nine months of 1980 is reported at $314.5 million, or $3.61 per share, on sales of $9,076.5 million. Income for the first nine months of 1979 was $375.9 million, or $4.38 per share, on sales of $9,897.2 million.

Steel Manufacturing was essentially at break-even for the first nine months of 1980 while all other industry segments were profitable. All business units reacted quickly to the economic downturn through downdrafting operations and tighter cost controls. Despite low operating levels in most of the Corporation's businesses, significant performance improvements have been realized.

Included in income before tax for the first nine months of 1980 was other income of $147.4 million which compares with $26.2 million for the comparable 1979 period. The increase in other income for the third quarter of 1980 primarily reflects gains of $77.8 million from the sale of the Universal Atlas Cement business and of U. S. Steel's interest in a New York City office building as well as higher income from equity and partnership interests.

The recognition of effects of the LIFO system of inventory valuation for interim periods involves many estimates and projections of year-end inventories. Cost of sales has been reduced by $94.1 million in the first nine months of 1980 from LIFO inventory liquidations which, in the opinion of management, are expected to exist at year-end. In the first nine months of 1979, such liquidations amounted to $99.8 million.

For the first nine months of 1980, steel product shipments totaled 12.7 million tons, compared with 16.5 million tons in the comparable 1979 period. Shipments for the first nine months were at the lowest level since the first nine months of 1961.

Authorizations for acquisitions, additions to, and replacement of facilities for the first nine months of 1980 totaled $606 million. Capital expenditures in the first nine months totaled $529 million, compared with $764 million for the same 1979 period. At September 30, 1980, the unexpended balance required to complete authorized projects was $1,107 million, including $315 million for environmental projects.

Other Matters

On October 28, 1980, U. S. Steel declared a dividend of 40 cents per share on common stock, payable December 10, 1980, to stockholders of record at the close of business on November 7, 1980.

During the month of August the Corporation sold its interest in Trinity Place Company to a wholly owned subsidiary of Merrill Lynch & Co., Inc. Trinity Place Company owns and operates a 54-story office building in New York City.

During the month of September the Corporation consummated the sale of its Universal Atlas Cement Division to Lehigh Portland Cement Company, a subsidiary of Heidelberger Zement A.G., of Heidelberger, Germany.

Also, during September the Corporation and certain of its wholly owned consolidated subsidiaries sold the EDGAR B. SPEER, a new 1,000-foot-long self-unloading Great Lakes ore carrier. Simultaneously with the sale, the Corporation chartered the vessel for a period of 32 years.

U. S. Steel recently concluded negotiations to lease to Conoco Inc., the Manor coal property in southwestern Pennsylvania. Conoco Inc., will also acquire from the Corporation some surface acreage associated with the Manor coal property. The transaction is expected to close in the fourth quarter and to result in substantial improvement in earnings for the quarter and year. When offset by other coal reserves added in 1980, this transaction will reduce the Corporation's coal reserves by less than two percent.

In the Corporation's Annual Report on Form 10-K for the year ended December 31, 1979, it was stated that regulations implementing Section 120 of the 1977 amendments to the Federal Clean Air Act had not yet been published.

Final regulations implementing Section 120 were promulgated on July 28, 1980. Under the regulations as promulgated, notices are to be issued by Environmental Protection Agency (EPA) to noncomplying facilities commencing January 1, 1981. Recipients of such notices will be required either to contest the issue of noncompliance or to calculate and pay penalties. Fundamental questions with respect to interpretation of Section 120 were raised by industry comment on the Section 120 regulations when first proposed. Most of these questions were not resolved by EPA in adopting its final regulations and an appeal from the final regulations has been filed by the American Iron and Steel Institute and by various member companies including the Corporation. This appeal, as well as resolution of the issue of noncompliance under each notice, will have a substantial bearing on the amount of Section 120 penalties that may be paid by the Corporation. An accurate estimate of such penalties is not possible at this time. As previously reported in the Annual Report on Form 10-K for the year ended December 31, 1979, EPA has issued a preliminary estimate stating that the Corporation's liability for such penalties could be in the range of $70 million to $115 million.

As the result of negotiations and agreements reached with the U.S. EPA and state authorities concerning compliance with air and water environmental requirements at the Corporation's Geneva, Utah and Lorain, Ohio plants, the Corporation estimates that the cost of facilities necessary to achieve compliance with such requirements at such plants will be approximately $200 million less than it previously estimated.

PART II - OTHER INFORMATION

ITEM I - Legal Proceedings

Except as otherwise noted, as of September 30, 1980, the following proceedings were pending in which important developments had occurred during the quarter commencing on July 1, 1980. Except as described herein, it is not possible to accurately predict the possible outcome of these matters.

As a result of the announcement of the reinstitution of the Trigger Price Mechanism by the United States Commerce Department, the Corporation withdrew without prejudice on October 1, 1980, the antidumping complaints it had filed against seven European Economic Community nations which were reported in the Form 10-Q filed for the quarter ended March 31, 1980.

On July 25, 1980, the U.S. Court of Appeals for the Sixth Circuit rendered a decision in Local 1330, United Steelworkers of America, et al. v. USSC. (The decision of the U.S. District Court for the Northern District of Ohio in this case was reported in the Form 10-Q filed for the quarter ended March 31, 1980.) The decision of the U.S. Court of Appeals for the Sixth Circuit affirmed the judgment entered by the U.S. District Court permitting the Corporation to shut down its Youngstown Works. However, the judgment of the U.S. District Court was vacated as to the antitrust claim. The Court ordered that the antitrust claim be tried in the U.S. District Court and stated it would not consider this issue until that had occurred. A tentative trial date of November 12, 1980, has been set by the Court. Plaintiffs filed a motion on July 31, 1980, requesting that the injunction requiring the Corporation to keep the plants in operable condition be maintained until the resolution of the antitrust claims, which motion was subsequently denied.

On July 21, 1980, USS Chemicals, a division of the Corporation, was served with a civil complaint filed by the United States in the U.S. District Court for the Middle District of Louisiana concerning the disposal of wastes at two sites. Named as defendants in the suit in addition to USS Chemicals were 10 other chemical producers and the owner-operator of the two disposal sites. The complaint alleges that violations of the Resource Conservation and Recovery Act, the Clean Water Act and the Refuse Act occurred, and requests the Court to issue an injunction requiring the defendants to cease all disposal at the sites. The complaint further requests that the defendants be required to pay the cost of repairing dikes and protective covering, to fence the sites and post warning signs, and to remove and properly dispose of the wastes from all contaminated areas in a manner approved by the U.S. EPA. The United States subsequently filed an amended complaint seeking penalties of $10,000 per day from each of the defendants under the Federal Clean Water Act. In addition, the State of Louisiana filed a motion to intervene and a complaint alleging strict liability of the defendants under the statutes of Louisiana.

On August 15, 1980, Alside, Inc. was served with a complaint filed by the United States in the U.S. District Court for the Northern District of Ohio alleging that Alside's facility for the manufacture of building siding in Akron, Ohio, containing 3 strip lines, 3 spray booths and 3 ovens where organic solvent-based coatings are used is in violation of an Ohio Air Pollution Control Board Regulation pertaining to such materials under the Ohio State Implementation Plan that had been approved by the U.S. EPA. The suit seeks civil penalties of not more than $25,000 for each day of violation after August 7, 1977, and an injunction under the Federal Clean Air Act. Both the Ohio EPA and the U.S. EPA have acknowledged that the Ohio regulation with respect to the emission of organic material at this facility is unattainable and a revised regulation has been incorporated into the proposed Ohio State Implementation Plan revision which is expected to be approved by the U.S. EPA.

On July 30, 1980, in response to the Corporation's delayed compliance letter of June 19, 1980, which was reported in the Form 10-Q which was filed for the quarter ended on June 30, 1980, the Alabama Air Pollution Control Commission advised the Corporation that the events causing the delay were beyond the Corporation's control and, therefore, the time for performance of the applicable compliance schedules would be extended for a period equal to the delay resulting from these circumstances.

On August 28, 1980, the United States sent a letter to the Corporation demanding a stipulated penalty in the amount of $1,260,000 for the Corporation's alleged failure to comply with the requirements of certain sections of the Monongahela Valley Consent Decree relating to the installation and operation of Chemico pushing emission gas cleaning cars at the Clairton Works coke oven batteries and the installation of a three-sided doghouse on the second vessel at the National-Duqesne Works, Duquesne Plant BOP shop. The Corporation objected to the imposition of this penalty since the items covered by it are a part of the Motion to Modify Consent Decree which the Corporation filed on July 2, 1980, in the U.S. District Court for the Western District of Pennsylvania.

As reported in the Form 10-Q which was filed by the Corporation for the quarter ended June 30, 1980, the Corporation and the other parties to the Monongahela Valley Consent Decree have been involved in negotiations concerning changes in the Consent Decree since the Corporation filed on July 2, 1980, a Motion to Modify the Consent Decree in the U.S. District Court for the Western District of Pennsylvania. The Court held a status call on September 15, 1980, at which time the Court ordered a final status conference on December 1, 1980, the completion of negotiations by December 15, 1980, and a hearing on unresolved issues to commence on or after January 30, 1981.

As reported in the Form 10-K which was filed by the Corporation for the fiscal year ended December 31, 1979, on February 6, 1979, the Corporation was served with a complaint filed by the United States in the U.S. District Court for the Northern District of Ohio, which alleged instances of air pollution and demanded civil penalties of $25,000 per day from August 7, 1977, and injunctive relief with respect to the sinter plant, hot scarfer, BOP shop, coke batteries and blast furnace cast houses at the Lorain-Cuyahoga Works, Lorain plant. A Consent decree to resolve this matter, signed by the Corporation, the U.S. EPA and the Ohio EPA, was submitted to the Court for its approval on September 4, 1980. Implementation of the Consent Decree will require the Corporation to modify or add to environmental control equipment at coke batteries, blast furnaces and a hot scarfer finishing process at a cost currently estimated at $78 million dollars. Under the Consent Decree the plant's ore sintering operation has been permanently shut down. The Corporation was assessed a $6.45 million civil penalty for alleged past violations. This penalty will be offset by installation of environmental control equipment that reduces particulate emissions below the levels specified in the Consent Decree and by the use of techniques to control dust on roads at the site. The Consent Decree must be approved by the Court before it becomes effective. The Consent Decree states that since the Corporation has ceased operation of the open hearth furnaces and two sinter plants at Youngstown Works, a stipulation of dismissal will be entered in the suit filed on August 2, 1977, as amended on January 19, 1978, by the United States against the Corporation covering these facilities in the U.S. District Court for the Northern District of Ohio. With the exception of the claims made by the United States in the March 20, 1979, Notice of Violation for the Quench Stations at the Lorain Coke Plant, entry of the Decree bars the United States from bringing any further civil action under the Clean Air Act arising out of any violation relating to the Lorain Works occurring prior to the entry of the Decree.

In the Form 10-Q which was filed by the Corporation for the quarter ended June 30, 1979, it was reported that thirteen plaintiffs composed of citizens as individuals, environmental organizations, individual unemployed steelworkers and United Steelworkers of America Local Unions on behalf of the steelworkers filed a suit on July 19, 1979, in the U.S. District Court for the Western District of Pennsylvania against the U.S. Army Corps of Engineers, the Secretary of the Army and the Ohio EPA seeking to have the court declare that defendants' action in connection with the Corporation's proposal to build a plant at Conneaut, Ohio, in preparing and issuing the Draft Environmental Impact Statement, the Final Environmental Impact Statement and the water quality certification and the Corps of Engineers' action in issuing the Permit violated the National Environmental Policy Act and other applicable state and Federal laws. On September 10, 1980, the Corporation filed a Motion to Intervene in the suit and this Motion was granted by the Court on September 12, 1980.

On October 15, 1980, the Corporation signed an agreement between the Corporation, the United States Environmental Protection Agency, and the State of Utah concerning water pollution control facilities at the Corporation's Geneva Works. This agreement has been signed by the U.S. EPA and the State of Utah. Under this agreement, a proposed water pollution control program for Geneva Works which represents the best engineering judgment of best available technology economically achievable as required by Section 301(b)(2) of the Clean Water Act, 33 U.S.C. § 1311 (b)(2) and which will satisfy the State of Utah's water quality standards for Utah Lake is intended to result in the issuance of a National Pollutant Discharge Elimination System permit renewal for Geneva Works for a five year period after July 1, 1981. The program described in the agreement is currently estimated to cost $16.5 million.

On October 15, 1980, the Corporation signed a Consent Decree covering a program for air pollution control at Geneva Works. The Decree has been approved by the U.S. EPA and the State of Utah and approval of the United States is expected shortly. After execution by all parties, the Decree will be filed with the U.S. District Court for the District of Utah. The air agreement covers emissions from the coke batteries, blast furnaces, open hearth shop, sinter plant, power house, finishing mills and nitrogen plant as well as plant-wide fugitive emissions. All sources must be in compliance by December 31, 1982. Facility cost is currently estimated at $77.0 Million for the air program.

