

**PHELPS DODGE CORPORATION**

2001 ANNUAL REPORT

## PHELPS DODGE OVERVIEW

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Phelps Dodge Corporation is the world's second-largest producer of copper, a world leader in the production of molybdenum, the largest producer of molybdenum-based chemicals and continuous-cast copper rod, and among the leading producers of magnet wire and carbon black. The company's two divisions, Phelps Dodge Mining Company and Phelps Dodge Industries, employ approximately 14,500 people in 27 countries.

**PHELPS DODGE MINING COMPANY (PDMC)** is an industry leader in the safe, efficient and environmentally responsible production of high-quality metals and minerals. PDMC is a fully integrated producer of copper and molybdenum, with mines and processing facilities in North and South America and Europe. As by-products, PDMC also processes other minerals, such as gold, silver and rhenium. Phelps Dodge Exploration Corporation and the Process Technology Center ensure the continued discovery and development of economically viable mineral reserves, and the refinement and creation of production and process technologies.

**PHELPS DODGE INDUSTRIES (PDI)** comprises two global companies—PD Wire & Cable Group and Columbian Chemicals Company—that manufacture engineered products for the energy, telecommunications, transportation and specialty chemicals sectors both in established and emerging markets worldwide. PD Wire & Cable products deliver energy and transmit voice and data communications in the electricity-based economy. Columbian Chemicals Company is among the world's largest producers of carbon black. Its primary products, rubber and industrial blacks, add strength, durability and improved performance to tires, mechanical rubber goods, inks, paint, plastics, electrical cable and other products.

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### FORWARD-LOOKING STATEMENTS

Except for historical information, the matters discussed in this Annual Report and Form 10-K are forward-looking statements regarding future events or the future financial performance of Phelps Dodge Corporation. Actual results may differ materially from those projected. These forward-looking statements represent the company's judgment as of March 12, 2002, but involve a number of risks and uncertainties. Further explanation of these statements and a review of the factors that may affect them are included in Management's Discussion and Analysis within Form 10-K on page 31.

## RESULTS IN BRIEF

(Dollars in thousands, except per share amounts, copper prices and cost)	2001 (a)	2000 (b)	1999 (c)
Sales and other operating revenues	\$ 4,002,400	4,525,100	3,114,400
Operating income (loss) before special items	\$ (76,500)	294,400	139,800
Operating income (loss)	\$ (44,900)	237,000	(315,600)
Net income (loss) before special items	\$ (297,500)	72,300	21,700
Net income (loss)	\$ (275,000)	29,000	(257,800)
Earnings (loss) per common share – diluted	\$ (3.50)	0.37	(4.19)
Return on average shareholders' equity	(9.5)%	0.9%	(9.9)%
Net cash provided by operating activities	\$ 302,700	511,200	204,500
Capital expenditures and investments	\$ 311,000	422,300	240,400
Depreciation, depletion and amortization	\$ 465,300	464,200	329,100
Average number of shares outstanding – diluted ( <i>thousands</i> )	78,500	78,800	61,600
<b>AT YEAR END</b>			
Total assets	\$ 7,618,800	7,830,800	8,229,000
Total debt	\$ 2,851,000	2,687,700	2,755,000
Long-term debt	\$ 2,522,000	1,963,000	2,172,500
Shareholders' equity	\$ 2,707,200	3,105,000	3,276,800
Shares outstanding ( <i>thousands</i> )	78,700	78,700	78,700
Number of employees	14,500	15,500	16,400
<b>DIVISION RESULTS</b>			
Phelps Dodge Mining Company operating income (loss) (d)	\$ (92,200)	243,300	(301,000)
Phelps Dodge Mining Company operating income (loss) before special items (d)	\$ (90,100)	294,100	84,200
Phelps Dodge Industries operating income (e)	\$ 74,000	70,300	49,700
Phelps Dodge Industries operating income before special items (e)	\$ 78,700	121,900	119,700
Copper production ( <i>own production – tons</i> )	1,160,100	1,200,300	890,100
Copper sales ( <i>own production – tons</i> )	1,170,800	1,200,600	884,200
<b>COPPER PRICE</b>			
COMEX annual average spot price per pound – cathodes	\$ 0.73	0.84	0.72
LME annual average spot price per pound – cathodes	\$ 0.72	0.82	0.71
Implied unit cost of copper production (f)	\$ 0.75	0.72	0.67

(a) 2001 operating loss was \$76.5 million before a net special gain of \$31.6 million comprising gains of \$61.8 million for environmental insurance recoveries and \$39.9 million for the gain on the sale of Sossego, partially offset by special charges of \$29.8 million for restructuring activities, \$31.1 million provision for environmental costs and \$9.2 million for asset write-downs and other items. 2001 after-tax loss was \$297.5 million, or \$3.79 per common share, before special gains that totaled \$22.5 million, or 29 cents per common share, on an after-tax basis. Return on average shareholders' equity was (10.2) percent before special gains.

(b) 2000 operating income was \$294.4 million before special provisions of \$51.8 million for restructuring activities and an associated \$5.6 million working capital write-down. 2000 after-tax income was \$72.3 million, or 92 cents per share, before special provisions that totaled \$43.3 million, or 55 cents per common share, on an after-tax basis. Return on average shareholders' equity was 2.3 percent before special provisions.

(c) 1999 operating income was \$139.8 million before special provisions of \$332.3 million for asset impairments primarily at Phelps Dodge Mining Company, \$28.2 million for environmental charges at Phelps Dodge Mining Company and \$94.9 million for restructuring activities. 1999 after-tax income was \$21.7 million, or 35 cents per common share, before special provisions that totaled \$279.5 million, or \$4.54 per common share, on an after-tax basis. Return on average shareholders' equity was 0.8 percent before special provisions.

(d) 2001 operating loss for Phelps Dodge Mining Company was \$90.1 million before a net special pre-tax charge of \$2.1 million comprising special charges of \$27.1 million for restructuring activities, a \$14.9 million provision for environmental costs and a \$39.9 million gain on the sale of Sossego. 2000 operating income was \$249.1 million before pre-tax, special charges of \$5.8 million for restructuring activities. 1999 operating income was \$84.2 million before special provisions of \$320.4 million for asset impairments, \$28.2 million for environmental charges and \$36.6 million for restructuring activities.

(e) 2001 operating income for Phelps Dodge Industries was \$78.7 million before pre-tax, special charges of \$4.7 million for restructuring activities. 2000 operating income was \$121.9 million before pre-tax, special charges of \$51.6 million for wire and cable restructuring activities. 1999 operating income for Phelps Dodge Industries was \$119.7 million before special provisions of \$11.9 million for asset impairments, \$40.4 million for restructuring activities in the wire and cable segment and \$17.7 million at the specialty chemicals segment.

(f) Based on Phelps Dodge Mining Company's all-in operating margin per pound of copper sold (i.e., Phelps Dodge Mining Company operating income (loss) before special items, divided by pounds of Phelps Dodge-mined copper sold, plus or minus the LME copper price).

## **TO OUR SHAREHOLDERS:**



J. Steven Whisler  
Chairman, President and CEO

*“Copper is a building block of society— it is the preferred metal for the conduction of electricity, an essential element in telecommunication systems and devices, and a staple in the automotive and technology industries. I am proud to be involved in an industry that has made and continues to make such significant contributions to society. Most importantly, I am proud to lead the talented, committed and innovative people of Phelps Dodge.”*

2001 was an extremely challenging year for many businesses, including Phelps Dodge Corporation. We reported a loss of \$297.5 million before special items. Although we are hopeful worldwide economies will begin to recover later this year, we recognize we are facing a difficult and unpredictable economic environment. Accordingly, we have taken—and will continue to take—aggressive actions to mitigate the impact of these conditions and build a company that prospers throughout business cycles. We are confident these steps position the company well regardless of economic conditions, and we remain strong believers in the excellent long-term fundamentals of the copper market.

## **2001: AN EXTRAORDINARILY DIFFICULT YEAR**

During the year, depressed metal prices and poor global economic environments significantly impacted Phelps Dodge. Our two main operating divisions, Phelps Dodge Mining Company and Phelps Dodge Industries, confronted steady declines in North American, European and Asian markets and were affected by negative trends on several fronts.

### **PHELPS DODGE MINING COMPANY**

- The *copper* market was severely affected by the global manufacturing and economic downturn. Industrial production, one of the key drivers of copper demand, fell by more than 3 percent in the United States and by an estimated 2 percent worldwide. As a result, copper usage worldwide declined approximately 2.5 percent. We believe a significant part of the decline in copper consumption in the United States was related to destocking throughout the manufacturing and distribution chain. As the U.S. economy recovers from recession, we expect restocking to take place.

While copper usage declined, worldwide production grew 3.2 percent during the year. The resulting surplus caused an increase in inventories of more than

600,000 metric tons in the London Metal Exchange (LME) and New York Commodity Exchange (COMEX) warehouses. Expressed relative to copper usage, we estimate that world inventories grew from five weeks of usage in 2000 to more than seven weeks by the end of 2001.

The combination of increasing inventories and economic downturn pushed the average COMEX copper price down 13 percent in 2001 to an average price of 73 cents per pound from 84 cents the previous year. The spot price for copper plunged as low as 60 cents per pound in November before ending the year at just 65 cents per pound. Given our 2001 production profile, the 11 cents per pound decrease in the copper price alone impacted our earnings and cash flow by more than \$250 million.

Our U.S. mining operations also were negatively impacted by the electrical energy crisis in the western United States. In the first quarter of 2001, we experienced an increase of more than 80 percent in our average electricity costs compared with the first quarter of 2000—an increase that added 4 cents per pound to our production costs.

- The *molybdenum* business continued to be plagued by oversupply during 2001. While global production of molybdenum was less than consumption during the year, the severe excess of inventories built in the prior three years and the weak demand in all markets in the United States due to the recession kept the market weak. Spot market prices for molybdic oxide were approximately \$2.30 per pound at the beginning and end of the year with minor movements during the year. We are encouraged that the fundamentals for the business appear to be changing as we enter 2002. While demand remains weak, there are signs of improvement.
- Columbian Chemicals Company, our *carbon black* subsidiary, also had a challenging year. As with most other markets, carbon black usage was significantly below prior years due to the recession in North America and deteriorating economic conditions in the balance of industrialized countries. In addition, tire production (the largest market for carbon black) was negatively impacted by a significant reduction in vehicle production as automobile manufacturers adjusted inventories during the second half of the year. This led to significant overcapacity, particularly in the United States. High feedstock costs and a strong dollar also placed downward pressure on margins. Although the expected economic recovery will bolster volumes, 2002 will be another difficult year for carbon black producers as the industry will continue to be burdened by excess supply.

#### PHELPS DODGE INDUSTRIES

- Domestic market conditions for *wire and cable* products were negatively impacted by the U.S. economic downturn as the telecommunications, electronics, aerospace and industrial goods sectors—some of our largest markets—were especially hard hit. Our operations in Latin America were hurt by political and economic uncertainty, as well as energy rationing in Brazil and contagion from the U.S. recession. On a positive note, we were able to open new Asian markets for energy cables from our facility in Thailand.

#### ACTIONS TAKEN TO ADDRESS SITUATION

It's clear that deteriorating economic conditions throughout the year—which were further exacerbated by the tragic events of September 11—had a dramatically negative impact on our performance. As a result, we took some immediate and aggressive actions in 2001 to address the stark reality of the operating environment.

These actions included:

- building additional internal electrical generation capability and developing sophisticated load-shedding programs which, together with moderating market forces, largely mitigated the cost increases we experienced earlier in the year;
- curtailing approximately 220,000 metric tons of annual copper production;
- curtailing 54,000 metric tons of annual North American carbon black production;
- placing a new \$900 million debt offering, the proceeds of which were used to repay outstanding commercial paper and other existing debt;
- furloughing approximately 1,600 employees and eliminating 500 administrative, support and operating positions; and
- reducing, and then eliminating, the quarterly dividend on our common shares to conserve cash.

While many of these decisions were complex, difficult and painful, our commitment to build shareholder value, both in the short and long term, continues to drive our actions.

## **FOCUS ON OPERATIONAL EXCELLENCE**

While we cannot control market conditions or the copper price, it's clear lower production costs are fundamental to the success of our business and translate to greater returns for our shareholders. Therefore, we sharpened our focus on achieving operational excellence.