During the third quarter of 1980, the following developments occurred in proceedings instituted by the Corporation to seek review of administrative action of Federal, state or local governmental agencies concerning environmental matters.

On July 2, 1980, the American Iron and Steel Institute and other named steel companies, including the Corporation, filed suit in the U.S. Court of Appeals for the District of Columbia challenging the Consolidated Permit Regulations which were promulgated by the U.S. EPA on May 19, 1980.

On July 8, 1980, the Corporation, pursuant to Section 107(d) of the Clean Air Act as amended, filed a Petition for Review in the U.S. Court of Appeals for the Fifth Circuit of the final action of the U.S. EPA taken on June 10, 1980, designating portions of Jefferson County, Alabama, including the Fairfield Works, as nonattainment areas for particulate matter under the Federal Clean Air Act. The State of Alabama filed a similar suit against U.S. EPA. On July 25, 1980, the Corporation requested the Alabama Air Pollution Control Commission (AAPCC) to revise its list of nonattainment areas for particulate matter by excluding from the list the site of the Corporation's Fairfield Works. On October 20, 1980, U.S. EPA filed a Motion for Stay of Proceedings in the suits filed by the Corporation and the

State of Alabama indicating that the State of Alabama and AAPCC have requested a revision of major portions of the particulate matter nonattainment designation. Neither the Corporation nor the State of Alabama opposed the granting of the stay.

On July 30, 1980, The Fertilizer Institute and other named fertilizer manufacturers, including the Corporation's USS Agri-Chemicals Division, filed suit in the U.S. Court of Appeals for the District of Columbia challenging certain portions of the hazardous waste regulations promulgated by the U.S. EPA on May 19, 1980, under the Resource Conservation and Recovery Act.

On August 1, 1980, the American Iron and Steel Institute and other named steel companies, including the Corporation, filed suit in the U.S. Court of Appeals for the District of Columbia challenging certain portions of the hazardous waste regulations promulgated by the U.S. EPA on May 19, 1980, under the Resource Conservation and Recovery Act.

On August 8, 1980, the American Iron and Steel Institute and other named steel companies, including the Corporation, filed suit in the U. S. Court of Appeals for the District of Columbia challeging Underground Injection Control regulations promulgated on June 24, 1980, by the U.S. EPA under the Safe Drinking Water Act. The Corporation is also participating in a challenge to these regulations brought by the American Mining Congress.

On September 7, 1978, the Illinois Pollution Control Board granted the Corporation's petition for review of a denial by the Illinois Environmental Protection Agency of the Corporation's request for an operating permit for the blast furnaces located at the Corporation's South Works in Chicago, Illinois. The Board ordered the Agency to issue such permit. The Agency issued such permit for a term of one (1) year, but simultaneously appealed the Board's order to the Illinois Appellate Court. On August 1, 1980, the Court reversed the Board's order. On August 22, 1980, the Corporation filed a Petition for Rehearing with the Court which the Court denied on October 1, 1980. On November 5, 1980, the Corporation filed a Petition for Leave to Appeal to the Illinois Supreme Court. Following the expiration of the 1-year permit, the Agency denied the Corporation's request for renewal. The Corporation filed a Petition with the Board for review of such denial, which has been stayed pending the resolution of the appeal.

On September 25, 1980, the American Iron and Steel Institute and other named steel companies, including the Corporation, filed in the District of Columbia Circuit Court a Petition for Review of EPA regulations published on July 28, 1980, for the administration of Section 120 of the Clean Air Act.

The following proceedings, which have not previously been reported as terminated, were terminated during the period commencing July 1, 1980, and ending September 30, 1980.

On June 13, 1980, the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement terminated a Notice of Violation that was reported in the Form 10-Q filed by the Corporation for the quarter ended June 30, 1980, issued on April 19, 1980, to the Corporation's Frick District Coal Operations Robena Mine.

On July 5, 1980, the West Virginia Department of Natural Resources issued a Warrant for Arrest against the Corporation's Gary District Coal Operations Mine No. 50 Preparation Plant alleging a violation of the West Virginia Surface Coal Mining and Reclamation Act. The Corporation paid a penalty of $100 plus $10 in costs in settlement of this alleged violation.

On July 6, 1980, a Uniform Ticket and Complaint was issued by the West Virginia Department of Natural Resources to the Corporation's Gary District Coal Operations at Pineville, West Virginia, alleging illegal discharges from the coal mine into Pinnacle Creek in violation of the West Virginia Clean Streams Law. On July 22, 1980, the Corporation entered a plea of nolo contendere and paid the assessed penalty of $100 plus $10 costs.

On July 10, 1980, the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement terminated violation number one of two Notices of Violation that were reported in the Form 10-Q filed by the Corporation for the quarter ended June 30, 1980, issued on May 28, 1980, to two of the Corporation's Lynch District Coal Operations mines.

In the Form 10-Q that was filed by the Corporation for the quarter ended June 30, 1979, it was reported that a Notice of Violation was issued by the U.S. Department of the Interior Office of Surface Mining to the Geneva Mine, Western District Coal Operations on May 11, 1979, that a fine of $3,400 was assessed against the Corporation on June 6, 1979, and that the Corporation paid the fine under protest and appealed. On July 22, 1980, the U.S. Department of the Interior Office of Hearings and Appeals reduced the fine to zero.

On August 4, 1980, the Corporation paid two assessed penalties totalling the sum of $3,260 in settlement of two Notices of Violation issued on September 7, 1979, and November 28, 1979, to two of the Corporation's Gary (West Virginia) District Coal Operations mines. These two Notices of Violation were reported in the Form 10-Q filed by the Corporation for the quarter ended September 30, 1979, and in the Form 10-K filed by the Corporation for the fiscal year ended December 31, 1979, respectively.

On August 5, 1980, the Corporation paid a penalty of $4,200 to the Pennsylvania DER in settlement of alleged violations of air pollution regulations at the Corporation's Universal Atlas Cement plant at Northampton, Pennsylvania.

In the Form 10-Q which was filed for the quarter ended June 30, 1979, it was reported on May 22, 1979, that the Corporation was found guilty in six suits for alleged air pollution violations in Allegheny County, Pennsylvania, and was assessed penalties by the Magistrate of $4,650, from which decision the Corporation filed an appeal to the Court of Common Pleas of Allegheny County, Pennsylvania, on June 29, 1979. On August 6, 1980, this Court denied the Corporation's appeal and affirmed the penalties of $4,650 that had been assessed by the Magistrate, which penalties have been paid.

In the Form 10-Q which was filed for the quarter ended June 30, 1980, it was reported that on May 8, 1980, the Kentucky Department for Natural Resources and Environmental Protection issued a Notice of Non-Compliance to the Corporation's Lynch (Kentucky) District Coal Operations. At a hearing on August 6, 1980, it was determined that no violation had been committed. A Final Order dismissing this Non-Compliance Notice was issued on August 12, 1980, by the Kentucky Department for Natural Resources and Environmental Protection.

On August 13, 1980, the West Virginia Department of Natural Resources caused a Warrant for Arrest to be issued to the Corporation's Gary (West Virginia) District Coal Operations Alpheus Preparation Plant alleging failure to impound, drain or treat all surface runoff water so as to prevent pollution of streams and damage to agricultural lands in violation of a West Virginia statute. On September 18, 1980, the Corporation pleaded nolo contendere and paid a penalty of $100 plus $10 costs, thereby resolving this matter.

On September 15, 1980, the portion of the cessation orders issued by the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement on September 4, 1980, to the Corporation's Cumberland Coal Mine, Greene County, Pennsylvania, relating to the coal stockpile area was terminated because the Corporation had installed proper total drainage control at that area.

On September 26, 1980, the River & Gulf Transportation Company, a wholly owned subsidiary, paid to the U.S. Coast Guard a $25 penalty for an alleged discharge of oil into the lower Mississippi River near Memphis, Tennessee, from the M/V Steel Rover on November 2, 1979.

On September 30, 1980, the Alabama Surface Mining Reclamation Commission terminated a Notice of Violation which was reported in the Form 10-Q filed by the Corporation for the quarter ended June 30, 1979, issued on June 7, 1979, to the Corporation's Southern District (Alabama) Coal Operations Concord Mine because the Corporation had taken the required corrective measures.

OTHER ENVIRONMENTAL MATTERS

In addition to the above proceedings, discussions are in progress in response to notices of violation and other instances of possible contemplated legal proceedings issued by Federal, state, and local agencies with respect to certain of the Corporation's facilities.

Notices of violation, which allege violations by the Corporation of state air pollution control regulations, have been issued by the U.S. EPA under Section 113 of the Clean Air Act. The facilities involved in such notices of violation are the blast furnaces at South Works; boiler houses (McDonald Mills and Ohio Works) at Youngstown Works; five coke quench stations at Lorain Plant; the sinter plant and open hearth at Geneva Works (these will be satisfied upon entry of the Consent Decree referred to under Part II - Other Information, Item I - Legal Proceedings); the Crystal City, Missouri, facility of the Corporation's USS Agri-Chemicals Division and the coating facilities of Alside, Inc.'s Akron Plant. Under Section 113, the administrator of the U.S. EPA may issue a compliance order, commence a civil action for relief, or in certain instances, commence an action for criminal penalties if the violation continues after 30 days from the date of notice. However, the notice first offers the Corporation an opportunity to discuss the alleged violation and in many instances negotiations are under way concerning proposed corrective measures.

From time to time, state and local governmental agencies advise source owners of alleged violations of air and water pollution regulations through issuance of notices of violation or orders to comply in lieu of the commencement of a legal proceeding which are generally for the purpose of initiating discussions concerning corrective measures. The facilities involved in such unresolved notices of violation and orders are: the coke batteries, including the coke battery combustion stacks at Gary Works; the electric furnace shop, blast furnaces and BOP shop at South Works; the Corporation's Cumberland Coal Operations mine site and Western District (Colorado) Coal Operations mine site; several vessels in the Corporation's Great Lakes Fleet; the Corporation's Minnesota Ore Operations Minntac waste gas stacks; and Alside, Inc.'s Akron Plant's waste water discharges. Discussions are under way concerning proposed corrective measures with the appropriate state or local governmental agency in each case.

On June 13, 1980, the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement terminated two Notices of Violation that had been issued on April 8, 1980, to Frick District Coal Operations Robena Mine since the Corporation had completed certain required remedial action. On July 1, 1980, this Agency assessed penalties of $4,400 against the Corporation for these alleged violations. The Corporation is contesting the assessed penalties.

On July 7, 1980, the Corporation's U. S. Steel Supply Port Arthur, Texas, plant received a Notice of Violation from the Texas Department of Water Resources alleging that samples of water discharges from the plant taken on May 12, 1980, contained noncomplying concentrations of oil and grease and total suspended solids and a noncomplying level of p^H. On July 14, 1980, the Corporation replied to the Texas Department of Water Resources indicating the reasons for the temporary variation from permissible limits and indicating that compliance had been attained during the last two weeks of May, 1980.

On July 7, 1980, the Neal, West Virginia, plant of USS Novamont, Inc., a wholly owned subsidiary of the Corporation, was contacted by the West Virginia Department of Natural Resources and the U.S. Coast Guard, Corps of Engineers, with regard to the cleanup and removal of polypropylene plastic pellets that were washed into a plant sewer outfall and allegedly discharged into Big Sandy River. Cleanup operations were satisfactorily completed by July 14, 1980, and remedial measures were taken to guard against a reoccurrence of this situation.

On July 9, 1980, the Pennsylvania DER issued a Notice of Violation to the Corporation's Cumberland Coal Mine in Greene County, Pennsylvania, alleging violation of a mine drainage permit and the Pennsylvania Clean Streams Law. At a meeting on August 11, 1980, with Pennsylvania DER, the Corporation agreed to take certain remedial action.

On July 11, 1980, the U.S. EPA, Region VI, issued a notice of violation to the Corporation's USS Chemicals Division plant located in Baton Rouge (Scotts Bluff), Louisiana. This notice alleges violation of the flow measurement contained in the National Pollutant Discharge Elimination System permit issued to the plant. The Corporation replied to U.S. EPA on July 21, 1980, indicating the corrective action that had been taken.

On July 15, 1980, the Corporation's USS Agri-Chemicals Cherokee, Alabama, plant received a notice from the Alabama Water Improvement Commission indicating that the urea plant had allegedly discharged contaminants in excess of permitted limits and requesting an explanation of the reasons for this and a statement of remedial measures that are being taken.

On July 16, 1980, the Illinois EPA denied the Corporation's South Works application for an operating permit for the BOP shop because the Corporation had not filed an air pollution compliance plan including a completion schedule for South Works. The Corporation has subsequently filed such a plan, but it has not yet been approved by the Illinois EPA.

On July 22, 1980, the Ohio EPA notified the Corporation's Lorain-Cuyahoga Works, Lorain plant, that discharges from outfalls at the pipe mill lagoon and coke plant exceeded the permissible National Pollutant Discharge Elimination System permit limits for oil and grease, ammonia and suspended solids.

On July 23, 1980, the Pennsylvania DER issued a Notice of Violation to the Corporation's Frick District Coal Operations Robena Mine alleging violations of the Pennsylvania Clean Streams Law and of permits issued thereunder.

On July 25, 1980, the Pennsylvania DER issued a notice of violation alleging violation of the discharge limitations contained in a National Pollutant Discharge Elimination System permit issued to the Corporation's Fairless Works. On August 15, 1980, the Corporation advised Pennsylvania DER that the necessary corrective action is being taken.

On July 31, 1980, the Ohio EPA issued a letter alleging violation of the National Pollutant Discharge Elimination System permit issued to the Corporation's USS Chemicals division plant located in Haverhill, Ohio. The Corporation replied to the Ohio EPA on August 18, 1980, indicating that the necessary corrective action is being taken.

On July 31, 1980, the U.S. EPA, Region IV, issued a Notice of Violation of two National Pollutant Discharge Elimination System permits issued to the Corporation's Lynch (Kentucky) District Coal Operations mine and preparation plant alleging that the discharges in February and March, 1980, exceeded the permits' limits and that the Corporation is subject to enforcement action under Section 309 of the Federal Water Pollution Control Act.

On August 5, 1980, the Alabama Water Improvement Commission notified the Corporation's Fairfield Works of several alleged violations of a National Pollutant Discharge Elimination System permit. On August 18, 1980, the Corporation advised this Commission of the possible causes of the incidents and of the corrective action being taken.

On August 11, 1980, the Pennsylvania DER issued a Notice of Violation to the Corporation's Fairless Works alleging a failure to submit Discharge Monitoring Reports for April-June 1980, as required by a National Pollutant Discharge Elimination System permit. The reports were submitted to Pennsylvania DER on August 15, 1980.

On August 14, 1980, the Florence, Kentucky, plant of USS Novamont, Inc. was notified by the Sanitation District of Campbell and Kenton Counties, Kentucky, that a fine would be imposed for an alleged illegal discharge into the District's sewer facilities that allegedly occurred on August 8 and August 9, 1980.

In the Corporation's report on Form 10-Q which was filed for the quarter ended June 30, 1980, it was reported that Alside, Inc. on July 7, 1980, appealed to the Ohio Environmental Hearing Board of Review the Ohio EPA's denial of an application for a license to operate a solid waste disposal facility. On August 21, 1980, the Ohio Environmental Board of Review issued an Order to Remand, remanding the suit to the Summit County (Ohio) General Health district for an adjudication hearing. In a related matter, on August 20, 1980, Ohio EPA advised Alside, Inc. that its solid waste disposal facility was being operated in violation of Ohio solid waste regulations and that the operation should cease until plans are approved by Ohio EPA and a license is issued by the Summit County Health Department. Ohio EPA indicated that the matter was being referred to its legal section for litigation development. On August 29, 1980, Alside, Inc. filed a Request for Adjudication Hearing on this matter with Ohio EPA.

On August 26, 1980, the Metropolitan Sanitary District of Greater Chicago ("MSD") informed the Corporation of its intent to issue a notice of violation resulting from an alleged discharge of oil from the Corporation's South Works in Chicago, Illinois, into the North Slip at such plant, which is adjacent to Lake Michigan, and from the fact that an "air curtain" restraining device was not in operation in the North Slip to prevent such oil from flowing into Lake Michigan. The air curtain had been installed by the Corporation pursuant to an oral agreement with the MSD as a means of implementing a consent decree entered into by the Corporation and the MSD, which was lodged in the Illinois state court on January 18, 1971, in settlement of a then-pending enforcement action. The Corporation and the MSD are discussing the feasibility of re-activating the air curtain or equivalent restraining devices.

On August 26, 1980, the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement issued a Notice of Violation to the Corporation's Gary District (West Virginia) Coal Operations Adkins refuse disposal area in McDowell County, West Virginia, directing the Corporation to cover certain acid and toxic forming waste materials with a minimum of 4 feet of nontoxic and noncombustible material within 30 days. The Corporation has requested and received a sixty-day extension of time to comply and take the required remedial action.

On August 26, 1980, a Notice of Violation was issued by the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement and a penalty of $1,400 was assessed against the Corporation's Gary District (West Virginia) Coal Operations Alpheus preparation plant and two mines alleging that the Corporation had failed to pass all surface drainage from the disturbed area through a sedimentation pond or a series of sedimentation ponds prior to leaving the permit area and directing that appropriate remedial action be taken within thirty days. The Corporation has requested and received a sixty-day extension of time in which to complete the required remedial action.

On September 2, 1980, the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement issued cessation orders to the Corporation's Cumberland Coal Mine, Greene County, Pennsylvania. The Corporation was ordered to cease any additional stockpiling of coal at the raw coal storage pile and to cease operation of the coal refuse conveyor transfer point, the east refuse haul road, and the No. 1 fan site until certain remedial measures required by an earlier Notice of Violation were taken to prevent illegal discharges into Whitely Creek.

On September 3, 1980, the Minnesota Pollution Control Agency (MPCA) notified the Corporation that an inspection of the Minnesota Ore Operations Minntac disposal site conducted on July 15, 1980, disclosed that the disposal site was being operated without the required permits and that it was allegedly being operated in violation of the Minnesota Solid and Hazardous Waste Statute and Regulations. The notice requested the Corporation to cease any and all disposal of solid and hazardous material at the disposal site, to remove all the barrels containing waste material from the disposal site, and to prepare a hydrogeologic study of certain conditions at the site. On September 10, 1980, the Corporation met with MPCA and it was agreed that laboratory testing would be performed of used machine and gear lubricant oil and of impure water adjacent to the disposal area and that the Corporation would prepare another disposal area and apply for permits for such area, whereupon the present disposal site would be closed.

On September 10, 1980, the U.S. EPA, Region V, advised the Corporation's Eastern District Limestone Operations Rogers City, Michigan, facility that its limestone quarry is in violation of the federally enforceable Michigan Implementation Plan and that the Corporation may be subject to enforcement action under the Clean Air Act for violation of the applicable Michigan Implementation Plan and for noncompliance penalties under Section 120 of the Clean Air Act.

On September 11, 1980, the Illinois EPA issued a Notice of Violation to the Corporation's South Works alleging that on September 10, 1980, air emissions from the BOP shop violated applicable regulations.

On September 18, 1980, the City of Houston, Bureau of Air Quality Control issued a Notice of Violation to the LaPorte, Texas, plant of USS Novamont, Inc., alleging violation of the Texas Clean Air Act. The Corporation investigated a suspected pluggage of an air signal line, discovered that the situation had been corrected and advised the Houston Bureau of Air Quality Control of this.

On September 24, 1980, Ohio EPA notified Alside, Inc. of alleged violations of a National Pollutant Discharge Elimination System permit in July, 1980, and indicated that therefore Alside, Inc. may be subject to enforcement action under the Ohio statute.

On September 25, 1980, the U.S. Coast Guard issued a Notice of Violation to the Bessemer and Lake Erie Railroad Company, a wholly owned subsidiary, alleging a violation of Section 311(b)(3) of the Federal Water Pollution Control Act on November 21, 1979. The U.S. Coast Guard has proposed to assess a penalty of $100 against the Bessemer and Lake Erie Railroad Company for this alleged violation.

On September 26, 1980, the City of Houston Bureau of Air Quality Control issued a Notice of Violation to the LaPorte, Texas, plant of USS Novamont, Inc., alleging violation of the Texas Clean Air Act and regulations promulgated thereunder.

* * * *

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

UNITED STATES STEEL CORPORATION

B. D. Smith

B. D. Smith
Vice President and Comptroller

Dated: November 12, 1980

1979

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, 1979 **Commission file number 1-5153**

UNITED STATES STEEL CORPORATION
(Exact name of registrant as specified in its charter)

Delaware
(State of Incorporation)

25-0996816
(I.R.S. Employer Identification No.)

600 Grant Street, Pittsburgh, Pa. 15230
(Address of principal executive offices)

Tel. No. (412) 433-1121

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

Title of each class	Name of each exchange on which registered
Common stock, par value $1—86,756,062 Shares outstanding December 31, 1979	New York Stock Exchange, Inc. Midwest Stock Exchange, Incorporated Pacific Stock Exchange Incorporated Montreal Stock Exchange
4% Sinking Fund Debentures Due 1983	New York Stock Exchange, Inc.
4-1/2% Sinking Fund Debentures Due 1986	New York Stock Exchange, Inc.
7-3/4% Sinking Fund Debentures Due 2001	New York Stock Exchange, Inc.
4-5/8% Subordinated Debentures Due 1996	New York Stock Exchange, Inc.
5-3/4% Convertible Subordinated Debentures Due 2001	New York Stock Exchange, Inc.

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 at least the past 90 days.

Yes...✓...No.......

INDEX

THE CORPORATION

United States Steel Corporation was incorporated under the laws of the state of New Jersey on Februrary 25, 1901. On January 1, 1966 it was merged into a wholly owned Delaware subsidiary, whose name was changed in the merger to United States Steel Corporation. The merger did not involve any change in the business, properties or management.

United States Steel Corporation has executive offices at 600 Grant Street, Pittsburgh, Pa. 15230. The terms "Corporation" and "U. S. Steel" when used herein refer to United States Steel Corporation or United States Steel Corporation and its subsidiaries, as required by the context.

1. Business

U. S. Steel's industry segments (defined in Note 23 to the Financial Statements on page 56) are Steel Manufacturing; Chemicals; Resource Development; Fabricating & Engineering and Other; and Domestic Transportation & Utility Subsidiaries. The tables below include sales and operating income for each of U. S. Steel's segments during the past five years. During the fourth quarter of 1979, U. S. Steel announced the permanent shutdown of several steel and nonsteel plants and manufacturing facilities. Sales and operating income for most of these facilities after December 1, 1979 are excluded from the tables below; shipment and production statistics, however, continue to reflect all shipments and production from these facilities. For additional information concerning industry segments, see Note 23 to the Financial Statements on pages 54, 55 and 56.

	Millions of Dollars				
	1979	1978	1977	1976	1975
Sales					
Steel Manufacturing	$ 9,754	$ 8,820	$ 7,576	$ 6,836	$ 6,423
Chemicals	1,256	808	700	648	656
Resource Development	576	396	386	359	353
Fabricating & Engineering and Other	2,333	1,971	1,818	1,665	1,589
Domestic Transportation & Utility Subsidiaries	663	549	446	446	379
Total Segment Sales	14,582	12,544	10,926	9,954	9,400
Less: Sales Between Industry Segments	1,653	1,494	1,316	1,346	1,229
Total Public Sales	$ 12,929	$ 11,050	$ 9,610	$ 8,608	$ 8,171
Operating Income (Loss)					
Steel Manufacturing	$ (102)	$ 26	$ (60)	$ 145	$ 273
Chemicals	58	21	33	62	125
Resource Development	55	25	26	69	69
Fabricating & Engineering and Other	91	88	95	164	193
Domestic Transportation & Utility Subsidiaries	152	120	71	81	56
Adjustments & Eliminations	8	6	10	3	(12)
Operating Income	$ 262	$ 286	$ 175	$ 524	$ 704
Steel Product Shipments					
Total Corporation (Million N.T.)	20.9	20.8	19.7	19.5	17.5

Notes: 1. Years 1978-1975 restated to reflect transfer of steel service center operations from Steel Manufacturing segment to Fabricating & Engineering and Other.

2. The current year effects of accounting changes (see Note 21 to the Financial Statements on page 52) included in Steel Manufacturing Operating Income (Loss) was $20.4 million. The effects on other segments were immaterial.