To that end, we launched our *Quest for Zero* improvement program in May 2001, initially targeting \$150 million in annual operating income improvements by the end of 2003. In October, we increased the *Quest for Zero* target to \$400 million in annual operating income improvements. This comprehensive, lean-production program, among other things, is designed to produce specific, measurable and replicable results: zero safety and environmental incidents, zero variability in production processes and costs, zero waste and zero product defects.

Through the use of *Quest for Zero* tools and the application of internally developed technologies, Phelps Dodge Mining Company was better able to manage the copper price downturn. By year-end, *Quest for Zero* yielded \$55 million in cost savings and the company successfully reduced its implied production cost by 13 cents per pound versus the first quarter of 2001.

We are pleased with the results we have achieved through this program and are confident about the potential and possibilities identified to date. We continue to aggressively pursue our target of an implied production cost of 60 cents per pound by the end of 2003—a target that stands at the heart of our *Quest for Zero* program. While we still have significant work ahead to achieve our goals, there's no doubt that the improvements we have made thus far position us well so that we may capture returns as soon as the cyclical copper market begins its upswing.

Despite tough market conditions, we continue to combine sophisticated technologies with innovation to increase efficiency and strengthen our competitive position. In 2001, we completed a \$220 million project to convert our Morenci operation to 100 percent low-cost solution extraction/electrowon production. In early 2002, we announced the construction of a demonstration plant to prove a new leaching process for copper concentrates. And Columbian Chemicals Company and Climax Molybdenum Company are developing exciting new products.

## **A LOOK AHEAD**

In the longer term, we remain confident strong copper fundamentals will prevail. And clearly, there is great leverage in our earnings inherent in our large copper and molybdenum production capacities. At the current low copper price, we believe this leverage represents mostly upside potential.

When looking at the copper industry, it is important to understand what has changed and what has not. While much of the world today is in a state of uncertainty, economic and otherwise, one thing that hasn't changed is copper's long-term utility and demand. Copper continues to be the preferred metal for the conduction of electricity, an essential element in telecommunication systems and devices, and a staple in the automotive and technology industries. Copper remains the tubing of choice for delivering potable water. In short, copper is a building block of society and has a long life ahead of it.

Importantly, Phelps Dodge has experience with market cycles. We know this industry. Though the difficult economic climate has been somewhat constraining, we continue to apply the necessary resources toward developing new technologies and processes that maximize

efficiencies and lengthen the lives of our mines. We also have refocused our exploration efforts on finding new ore bodies in the best copper-producing regions of the world.

In 2002, we will continue to remain focused on our operating performance with the goal of driving our financial results to acceptable levels. In the mining industry, growth and size still matter. We will continue to explore strategic growth opportunities, and will show discipline in our approach.

In the face of adversity, Phelps Dodge has proved time and again that it can emerge a stronger company. Our past and future success should be credited to the dedication and pioneering spirit of our employees. They have worked hard in the midst of uncertainty, and they ultimately hold the key to our future. I thank them for their commitment and unwavering efforts.

Sadly, we mourn the four employees who lost their lives on the job last year. Our hearts go out to their families and loved ones. In a year in which we achieved record safety performance statistically, these losses are particularly difficult and are tragic reminders that we must continue to make safe production our first priority.

We also would like to express our gratitude to our customers for the opportunity to serve them, to our suppliers for their assistance, and to our shareholders for their continued support.

In conclusion, if there's one thought I'd like you to take away from this letter it's this: we've had a rough year and 2002 is likely to prove challenging, but rest assured we're not waiting for increases in the copper price to dictate our ability to deliver value to our shareholders. We are committed to build upon our achievements, return Phelps Dodge to profitability and create value for you, our shareholder.

Sincerely,



J. Steven Whisler

Chairman, President and CEO  
April 1, 2002

**FORM 10-K**

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**UNITED STATES**

**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, 2001**

**Commission file number 1-82**

**PHELPS DODGE CORPORATION**

**(a New York corporation)**

**13-1808503**

**(I.R.S. Employer Identification No.)**

**One North Central Avenue, Phoenix, AZ 85004-2306**

**Registrant's telephone number: (602) 366-8100**

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Shares, \$6.25 par value per share	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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 (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes  No .

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

The aggregate market value of Common Shares of the issuer held by nonaffiliates at March 7, 2002, was approximately \$2,207,072,004.

Number of Common Shares outstanding at March 7, 2002: 78,702,077 shares.

**Documents Incorporated by Reference:**

<u>Document</u>	<u>Location in 10-K</u>
Proxy Statement for 2002 Annual Meeting	Part III

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**PHELPS DODGE CORPORATION**  
**Annual Report on Form 10-K**  
**For the Year Ended December 31, 2001**

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## PHELPS DODGE CORPORATION

### 2001 Annual Report on Form 10-K

#### Part I

##### Items 1. and 2. Business and Properties

Phelps Dodge Corporation (the Company, which also may be referred to as Phelps Dodge, PD, we, us or ours) is the world's second largest producer of copper, among the world's largest carbon black and magnet wire producers, and is the world's largest producer of continuous-cast copper rod. On October 16, 1999, we acquired Cyprus Amax Minerals Company (Cyprus Amax or Cyprus) thereby enhancing our copper assets with significant operations in the United States and South America. As a result of the acquisition, we also became the world's largest producer/processor of molybdenum and molybdenum products.

The Company consists of two divisions: (i) Phelps Dodge Mining Company (PD Mining) and (ii) Phelps Dodge Industries (PD Industries).

- (i) PD Mining is a business segment that includes our worldwide copper operations from mining through rod production, marketing and sales; molybdenum operations from mining through manufacturing, marketing and sales; other mining operations and investments; and worldwide mineral exploration and development programs.
- (ii) PD Industries includes our specialty chemicals segment and our wire and cable segment.

In 2001, PD Mining produced 1,160,100 tons of copper for our account from worldwide mining operations, and an additional 250,800 tons of copper for the accounts of our minority interest joint-venture partners. Gold, silver, molybdenum, copper sulfate, rhenium and sulfuric acid are by-products of our copper operations. Production of copper for our own account from our U.S. operations constituted approximately 52 percent of the copper mined in the United States in 2001. Much of our U.S. cathode copper production, together with additional copper purchased from others, is used to produce continuous-cast copper rod, the basic feed for the electrical wire and cable industry. We also explore for metals and minerals throughout the world.

Our international mining operations include Candalaria and El Abra, major copper mines in Chile, the Cerro Verde copper mine in Peru, and other operations and in-

vestments in Chile and Peru. These operations produce a variety of metals and minerals including copper, gold and silver.

Molybdenum concentrate is produced at our Henderson mine in Colorado, and as a by-product at several of our U.S. copper operations. The concentrate is roasted to produce molybdc oxide at one of our three roasting operations, and various molybdenum metallurgical and chemical products are produced at our four conversion facilities.

In addition to our mining interests, we produce engineered products principally for the global energy, telecommunications, transportation and specialty chemicals sectors through PD Industries.

We produce specialty chemicals at operations in North America, Europe, South America and Asia through Columbian Chemicals Company, one of the world's largest producers of carbon black. Carbon black is a reinforcing agent in natural and synthetic rubber that increases the service life of tires, hoses, belting and other products for the rubber industry. We also produce specialty carbon black for other industrial applications such as pigments for printing, coatings, plastics and other non-rubber applications.

Our wire and cable segment has operations in the United States, Latin America, Asia, Europe and Africa. This segment produces magnet wire and other copper products for sale principally to original equipment manufacturers for use in electrical motors, generators, transformers and other products, and manufactures copper and aluminum energy cables, telecommunications cables and specialty conductors.

In December 2000, Phelps Dodge announced its intention to explore strategic alternatives for, including the potential sale of, its specialty chemicals and wire and cable segments. In May 2001, we terminated that sales process, noting that the then current economic environment was not delivering transactions that offered appropriate value for our shareholders. We have continued to seek strategic alternatives, as may be appropriate, for these businesses.

Our world headquarters is located in Phoenix, Arizona, and is a leased property. We employed approximately 14,500 people worldwide on December 31, 2001.

Throughout this document, unless otherwise stated, all references to tons are to short tons, and references to ounces are to Troy ounces.

##### PHELPS DODGE MINING COMPANY

PD Mining is our international business segment that comprises a group of companies involved in vertically integrated copper operations including mining, concentrating, electrowinning, smelting and refining, rod production,

marketing and sales, and related activities. PD Mining sells copper to others primarily as rod, cathode or concentrate, and as rod to our wire and cable segment. In addition, PD Mining at times smelts and refines copper and produces copper rod for customers on a toll basis. It is also an integrated producer of molybdenum, with mining, roasting and processing facilities producing molybdenum concentrate as well as metallurgical and chemical products. In addition, it produces gold, silver, molybdenum, copper sulfate, rhenium and copper chemicals as by-products, and sulfuric acid from its air quality control facilities. This business segment also includes worldwide mineral exploration and development programs, and a process technology center that directs its activities at improving existing processes and developing new cost-competitive technologies.

## Properties, Facilities and Production

### Mining Operations

We produce electrowon copper cathode at solution extraction/electrowinning (SX/EW) operations near Tyrone and Silver City, New Mexico; Morenci, Miami, Bagdad and Green Valley, Arizona; near Arequipa, Peru; and near Calama, Chile. We produce copper concentrate from open-pit mines and concentrators located at Bagdad and Green Valley, Arizona; Silver City, New Mexico; and near Copiapó, Chile.

The Morenci complex in southeastern Arizona comprises an open-pit mine, a concentrator, four solution extraction facilities and three electrowinning tankhouses. We operate Morenci and own an 85 percent undivided interest; the remaining 15 percent interest is owned by Sumitomo Metal Mining Arizona, Inc. (Sumitomo), a jointly owned subsidiary of Sumitomo Metal Mining Co., Ltd., and Sumitomo Corporation. Sumitomo takes in kind its share of Morenci production. Morenci is the largest copper producing operation in North America.

In March 2001, the Company completed its \$220 million mine-for-leach project at Morenci. This project included expansion of the mine's crushing and conveying system; installation of "stackers," a mobile conveyor system that delivers crushed ore onto leach stockpiles; expansion of existing solution extraction facilities; and construction of a new electrowinning tankhouse. As a result, the Morenci concentrator was placed on care-and-maintenance status. The crushing facility at the Metcalf concentrator is continuing to process 75,000 tons of ore daily for the expanded leach operation. The new mine-for-leach facilities are expected to increase Morenci's annual electrowon cathode production capacity to 820 million pounds. Morenci could produce copper concentrate under certain favorable economic circumstances.

In 1999, the Metcalf concentrator was permanently closed as a result of the acquisition of Cyprus Amax to-

gether with the conversion of Morenci to mine-for-leach processing. This resulted in an impairment of \$88 million pre-tax that was recorded in 1999. (Refer to Note 3 to the consolidated financial statements for more information.)

We are presently a party to litigation that could adversely impact the allocation of available water supplies for the Morenci operation and our other properties in Arizona. (Refer to Item 3, Legal Proceedings for information concerning the status of these proceedings.)

Our wholly owned Bagdad mine in northwestern Arizona primarily mines copper sulfide ore and produces copper concentrate with significant molybdenum and minor silver by-products. The operation consists of an open-pit mine, sulfide ore concentrator producing copper and molybdenum concentrates, and a leaching system with an SX/EW operation producing copper cathode. In January 2002, as a result of the current economic environment, the Bagdad mine was curtailed temporarily to produce at one-half its capacity, eliminating 70,500 tons of annual copper production. In February 2002, we announced that Bagdad will begin construction of a \$40 million copper concentrate leaching demonstration plant that is designed to recover commercial-grade copper cathode from chalcopyrite concentrates. If successful, this technique could assist in our long-term cost reduction strategy.

We also own the Sierrita mine near Green Valley, Arizona. The facility consists of an open-pit mine, sulfide ore concentrator producing copper and molybdenum concentrates, two molybdenum roasters and a rhenium processing facility. Sierrita also uses an oxide and low-grade sulfide ore stockpile leaching system with an SX/EW operation to produce copper cathode. Sierrita's on-site roasters process molybdenum concentrates produced at Sierrita, Bagdad and Chino, and on a toll basis for third parties. The resulting molybdic oxide and related products are either packaged for shipment to customers worldwide or transported to other Phelps Dodge facilities for further processing. At year-end 2001, as a result of the current economic environment, production at the Sierrita mine was reduced temporarily to one-half of its capacity, eliminating 49,600 tons of annual copper production and 7 million tons of molybdenum concentrate.

Our wholly owned operations at Miami, Arizona, consist of an open-pit copper mine, an SX/EW operation producing copper cathode, a smelter, an acid plant, an electrolytic refinery and a copper rod plant. In January 2002, as a result of the current economic environment, the Miami mine and refinery were closed temporarily. This action eliminated 49,600 tons of annual copper production, in addition to an earlier reduction of 42,500 tons for 2002 resulting from a new mine plan implemented in 2000.

We operate an open-pit copper mine, concentrator and SX/EW facility near Silver City, New Mexico, and a smelter in Hurley, New Mexico, that are owned by Chino

Mines Company (Chino), a general partnership in which we hold a two-thirds interest. Heisei Minerals Corporation (Heisei), a subsidiary of Mitsubishi Materials Corporation and Mitsubishi Corporation, owns the remaining one-third interest in Chino. Each partner purchases its proportionate share of Chino's copper production each month. Beginning in late 1998 and through the first half of 1999, production was curtailed resulting in a reduction of 35,000 tons of annual copper production. In March 2001, the concentrator was temporarily shut down, and in January 2002, the Chino mine and smelter were closed temporarily. These actions eliminated approximately 71,600 and 72,800 tons, respectively, for a total of 144,400 tons of annual copper production.

Phelps Dodge operates wholly owned Tyrone open-pit mine and SX/EW plant near Tyrone, New Mexico. Tyrone has been a mine-for-leach operation since 1992.

We also operate the Candelaria mine located near Copiapó in the Atacama Desert of northern Chile. The operation presently consists of an open-pit copper mine, concentrator, port and associated facilities. We own an 80 percent interest in Candelaria through Phelps Dodge Candelaria, Inc., a wholly owned subsidiary. Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation own the remaining 20 percent interest.

Phelps Dodge owns 51 percent of Sociedad Contractual Minera El Abra (El Abra), which holds mining concessions over more than 33,000 acres of land near Calama in the copper-rich Second Region of northern Chile. The remaining 49 percent is owned by the state-owned copper enterprise Corporación Nacional del Cobre de Chile (CODELCO). The El Abra operation, which began commercial production in the second half of 1996, consists of a mine-for-leach, open-pit mining operation that uses three stages of crushing prior to leaching, an on/off leach pad, and an SX/EW operation to produce copper cathode. El Abra also contains a copper sulfide deposit with currently identified mineralized material of about 650 million tons. In 2001, El Abra initiated a \$70 million project (including our partner's share) to leach uncrushed run-of-mine (ROM) material. The ROM project allows El Abra to maintain tank-house design capacity. Production from the ROM project started in January 2002; full production is scheduled for the second half of 2002.

We own approximately 82 percent of the common stock of Sociedad Minera Cerro Verde S.A. (Cerro Verde). Compañía de Minas Buenaventura S.A., a long-established Peruvian mining concern, owns approximately 9 percent and the employees of Cerro Verde and other shareholders own approximately 9 percent. The operation, located approximately 30 kilometers southwest of Arequipa, Peru, consists of two open pits, Cerro Verde and Santa Rosa, a heap-leach operation and an SX/EW operation to produce copper cathode. The ore is processed through primary, secondary and

tertiary crushers and placed on a leach pad after agglomeration.

Until the fourth quarter of 1998, we produced copper concentrate from two underground mines and a concentrator located near Copiapó, Chile, through our wholly owned Chilean subsidiary, Compañía Contractual Minera Ojos del Salado (Ojos del Salado). We suspended operations indefinitely at Ojos del Salado in October 1998, resulting in a reduction of more than 20,000 tons of annual copper production. The Ojos del Salado operations remain on care-and-maintenance status.

In February 1998, we acquired Cobre Mining Company Inc. (Cobre) located in southwestern New Mexico adjacent to our Chino operations. The primary assets of Cobre include an open-pit copper mine, two underground copper mines, two mills, and the surrounding 11,000 acres of land, including mineral rights. In late 1998 and early 1999, all operations were indefinitely suspended reducing copper production by 35,000 tons per year. The entire Cobre operation remains on care-and-maintenance status.

We are the world's leading producer of copper using the SX/EW process. In 2001, we produced a total of 910,000 tons of cathode copper at our SX/EW facilities, compared with 806,300 tons in 2000 and 511,500 tons in 1999. SX/EW is a cost-effective process of extracting copper from certain types of ores. SX/EW is a major factor in our continuing efforts to maintain internationally competitive costs. Our total annual capacity of electrowon copper cathode production currently is 410,000 tons at Morenci, 248,000 tons at El Abra, 75,000 tons at Chino, 75,000 tons at Tyrone, 105,000 tons at Miami, 92,000 tons at Cerro Verde, 16,000 tons at Bagdad and 35,000 tons at Sierrita.

We own and operate a copper smelter in Miami, Arizona, and, through Chino Mines Company, a two-thirds interest in the Chino smelter in Hurley, New Mexico. In January 2002, the Chino smelter was temporarily closed. We smelt virtually all of our share of our U.S. copper concentrate production and, depending on market circumstances and internal production requirements, some concentrate production from Candelaria. In addition, we purchase concentrate to keep our smelters operating at efficient levels. In September 1999, we suspended operations at our Hidalgo smelter in Hidalgo County, New Mexico. As a result of the successful acquisition of Cyprus Amax and the conversion at Morenci to a mine-for-leach operation, the Hidalgo smelter is expected to be reconfigured to allow it to be a reliable source of sulfuric acid. This reconfiguration plan resulted in a pre-tax write-down of the Hidalgo assets of \$201.5 million in 1999.

We refine our share of anode copper production from our smelters at our refineries in El Paso, Texas, and Miami, Arizona. During 2001, 2000 and 1999, the El Paso refinery operated significantly below capacity due to the late

1999 third quarter closing of the Hidalgo smelter. The closure of the Hidalgo smelter resulted not only in a curtailment of operations at the El Paso refinery, but also a reduction of approximately 200 refinery jobs. Our Miami refinery has an annual production capacity of about 200,000 tons of copper cathode, and the El Paso refinery has an annual production capacity of about 450,000 tons of copper cathode. The total combined capacity of about 650,000 tons of electrolytic copper per year is sufficient to refine all the anode copper we produce for our account at our operating smelters, as well as anodes from other customers that we refine on a toll basis. As a result of production curtailments announced in the fourth quarter of 2001, the Miami refinery temporarily was closed. Our refineries also produce varying quantities of gold, silver and copper sulfate and recover small amounts of selenium, rhenium, platinum and palladium as by-products of the copper refining process.

We are the world's largest producer of continuous-cast copper rod, the basic feed for the electrical wire and cable industry. Most of our refined copper, and additional purchased copper, is converted into rod at our continuous-cast copper rod facilities in El Paso, Texas; Norwich, Connecticut; Miami, Arizona; and Chicago, Illinois. Our four plants have a collective annual capacity to convert more than 1.1 million tons of refined copper into rod and other refined copper products.

Phelps Dodge owns the underground Henderson molybdenum mine near Empire, Colorado. The operation consists of an underground block-caving mine where molybdenite ore is mined and transported to a conventional sulfide mill. The concentrator is capable of operating at a rate of 32,000 tons of ore per day, producing molybdenum disulfide concentrate containing up to 58 percent molybdenum. Most of the concentrate is shipped to our Fort Madison roasting and chemical processing facility in Iowa where a number of different products are made for final sale to customers. A portion of Henderson's production is sold to customers as molybdenum disulfide. In 1999, Henderson's mine was modernized (i) to replace a 20-year old underground and surface rail transportation system with a modern conveyor and (ii) to develop a new production level using more efficient high-lift caving methods. The new crushing and conveying system reached full capacity in early 2000.

In May 2000, as a result of an oversupply of molybdenum and continued low prices in the world market, Phelps Dodge announced a plan to curtail molybdenum production by approximately 20 percent and reduce its Henderson workforce by approximately 130 workers.

Phelps Dodge also owns the Climax molybdenum mine near Leadville, Colorado. The operation consists of both an underground and open-pit mine, and an 18,000 ton-per-day concentrator. The operation is on care-and-maintenance status. The property occupies more than 14,000 acres.

Phelps Dodge processes molybdenum concentrates at its conversion plants in the United States and Europe into such products as technical grade molybdc oxide, ferromolybdenum, pure molybdc oxide, ammonium molybdates and molysulfide powder. The Company operates molybdenum roasters at Green Valley, Arizona; Fort Madison, Iowa; and Rotterdam, The Netherlands.

The Fort Madison, Iowa, facilities consist of two molybdenum roasters, a sulfuric acid plant, a metallurgical (technical oxide) packaging facility, and a chemical conversion plant, which includes a wet chemicals plant and sublimation equipment. In the chemical plant, technical grade oxide is further refined into various high-purity molybdenum chemicals for a wide range of uses by chemical and catalyst manufacturers. The Fort Madison facilities produce ammonium dimolybdate, pure molybdc oxide, ammonium heptamolybdate, ammonium octamolybdate, sodium molybdate, sublimed pure molybdc oxide and molysulfide disulfide.

The Rotterdam conversion plant consists of a molybdenum roaster, sulfuric acid plant, a metallurgical packaging facility and a chemical conversion plant. The plant produces metallurgical products primarily for third parties. Ammonium dimolybdate and pure molybdc oxide are produced in a wet chemical plant.

We also produce ferromolybdenum and molysulfide powder at our conversion plant located in Stowmarket, United Kingdom, for both European and worldwide customers. The plant is operated as both an internal and external customer tolling facility.

The following tables show our worldwide copper production by source for the years 1997 through 2001; aggregate production and sales data for copper, gold, silver, molybdenum and sulfuric acid from these sources for the same years; annual average copper and molybdenum prices; and production from our smelters and refineries. Major changes in operations during the five-year period included:

- curtailment of Chino operations beginning in the 1998 fourth quarter, followed by temporary shut-down of the concentrator in March 2001 and temporary closure of the mine and smelter in January 2002;
- temporary closure of the Miami mine and refinery in January 2002;
- curtailment of production at Sierrita and Bagdad to one-half capacity in January 2002;
- conversion of the Morenci operations to mine-for-leach during 1999 and 2000 with completion in the 2001 first quarter;
- curtailment of Henderson operations beginning in the 2000 second quarter;
- acquisition of Cyprus Amax on October 16, 1999 (the primary assets acquired included the

Bagdad, Sierrita, Miami, El Abra and Cerro Verde copper mines; the Henderson and Climax molybdenum mines; a copper smelter, refinery and two rod plants; three molybdenum roasting operations and four molybdenum conversion facilities);

- permanent closure of the Metcalf concentrator at the end of 1999;
- temporary closure of the Hidalgo smelter facilities in September 1999 (Hidalgo smelter is expected to be reconfigured to an acid conversion facility);
- sale of Phelps Dodge Mining (Pty.) Limited (fluorspar operation) at the end of the 1999 second quarter;
- acquisition of Cobre in February 1998 followed by suspension of underground mining in October 1998 and the remaining facilities in March 1999;
- suspension of operations at Ojos del Salado in October 1998;
- completion of the Southwest solution extraction project at Morenci in the 1998 third quarter;
- expansion of concentrator operations at Candalaria in the 1997 fourth quarter; and
- expansion of Chino's SX/EW operation at Santa Rita in 1997.