Steel Manufacturing

Steel Manufacturing sales ranged from 67% to 70% of total segment sales during the five year period. Steel Manufacturing sales are distributed among major product groupings as set forth below:

	% of Total Dollars				
	1979	1978	1977	1976	1975
Sheet, Strip and Tin Mill Products	41%	41%	42%	44%	33%
Plates, Structural and Piling	19	20	18	17	22
Bars and Rods	12	13	13	14	12
Pipe and Tubing	15	15	14	11	19
Other Steel Products	7	7	8	10	9
All Other Products and Services	6	4	5	4	5
Total	100%	100%	100%	100%	100%

Shipments of steel mill products are distributed among major product groupings as set forth below:

	% of Total Net Tons				
	1979	1978	1977	1976	1975
Sheet, Strip and Tin Mill Products	46%	46%	47%	48%	38%
Plates, Structural and Piling	22	22	20	19	26
Bars and Rods	14	14	15	16	15
Pipe and Tubing	10	11	10	8	13
Other Steel Products	8	7	8	9	8
Total	100%	100%	100%	100%	100%

The Corporation's accounting system does not provide a determination of operating profits by product or consuming markets and does not identify sales revenues by market classifications. The costs, revenues and profitability of particular products are affected to a varying degree by operating, economic and competitive conditions directly or indirectly affecting other products.

No segment other than Steel Manufacturing has a class of products or services which accounted for as much as 10% of total sales of the Corporation in any of these years.

Shipments of steel by Steel Manufacturing are distributed among major markets as set forth below:

	% of Total Net Tons				
	1979	1978	1977	1976	1975
Domestic					
Transportation (Including Automotive)	22%	23%	25%	26%	22%
Steel Service Centers	21	21	18	17	22
Construction	15	15	15	16	20
Containers	9	9	11	11	10
Machinery	10	9	10	10	10
All Other	20	21	19	17	13
Export	3	2	2	3	3
Total	100%	100%	100%	100%	100%

Shipments of major steel product groupings are distributed among major markets as set forth below:

	% of Total Net Tons									
	Sheet, Strip and Tin Mill Products		Plates, Structural and Piling		Bars and Rods		Pipe and Tubing		Other Steel Products	
	1979	1978	1979	1978	1979	1978	1979	1978	1979	1978
Domestic										
Transportation (Including Automotive)	21%	25%	20%	20%	20%	24%	2%	3%	55%	51%
Steel Service Centers	24	21	22	23	10	10	33	33	9	8
Construction	12	11	35	35	8	7	5	6	6	7
Containers	20	19	—	—	—	—	—	—	—	—
Machinery	6	6	15	15	19	18	2	2	6	6
All Other	7	8	4	4	17	17	44	49	14	15
Further Conversion*	8	8	1	—	25	23	1	2	9	11
Export	2	2	3	3	1	1	13	5	1	2
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

*Steel shipped for further converting and processing by nonaffiliated members of the steel industry.

Shipment and production statistics for Steel Manufacturing are as follows:

	Millions of Net Tons				
	1979	1978	1977	1976	1975
Shipments of Steel*	21.0	20.9	19.6	19.4	17.6
Production:					
Raw Steel	29.7	31.3	28.8	28.3	26.4
% of Total USA**	21.9%	22.9%	23.1%	22.1%	22.6%
Utilization of Raw Steel Production Capacity	83.5%	82.4%	75.5%	74.6%	74.1%
Iron	23.4	24.8	23.1	23.2	21.5
Coal Mined	16.1	11.5	14.0	16.0	17.1
Coke	14.5	13.6	15.4	15.5	16.0
Iron Ore—Natural and Agglomerated					
Mesabi and Western Ore Operations	22.8	20.5***	12.2	20.8	22.0
Quebec Cartier Mining Company****	16.7	9.0***	17.1	16.5	9.1
Total	39.5	29.5	29.3	37.3	31.1
% Iron Ore Sold to Others	38%	26%	31%	28%	23%

*Years 1978-1975 restated to reflect transfer of steel service center operations from Steel Manufacturing segment to Fabricating & Engineering and Other.

**Based on data reported by 92 steel-producing companies to the American Iron and Steel Institute.

***Revised.

****Included in Resource Development.

Shipments by Steel Manufacturing were 21.0 million tons in 1979, virtually the same as 1978. Strong steel market demand prevailed during the first half of 1979; however, demand declined in the second half of the year. Steel imports totaled 17.5 million tons in 1979, accounting for 15.2% of apparent domestic supply. Although below the record level of 21.1 million tons in 1978, imports during the second half of 1979 increased significantly — amounting to an annualized rate of almost 20 million tons. Strong demand for steel prevailed throughout 1978, with increased demand over 1977 for plates, sheet and strip, structural and tubular products. Shipments in 1977 represented a slight increase over the 19.4 million tons of 1976. The mix of steel products shipped improved moderately from 1976. Shipments during the first two quarters of 1976 moved steadily upward from the low level of the fourth quarter of 1975, supported primarily by sales of light flat rolled products to customers serving the automotive and appliance markets. In the second half there was a lesser demand from appliance markets, but the demand from automotive markets remained strong. The demand for capital goods-related products remained low throughout 1976. Steel shipments in 1975 were the lowest level of steel product shipments since 1961.

Raw steel production in 1979 was 29.7 million tons, down 5% from the 31.3 million tons in 1978. Raw steel production in 1978 was up 9% from the 28.8 million tons of 1977; production in 1977 increased 2% from the 28.3 million tons in 1976 while production in 1976 was up 7% from the 26.4 million tons in 1975.

Early in 1979, the American Iron and Steel Institute commenced reporting the domestic steel industry's rate of utilization of its raw steel production capability. Capability is defined as the tonnage of raw steel that can be produced assuming a full order book and recognizing the availability of raw materials, fuels and supplies, and any limitations on production because of the availability of other facilities and current environmental and safety requirements. U. S. Steel's production capability for 1980 is 33.9 million tons, compared with 36.1 million tons in 1979. The temporary shutdown of blast furnaces for relining will cause a decrease of 1.1 million tons. The remaining decline is principally due to the decision to shut down Youngstown (Ohio) Works and Torrance (California) Works. The average utilization of the Corporation's 1979 raw steel production capability was 84% ranging from a high of 93% for the second quarter to a low of 77% for the fourth quarter.

Plants and major facilities permanently shut down in 1979 include: Joliet-Waukegan (Illinois) Works, except for a rod mill at the Joliet plant; New Haven (Connecticut) Works; Torrance (California) Works; the 140'' plate mill at Fairfield (Alabama) Works; the 80'' hot strip mill at Gary (Indiana) Works and the iron foundry at South (Chicago, Illinois) Works. The rod mill at Pittsburg (California) Works; the wire mill at Fairfield (Alabama) Works; and Youngstown (Ohio) Works are scheduled to close in 1980. The wheel and axle manufacturing operation at McKees Rocks, Pennsylvania is scheduled to close in 1981. A preliminary injunction has been issued prohibiting the closing of the Youngstown Works pending the resolution of a lawsuit seeking to prevent the closing of this plant. (Details of this lawsuit are included under Legal Proceedings on page 23).

The Corporation owns plants which are engaged in the production of steel mill products in a variety of forms and grades. Steel producing plants located in Ohio, southwestern Pennsylvania and the Delaware Valley accounted for about 50% of U. S. Steel's 1979 raw steel production. Plants located in the Chicago area produced 30%. Plants in Alabama and Texas produced 12% and plants in Utah and California produced 8% of total raw steel in 1979.

The Corporation owns 31 bulk cargo vessels and 7 self-unloading vessels with a total cargo capacity tonnage of 684,000 gross tons used for carrying iron ore, limestone and coal on the Great Lakes and the St. Lawrence Seaway.

The Corporation owns or leases domestic coal properties with approximately 3.8 billion net tons of proven and probable reserves of coal, including 3.3 billion net tons of bituminous coal and .5 billion net tons of lignite. Of the tonnage of bituminous coal reserves, over half is metallurgical quality and the balance is steam quality. Of bituminous coal reserves, approximately 18% is in Alabama, 24% in Kentucky and West Virginia, 23% in Illinois and Indiana, 29% in Pennsylvania, and the remainder in Colorado, Utah and Virginia. All the lignite reserves are located in Montana. Approximately 23% of total reserves are under long-term lease. About 40% of the leased bituminous coal reserves is covered by a lease renewable indefinitely for successive 15-year terms at the option of the Corporation. Another 21% of the leased bituminous coal reserves is covered by a lease expiring in 2023 which is renewable for an additional 25-year period with the balance covered by numerous leasing agreements. The Corporation normally produces over 60% of its coal requirements.

The Corporation owns or leases limestone properties in Michigan, Missouri, Pennsylvania, Texas, and certain other states, and dolomitic limestone properties in Alabama, Michigan, Ohio, West Virginia and certain other states. Proven and probable limestone and dolomitic limestone reserves are estimated to total approximately 4.3 billion net tons. The Corporation's major limestone operations are on properties owned by the Corporation and it does not regard leased limestone properties as material.

The Corporation owns or leases domestic iron ore properties with proven and probable ore in grades subject to beneficiation by processes in commercial use by the Corporation and others estimated to be adequate to produce approximately 3.9 billion net tons of product, virtually all of which is iron ore concentrates produced from taconite, a low-grade iron-bearing material. Of this tonnage, 90% is located in the Lake Superior area with the balance in the western states. Approximately 23% of the reserves are leased ore properties. The bulk of such leased reserves is covered by a 99-year lease expiring in 2058 and a group of 50-year leases expiring from 1991 to 2007.

At Mountain Iron, Minnesota, U. S. Steel's Minntac iron ore operations produced 18.5 million net tons of taconite pellets in 1979. A major expansion project at this location was completed late in 1978. Pellet shipments from these new facilities began in 1978. By mid-1979, the plant had reached full production capability which is almost 21 million net tons of pellets annually, an increase of 50% over the prior production capability.

Other mining operations are conducted in Utah and Wyoming to support steel operations at Provo, Utah. These mining and beneficiating facilities produce iron ore at a rate of approximately 2.5 million net tons annually.

In the United States, U. S. Steel competes with approximately 250 domestic steel companies, more than 90 of which are raw steel producers. There are also materials such as aluminum, cement, glass and plastics which compete with steel in many markets.

Steel mill product imports represent another significant competing force. These imports have accounted for 13.5% of apparent domestic supply in 1975, 14.1% in 1976, 17.8% in 1977, 18.1% in 1978 and 15.2% in 1979 on a tonnage basis.

Major capital projects for the Steel Manufacturing segment initially operated in 1979 and other projects expected to be initially operated in 1980 are shown on pages 12 and 13.

Chemicals

USS Chemicals Division started 1979 with production facilities for industrial chemicals and polystyrene and unsaturated polyester resins located in Arkansas, California, Florida, New Jersey, Ohio and Pennsylvania. In addition, a substantial portion of the non-agricultural chemicals processed or sold are initially produced in the coal chemical operations of Steel Manufacturing. Products sold include maleic anhydride, phthalic anhydride, plasticizers, phenol, acetone, polystyrene resins, unsaturated polyester resins and alcohols. Customers use these materials in the production of products such as paints, resins, adhesives, automotive components, construction materials and plasticizers. Other products sold include benzene, specification pitch and creosote. Bisphenol-A was added to the product line as new production facilities were brought on stream in the latter half of 1979. A substantial portion of these products are ultimately used by others in the production of consumer-related products. Consequently, activity tends to reflect consumer purchasing levels.

The ABS (acrylonitrile-butadiene-styrene) resin and latex products business of Uniroyal, Inc., with plants at Baton Rouge, Louisiana and Dalton, Georgia, was acquired early in 1979. ABS resins are used by customers who produce plastic products such as drain and vent pipes for residential construction, chrome-plated plastic automotive parts and refrigerator door liners. Latex is sold to the carpet industry for adhesive backing and to the paper industry for coating.

An olefin cracker unit producing ethylene and propylene, and a styrene monomer facility of ARCO Polymers, Inc., at Houston, Texas, were purchased early in 1979. The styrene monomer facility operated throughout 1979. The olefin cracker unit was placed in operation in the fourth quarter after installation of additional environmental control equipment. Production from both of these units will be used to satisfy a portion of existing raw material requirements of other industrial chemical and plastic resin facilities.

All of the outstanding stock of Novamont Corporation, a member of the Montedison Group headquartered in Milan, Italy, was purchased in June 1979. The acquired company, which has been renamed USS Novamont, Inc., has three plants located at La Porte, Texas, near Houston; Neal, West Virginia; and Florence, Kentucky. The La Porte plant was brought on stream in late 1979 and produces a broad range of homopolymers and copolymer polypropylene. The Neal, West Virginia facility produces homopolymer polypropylene. These two facilities provide resins for automotive parts, monofilament fibers, battery casings, housewares and packaging markets. The Florence, Kentucky plant produces acrylic sheet which is used for outdoor signs, lighting fixtures and modular tub and shower units.

USS Agri-Chemicals Division has 13 agricultural chemical plants located in nine states which convert own-produced ammonia and phosphoric acid along with purchased ammonia, potash and sulphur into various fertilizer products. These include normal and triple super-phosphate, ammonium phosphate, ammonium nitrate and blended and mixed bulk and liquid fertilizers. These products, along with purchased liquid animal feed, crop protection chemicals and seed, are merchandised by Corporation-owned farm service centers and independent dealers serving primarily the midwest and southern farm markets. Additionally, anhydrous ammonia and ammonium nitrate are sold for industrial applications.

Major capital projects for the Chemicals segment initially operated in 1979 are shown on page 12.

Chemicals sales are distributed among major product groupings as set forth below:

	% of Total Dollars				
	1979	1978	1977	1976	1975
Industrial & Coal Chemicals	39%	39%	45%	46%	42%
Plastic Resins	23	13	5	9	8
Agricultural	38	48	50	45	50
	100%	100%	100%	100%	100%

Resource Development

Quebec Cartier Mining Company (QCM), a wholly owned Canadian subsidiary, has mining rights in iron ore deposits in Saguenay County, Province of Quebec, Canada. These deposits contain proven and probable reserves of low-grade iron ore equivalent to approximately 1.8 billion net tons of recoverable high-grade concentrates. The concentrating facilities at the major open pit iron ore project at Mt. Wright, located about 70 air miles northeast of Gagnon, Quebec, started operations in 1976. Shipments were 16.3 million net tons in 1979 versus 11.1 million net tons in 1978. Public shipments in 1979 amounted to 78% of total shipments. Though world iron ore markets continued depressed, QCM operated at 80% of capacity during 1979.

Resource Development's ocean transport companies are independent subsidiaries engaged in the international transportation of bulk commodities. A program was initiated in 1976 to replace chartered vessels with owned vessels and thus expand business opportunities and profitability. Two vessels were acquired in 1979. Twelve vessels are now owned, including five bulk, four ore and three ore-bulk-oil cargo carriers. The arrangement to continue the transportation of a portion of Venezuelan iron ore products on a year-to-year basis, which was made with a Venezuelan government shipping company in 1975, was replaced with 10-year agreements beginning in 1978.

The Corporation started up a new coal mine in 1977 at its Cumberland reserves in Greene County in southwestern Pennsylvania under special arrangements primarily not involving U. S. Steel's credit. Initial shipments were made late in 1977. Production totaled 801,000 tons in 1979 and 400,000 tons in 1978. The production is all contracted for by Ontario Hydro (a Canadian power supplier), under a long-term contract to supply 90 million tons at a rate of 3 million tons annually. The mine complex also includes coal washing facilities and related railroad and river port facilities. The coal is transported by barge and rail to a Lake Erie port for pick-up by Ontario Hydro.

U. S. Steel owns a uranium project in Texas, which includes a plant where production capacity was expanded in 1978 from 150,000 pounds of "yellowcake" (U_3O_8 — uranium oxide) per year to 500,000 pounds. During 1979, production capacity was further expanded to 1,000,000 pounds. This expanded facility, coupled with a partnership interest in a neighboring uranium project in Texas (see page 10), makes available 1,500,000 pounds of "yellowcake" per year for sale by U. S. Steel. Shipments for 1979 were 1,193,000 pounds. The Corporation leases uranium properties in Texas with estimated recoverable reserves of low-grade uranium ore sufficient to permit these facilities to operate for the next five to eight years. A majority of these reserves are covered by leases with an initial minimum five-year term and the term can be extended or perpetuated indefinitely by continued production of uranium or other minerals.

In November, 1979, U. S. Steel's Whitwell, Tennessee coal property was leased to Tennessee Consolidated Coal Company (TCC), a wholly owned subsidiary of St. Joe Minerals Corporation. TCC will extend their adjacent current mining operations to the Whitwell reserve.

Orinoco Mining Company (OMC), a wholly owned subsidiary, owns 49% of Minerales Ordaz, C.A. (Minorca), which purchased a high iron briquette (HIB) plant from OMC. Corporacion Venezolana de Guayana, the owner of 51% of Minorca, is to purchase OMC's interest in Minorca in 1984.

Essex Minerals Company, a wholly owned subsidiary, is actively involved in raw materials exploration on a worldwide basis, conducting mineral exploration, either independently or in partnership with others, in many countries of the world.

Following organization changes made in late 1979, Resource Development is now responsible for all the Corporation's mineral resources, including those necessary to support steel operations.

Major capital projects for the Resource Development segment initially operated in 1979 and a project expected to be initially operated in 1980 are shown on pages 12 and 13.

Resource Development sales are distributed among major product groups as set forth below:

	% of Total Dollars				
	1979	1978	1977	1976	1975
Minerals	51%	56%	60%	63%	36%
Transportation Services	28	26	21	26	48
Other	21	18	19	11	16
	100%	100%	100%	100%	100%

Fabricating & Engineering and Other

American Bridge Division operates fabricating plants in California, Indiana, New York, Pennsylvania and Texas, and a construction department. A decision was made in 1979 to close the steel fabricating plant at Los Angeles, California. A sales agreement covering the majority of the property has been signed. The Gary, Indiana steel fabricating plant is being closed in mid-1980.

Oilwell Division manufactures a wide range of oil field drilling and pumping equipment at two plants located in Pennsylvania and Texas. A complete line of products, both own-produced and purchased, and services are marketed to the oil and gas industry through 91 strategically located distribution outlets. Oilwell is also a leading manufacturer of pumps used for slurry pipelines which transport, among other things, coal from mines to electric power generating plants. Order backlog for own-produced oil and gas field equipment extends into 1981.

U. S. Steel Supply Division markets steel products and related product lines through a network of 28 service centers across the United States. At mid-year, U. S. Steel's container manufacturing unit was merged into its steel service center division. Five steel drum producing plants are operated in California, Louisiana, Ohio, Missouri and Texas. Multipurpose plastic containers are produced at a plant in Georgia. U. S. Steel Supply Division container manufacturing plants at Chicago, Illinois and Camden, New Jersey are being permanently closed in 1980.

Alside, Inc., a wholly owned subsidiary, operates a plant in Ohio that manufactures aluminum and steel siding and other exterior building products which, along with purchased products, are distributed through a system of warehouses for the home improvement and new construction markets. Over the past five years, 26 new retail outlets have been opened.

USS Engineers and Consultants, Inc., a wholly owned subsidiary of the Corporation, sells technical services worldwide to the mining, iron and steelmaking, chemical and related industries. In January 1979, this subsidiary signed a protocol agreement which contemplates the design, engineering and development of the Chitashan mine project for the People's Republic of China. This subsidiary hopes also to provide technical assistance, training and operating assistance. If constructed, the project is expected to be one of the world's largest iron ore mines.

Universal Atlas Cement Division operates six plants in Alabama, Indiana, Kansas, Missouri, Pennsylvania and Texas for the manufacture of cement. Limestone requirements for these operations are supplied by properties described under Steel Manufacturing. Nine cement distribution stations are located in eastern, southern, central and southwestern United States. The cement operations shipped 3.2 million tons of cement during 1979 as compared with 3.7 million tons of cement in 1978. The permanent closing of the Cement Division's Universal, Pennsylvania, plant and the gray cement facilities at Buffington, Indiana, and Northampton, Pennsylvania, were announced in late 1979. In February 1980, U. S. Steel signed a letter of intent to sell its Universal Atlas Cement Division and associated proven and probable limestone reserves of 600 million tons to Heidelberger Zement A.G. of Heidelberg, Germany. The sale price substantially exceeds $100 million. Heidelberger Zement intends to continue to operate the Universal Atlas Cement facilities with substantially the present organization. No decision has been announced by Heidelberger with respect to the facilities whose discontinuance had been previously announced by U. S. Steel.

Real estate operations develop either already owned or newly acquired real estate for sale or lease and manage office buildings and certain of their developed shopping centers, industrial parks and condominiums.

A major capital project for Fabricating & Engineering and Other initially operated in 1979 and one expected to be initially operated in 1980 are shown on pages 12 and 13.

Fabricating & Engineering and Other sales are distributed among major product groupings as set forth below:

	% of Total Dollars				
	1979	1978	1977	1976	1975
Manufactured & Fabricated Products	51%	51%	52%	50%	57%
Buildings & Bridges	14	16	14	20	10
Services & Technical Assistance...........	25	23	24	21	24
Cement & Other	10	10	10	9	9
	100%	100%	100%	100%	100%

Domestic Transportation & Utility Subsidiaries

Subsidiary common carrier railroads operate an aggregate of 1,265 miles of main line track. Portions are held under easement, lease, or other title less than fee but sufficient for railroad operations. At the end of 1979, the equipment of these railroads included 450 diesel units, 30,211 revenue freight cars, and 235 units of service equipment, some of which were leased. In addition, a materials handling company provides dock and stevedoring services for the handling of bulk commodities. The new taconite pellet storage and shiploading facilities of the Duluth, Missabe and Iron Range Railway Company at the port of Two Harbors, Minnesota, operated throughout 1979. This port will now accommodate year-round the largest vessels on the Great Lakes. New and expanded pellet plants of customers are expected to result in full utilization of these facilities. Expansion of Bessemer and Lake Erie Railroad's coal handling and storage facilities at Conneaut, Ohio, was completed in 1979. With capability increased by 50%, the facilities will be able to handle increases expected in Great Lakes coal movements.

This segment's barge lines are engaged principally in river transportation of iron and steel products and bulk materials, including ore and coal. Operations are predominantly on the Monongahela, Ohio, Mississippi, Warrior and Tombigbee Rivers and on the Gulf Intercoastal Waterway serving U. S. Steel and others in the Pittsburgh, Pennsylvania; Birmingham, Alabama and Baytown, Texas areas. At the end of 1979, the barge lines owned in aggregate 706 barges and 32 towboats. Two barge lines are regulated by the Interstate Commerce Commission and the other barge lines are exempt from regulation by reason of their self-imposed restriction to the haulage of bulk materials.

U. S. Steel's independently operated subsidiary gas companies produce and distribute gas to residential, commercial and industrial customers, including U. S. Steel's mills in the Pittsburgh, Pennsylvania area.

Domestic Transportation & Utility Subsidiaries sales are distributed among major commodities handled as set forth below:

	% of Total Dollars				
	1979	1978	1977	1976	1975
Iron Ore & Agglomerates	26%	26%	23%	25%	28%
Coal	15	14	16	14	15
Steel & Other Metals	8	10	10	10	11
Switching, Demurrage & Other	51	50	51	51	46
	100%	100%	100%	100%	100%

Investments

In addition, the Corporation is involved in other activities through investments in companies that are not consolidated in its financial reports (see Note 3 to the Financial Statements on pages 43 and 44). These investments are primarily in companies and ventures which are involved in minerals exploration and mine development, mining, manufacturing, realty, and leasing and finance operations.

Domestic

In 1976, U. S. Steel increased from 25% to 50% its partnership interest in a uranium project in Texas. The production capacity of 250,000 pounds of uranium oxide per year was expanded to 1,000,000 pounds in 1978. U. S. Steel's share of this capacity is 500,000 pounds.

RMI Company, a partnership owned equally with National Distillers and Chemical Corporation and located in Ohio, is a major producer of titanium sponge and titanium mill products.

USS Agri-Chemicals Division, through joint ventures, operates a phosphoric acid plant and a phosphate rock mine in Florida.

A wholly owned subsidiary of U. S. Steel owns a 25% interest in Northern Tier Pipeline Company. Northern Tier has received the Federal government's endorsement for expedited Federal regulatory treatment to construct and operate a 1,500-mile-long, large diameter crude oil pipeline from Port Angeles, Washington eastward across the United States to Minnesota. Northern Tier still must receive permits from various Federal and state agencies and arrange financing.

A joint venture was formed during 1977 by U. S. Steel and a major oil company to acquire, explore, and develop oil and gas leases in the Louisiana and Texas coastal belt.

U. S. Steel and a national real estate developer, through a joint venture, constructed a new shopping center near Pittsburgh, Pennsylvania which opened in 1979.

U. S. Steel Credit Corporation and Percy Wilson Mortgage and Finance Corporation, wholly owned subsidiaries, are engaged in a variety of financing, leasing and mortgage servicing activities.

U. S. Steel has a partnership interest in Trinity Place Company, which owns and operates a 54-story office building in New York City.

Essex Minerals Company has a partnership interest in Ocean Mining Associates, an ocean floor minerals exploration company.

USS Chemicals and Texaco, Inc., have formed a joint venture to market high-density polyethylene. This product is widely used in containers, housewares and other consumer products; high rates of growth appear likely in the 1980's. Engineering studies are under way for a proposed manufacturing plant for the joint venture that could commence operation in 1983.

In December 1979, USS Chemicals and Tenneco Chemicals, Inc., signed a letter of intent to form a joint venture to manufacture phthalic anhydride and a plasticizer alcohol. The agreement contemplates construction of new world-scale production facilities in the Houston, Texas area. The units could be in production during 1982. These materials will further strengthen the raw materials base for certain product lines.