**Phelps Dodge Copper Production Data, by Source (a)**

(thousand tons)

	2001	2000	1999	1998	1997
<b>Material mined (b)</b>					
Bagdad.....	63,680	69,101	16,233	-	-
Candelaria.....	126,509	116,541	126,903	131,155	90,045
Cerro Verde.....	68,685	61,400	11,459	-	-
Chino.....	59,277	61,519	44,562	117,432	121,639
Cobre.....	-	-	4,558	15,763	-
El Abra.....	82,737	84,734	10,029	-	-
Miami.....	32,702	46,446	13,787	-	-
Morenci.....	281,474	274,871	297,872	288,200	291,698
Ojos del Salado.....	-	-	-	1,336	1,713
Sierrita.....	60,869	75,319	15,875	-	-
Tyrone.....	73,990	113,937	113,422	108,359	107,896
Total material mined.....	849,923	903,868	654,700	662,245	612,991
Less minority participants' shares (c).....	127,821	126,565	89,830	108,605	102,305
Net Phelps Dodge share.....	722,102	777,303	564,870	553,640	510,686
<b>Mill ore processed</b>					
Bagdad.....	31,667	29,586	6,211	-	-
Candelaria.....	27,365	26,165	22,405	24,432	13,055
Chino.....	3,109	16,177	16,056	16,431	16,969
Cobre.....	-	-	654	4,291	-
Morenci.....	4,301	26,698	38,283	47,108	47,713
Ojos del Salado.....	-	-	-	1,210	1,539
Sierrita.....	38,133	38,319	8,046	-	-
Total mill ore processed.....	104,575	136,945	91,655	93,472	79,276
Less minority participants' shares (c).....	7,154	14,629	15,575	17,429	15,424
Net Phelps Dodge share.....	97,421	122,316	76,080	76,043	63,852
<b>Leach ore placed in stockpiles</b>					
Bagdad.....	696	-	-	-	-
Cerro Verde.....	23,436	17,833	2,642	-	-
Chino.....	31,009	12,875	12,400	44,734	40,857
El Abra.....	75,875	62,042	8,678	-	-
Miami.....	10,208	11,032	2,379	-	-
Morenci.....	258,202	236,696	250,680	232,120	233,467
Sierrita.....	14,347	18,386	4,307	-	-
Tyrone.....	27,513	51,446	55,693	55,086	50,528
Total leach ore placed in stockpiles.....	441,286	410,310	336,779	331,940	324,852
Less minority participants' shares (c).....	86,244	70,196	45,987	49,728	48,638
Net Phelps Dodge share.....	355,042	340,114	290,792	282,212	276,214
<b>Grade of ore mined - percent copper</b>					
Bagdad - mill.....	0.43	0.43	0.43	-	-
Bagdad - leach.....	0.28	-	-	-	-
Candelaria - mill.....	0.96	0.93	1.22	1.07	1.45
Cerro Verde - leach.....	0.53	0.59	0.78	-	-
Chino - mill.....	0.79	0.83	0.59	0.68	0.69
Chino - leach.....	0.48	0.22	0.25	0.18	0.17
Cobre - mill.....	-	-	1.00	0.79	-
El Abra - leach.....	0.61	0.60	0.79	-	-
Miami - leach.....	0.41	0.71	0.52	-	-
Morenci - mill.....	0.78	0.71	0.68	0.68	0.72
Morenci - leach.....	0.30	0.26	0.26	0.26	0.26
Ojos del Salado - mill.....	-	-	-	1.64	1.54
Sierrita - mill.....	0.29	0.29	0.29	-	-
Sierrita - leach.....	0.22	0.20	0.20	-	-
Tyrone - leach.....	0.29	0.26	0.28	0.26	0.29
Average copper grade - mill	0.54	0.59	0.75	0.80	0.85
Average copper grade - leach	0.38	0.33	0.28	0.25	0.25

**Phelps Dodge Copper Production Data, by Source (a)**

(thousand tons)

	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
<b>Copper Production (d)</b>					
Bagdad:					
Concentrate.....	118.1	111.5	22.3	-	-
Electrowon.....	10.5	11.8	2.9	-	-
Candelaria:					
Concentrate.....	243.2	224.7	250.1	236.9	171.7
Cerro Verde:					
Electrowon.....	84.9	78.7	16.2	-	-
Chino:					
Concentrate and precipitate.....	18.3	87.0	74.3	85.5	99.9
Electrowon.....	59.9	48.6	55.8	72.4	69.1
Cobre:					
Concentrate.....	-	-	6.6	34.2	-
El Abra:					
Electrowon.....	239.8	217.4	52.8	-	-
Miami:					
Electrowon.....	44.1	59.3	13.2	-	-
Morenci:					
Concentrate.....	23.5	132.3	195.2	247.2	269.9
Electrowon.....	368.1	284.7	284.7	275.8	272.3
Ojos del Salado:					
Concentrate.....	-	-	-	17.9	21.1
Sierrita:					
Concentrate.....	94.6	95.9	19.7	-	-
Electrowon.....	26.3	26.5	5.8	-	-
Tyrone:					
Precipitate.....	-	-	-	-	2.6
Electrowon.....	76.4	79.3	80.1	82.6	76.6
Other.....	3.2	1.3	1.6	0.2	0.9
Total copper production.....	<u>1,410.9</u>	<u>1,459.0</u>	<u>1,081.3</u>	<u>1,052.7</u>	<u>984.1</u>
Less minority participants' shares (c).....	250.8	258.7	191.2	178.7	172.0
Net Phelps Dodge share.....	<u><u>1,160.1</u></u>	<u><u>1,200.3</u></u>	<u><u>890.1</u></u>	<u><u>874.0</u></u>	<u><u>812.1</u></u>

**Phelps Dodge Metal Production and Sales (a) (d)**

	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
<b>Copper (thousand tons)</b>					
Total production.....	1,410.9	1,459.0	1,081.3	1,052.7	984.1
Less minority participants' shares (c).....	<u>250.8</u>	<u>258.7</u>	<u>191.2</u>	<u>178.7</u>	<u>172.0</u>
Net Phelps Dodge share.....	<u>1,160.1</u>	<u>1,200.3</u>	<u>890.1</u>	<u>874.0</u>	<u>812.1</u>
Sales (e)	<u>1,170.8</u>	<u>1,200.6</u>	<u>884.2</u>	<u>876.3</u>	<u>812.8</u>
<b>Gold (thousand ounces)</b>					
Total production.....	140	148	174	185	139
Less minority participants' shares (c).....	<u>31</u>	<u>31</u>	<u>35</u>	<u>36</u>	<u>30</u>
Net Phelps Dodge share.....	<u>109</u>	<u>117</u>	<u>139</u>	<u>149</u>	<u>109</u>
Sales (e)	<u>77</u>	<u>120</u>	<u>136</u>	<u>145</u>	<u>113</u>
<b>Silver (thousand ounces)</b>					
Total production.....	3,773	4,877	4,532	3,566	3,254
Less minority participants' shares (c).....	<u>490</u>	<u>549</u>	<u>842</u>	<u>713</u>	<u>677</u>
Net Phelps Dodge share.....	<u>3,283</u>	<u>4,328</u>	<u>3,690</u>	<u>2,853</u>	<u>2,577</u>
Sales (e)	<u>2,720</u>	<u>4,578</u>	<u>3,375</u>	<u>3,095</u>	<u>2,637</u>
<b>Molybdenum (thousand pounds)</b>					
Total production.....	55,515	51,478	8,303	1,369	2,121
Less minority participants' share (c).....	<u>50</u>	<u>419</u>	<u>241</u>	<u>355</u>	<u>472</u>
Net Phelps Dodge share.....	<u>55,465</u>	<u>51,059</u>	<u>8,062</u>	<u>1,014</u>	<u>1,649</u>
Sales	<u>56,714</u>	<u>57,988</u>	<u>11,417</u>	<u>1,050</u>	<u>1,272</u>
<b>Sulfuric acid (thousand tons) (f)</b>					
Total production.....	1,236.7	1,231.8	1,172.1	1,222.1	1,263.4
Less minority participants' share (c).....	<u>190.2</u>	<u>186.3</u>	<u>212.5</u>	<u>200.9</u>	<u>210.5</u>
Net Phelps Dodge share.....	<u>1,046.5</u>	<u>1,045.5</u>	<u>959.6</u>	<u>1,021.2</u>	<u>1,052.9</u>
Sales	<u>15.9</u>	<u>4.2</u>	<u>625.5</u>	<u>196.1</u>	<u>383.5</u>
<hr/>					
COMEX copper price per pound (g)..... \$	0.73	0.84	0.72	0.75	1.04
LME copper price per pound (h)..... \$	0.72	0.82	0.71	0.75	1.03
Metals Week - molybdenum oxide price per pound (i)..... \$	2.36	2.51	2.66	3.42	4.31

**Phelps Dodge Smelter, Refinery and Rod Production (a)**

	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
Smelters (j)					
Total copper (thousand tons).....	463.5	439.8	267.4	405.8	419.1
Less minority participants' share (c).....	<u>36.7</u>	<u>49.5</u>	<u>57.0</u>	<u>60.1</u>	<u>64.5</u>
Net Phelps Dodge share.....	<u><u>426.8</u></u>	<u><u>390.3</u></u>	<u><u>210.4</u></u>	<u><u>345.7</u></u>	<u><u>354.6</u></u>
Refineries (k)					
Copper (thousand tons).....	502.6	471.2	422.6	429.3	455.3
Gold (thousand ounces).....	86.6	52.6	72.9	74.6	107.9
Silver (thousand ounces).....	3,719.1	3,838.9	3,681.5	2,523.8	2,843.0
Rod (thousand tons) (l).....	879.8	1,153.9	805.1	764.4	747.0

Footnotes to tables on pages 6 through 9:

- (a) Includes Cyprus Amax production and sales from the time it was acquired on October 16, 1999.
- (b) Includes material mined for leaching operations.
- (c) Interests in mining joint ventures in which we own more than 50 percent are reported using the proportional consolidation method. Cerro Verde, in which we own 82 percent of its common stock, is reported using the full consolidation method.
- (d) Includes smelter production from custom receipts and fluxes as well as tolling gains or losses.
- (e) Excludes sales of purchased copper, silver and gold.
- (f) Sulfuric acid production results from smelter air quality control operations; sales do not include internal usage.
- (g) New York Commodity Exchange annual average spot price per pound - cathodes.
- (h) London Metal Exchange annual average spot price per pound - cathodes.
- (i) Annual molybdenum dealer oxide average price per pound - as quoted in *Platts Metals Week*.
- (j) Includes production from purchased concentrates and copper smelted for others on a toll basis.
- (k) Includes production from purchased material and copper refined for others on a toll basis.
- (l) Includes rod, wire, oxygen-free billets/cakes, scrap and other shapes.

### Other Mining Operations and Investments

We own a 14.0 percent interest in Southern Peru Copper Corporation (SPCC), which operates two open-pit copper mines, two concentrators, an SX/EW operation, a smelter and a refinery in Peru. SPCC's other principal shareholders are a subsidiary of Grupo Mexico, S.A. de C.V., with a 54.2 percent interest, and Cerro Trading Company, Inc., with a 14.2 percent interest. The common stock we hold as well as that held by Grupo Mexico and Cerro Trading Company is not registered for trading. A total of 17.6 percent interest is publicly held. SPCC's results are not included in our earnings because we account for our investment in SPCC on the cost basis. During 2001, we received dividend payments of \$4.0 million from SPCC, compared with \$3.8 million in 2000 and \$1.7 million in 1999.

In May 1997, we acquired an indirect 40 percent voting interest, representing a 26.67 percent economic interest, in a leading Peruvian zinc mining company, Compañía San Ignacio de Morococha S.A. (SIMSA) and its San Vicente mine. SIMSA's other shareholder with voting shares is the Jesus Arias family. We accounted for our investment in SIMSA on the equity basis. During the fourth quarter of 2001, the investment was written down by \$9.1 million due to the impact of low zinc prices on the operation's ability to generate cash flows to cover operational and debt costs and our belief that we could not recover our investment.

Other operations include the Tohono copper operation in south central Arizona, which consists of an open pit, heap-leach pads and an SX/EW operation capable of producing copper cathode. The facility is located on lands leased from the Tohono O'odham Nation. Although mining of ore ceased in July 1997, production of copper continued from existing leach pads until February 1999 when the facility was placed on care-and-maintenance status. The property has mineralized material for which, at higher copper prices, various alternatives could be considered.

In March 2000, we sold Cyprus Australia Coal Company, a wholly owned subsidiary which we acquired as part of the Cyprus transaction, to a subsidiary of Glencore International for \$150 million in cash.

In the 1999 second quarter, we sold Phelps Dodge Mining (Pty.) Limited, our wholly owned subsidiary that operated the Witkop open-pit fluorspar mine and mill in the western Transvaal, South Africa. Witkop produced acid-grade fluorspar concentrates for customers in South Africa, the United States, Europe, Australia and Asia. The mine was sold to The South African Land and Exploration Company Limited for \$12.5 million in cash.