Foreign

U. S. Steel's principal direct and indirect ownership interests in foreign unconsolidated companies are:

Company	Country	% Ownership	Activity
Exploration & Development			
P. T. Pacific Nikkel Indonesia	Indonesia	49%	Nickel & Cobalt
Mining			
Oresteel Investments (Pty.) Ltd.	South Africa	49%	Holding Company — Mining
Prieska Copper Mines (Pty.) Ltd.*	South Africa	46%	Copper & Zinc Concentrates
Compagnie Miniere de l'Ogooue**	Gabon	44%	Manganese Ore
Associated Manganese Mines of South Africa, Ltd.	South Africa	20%	Manganese & Iron Ores
Sidbec-Normines, Inc.	Canada	8%	Iron Ore Mining, Concentrating & Pelletizing
Manufacturing			
Terninoss Acciai Inossidabili, S.p.A.	Italy	50%	Stainless Steel Products
Minerales Ordaz, C.A.	Venezuela	49%	Partially Reduced Iron Ore Briquettes
Feralloys Ltd.	South Africa	45%	Ferromanganese & Ferrochrome
Zuari Agro Chemicals, Ltd.	India	36%	Fertilizer
Altos Hornos de Vizcaya, S. A.	Spain	25%	Steel Products

*Estimated crude ore reserves 22 million net tons, averaging 3.91% zinc and 1.72% copper. 1979 shipments 133,000 net tons of copper concentrates and 133,000 net tons of zinc concentrates.

**Estimated reserves of manganese ore 119 million net tons; 1979 shipments 2.6 million net tons.

Plant and Equipment Expenditures

During the five years 1975-1979, the Corporation made capital expenditures aggregating $4,256.2 million for plant and equipment improvement, replacement and modernization covering many aspects of its operations. Capital expenditures for each of these years in millions were as follows: 1975—$787.4, 1976—$957.3, 1977—$864.7, 1978—$667.8 and 1979—$979.0. In 1980, it is anticipated that expenditures will be slightly less than those of 1979. In comparison with expenditures of $4,256.2 million, wear and exhaustion costs amounted to $1,944.9 million during the five years 1975-1979. Retirements from plant and equipment, during the period, in millions were as follows: 1975—$149.9, 1976—$130.0, 1977—$220.9, 1978—$83.2, and 1979—$177.7 (1979 excludes amounts attributable to planned permanent shutdown of facilities, see Note 19 to the Financial Statements).

During the past five years, the expenditures have been primarily for the construction, acquisition, modernization and expansion of facilities for the mining and beneficiation of raw materials; for steel production, finishing and fabrication; for chemical processing and distribution; and for environmental control associated to these and other facilities.

During 1979 authorizations for new facilities were $964 million as compared to $713 million for 1978. It is anticipated that 1980 authorizations will be somewhat less than those of 1979.

At December 31, 1979, authorized projects will require estimated expenditures of $1,030 million compared with $1,045 million in 1978. Wear and exhaustion of facilities for 1979 was $532 million. It is currently expected that, for the near-term, new borrowings will be limited to those for environmental control facilities or attractive project financings.

The amounts to be expended, the periods in which the expenditures may be made, and the amounts and sources of funds available may vary substantially. The making of any additions and improvements may be postponed or the plans for any of the additions and improvements now authorized or contemplated may be altered if changes in the market conditions for steel or other products, in steelmaking practices and technology, in the results of operations or in the availability of materials make such action advisable.

On June 19, 1979, the U. S. Army Corps of Engineers granted a permit for water intake and dock extension facilities at the proposed "greenfield" steel plant near Conneaut, Ohio. This action followed issuance of a final Environmental Impact Statement, prepared in cooperation with the Federal Environmental Protection Agency, representatives of the States of Pennsylvania and Ohio and county and local agencies, which encompassed air, water and noise pollution, the impact on contiguous land and water, on local and regional development patterns, highways, rail transportation and community stability. Under the terms of the permit, construction of the subject facilities must commence by December 1983 and be completed by December 1989. Further approvals and permits must be obtained from the Federal Environmental Protection Agency and the States of Ohio and Pennsylvania. Further action by the Corporation will depend upon an improvement in steel's cost-price relationship to justify the investment and upon the world and domestic economic situation, especially as it relates to steel. Preliminary estimates of the cost to build a fully integrated "greenfield" steel plant with a minimum initial capacity of 3,000,000 tons of finished products, including necessary raw materials, transportation and other support facilities, exceed $4 billion.

A listing of the major projects initially operated in 1979 and others currently under construction follows:

Major Projects Initially Operated in 1979

Steel Manufacturing

Rehabilitation of Two Coke Batteries — Clairton, Pa.
Rehabilitation of Three Coke Batteries — Provo, Utah (Geneva Works)
Rehabilitation of Coke Battery — Fairfield, Ala.
Water Quality Control Facilities — Gary, Ind.; Rankin, Pa.; and Lorain, Ohio
Rehabilitation of Coke Battery — Lorain, Ohio
Coal Mine — 0.5 Million Net Tons Per Year — Wyoming County, W. Va.
One 1,000-Foot Vessel (EDWIN H. GOTT) — Great Lakes Fleet

Chemicals

Phenol Expansion — Haverhill, Ohio
Unsaturated Polyester Resin Facilities — Neville Island, Pa.
Nitrogen Derivative Facilities — Crystal City, Mo. and Cherokee, Ala.
ABS Resin and Latex Products Facilities (Acquisition) — Baton Rouge, La. and Dalton, Ga.
Olefin Cracker and Styrene Monomer Facilities (Acquisition) — Houston, Texas
Polypropylene Resin and Acrylic Sheet Facilities (Acquisition) — La Porte, Texas; Neal, W. Va.; and Florence, Ky.

Resource Development

Uranium Production Facilities Expansion — Live Oak County, Texas
Two Ocean Vessels — Navios Corporation

Fabricating & Engineering and Other

Vinyl Siding Manufacturing Facilities — Akron, Ohio

Major Projects Expected to be Initially Operated in 1980

Steel Manufacturing

High Strength Steel Quench and Temper Line — McKeesport, Pa. (National Works)
Cold Rolled Sheet Facility Improvements — Gary, Ind.
Bloom Conditioning Facilities — Gary, Ind.
Seamless Mill Rotary Hearth Furnace — Gary, Ind.
Rehabilitation of Two Coke Batteries — Gary, Ind.

Air Quality Control Facilities for Sinter Plant — Gary, Ind.
138 K.V. Electrical Power System — Clairton, Pa.
Coal Preparation and Handling Facilities — Clairton, Pa.
Replace Two Coke Batteries — Clairton, Pa.
Water Quality Control Facilities — Dravosburg, Pa.; Duquesne, Pa.; Homestead, Pa.; and Fairless Hills, Pa.
One 1,000-Foot Vessel — Great Lakes Fleet

Resource Development

Iron Ore Loading Wharf Extension — Quebec Cartier Mining Company — Canada

Fabricating & Engineering and Other

Sucker Rod Production Facilities Expansion — Oil City, Pa.

ALL PROJECTS INCORPORATE MODERN ENVIRONMENTAL CONTROL EQUIPMENT IN ADDITION TO THOSE SPECIFICALLY IDENTIFIED AS ENVIRONMENTAL CONTROL PROJECTS.

Research and Development

The Corporation's research and development activities are carried on, in the main, at its research laboratory in Monroeville, Pennsylvania. These activities are devoted to developing processes for conservation of energy, improved technologies for meeting environmental regulations, improved processes for obtaining and upgrading raw materials required for production operations, improved processes for steelmaking, improved products in steel, chemicals and other product lines, achieving higher productivity, serving customers in the selection and use of the Corporation's products and generating basic scientific information for future developments. Expenditures for research and development were $57 million and $53 million in 1979 and 1978, respectively.

U. S. Steel's research efforts in 1979 continued to be directed both toward projects which will in the near-term result in improved productivity and improved product quality and toward long-range research activities. During 1979, technology transferred from the laboratory to practical applications aided in increasing blast furnace efficiency, in improving steelmaking practices and in energy conservation.

Research implemented a computerized raw material and energy balance information system for U. S. Steel's five largest blast furnaces. With this system, the furnace operator can quickly adjust practices to optimize furnace operations and efficiency. The system will be implemented on other Corporate blast furnaces in 1980.

Research assisted in developing an improved operating control system for basic oxygen steelmaking which already is resulting in decreased steelmaking time, reduced oxygen usage, improved product yield and increased furnace lining life.

Long-range research activities in both steel and nonsteel are under way in areas such as raw materials processing, production systems control, product improvement and new product development.

Energy

Energy management is an important aspect of U. S. Steel's operations. In 1972, expenditures for energy used in manufacturing operations were about $600 million. This expense rose to the level of $1.75 billion in 1978 and continues to increase. During the same period, supplies of natural gas and petroleum products have occasionally been interrupted. U. S. Steel is most interested in conserving energy, controlling energy expenses, and planning so as to reduce the impact of future fuel shortages.

The Corporation's primary fuel is coal. Coal supplies about two-thirds of the Corporation's net energy needs and, normally, over 60% of the coal used by U. S. Steel is produced by U. S. Steel's mines. The remaining energy requirements are provided by purchased coal, natural gas, fuel oil and electric power.

During the past year the Corporation has been coping with the uncertainties in our nation's international oil supply as well as uncertainties of programs being implemented pursuant to the energy legislation of late 1978.

The Natural Gas Policy Act of 1978 was designed to permit gradual deregulation of the price of natural gas at the well-head, until total deregulation is reached in 1985. In Title II of the Act, Congress mandated a program of "incremental pricing" whereby residential consumers of gas are to be shielded from the higher costs of gas that would occur due to deregulation. The subsidy is provided, however, by forcing industry to pay a premium for gas it uses. The premium to be paid is tied to the cost of oil. As presently proposed, the implementation of Title II would cause U. S. Steel's costs for natural gas in 1981 to increase in an amount currently very broadly estimated at $327 million. It is hoped that final implementing regulations will reduce this cost impact.

The Powerplant and Industrial Fuel Use Act of 1978 will also have an impact on U. S. Steel. This Act is the basis for the Federal Government's current program to require industry to fire certain equipment with coal rather than gas or oil. Such conversions to burn coal will require substantial non-productive capital expenditures for U. S. Steel, over and above those required for environmental control. The effects of this legislation are expected to be felt primarily in 1981 and the following years.

Other energy acts of 1978 dealing with electric utility rates and conservation are also expected to have a cost impact on the Corporation, the extent of which is still unpredictable.

Environment and Other Regulatory Matters

The Corporation's operations are subject to continuing and new regulatory demands imposed by Federal, state and local laws and regulations relating to the storage, handling, emission and discharge of materials into the environment and the maintenance of safe conditions in the workplace. These demands arise from various legislative enactments, including the Federal Water Pollution Control Act, the Resource Conservation and Recovery Act, the Federal Clean Air Act, the Toxic Substances Control Act, the Occupational Safety and Health Act, the Coal Mine Health and Safety Act and the Surface Mining Control and Reclamation Act. These continuing and new regulatory demands will have an adverse impact upon the Corporation. Because of numerous uncertainties, it is difficult to ascertain the extent of this impact.

One important element of uncertainty as to the extent of the adverse impact upon the Corporation of compliance with these enactments is created by the fact that regulations implementing the Resource Conservation and Recovery Act and the Surface Mining Control and Reclamation Act are not yet final. Another important element of uncertainty is that despite the mandatory statutory deadlines of December 31, 1982, and July 1, 1984, respectively, for the Federal Clean Air Act and the Federal Water Pollution Control Act, the necessary guidelines for compliance with regulations issued under the Water Act have not yet been published and State Implementation Plans under the Air Act for areas in which most of the Corporation's facilities are located which were to have been revised and approved by the Federal Environmental Protection Agency (EPA) by July 1, 1979, have not yet been revised or approved. Such guidelines and plans may include more stringent requirements than presently in effect but there is no clear definition of this at this time.

An additional element of uncertainty as to the extent of the adverse impact upon the Corporation is the mandatory penalty provision of Section 120 of the 1977 amendments to the Federal Clean Air Act. Regulations implementing Section 120 were to have been published in early 1978 but they have not yet been published. Following the issuance of such regulations, the Corporation expects to receive notices of noncompliance as to certain facilities and will be required either to contest the issue of noncompliance or to calculate and pay substantial penalties. Fundamental questions with respect to interpretation of Section 120 were raised by industry comment on proposed Section 120 regulations. The resolution of these questions by EPA in its final regulations, as well as resolution of the issue of noncompliance under each notice, will have a substantial bearing on the amount of Section 120 penalties that may be paid. Thus, an accurate estimate of such penalties is not possible at this time. The EPA has issued a preliminary estimate stating that the Corporation's liability for such penalties could be in the range of $70 million to $115 million.