### Exploration

Our exploration group's primary objectives are to increase the Company's reserve base through discoveries, acquisitions and joint ventures and, where appropriate, to diversify into other metals, minerals and geographic areas. Exploration is focused on large-scale copper, and copper and gold deposits in the four principal copper-producing regions of the world: southwest North America, South American Cordillera, Central Africa and Australia, as well as in other prospective areas. This group operates in more than 14 countries and maintains offices in Australia, Brazil, Canada, Chile, India, Indonesia, Mexico, Peru and the United States.

In 2001, Phelps Dodge expended \$36.8 million on worldwide exploration, compared with \$39.7 million in 2000 and \$41.0 million in 1999. Approximately 14 percent of the 2001 expenditures occurred in the United States with 13 percent being spent at our U.S. mines. This compares with 23 percent in 2000 (17 percent at U.S. mine sites) and 25 percent in 1999 (19 percent at U.S. mine sites). The balance of our exploration expenditures was spent principally in Australasia, Brazil, Chile, Mexico, Canada, Peru and Central Africa, including 10 percent at our South American mine sites.

During 2001, exploration efforts continued at our existing copper operations. A major drilling program to delineate mineralized material for the first phase of mining at the Garfield area of Morenci was completed, and mining of this deposit began in May. Significant new zones of mineralization were discovered adjacent to the Candelaria mine in Chile, and near the Tyrone mine in New Mexico. Exploration programs continued to define additional sulfide mineralized material at our El Abra and Cerro Verde mines.

Environmental permitting is in progress to advance development of the Dos Pobres and San Juan deposits in the Safford District in eastern Arizona. The two deposits contain a total of 630 million tons of leachable reserves with a grade of 0.32 percent copper. Additionally, the Dos Pobres deposit contains mineralized material consisting of 330 million tons of primary sulfides with a grade of 0.65 percent copper.

In October 2001, Phelps Dodge sold its 50 percent interest in Mineração Serra do Sossego to Companhia Vale do Rio Doce (CVRD) for \$42.5 million in cash. Sossego is a copper-gold deposit in the Carajas region of Brazil.

In December 2001, we recorded a charge of \$3.9 million to write-off the net book value of the Piedras Verdes project in Sonora, Mexico, as it does not meet our development criteria.

Work on our Ambatovy nickel/cobalt deposit in central Madagascar remains on hold pending resolution of certain regulatory and permitting issues, and evaluation of strategic options. Mineralized material of 210 million tons at an estimated grade of 1.1 percent nickel and 0.1 percent cobalt previously was identified in a feasibility study.

The Kansanshi project in Zambia was sold to First Quantum Minerals during 2001 for \$2.5 million in cash, 1.4 million shares of First Quantum stock, and future cash payments upon production.

### Process Technology

The objectives of PD Mining's process technology center (PTC) in Safford, Arizona, are to enhance and strengthen the Company's competitive position in the world copper market. The PTC was established in 1996 to provide metallurgical process development and process optimization services, metallurgical testing and advanced material characterization services to meet the needs of PD Mining and its operations. PTC is ISO-9001 certified. The activities at PTC are directed at continuous improvement of existing processes and the development of new cost-competitive technologies. These activities dovetail with our *Quest for Zero* program (refer to discussion of *Quest for Zero* program in Management's Discussion and Analysis). PTC employs approximately 60 engineers, scientists and technical support staff. The facilities include:

- a large-column leaching facility for testing run-of-mine material;
- a continuous SX/EW test facility capable of producing 1.5 tons of cathode copper per day;
- a small-column leaching test facility with a capacity of 250 tests per year for crushed material;
- a metallurgical laboratory for biological leaching and other biological applications; and
- a material characterization laboratory with advanced mineralogy, analytical and metallography capabilities.

The principal areas of activity include hydrometallurgy, mineral processing (grinding and flotation), material characterization and technical information services. Some of the most important projects and milestones in 2001 were:

- the completion of continuous pilot plant testing of Phelps Dodge's proprietary concentrate leaching technology at the Hazen Research facility in Golden, Colorado;
- the execution of a technology development agreement with Placer Dome Inc. for the joint development of concentrate leaching technology;
- the advancement of proprietary technology for heap and stockpile leaching of low-grade chalcopyrite ores;

- the investigation of alternative sulfuric acid production techniques; and
- the development of specialized procedures for the use of the QemSCAN scanning electron microscope and the ordering of a second unit to be installed at the PTC in early 2002.

Ore Reserves

Ore reserves at each of our active operations and at Ajo, Chino, Climax, Cobre, Miami, Ojos del Salado, and Safford have been estimated as follows:

	Total Reserves Estimated at December 31, 2001							Phelps Dodge Interest (%)
	Millable Reserves			Leachable Reserves				
	Million Tons	%	%	Crushed Leach		Run-of-Mine (ROM)		
				Million Tons	%	Million Tons	%	
Ajo (1).....	150.0	0.56	-	-	-	-	-	100.0
Bagdad.....	884.9	0.36	0.02	-	-	17.7	0.29	100.0
Candelaria (2).....	375.7	0.83	-	-	-	-	-	80.0
Cerro Verde (3).....	464.0	0.61	0.02	207.2	0.66	123.3	0.28	82.0
Chino (4).....	303.6	0.59	-	-	-	448.8	0.30	66.7
Cobre (4).....	132.4	0.73	-	-	-	98.0	0.35	100.0
El Abra (5).....	-	-	-	353.0	0.55	383.8	0.30	51.0
Miami (4).....	-	-	-	-	-	117.6	0.38	100.0
Morenci (6).....	128.7	0.41	-	468.8	0.60	2,853.0	0.22	85.0
Ojos del Salado (2) (4).....	18.7	1.32	-	-	-	-	-	100.0
Safford (1).....	-	-	-	474.7	0.39	151.6	0.16	100.0
Sierrita.....	1,052.1	0.27	0.03	-	-	62.5	0.19	100.0
Tyrone.....	-	-	-	-	-	434.3	0.29	100.0
Climax (4).....	145.2	-	0.23	-	-	-	-	100.0
Henderson.....	175.9	-	0.21	-	-	-	-	100.0

	Total Reserves Estimated at December 31, 2000							Phelps Dodge Interest (%)
	Millable Reserves			Leachable Reserves				
	Million Tons	%	%	Crushed Leach		Run-of-Mine (ROM)		
				Million Tons	%	Million Tons	%	
Ajo .....	150.0	0.56	-	-	-	-	-	100.0
Bagdad.....	915.7	0.36	0.02	-	-	17.7	0.29	100.0
Candelaria .....	403.4	0.84	-	-	-	-	-	80.0
Cerro Verde .....	464.0	0.61	0.02	167.0	0.65	27.0	0.33	82.0
Chino .....	310.0	0.60	-	-	-	476.2	0.30	66.7
Cobre .....	132.4	0.73	-	-	-	98.0	0.35	100.0
El Abra .....	-	-	-	852.1	0.45	-	-	51.0
Miami .....	-	-	-	-	-	127.9	0.38	100.0
Morenci .....	362.7	0.64	-	-	-	1,680.9	0.23	85.0
Ojos del Salado .....	18.7	1.32	-	-	-	-	-	100.0
Safford .....	330.0	0.65	-	470.0	0.39	160.0	0.16	100.0
Sierrita.....	1,091.6	0.27	0.03	-	-	48.5	0.19	100.0
Tyrone.....	-	-	-	-	-	460.7	0.30	100.0
Climax .....	145.2	-	0.23	-	-	-	-	100.0
Henderson.....	181.5	-	0.21	-	-	-	-	100.0

- (1) The Safford and Ajo properties are at various stages in the permitting process. It is likely that initial mining at Safford will target leach reserves and the underground mill reserves will not be targeted until later in the mine life. Therefore, underground mill reserves were reclassified as other mineralized material; however, there has been no change in the underlying drill data for the underground mill reserves.
- (2) The Candelaria and Ojos del Salado deposits also contain, respectively, 0.006 ounces and 0.008 ounces of gold per ton.
- (3) PD owns 82 percent of Cerro Verde's stock and 100 percent of copper production and reserves. Leach reserves were increased due to a new mine design based on additional drilling.
- (4) Cobre, Ojos del Salado, Miami, Chino and Climax are on care-and-maintenance status with no current mining taking place pending an improvement in the prices of copper and molybdenum.
- (5) El Abra reserves decreased as a result of additional in-fill drilling and a new pit design completed at the end of 2001.
- (6) The Morenci reserves show the transfer of mill reserves to leachable reserves and the conversion of other mineralized material into reserves based on new drilling data.

Our estimated share of aggregate copper and molybdenum ore reserves at the above named properties as of December 31, 2001 is as follows:

	2001	2000	1999	1998	1997
Milling reserves (billion tons).....	3.6	4.3	4.2	1.6	1.6
Leaching reserves (billion tons).....	5.2	3.8	4.1	3.2	2.5
Commercially recoverable copper (million of tons).....	23.0	24.1	24.4	14.5	13.7
Commercially recoverable molybdenum (billion of pounds).....	2.1	2.2	2.2	-	-

Ore reserves are those estimated quantities of ore that may be mined profitably and processed for extraction of their constituent values. Estimates of our reserves are based upon our engineering evaluations of assay values derived from samplings of drill holes and other openings. In our opinion, the sites for such samplings are spaced sufficiently close and the geologic characteristics of the deposits are sufficiently well defined to render the estimates reliable. Leaching reserves include copper estimated to be recoverable from leach reserves remaining to be mined at Bagdad, Cerro Verde, Chino, Cobre, El Abra, Miami, Morenci, Safford, Sierrita and Tyrone. Commercially recoverable copper includes our share of the amount of copper estimated to be recoverable from milling and leaching reserves as well as the copper that will be recovered from existing stockpiles of leach material at Bagdad, Cerro Verde, Chino, Cobre, El Abra, Miami, Morenci, Sierrita and Tyrone.

Ore reserves projected as of December 31, 2001, for Southern Peru Copper Corporation (in which we hold a 14.0 percent interest), based on available information, were 2.0 billion tons of millable reserves at a grade of 0.68 percent copper and 1.1 billion tons of leachable reserves at an average grade of 0.22 percent copper. These in-pit reserves are the combined totals for both the Cujajone and Toquepala properties.

We hold various other properties containing mineralized material that we believe could be brought into production should market conditions warrant. Permitting and significant capital expenditures would likely be required before operations could commence at these properties. The deposits are estimated to contain the following mineralized material as of December 31, 2001:

Property/Deposit	Location	Milling Material		Leaching Material		% Nickel	Phelps Dodge Interest (%)
		Millions of Tons	% Copper	Millions of Tons	% Copper		
Ambatovy*	Madagascar	-	-	210	-	1.10	100.0
Candelaria Norte**	Chile	12	2.15	-	-	-	80.0
Cochise/Bisbee	Arizona	-	-	276	0.47	-	100.0
El Abra	Chile	650	0.53	100	0.31	-	51.0
Lone Star (Safford)	Arizona	-	-	1,600	0.38	-	100.0
Lumwana	Zambia	220	0.83	-	-	-	85.0
Morenci	Arizona	-	-	1,750	0.27	-	85.0
Niagara (Tyrone)	New Mexico	-	-	500	0.29	-	100.0
Safford (Underground)	Arizona	330	0.65	-	-	-	100.0
Sanchez (Safford)	Arizona	-	-	230	0.29	-	100.0
Tohono	Arizona	276	0.70	404	0.63	-	100.0

Note: PD's ownership interests in the Kansanshi and Sossego properties were sold during 2001. In addition, the Piedras Verdes investment was written down in the fourth quarter of 2001, resulting in the exclusion of its mineralized material of 290 million tons of leach material at 0.33 percent copper.

\* Ambatovy deposit also contains 0.10 percent cobalt.

\*\* Candelaria Norte (formerly referred to as Manto Norte) is a potential underground mine. The stated tonnage also contains 0.015 ounces of gold per ton.

Note: Mineralized material is a mineralized body that has been delineated by appropriately spaced drilling and/or underground sampling to support the reported tonnage and average grade of metal(s). Such a deposit does not qualify as a reserve until legal and economic feasibility is concluded based upon a comprehensive evaluation of implied unit costs, grade, recoveries and other material factors.

## Sales and Competition

The majority of our copper, produced or purchased, is cast into rod. Rod sales to outside wire and cable manufacturers constituted approximately 47 percent of PD Mining's sales in 2001 and 57 percent in 2000. We also sell copper as concentrate and cathode. Sales of rod and cathode are made directly to wire and cable fabricators and brass mills under contracts principally of a one-year duration. Our rod also is used by our wire and cable segment.

We sell our copper rod and cathode at a premium over New York Commodity Exchange (COMEX) or London Metal Exchange (LME) prices. We also sell copper concentrate based on COMEX or LME prices. From time to time, we engage in hedging programs designed to enable us to realize current average prices for metal delivered or committed to be delivered. We have historically also entered into price protection arrangements from time to time, depending on market circumstances, to ensure a minimum price for a portion of expected future mine production. (Refer to Management's Discussion and Analysis and Notes 1 and 19 to the consolidated financial statements for a further discussion of such arrangements.)

Most of the refined copper we sell is incorporated into electrical wire and cable products worldwide for use in the construction, electric utility, communications and transportation industries. It also is used in industrial machinery and equipment, consumer products and a variety of other electrical and electronic applications.

When we sell copper as rod, cathode and concentrate, we compete, directly or indirectly, with many other sellers including at least two other U.S. primary producers as well as numerous foreign producers, metal merchants, custom refiners and scrap dealers. Some major producers outside the United States have cost advantages resulting from richer ore grades, lower labor costs and in some cases, a lack of strict regulatory requirements. We believe that our ongoing programs to contain costs, improve productivity and employ new technologies will significantly narrow these cost advantages and place us in a competitive position with respect to a number of our international competitors. For a discussion of the effects of energy costs, see Costs beginning on page 15.

Other materials that compete with copper include aluminum, plastics, stainless steel and fiber optics. Our principal methods of competing include pricing, product properties, product quality, customer service and dependability of supply.

Molybdenum oxide is used primarily in the steel industry for corrosion resistance, strengthening and heat resistance. Molybdenum chemicals are used in a number of diverse applications such as catalysts for petroleum refining, lubricants and feedstock for pure molybdenum metal used in

electronics. A substantial portion of Phelps Dodge's expected 2002 molybdenum production is committed for sale throughout the world pursuant to annual and/or quarterly agreements based on prevailing market prices one month prior to the time of sale.

The molybdenum market is generally characterized by cyclical and volatile prices, little product differentiation and strong competition. Prices are influenced by production costs of domestic and foreign competitors, worldwide economic conditions, world supply/demand balances, inventory levels, the U.S. dollar exchange rate and other factors. Molybdenum prices also are affected by the demand for end-use products in, for example, the construction, transportation and durable goods markets. A substantial portion of world molybdenum is produced as a by-product of copper mining, which is relatively insensitive to molybdenum price levels. Exports from China can also influence competitive conditions.

## Prices, Supply and Consumption

Copper is an internationally traded commodity, and its prices are effectively determined by the two major metals exchanges -- COMEX and LME. The prices on these exchanges generally reflect the worldwide balance of copper supply and demand, but are also influenced significantly from time to time by speculative actions and by currency exchange values.

In 2001, the COMEX copper price averaged 73 cents per pound, 11 cents less than the 2000 average price. The decrease in price was the result of a surplus market as modest growth in refined production outpaced weak global demand for metal. The market imbalance resulted in approximately 627,000 metric tons of excess copper being delivered into western world exchange inventories, increasing warehouse stocks to more than one million metric tons. The significant rise in inventory caused the price to fall below the 70-cent level where it remained for nearly all of the second half of 2001. Weakness in the U.S. and Japanese economies reduced world demand for copper, particularly in the electronics and technology sectors where metal off-take had been expanding. Output from manufacturing industries in the large copper consuming regions of the world have been slowed by the economic downturn, especially those heavily dependent on export markets in the United States, Europe and Japan. The lone bright spot in the copper market was China whose economy continues to expand supported by increases in consumer demand, government-funded infrastructure projects, and its recent acceptance into the World Trade Organization.

The COMEX copper price averaged 84 cents per pound for the year 2000, a 12-cent improvement over the previous year. The increase in price was triggered by deficit market conditions created by robust demand for the metal coupled with lower world copper production growth fol-

lowing the closure of nearly 780,000 metric tons of capacity during 1998 and 1999. After having added nearly 480,000 metric tons during the previous two years, combined Western exchange inventories topped 930,000 metric tons in early March 2000. During the remainder of the year, LME and COMEX inventories declined by approximately 515,000 metric tons to end the year at 415,000 metric tons, a decline of 52 percent from the beginning of the year.

In 1999, the COMEX copper price averaged 72 cents per pound, 3 cents lower than the 1998 average. The decrease in price from the previous year primarily was due to a market surplus brought on by production increases and low consumption growth. As a result of the surplus, exchange inventories grew to record levels and the price dropped to 61 cents per pound during March. Western World exchange inventories increased by 196,000 metric tons in 1999, following the 1998 increase of 257,000 metric tons.

Molybdenum demand depends heavily on worldwide steel industry consumption and to a lesser extent on chemical applications. During 2001, demand in Europe and Japan held steady compared with 2000; however, a 10 percent reduction in U.S. demand resulted in a global demand decrease of 3 percent year on year. Even though worldwide molybdenum production decreased 12 percent, the molybdenum business and prices remained depressed during 2001 as the industry struggled to reduce a large overhang of inventory, which had been built in prior years, and the negative impact of a global economic slowdown. Primary mine production cuts, which took place in 2000, remained in place during 2001. Additional supply curtailments are projected in 2002 as a result of announced production curtailments at several large copper mines that produce molybdenum as a by-product.

Following a brief period of rising prices in the first half of the year, prices reversed direction and weakened throughout the second half of 2001. *Metals Week* dealer oxide prices averaged \$2.36 per pound in 2001 compared with \$2.51 per pound in 2000 and \$2.66 per pound in 1999. Phelps Dodge received an average realized price of \$3.64 per pound and \$3.99 per pound for molybdenum products in 2001 and 2000, respectively, reflecting a broad mix of up-graded molybdenum products as well as technical grade molybdc oxide.

#### Costs

In 2001, implied unit cost of copper production increased 3 cents per pound to 75 cents per pound primarily due to slightly higher energy costs and depreciation expense. In 2000, implied unit cost of copper production was adversely impacted by the effects of abnormally high spot prices for energy, which increased our costs by approximately 4 cents per pound to 72 cents per pound relative to those experienced in 1999. Implied unit cost of copper pro-

duction is based on PD Mining's all-in operating margin per pound of copper sold (i.e., PD Mining operating income (loss) before special items, divided by pounds of PD-mined copper sold, plus or minus the LME copper price).

Energy, including electricity, diesel fuel and natural gas, represents a significant portion of the production costs for PD Mining. During 2000, our Arizona and New Mexico operations were adversely affected by significantly higher costs for electricity, diesel fuel and natural gas.

In response to the volatile electricity market, the Company implemented a power cost stabilization plan in March 2001 that reduced electricity-related costs at the U.S. mining operations. The plan consisted of an additional negotiated firm power contract; the construction of a power co-generation plant in New Mexico; short-term, alternating production curtailments at the Company's Tyrone, Sierrita, Bagdad and Henderson operations; and a partial production curtailment at Chino.

Additionally, to mitigate the Company's exposure to increases in diesel fuel and natural gas prices, Phelps Dodge entered into price protection programs in late 2000 and early 2001 designed to protect the Company against a significant upward movement in prices while retaining the flexibility to participate in any favorable price movement. (Refer to Note 19 to the consolidated financial statements for further discussion of this program.)

As a result of the above-mentioned plans and programs, in 2001 Phelps Dodge was able to reduce and mitigate the impacts of volatile electricity markets and rising diesel fuel and natural gas prices.

#### Environmental and Other Regulatory Matters

Our operations in the United States are subject to stringent federal, state and local laws and regulations relating to improving or maintaining environmental quality. Our global operations are also subject to many environmental protection laws. Continuously improving environmental performance is our goal. Good progress has been made to meet the challenge of increasingly complex environmental regulations. Major environmental programs and developments of particular interest are summarized in the paragraphs that follow.

The federal Clean Air Act, as amended (the Clean Air Act), has had a significant impact, particularly on our smelters and power plants. Costs associated with environmental compliance have increased over time, and we expect these costs to continue to rise in the future. The 1990 Amendments to the Clean Air Act require the U.S. Environmental Protection Agency (EPA) to develop and implement many new requirements, and they allow states to establish new programs to implement some of the new requirements, such as the requirements for operating permits

under Title V of the 1990 Amendments and hazardous air pollutants under Title III of the 1990 Amendments. Because EPA has not yet adopted or implemented all of the changes required by Congress, the air quality laws will continue to expand and change in coming years as EPA develops new requirements and then implements them or allows the states to implement them. In response to these new laws, several of our subsidiaries have submitted applications for, and in some cases received, Title V operating permits. Our power plants have been evaluated for potential applicability to Prevention of Significant Deterioration (PSD) regulations. These programs will likely increase our regulatory obligations and compliance costs. These costs could include implementation of maximum achievable control technology (MACT) for those facilities determined to be a major source of federal Hazardous Air Pollutants (HAPs). For example, it is expected that one of our smelters will be regulated as a major source of HAPs. Until more of the implementing regulations are adopted, more Title V permits are issued, and more experience with the new programs is gained, it is not possible to determine the full impact of these requirements.

The "solid wastes" of our domestic copper operations are subject to regulation under the federal Resource Conservation and Recovery Act (RCRA) and related state laws. Historically, mining wastes have been exempted from the federal "hazardous waste" regulations under RCRA. As a result of decisions made by EPA, all "extraction" and "beneficiation" wastes and 20 mineral "processing" wastes retain the exemption, and are to be regulated as "solid waste," rather than as "hazardous waste" under RCRA Subtitle C. Only three of the 20 exempt "processing" wastes are copper "processing" wastes. Because of this EPA regulation, the generation and management of any other mineral, smelting or refining waste could be subject to "hazardous waste" regulation if the waste exhibits a hazardous waste characteristic or if EPA specifically designates it as a "listed hazardous waste." We have taken steps to address the potential regulation as "hazardous waste" of any of our wastes which no longer meet the definition of exempt mineral "processing" wastes.

In 1998, EPA finalized its supplemental Land Disposal Restriction Phase IV (LDR) rules which impose "hazardous waste" regulation on "processing" waste or secondary material that is stored or treated before it is recycled. This final LDR rule also subjects mineral processing materials that exhibit a hazardous waste characteristic to stringent treatment standards if the materials are disposed on land. A portion of the LDR rule was judicially vacated on appeal. While EPA's final LDR rule likely will require us to continue to make expenditures, it is not possible to determine the full impact on us of the new LDR requirements until the requirements are fully adopted and implemented by Arizona, New Mexico, Texas and Colorado.

The federal Emergency Planning and Community Right-to-Know Act was expanded in 1997 to cover mining operations. This law, which has applied to other Phelps Dodge businesses for more than a decade, requires companies to report to EPA the amount of certain materials managed in or released from their operations each year. Annually, we report the volume of naturally occurring minerals and other substances that we managed during the previous year once the usable metals were extracted. These materials are very high in volume and how they are managed is covered by existing regulations and permit requirements.

Our domestic copper operations are also subject to federal and state laws and regulations protecting both surface water and groundwater quality. We possess, or have applied for, the necessary permits or governmental approvals presently required under these rules and regulations.

The federal National Pollutant Discharge Elimination System (NPDES) program requires a permit for the point source discharge of pollutants to surface waters that qualify as waters of the United States. Although most states have received authorization to implement this program in lieu of EPA, Arizona and New Mexico have not received such authorization and therefore the NPDES permit program in Arizona and New Mexico continues to be implemented primarily by EPA. Arizona recently submitted a package to EPA Region 9 to obtain authorization to implement the NPDES permit program in Arizona. The package could be approved as early as June 2002. The NPDES permit program also regulates the discharge of storm water runoff from active and inactive mines. Although EPA has issued general permits that purport to cover discharges from active and inactive mines, there is the potential that such discharges will have to be covered in the future by individual NPDES permits, which permits may impose more stringent discharge limits and other conditions on storm water discharges from such sites. We likely will continue to have to make expenditures to comply with the NPDES permit program, especially as the program continues to expand as applied to storm water discharges.