In 1979, total authorizations (capital and cost) for installation of pollution abatement facilities amounted to $218 million, or 20% of all authorizations for improvement, or replacement and modernization of plant and equipment. During the past five years, $820 million, or 18% of all authorizations made by the Corporation for improvement, or replacement and modernization of plant and equipment, were for installation of pollution abatement facilities.

The Corporation's future expenditures for installation of pollution abatement facilities are impossible to predict accurately. Any such prediction is subject to increase or decrease depending upon the resolution of certain factors herein mentioned. Environmental legislation and regulations, and related administrative policies, are constantly changing. Moreover, such environmental provisions are frequently vague and subject to widely differing interpretations by those subject to them, by pollution control authorities and by the courts. Agency interpretations and enforcement of these laws and regulations are not always consistent.

The uncertainty regarding the level of control required to achieve compliance in turn makes it difficult to identify the pollution control facilities that will be required, and hence, the costs that will be incurred. Moreover, pollution control technology is constantly advancing; consequently, the facilities that will be installed to solve various pollution problems often cannot be predicted in advance—especially where no technological solution yet exists. Technological developments presently unknown could have a profound impact upon the cost of pollution control. Indeed, developments in operating procedures and process changes can sometimes effectuate reductions in the discharge of pollutants with the expenditure of little or no capital. All of these variables, as well as inflationary factors affecting the economy generally, render cost projections highly speculative.

Because it is so difficult to project the level of expenditures that will be required, it is difficult to assess the impact that environmental laws and regulations will have on the Corporation's operations. For example, where the expenditures required for pollution abatement appear disproportionately high in relation to the value of a particular facility, the Corporation might well elect to discontinue operations at that facility, reduce its capacity, or take other steps to eliminate, or reduce the amount of, such expenditures. Such decisions can only be made when the expenditures required can be estimated with sufficient accuracy to permit an informed cost-benefit analysis to be made in light of then current market conditions.

For all these reasons, the Corporation is unable to predict with certainty its total future expenditures for installation of pollution control facilities. At the present time, however, the Corporation anticipates that it will make expenditures for pollution abatement facilities of approximately $220 million in 1980 and $220 million in 1981. In 1979, the Corporation spent $215 million for such purposes. During the past five years, $640 million or 13% of all expenditures made by the Corporation for improvement, or replacement and modernization of plant and equipment, were for installation of pollution abatement facilities.

Predictions beyond 1980 can only be broad-based estimates, in many cases without any detailed engineering or other documentary support, for the purpose of determining the order of magnitude of capital expenditures that will be required to bring existing facilities, which are currently expected to be economically operational, into compliance with such regulations. Assuming (a) only minor changes in operating procedures, (b) no process changes and (c) compliance by all Corporation facilities with such laws and regulations as presently enforced, these estimates indicate that during the period 1980 through 1984 expenditure authorizations for these purposes may range between $1,370 million to $1,920 million (in 1979 dollars and includes capitalization of own engineering and interest costs).

Pollution control requirements can adversely affect earnings of the Corporation in a number of ways. For example, costs associated with facility closures or curtailments to preclude uneconomic environmental expenditures could materially adversely affect earnings. Certainly, expenditures for pollution control facilities divert capital from the construction of income producing facilities. Earnings are adversely affected by operating costs for pollution abatement facilities (which are currently estimated at approximately $260 million to $280 million per year), the annual cost of capital (interest and depreciation) for pollution abatement facilities (which in 1979 amounted to about $105 million), and by civil penalties imposed on the Corporation as a result of noncompliance with applicable environmental laws and regulations. To preclude this adverse impact upon the Corporation's earnings, such operating costs, capital-related costs and penalties will have to be recovered through cost-covering price increases on the Corporation's products, market conditions permitting.

The outcome of the numerous pending and potential administrative and judicial proceedings, as well as future legislative and regulatory changes relating to Federal, state or local provisions which have been adopted regulating the discharge of materials into the environment, will be significant factors in determining the specific amount of expenditures required for this purpose and the periods of time for achieving environmental goals. It is EPA's policy to assess substantial civil penalties for noncompliance with environmental requirements under specified circumstances and to credit against those penalties certain environmental facility expenditures. It is not possible at this time to estimate the specific amount of such penalties that might be assessed against the Corporation or the outcome of any pending or future proceeding in which penalties are sought. However, it is not anticipated that the outcome of such proceedings should result in a material adverse effect upon the consolidated net worth of the Corporation.

The Corporation believes that other major domestic steel producers are confronted by substantially similar problems and thus does not believe that its competitive position with regard to such other producers is materially affected by the impact of environmental laws and regulations. However, with regard to foreign producers and producers of materials which compete with steel for customer usage, the Corporation believes that compliance with environmental laws and regulations may have an adverse effect on its competitive position. The extent of any such effect depends upon information which is not within the knowledge of the Corporation.

Compliance with the environmental laws and regulations is the policy of the Corporation. As indicated, however, it has been exceedingly difficult to identify the total applicable requirements with which the Corporation must comply. In the past, the Corporation has found that many of the requirements sought to be imposed on the Corporation by environmental authorities have been unreasonable, in that these standards have been technologically unattainable or of little environmental benefit compared with the cost and energy requirements necessary to achieve them. The Corporation has actively resisted such requirements in the past in administrative, legislative, and judicial forums and in the best interests of its stockholders, must continue to question such unreasonable requirements in the future. Likewise, the Corporation has and will continue to question a Federal, state or local agency's interpretation of an environmental regulation, or question the validity or propriety of an enforcement policy an agency may attempt to implement, where the Corporation believes such to be inconsistent with applicable legal requirements. In pursuing this approach, the Corporation recognizes that it may find itself in an adversary position with regulatory authorities and may thereby be exposing itself to certain risks, including the risks of incurring penalties or fines in particular cases.

Where the Corporation and an environmental control agency have a difference of opinion, the Corporation enters into constructive, good faith negotiations for the purpose of agreeing upon terms and conditions under which the Corporation can continue its operations in compliance with environmental requirements.

Employees, Wages and Labor Relations

The average total number of employees for 1979 was 171,654 and in 1978 was 166,848. The average total cost to the Corporation of an hour's work for a wage earner engaged in steel producing operations, including fringe benefits, increased from an average of $14.13 for 1978 to $15.74 for 1979 and by year-end 1979 was $16.77.

At the end of 1979, approximately 63% of the Corporation's employees were represented by the United Steelworkers of America and approximately 5% were represented by the United Mine Workers of America. The others were represented by other unions or not represented by any union.

The Coordinating Committee Steel Companies reached agreement with the United Steelworkers of America on April 9, 1977, for a three-year agreement which expires July 31, 1980. The agreement provides for an hourly base wage increase of $.80 to $1.12 an hour over its life, depending on the job class, plus continuation of the cost-of-living adjustments (COLA). In addition, the agreement provides for improvements in pensions, supplemental unemployment benefits, insurance and other benefits, including special provisions for employees with 20 or more years of service. The total cost of the agreement will vary with the rate of inflation over the life of the agreement as well as with operating and market factors. More than half the projected cost of this settlement is attributable to COLA and other inflation-related benefit costs. These increases, along with other continuing cost increases that exceed expected gains in productivity, will ultimately have to be recovered in price.

The 1977 agreement extended the Experimental Negotiating Agreement (ENA), first adopted in 1973, which precludes industry-wide work stoppages or lockouts through July 31, 1983. The union retains the right to strike over local issues. The ENA guarantees, as a minimum, yearly increases of 3% in wages, or a combination of wages and fringe benefits if the Company and union agree, for each year of the 1980 contract; continued protection against increases in the cost-of-living; and a one-time bonus of $150 for each employee who meets the eligibility requirements as of August 1, 1980. Negotiations are currently under way between the Coordinating Committee Steel Companies and the Union. Under the terms of the ENA, if a settlement is not reached by April 15, 1980, the issues will be submitted to an impartial arbitration panel for final and binding decision — thus avoiding the possibility of an industry-wide strike or lockout.

On March 24, 1978, the membership of the United Mine Workers of America ratified a three-year agreement between it and the Bituminous Coal Operators' Association, of which U. S. Steel is a member, thus settling the industry-wide coal strike which began on December 6, 1977. The agreement provides for wage increases in each of the three years, a guaranteed cost-of-living adjustment in the second and third years, more vacation days, an increase in shift differential payments, and a guarantee of health and pension benefits, as well as other various improvements in such benefits. The coal labor agreement also provides, for the first time, that production bonus plans may be installed.

In the Corporation's coal operations, 435,000 man-days of production, which are equivalent to an estimated 3.8 million tons of coal, were lost in 1978, due principally to the industry-wide coal strike. Since the end of the strike, U. S. Steel has experienced virtually no unauthorized work stoppages.

Adjustments have been made from time to time in the wages, salaries and other conditions of employment (including insurance, pensions and other employee benefits) of other employees.

In addition to the above employment cost changes, there were legislated cost increases for social security taxes.

2. Summary of Operations

United States Steel Corporation
Summary of Operations

	Dollars in Millions (except as noted)				
	1979	1978	1977	1976	1975
Sales	$12,929.1	$11,049.5	$9,609.9	$8,607.8	$8,171.3
Operating Costs					
Cost of Sales (Excludes items shown below)	10,705.3	9,046.4	7,944.5	6,720.1	6,174.5
Selling, General and Administrative Expenses	423.5	372.4	349.5	318.8	320.7
Pensions, Insurance and Other Employee Benefits	769.4	693.6	572.1	538.7	494.6
Wear and Exhaustion	531.5	435.6	372.0	308.6	297.2
State, Local and Miscellaneous Taxes	237.9	215.4	196.3	197.1	180.1
Operating Income (Excludes items shown below)	261.5	286.1	175.5	524.5	704.2
Interest, Dividends and Other income	196.0	155.3	81.2	108.2	138.6
Interest and Other Financing Costs	(184.0)	(191.4)	(154.8)	(114.4)	(82.9)
Gain from Sale of Timberland	—	—	—	—	63.7
Income Before Items Shown Below	273.5	250.0	101.9	518.3	823.6
Unusual Items	(949.9)	—	—	—	—
Provision (Credit) for Taxes on Income	(293.0)	8.0	(36.0)	108.0	264.0
Income (Loss) Before Cumulative Effect on Prior Years of Changes in Accounting Principles	(383.4)	242.0	137.9	410.3	559.6
Cumulative Effect on Prior Years of Changes in Accounting Principles	90.4	—	—	—	—
Income (Loss)	$ (293.0)	$ 242.0	$ 137.9	$ 410.3	$ 559.6
Income (Loss) Per Common Share in Dollars (a) —					
Primary: (b)					
— Before cumulative effect on prior years of changes in accounting principles	$ (4.46)	$ 2.85	$ 1.66	$ 5.03	$ 6.89 (c)
— Cumulative effect on prior years of changes in accounting principles	1.05	—	—	—	—
— Income (Loss)	$ (3.41)	$ 2.85	$ 1.66	$ 5.03	$ 6.89 (c)
Fully diluted:					
— Before cumulative effect on prior years of changes in accounting principles	$ (4.46)(e)	$ 2.78 (d)	$ 1.66 (e)	$ 4.90 (d)	—
— Cumulative effect on prior years of changes in accounting principles	.98	—	—	—	—
— Income (Loss)	$ (3.41)(e)	$ 2.78 (d)	$ 1.66 (e)	$ 4.90 (d)	—
Dividends Per Common Share (in dollars)	$ 1.60	$ 1.60	$ 2.20	$ 2.12	$ 1.87

(a) Adjusted for May 12, 1976 three for two stock split.

(b) Weighted average number of shares outstanding: 1979—86,030,306; 1978—84,961,076; 1977—83,011,299; 1976—81,639,822; 1975—81,261,764.

(c) Includes income from sale of timberland of $44.6 million ($.55 per share) after $19.1 million provision for income tax.

(d) Weighted average number of shares outstanding assuming conversion of 5-3/4% convertible subordinated debentures at June 21, 1976—85,001,239; 1978—91,095,738.

(e) Conversion of convertible debentures excluded from fully diluted computation because of anti-dilutive effects.

Management Discussion and Analysis of Summary of Operations

Years 1979—1975

Sales were $8.6 billion in 1976, compared with $8.2 billion in 1975. Although the volume of sales for steel, industrial chemicals, agricultural chemicals and other products and services all increased in 1976, the gains in income normally associated with this did not offset continuing increases in the costs of labor and purchased goods and services. Prices of selected steel products were increased in mid-1976, but not in sufficient magnitude to cover the increased costs. Where market conditions permitted, certain price actions were taken late in the year. Published steel prices at year-end 1976, as compiled by the Bureau of Labor Statistics, were 9% higher than year-end 1975.