Section 303(d) of the federal Clean Water Act and implementing regulations require states to submit to EPA on a periodic basis a list of waters not meeting water quality standards (i.e., the 303(d) list of impaired waters). Waters on a state's 303(d) list must then be prioritized for development of a total maximum daily load (TMDL). A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. The 303(d) lists for Arizona, New Mexico and Colorado identify several impaired waterbodies in the vicinity of Phelps Dodge operations in these respective states. TMDLs for several of these waterbodies are currently being established. We will be required to make expenditures with respect to this program; however, the full amount is difficult to

estimate since the program is still being developed and refined.

Arizona has adopted regulations for its aquifer protection permit (APP) program that replaced the previous Arizona groundwater quality protection permit regulations. Several of our properties continue to operate pursuant to the transition provisions for existing facilities under the APP regulations. The APP regulations require permits for new facilities, activities and structures for mining, concentrating and smelting. The APP may require mitigation and discharge reduction or elimination of some discharges. Existing facilities operating under the APP transition provisions are not required to modify operations until requested by the State, or unless a major modification at the facility alters the existing discharge characteristics. We have received an APP for our Morenci operations, for a portion of the Bagdad mine, and for a closed tailing pile in Clarkdale, Arizona. We have also conducted groundwater studies and submitted APP applications for several of our other properties and facilities, including the Bagdad, Sierrita and Miami mines, our Safford development property and Ajo, Copper Queen and United Verde branches. We will continue to submit all required APP applications for our remaining properties and facilities, as well as for any new properties or facilities. We do not know what the APP requirements are going to be for all existing and new facilities and, therefore, it is not possible for us to estimate such costs. We are likely to continue to have to make expenditures to comply with the APP program and regulations.

At the Hidalgo smelter in Playas, New Mexico, in accordance with the groundwater discharge plan approved by the New Mexico Environment Department (NMED) under state water quality law, we continue to monitor and report to NMED on our progress associated with groundwater quality near the smelter's compacted, clay-lined evaporation pond. We have implemented appropriate technologies and contingency plans to protect groundwater beneath the evaporation pond. We have constructed a cap over the evaporation pond which was approved by NMED and have commenced a groundwater remediation program for any existing contamination. To do this we have installed a neutralization facility, a series of lined impoundments, and a series of pump-back wells that are being operated to remediate groundwater and to prevent future contamination.

On December 23, 1994, Chino, located near Silver City, New Mexico, entered into an Administrative Order on Consent (AOC) with NMED. This AOC requires Chino to study the environmental impacts and potential health risks associated with portions of the Chino property affected by historical mining operations. We acquired Chino at the end of 1986. The studies began in 1995 and, while we currently are unaware of any additional liabilities that need to be accrued, until the studies are completed, it is not possible to determine the nature, extent, cost and timing of remedial

work that could be required under the AOC. Remedial work is expected to be required under the AOC.

Our mining operations are subject to laws and regulations establishing new requirements for mined land reclamation and financial assurance. Colorado passed a mined land reclamation law in the early 1970s establishing a Mined Land Reclamation Board that adopted regulations in 1977. Significant changes were made in 1993. Our Colorado mining operations have had approved mined land reclamation plans and financial assurance under these laws for several years. Arizona enacted its mined land reclamation law in 1994. Our Arizona mining operations submitted proposed reclamation plans and financial assurance following the adoption of implementing rules in 1997, and all of our Arizona operations have approved plans and financial assurance totaling approximately \$70 million. New Mexico passed a mined land reclamation law in 1993 authorizing regulations that were adopted in 1994. The permitting process for New Mexico mining operations commenced in December 1994. Approval of "closeout plans" describing the reclamation planned for the Chino, Tyrone and Cobre mines currently is due by October 1, 2002. Two New Mexico State agencies currently are reviewing the permit applications for facility closure and reclamation, and one public hearing was held on Chino's plan to protect water quality in August 2001. A second public hearing was held in February 2002 on the Chino plan to discuss a draft permit proposed jointly by Chino and NMED. The Company is awaiting the hearing officer's decision. The cost estimate to carry out this plan, including water treatment for 100 years, if needed, is \$386 million in current dollars. This figure compares to Chino's previous estimate of approximately \$100 million. The final cost estimate is subject to the results of the hearing and any subsequent judicial appeals. Actual reclamation costs may differ significantly from the cost estimate based on a variety of factors including possible changes in legal standards over time and potential cost savings from use of the Company's own personnel and equipment at each site versus third-party contractor costs (under New Mexico law, financial assurance requirements are calculated based on estimated third-party costs), advances in technology and reclamation techniques, and opportunities to prepare each site for more efficient reclamation through careful development of the site over time. The plan also calls for studies over the next four to five years to refine the plan.

The Company is continuing to negotiate with the State regarding the amount of financial assurance required to cover the \$386 million cost estimate. When adjusted to reflect net present value based upon appropriate escalation and discount rates, the amount required for financial assurance would be reduced. The final permits are subject to the public hearing process and consideration of public comments, and a portion of the plan will require the issuance of a waiver of certain standards as authorized by the New Mexico Mining Act.

The Company expects the next hearing on the Tyrone plan in May 2002. The anticipated cost estimate, financial assurance requirement, and actual reclamation costs for the Tyrone plan are expected to be comparable to the Chino plan. The initial hearing for the Cobre plan will likely occur in summer 2002. The Company expects the cost estimate for the Cobre plan to be approximately \$40 million.

New Mexico's mined land reclamation law requires financial assurance covering reclamation costs from all companies. In contrast, Arizona's Mine Land Reclamation Act permits a company to satisfy financial assurance requirements by demonstrating it has financial strength to fund reclamation costs identified in an approved reclamation plan. An investment grade bond rating is one of the financial strength tests under the Arizona Act. Phelps Dodge presently has a credit rating one level above non-investment grade; however, it has been placed on "Negative Outlook." If a downgrade occurs, the Company will need to provide financial assurance in Arizona.

The costs of surety bonds (the traditional source of financial assurance) has increased significantly during the past six months. Also, many surety companies are now requiring an increased level of collateral supporting the bonds. If surety bonds are unavailable, the Company could be required to post cash or other collateral directly in support of financial assurance obligations.

The federal Bureau of Land Management adopted amended regulations governing mined land reclamation for mining on federal lands in January 2001. New financial assurance requirements for existing operations took effect in June 2001, although the new reclamation requirements took effect only for new mining and certain modifications to existing mining activities. Mined land reclamation is an ongoing activity and we recognize estimated reclamation costs using a units-of-production basis calculation. These laws and regulations and the associated plan approval and permitting requirements will likely increase our regulatory obligations and compliance costs over time with respect to mine closure and reclamation.

In 1995, legislation was introduced in both the U.S. House of Representatives and the U.S. Senate to amend the Mining Law of 1872. None of the bills was enacted into law. Also, mining law amendments were added to the 1996 budget reconciliation bill, which was vetoed by the President. Among other things, the amendments contained in the 1996 bill would have imposed a 5 percent net proceeds royalty on minerals extracted from federal lands, required payment of fair market value for patenting federal lands, and required that patented lands used for non-mining purposes revert to the federal government. Several of these same concepts likely will continue to be pursued legislatively in the future.

We also are subject to federal and state laws and regulations pertaining to plant and mine safety and health conditions. These laws include the Occupational Safety and Health Act of 1970 and the Mine Safety and Health Act of 1977. Present and proposed regulations govern worker exposure to a number of substances and conditions present in work environments. These include dust, mist, fumes, heat and noise. We are making and will continue to make expenditures to comply with health and safety laws and regulations.

We estimate that our share of capital expenditures for programs to comply with applicable environmental laws and regulations that affect our mining operations will total approximately \$20 million in 2002 and approximately \$26 million in 2003; \$10 million was spent on such programs in 2001. We also anticipate making significant capital and other expenditures beyond 2003 for continued compliance with such laws and regulations. In light of the frequent changes in the laws and regulations and the uncertainty inherent in this area, we are unable to reasonably estimate the total amount of such expenditures over the longer term, but it may be potentially material. (Refer to the discussion of OTHER ENVIRONMENTAL MATTERS.)

We do not expect that the additional capital and operating costs associated with achieving compliance with the many environmental, health and safety laws and regulations will have a material adverse affect on our competitive position relative to other U.S. copper producers. These domestic copper producers are subject to comparable requirements. However, because copper is an internationally traded commodity, these costs could significantly affect us in our efforts to compete globally with those foreign producers not subject to such stringent requirements.

#### Ownership of Property

Generally, most of the land occupied by our copper and molybdenum mines, concentrators, SX/EW facilities, smelters, refineries, rod mills, and molybdenum roasters or processing facilities is owned by, or is located on unpatented mining claims owned by, the Company. Certain portions of our Miami, Bagdad, Sierrita, Tyrone, Chino and Cobre operations are located on government-owned land and are operated under a Mine Plan of Operations. The Sierrita operation leases property adjacent to its mine upon which its electrowinning tankhouse facility is located. Cyprus Tohono Corporation holds leases for land, water and business purposes on land owned by the Tohono O'odham Indian Nation for its operation that is presently on care-and-maintenance status. We also lease space for small sales offices in various locations.

## PHELPS DODGE INDUSTRIES

PD Industries is our manufacturing division comprising two business segments that produce engineered products principally for the global energy, telecommunications, transportation and specialty chemicals sectors. Its operations are characterized by products with significant market share, internationally competitive cost and quality, and specialized engineering capabilities. The two segments are specialty chemicals and wire and cable. In December 2000, we announced our intention to explore strategic alternatives for, including the potential sale of, our specialty chemicals and wire and cable segments. In May 2001, we terminated that sales process, noting that the then current economic environment was not delivering transactions that offered appropriate value to our shareholders. We have continued to seek strategic alternatives, as may be appropriate, for these businesses.

### Specialty Chemicals Segment

Columbian Chemicals Company and its subsidiaries (Columbian Chemicals), our specialty chemicals segment headquartered in Marietta, Georgia, is an international producer and marketer of carbon blacks. At Columbian Chemicals, we produce a full range of rubber and industrial carbon blacks in 12 plants worldwide (although our El Dorado, Arkansas, plant is temporarily closed), with approximately 40 percent of our production in North America and the remaining 60 percent at facilities in Europe, Asia and South America. Our rubber carbon blacks improve the tread wear and durability of tires, and extend the service life of many rubber products such as belts and hoses. Our industrial carbon blacks are used in such diverse applications as pigmentation of coatings, inks and plastics; ultraviolet stabilization of plastics; and as conductive insulation for wire and cable. We also maintain sales offices in 11 countries and make use of distributors worldwide.

In the second quarter of 2000, we acquired the remaining 40 percent share in the carbon black manufacturing business of Columbian Tiszai Carbon Ltd. in Hungary for \$19.0 million, bringing our total interest to 100 percent.

In the first quarter of 2000, we acquired an additional 18 percent ownership in Columbian Chemicals Japan, a sales and distribution company serving the Japanese market, bringing our total ownership interest to 68 percent.

In January 1999, we acquired an 85 percent interest in the Korean carbon black manufacturing business of Korea Kumho Petrochemical Co., Ltd., for \$76.1 million. This business includes an 110,000 metric-ton-per-year manufacturing plant.

In October 1998, we acquired the Brazilian carbon black manufacturing business of Copebras S.A., a subsidiary of Minorco, for \$220 million. This manufacturing facility

has an annual production capacity of 170,000 metric tons of carbon black.

In November 1999, our manufacturing facility in Bataan, Philippines, was closed as it did not have the economies of scale to compete profitably with imports from larger regional producers. Beginning in December 2001, Columbian Chemicals curtailed 54,000 metric tons of annual North American carbon black production at its El Dorado, Arkansas, plant due to significant over-capacity in the U.S. market caused by the economic recession. The facility is expected to reopen when economic conditions improve.

Extensive research and development and engineering are performed at our technology centers located at Marietta, Georgia, and Avonmouth, United Kingdom. These technology centers are responsible for studies specific to both industrial and rubber applications of carbon black. Carbon black product and process development at these technology centers are supported by development work at the company's plants worldwide.

### Competition and Markets

The principal competitive factors in the various markets in which our specialty chemicals segment competes are product quality, customer service, price, dependability of supply, delivery lead time, breadth of product line, and technical service and innovation.