Sales increased $1.0 billion from 1976 to 1977, primarily in Steel Manufacturing and Fabricating & Engineering and Other. Steel shipments of the Steel Manufacturing segment were at about the same level as those in 1976. The 12% increase in sales in 1977, compared with 1976, resulted from both steel price increase realizations which only partially covered increased costs and a modest improvement in the mix of steel products shipped. Steel price increases realized in the marketplace were depressed in 1977 due to the high level of steel mill product imports which were 17.8% of apparent domestic supply, compared with 14.1% in 1976. In Fabricating & Engineering and Other, revenues increased for most products with the exception of sales to customers serving heavy construction markets.

Sales increased from $9.6 billion in 1977 to $11.0 billion in 1978, mainly in Steel Manufacturing, Chemicals and Domestic Transportation & Utility Subsidiaries. In Steel Manufacturing, the increase in sales in 1978 resulted from a combination of more steel shipments and higher prices, with higher steel shipments accounting for nearly half of the additional sales. The increase in Chemical sales came from increased volume for most product lines, even though prices of many products were lower. The increase in sales of Domestic Transportation & Utility Subsidiaries principally reflects authorized freight rate increases and a higher volume of rail shipments.

Sales increased from $11.0 billion in 1978 to $12.9 billion in 1979. All industry segments reported increases. In Steel Manufacturing, the increase during 1979 resulted primarily from steel price increases, which only partially covered increased costs. In nonsteel industry segments, the increase was primarily due to higher volume and increased prices.

In 1976, the cost of sales, which consists largely of the costs of employment (excluding costs of pensions, insurance and certain employee benefits) and of purchased products and services, increased due to the higher volume of business as well as increases in hourly employment cost and in the prices for purchased goods and services.

From 1976 to 1977, the cost of sales increased $1.2 billion as a result of increases in contractual hourly employment costs and in the prices for purchased goods and services. The effects of a record cold winter and the energy shortage that prevailed significantly impacted virtually all operations, particularly in January and February 1977.

In 1978, the cost of sales increased 14% from 1977 reflecting primarily higher volumes of business, higher average hourly employment costs and increased prices of products and services purchased. From August 1977 through the end of 1978, many of U. S. Steel's locations throughout the country were hampered by a number of labor disruptions, resulting in lower productivity and higher costs. These disruptions included an industry-wide coal strike, a strike at the Norfolk and Western Railway Company, the strike by the Fraternal Association of Steel Haulers and lingering effects from the 1977 iron ore strike. Cost-price pressures were also exerted from a record level of steel mill product imports which accounted for 18.1% of apparent domestic supply, from continuing and high start-up costs of new facilities, and from major planned and unplanned maintenance outages.

In 1979, total cost of sales increased 18% from 1978, primarily reflecting increases in contractual hourly employment costs and in prices for purchased goods and services. Cost increases were substantially higher than price increases permitted under the Administration's Voluntary Wage-Price Guideline Program, creating a serious cost-price squeeze.

Between 1975 and 1979, there were quantity reductions in many LIFO inventory pools—a common and frequent occurence in U. S. Steel. Inventory liquidations occur generally as a consequence of planned inventory programs to support changes in process technology, customer product specifications and market conditions, and because of the discontinuance of product lines. In 1978, Steel Manufacturing costs benefited from the liquidation of certain raw material inventory pools which had been built up in prior years in anticipation of a possible work stoppage in coal operations. In addition, there were continuing benefits in 1978 from further planned reductions in other inventories, particularly ores, in order to bring the levels of these inventories into line with changed operating conditions. A computation of the effect of LIFO quantity reductions was made in conformance with the Internal Revenue Service procedure. Included in cost of sales and income before taxes were credits from inventory liquidations of $118.7 million in 1979, $124.5 million in 1978, $76.0 million in 1977, $55.9 million in 1976 and $58.3 million in 1975. From 1975 through 1977, these credits were more than offset by the lag in price increases needed by U. S. Steel to offset continuing cost increases. In 1978, these credits were more than offset by lower operating efficiency because of strikes, facility outages and start-up costs of new facilities. In 1979, these credits were again more than offset by the lag in price increases needed to offset continuing cost increases.

Pensions, insurance and other employee benefits increased $121.5 million from 1977 to 1978, primarily as a result of increased pension costs. The provision for costs of pension plans administered by United States Steel and Carnegie Pension Fund was $331.7 million in 1978 and $234.5 million in 1977. The increase in costs resulted principally from the increase in non-contributory pension benefits negotiated in 1977 and from actuarial losses incurred since the last triennial valuation which primarily resulted from heavier than anticipated early retirements and from less than anticipated appreciation of trust assets. In 1979, pensions, insurance and other employee benefits increased $75.8 million, reflecting increased pension and insurance costs. The provision for costs of pension plans administered by United States Steel and Carnegie Pension Fund increased $21.8 million to $353.5 million. This cost excludes pension costs attributable to shutdown of facilities. The increase in costs resulted principally from higher payrolls coupled with an increase in non-contributory pension benefits negotiated in 1977. (See Notes 14 and 19 to the Financial Statements on pages 47 and 51, respectively, for further details on pensions.) The increased insurance costs were largely due to escalating health care costs.

Wear and exhaustion increased $63.4 million from 1976 to 1977 as a result of recently installed facilities coming on stream primarily in the Steel Manufacturing and Resource Development segments. In 1978, wear and exhaustion increased $63.6 million from 1977, principally from new facilities becoming operational. In 1979, wear and exhaustion increased $95.9 million from 1978 reflecting new facilities becoming operational, adoption in 1979 of two preferred methods of accounting principles, and adoption of Financial Accounting Standard No. 34. (See Note 21 to Financial Statements on page 52 for details on the changes in accounting principles.)

From 1978 to 1979, state, local and miscellaneous taxes increased by $22.5 million, largely due to increased production of iron ore and coal.

The five-year trend in operating income for each of U. S. Steel's industry segments is summarized on page 2 and in Note 23 to the Financial Statements on page 54.

In Steel Manufacturing, the decline in operating income through 1977 was primarily due to the factors discussed in the analysis of sales and cost of sales above. In 1977, despite work force cutbacks, periodic curtailments of operations, reduced workweeks, layoffs and many other actions taken, an operating loss of $59.9 million was incurred. In 1978, gains normally associated with higher volume, a modestly improved cost-price relationship, and inventory liquidations were largely wiped out by lower operating efficiency because of strikes, facility outages and start-up costs of new facilities, as discussed above. With strong steel markets in the first half of 1979, operating income trended upward. However, income in the second half was adversely impacted by a decline in demand, continued cost-price pressures, and substantial costs to implement major programs necessary to maintain and improve future operations. As a result, Steel Manufacturing reported an operating loss of $102.5 million for the year, principally due to unprofitable operations at Gary (Indiana) Works, South (Chicago, Illinois) Works, Fairfield (Alabama) Works and Texas Works.

The decline in Chemical's operating income between 1975 and 1978 was due to a number of factors. Industry facility expansions and inventory liquidations resulted in temporary excess capacity for many products with subsequent softening of prices. Costs increased significantly throughout this period, particularly purchased feedstocks, reflecting largely increased energy-related costs and a general escalation of costs within the industry. Increased costs also reflected growth costs, which consist principally of research, engineering and start-up expenses for new facilities. However, with growing markets, with new products available and with higher prices, operating income increased significantly in 1979.

The decline in Resource Development's operating income in 1977 reflected reduced demand for iron ore in Europe which impacted the Canadian ore operations and ocean transportation activity, lower shipments of iron ore concentrates to Steel Manufacturing, and increased depreciation in the new Canadian iron ore concentrating facilities. The improvement in operating income during 1979 primarily reflected higher volume for iron ore, ocean shipping services and energy products.

Operating income of Fabricating & Engineering and Other is heavily influenced by the wide cyclical fluctuations in the capital goods industries. Fabrication and erection activities particularly tend to lag on the downturn and on the upturn of the economic cycle. Construction markets in 1976 were extremely weak although income was supported by strong demand for energy-related products and projects. The decline in operating income in 1977 resulted from the continued weak demand from nonresidential construction markets for heavy construction goods and the nonrecurrence of the prior year's strong demand for major energy-related products and projects. Contracts were obtained for significantly higher tonnages of fabricated products in 1978 than in recent years.

From 1976 to 1977, interest, dividends and other income decreased by $27 million to $81.2 million due principally to reduced equity income and decreased gains on repurchase of debt securities. In 1978, interest, dividends and other income increased $74 million. The improvement resulted from gains from repurchase of debt securities to satisfy sinking fund requirements and from sale of U. S. Steel's 40% interest in FLO-CON Systems, Inc., located in Champaign, Illinois, as well as higher interest income from marketable securities. In 1979, interest, dividends and other income increased $40.7 million, largely due to increased equity income and higher interest income from marketable securities.

Interest and other financing costs increased to $114.4 million in 1976 and to $154.8 million in 1977 principally due to increased borrowings. Interest and other financing costs increased to $191.4 million in 1978 reflecting primarily the full year effect of borrowings in 1977 as well as the effect of new debt incurred in 1978.

The unusual items charged to income in 1979 include an estimated provision of $808.6 million attributable to the shutdown of a number of steel and nonsteel facilities. Operations at these facilities have been marginal and, in total, recorded losses in each of the last four years. The principal charge, $413.3 million, is for benefits to which the more than 11,000 affected employees are entitled — including early pensions, continued life and health insurance, supplemental unemployment, and severance pay. The remaining provision covers undepreciated book value of the assets, dismantling expenses, contract termination costs, and estimated losses until shutdown is complete. (Details of the charge to income are covered in Note 19 to Financial Statements on page 51; the plants and major facilities shut down are identified in the industry segment discussions of the Business section, beginning on page 2.) Other unusual charges against income in 1979 totaled $141.3 million. These charges included estimated provision for occupational disease claims for former employees in coal operations and revaluation of certain investments. (See Notes 3 and 20 to Financial Statements on pages 43, 44 and 51, respectively, for details).

The primary reasons that the provision (credit) for income taxes differs from the amount computed by applying the basic Federal income tax (FIT) rates to income (loss) before taxes on income and cumulative effect on prior years of changes in accounting principles are as follows:

	(In millions)				
	1979	1978	1977	1976	1975
U. S. statutory rate (1979-46%; 1978 through 1975-48%) applied to income (loss) before tax	$(311.1)	$120.0	$ 48.9	$248.8	$395.3
Investment credit	—	(81.2)	(74.5)	(67.5)	(50.9)
Excess wear and exhaustion	(44.3)	(26.3)	(30.9)	(56.9)	(55.8)
Unremitted earnings of certain foreign subsidiaries	4.3	9.8	(13.2)	(15.3)	—
Minimum income tax	1.0	12.1	22.1	10.0	—
Foreign income taxes	5.8	5.6	7.2	(.9)	(14.6)
State and local income taxes after FIT benefit	6.0	5.6	3.6	14.3	7.4
Adjustment of prior years	(1.7)	(26.4)	—	—	—
Operating loss limitation	45.6	—	—	—	—
Other	1.4	(11.2)	.8	(24.5)	(17.4)
Total provision (credit)	$(293.0)	$ 8.0	$(36.0)	$108.0	$264.0

As a result of the 1979 loss, $3.0 million of investment credit recognized in previous years was reversed in 1979 and in addition, $66.4 million of current year investment credit was unused in determining the tax provision for 1979. The unused investment credits expire in 1985 and 1986, respectively.

The cumulative effect on prior years of changes in accounting principles included in income in 1979 was the result of the retroactive effects of adopting two preferred methods of accounting — capitalizing U. S. Steel's own engineering costs associated with capital projects and depreciating them as part of the assets acquired; and capitalizing certain expenditures for blast furnace relining projects and amortizing them over the estimated life of the linings. The cumulative effect of these changes for years prior to 1979 increased income by $90.4 million in 1979. The current year effect of these two changes was to increase 1979 pre-tax income by $21.0 million. In addition, U. S. Steel adopted Financial Accounting Standard No. 34, Capitalization of Interest Cost, which increased pre-tax income by $21.7 million in 1979. (See Note 21 to Financial Statements on page 52 for details).

3. Properties.

The location and general character of the principal plants, mines and other materially important physical properties of the Corporation are described in Item 1 — Business. Except as otherwise stated, such properties are held in fee. The plants and facilities have been constructed or acquired from time to time over a period of years and vary in age and operating efficiency. At the date of acquisition of important properties, titles were examined and opinions of counsel obtained, but no title examination has been made specifically for the purpose of this Report. The properties classified as owned in fee have been held, in the main, for many years without any unfavorably adjudicated claim.

The Corporation also has interests in real estate properties referred to in Item 1 — Business, and other real estate properties such as the 64-story Pittsburgh headquarters building.