Columbian Chemicals is among the world's largest producers of carbon black. Approximately 90 percent of the carbon black it produces is used in rubber applications, a substantial portion of which is used in the tire industry. Major tire manufacturers worldwide account for a substantial portion of our carbon black sales. In addition, we maintain a strong competitive position in both the mechanical rubber goods market and the industrial carbon black market based on our commitment to quality, service and technical innovation. Despite ongoing attempts to substitute carbon black with silica, reclaimed rubber or other materials, none has been able to match the cost and performance of carbon black in its principal applications. The closest successful substitute is a silane-treated silica which has made some in-roads in the tire market due to its increased wet traction characteristics for specific applications.

Including Columbian Chemicals, there are a total of six major carbon black producers in the United States, three in Canada, three in western Europe and two in South America (although a third producer has announced its intention to open a facility later in 2002). There also are many producers in Asia. The carbon black industry is highly competitive, particularly in the rubber black market.

### Raw Materials and Energy Supplies

Carbon black is produced primarily from heavy residual oil, a by-product of the crude oil refining process. At Columbian Chemicals, we purchase substantially all of our feedstock at market prices that fluctuate with world oil prices. Our residual oil feedstock and other raw materials for our specialty chemicals business are purchased from various suppliers. The cost of feedstock is a significant factor in the cost of carbon black. To achieve satisfactory financial results during periods of high and/or increasing oil prices, we must be able to pass through these high and/or increasing prices to our customers. We do not believe that the loss of any one supplier would have a material adverse effect on our financial condition or on the results of our operations.

Our specialty chemical operations generally use purchased or internally generated electricity and natural gas as their principal sources of energy.

### Ownership of Property

Columbian Chemicals owns all property other than the leased land at its Sevalco and Hannover facilities. The land at its closed Philippine facility is leased through a 40 percent-owned subsidiary.

### Wire and Cable Segment

The wire and cable segment, headquartered in Coral Gables, Florida, consists of three worldwide product line businesses and a shared support services operation. The three product line businesses are magnet wire, energy and telecommunications cables, and specialty conductors.

Magnet wire, the insulated conductor used in most electrical motors, is manufactured in the United States at plants in Fort Wayne, Indiana; Laurinburg, North Carolina; and El Paso, Texas. We also manufacture magnet wire at wholly owned subsidiaries in Mureck, Austria, and Monterrey, Mexico. Our multi-product factory in Zambia also produces magnet wire. As part of a manufacturing rationalization program aimed at significant cost reductions, the Hopkinsville, Kentucky, plant was closed in 2000 and its value was written down by an additional \$3.3 million in the second quarter of 2001. Its productive assets were moved to other facilities in the United States and Mexico. In 2000, a special, pre-tax charge of \$5.8 million was recognized for our wire and cable operations in Austria as a result of the long-term impact of continuing extremely competitive pricing conditions in Europe. Those conditions led to a determination that we should assess the recoverability of our Austrian wire and cable asset values. In addition, we permanently ceased the relatively small production of magnet wire at our company in Venezuela in 1999.

Energy and telecommunication cables for international markets are manufactured in factories located in 10 countries. We provide management, marketing assistance, technical support, and engineering and purchasing services to these companies. Three of our international wire and cable companies have continuous-cast copper rod facilities (a fourth facility was closed in 1999), and three of our international wire and cable companies have continuous-cast aluminum rod facilities. We have majority interests in companies with production facilities in seven countries - Brazil, Chile, Costa Rica, Honduras, Thailand, Venezuela and Zambia. We also have minority interests in companies located in Hong Kong and Thailand, accounted for on the equity basis, and in companies located in Greece and India, accounted for on the cost basis.

In January 2001, Alcoa Aluminio, S.A. exercised a put option that required Phelps Dodge to acquire an additional 40 percent interest in Alcoa Fios e Cabos Electricos, S.A., our wire and cable facility in Brazil, in which we already held a 60 percent interest. The transaction closed in March 2001, and the final settlement price was \$44.8 million.

During the second quarter of 2000, we ceased production at two wire and cable plants in Venezuela due to low forecast plant utilization levels as a result of significantly reduced infrastructure spending in the Latin America region. We also ceased production at our majority-owned telephone cable operation in El Salvador in the fourth quarter of 2000 due to low plant utilization levels as a result of heightened global competition for telecommunication cable. The plant closure resulted in a special, pre-tax charge of \$4.6 million. A charge of \$7.2 million to miscellaneous income and expense was recognized to reflect the impairment of our 40 percent equity interest in a wire and cable operation in the Philippines. The impairment was based upon an analysis of future cash flows of the operation, continuing economic uncertainty in the Philippines and the erosion of our strategic and operating influence.

During 1999, we converted a small manufacturing facility in Ecuador to a distribution center. Also in 1999, we opened a distribution center in Colombia. In all, we operate distribution centers in nine countries in addition to the United States - Guatemala, El Salvador, Honduras, Panama, Puerto Rico, Colombia, Ecuador, Belgium and South Africa. At the end of 1999, we recognized impairments of our equity basis investment in China as well as an impairment of the telecommunications business in the Philippines. (Refer to Note 3 to the consolidated financial statements for a further discussion of the 1999, 2000 and 2001 restructurings and impairments.)

We manufacture and market highly engineered conductors of copper and copper alloy wire electroplated with silver, tin or nickel for sophisticated, specialty product niches in the aerospace, automotive, biomedical, computer

and consumer electronics markets. Those products are manufactured in plants located in Inman, South Carolina; Trenton, Georgia; and West Caldwell and Elizabeth, New Jersey. As part of the manufacturing rationalization program initiated in 1999, leased plants in Fairfield and Montville, New Jersey, were closed in 2000. Their productive capacities were transferred to the remaining facilities.

### Competition and Markets

Phelps Dodge is one of the world's largest manufacturers of magnet wire. Our plants draw, roll and insulate copper and aluminum wire which is sold as magnet wire and bare conductors to original equipment manufacturers for use in electric motors, generators, transformers, televisions, automobiles and a variety of small electrical appliances. Magnet wire also is sold to electrical equipment repair shops and smaller original equipment manufacturers through a network of distributors. We principally compete with two international and two U.S. magnet wire producers.

Our international energy and telecommunication cable companies primarily sell products to contractors, distributors, and public and private utilities. Our products are used in lighting, power distribution, telecommunications and other electrical applications. Our competitors range from worldwide wire and cable manufacturers to small local producers.

Our specialty conductors are sold primarily to intermediaries (insulators, assemblers, subcontractors and distributors). Approximately 40 percent of these products ultimately are sold to commercial and military aerospace companies for use in airframes, avionics, space electronics, radar systems and ground control electronics. Specialty conductors also are used in appliances, instrumentation, computers, telecommunications, military electronics, medical equipment and other products. We have two primary U.S. competitors and compete with three importers in the specialty conductor market; however, in those few markets where we compete for high volume products, we face competition from several U.S. fabricators.

### Raw Materials and Energy Supplies

The principal raw materials used by our magnet wire manufacturing operations are copper, aluminum and various chemicals and resins used in the manufacture of electrical insulating materials. Most of the copper purchased for our magnet wire operations is from our mining segment.

The principal raw materials used by our international energy and telecommunication cable companies are copper, copper alloy, aluminum, aluminum alloy, copper-clad steel and various electrical insulating materials.

The specialty conductor product line usually is plated with silver, nickel or tin. With the exception of copper needed in specialty conductors, a majority of the materials used by these companies is purchased from others. We do not believe that the loss of any one supplier would have a material adverse effect on our financial condition or on the results of our operations.

Most of our wire and cable operations generally use purchased electricity and natural gas as their principal sources of energy. Our magnet wire company's principal manufacturing equipment uses natural gas; however, it is also equipped to burn alternative fuels.

### Ownership of Property

We own most of the plants and land on which our wire and cable operations are located. The exceptions are the leased land and buildings of our magnet wire facilities in Austria and closed specialty conductor facilities in Fairfield and Montville, New Jersey. This land is not material to our overall operations.

### Environmental Matters

Federal and state environmental laws and regulations affect many aspects of our domestic industrial operations. We estimate that capital expenditures for programs to comply with applicable environmental laws and regulations within our PD Industries division will total approximately \$6 million in 2002 and approximately \$19 million in 2003; \$5 million was spent on these programs in 2001. We anticipate making significant capital and other expenditures after 2003 for continued compliance with environmental laws and regulations. Our U.S. carbon black plants will be subject to new Maximum Achievable Control Technology (MACT) requirements under the Clean Air Act that are scheduled to be promulgated during 2002. It is expected that companies subject to the act will have several years to achieve compliance with the MACT requirements. Because of the frequent changes in environmental laws and regulations and the uncertainty these changes create for us, we are unable to estimate reasonably the total amount of such expenditures over the longer term, but it may be material. (Refer to the discussion of OTHER ENVIRONMENTAL MATTERS.)

### LABOR MATTERS

Employees at PD Mining's Arizona operations, El Paso refinery and rod mill, Tyrone, Hidalgo smelter, the Norwich and Chicago rod mills, the Henderson mine in Colorado, the Fort Madison, Iowa, molybdenum processing facility, and some employees at Chino are not represented by any unions.

In addition, we currently have labor agreements covering most of our U.S. and international manufacturing division plants. Our specialty chemicals plant in Trecate,

Italy, had an agreement covering 44 employees that expired on December 31, 2001; negotiations are still ongoing in regard to this agreement. Our specialty chemicals plant in Hamilton, Ontario, Canada, has an agreement covering 67 employees that expires on September 30, 2002. Our specialty chemicals facilities in Cubatao and Sao Paulo, Brazil, have agreements covering 209 and 31 employees, respectively, that expire on October 31, 2002. Our specialty chemicals plant in Hannover, Germany, has an agreement covering 72 employees that expires on June 30, 2002. Our specialty chemicals plant in Yosu, South Korea, has a wages agreement covering 51 employees that expires March 31, 2002. Our specialty chemicals plant in Santander, Spain, has an agreement covering 35 employees that expires on December 31, 2002.

Our wire plant in Bayway, New Jersey, has an agreement covering 65 employees that expired on July 31, 2000; negotiations are still ongoing in regard to this agreement. Our plant in Zambia has an agreement covering approximately 110 employees that expired on March 31, 2001. A new one-year agreement was ratified with effective dates of May 2001 through July 2002. Our magnet wire plant in Monterrey, Mexico, has an agreement covering approximately 170 hourly employees that expired February 28, 2001, and a new agreement was ratified with effective dates of March 2001 through March 2002. Negotiations are set to begin in March 2002. Our magnet wire plant in Fort Wayne, Indiana, has an agreement covering approximately 250 employees that expires in May 2002. Negotiations are set to begin in April 2002. Our magnet wire plant in Austria has an agreement covering approximately 70 employees that expires in October 2002. Our wire and cable facilities in Brazil have agreements covering approximately 270 and 80 employees that expire in September and November 2002, respectively. Our wire and cable plant in Venezuela has an agreement covering approximately 70 employees that expires in December 2002.

Our El Abra mine in Chile had a labor agreement that expired on October 30, 2001. A new three-year agreement was ratified with effective dates of October 31, 2001, through October 31, 2004. Candelaria has a labor agreement expiring in 2003. Our Chino mine in Hurley, New Mexico, has an agreement that expires on November 18, 2002. Our molybdenum operations in Stowmarket and Rotterdam have agreements covering approximately 40 and 50 employees, respectively, that expire on May 31 and March 31, 2002.

## RESEARCH AND DEVELOPMENT

We conduct research and development programs relating to technology for exploration for minerals, mining and recovery of metals from ores, concentrates and solutions, smelting and refining of copper, metal processing and product development. We also conduct research and development programs related to our carbon black products

through Columbian Chemicals, and our wire insulating processes and materials and conductor materials and processes through our wire and cable segment. Expenditures for all of these research and development programs, together with contributions to industry and government-supported programs, totaled \$27.1 million in 2001, compared with \$24.7 million in 2000 and \$16.5 million in 1999.

## OTHER ENVIRONMENTAL MATTERS

Phelps Dodge or its subsidiaries have been advised by EPA, the United States Forest Service and several state agencies that they may be liable under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) or similar state laws and regulations for costs of responding to environmental conditions at a number of sites that have been or are being investigated by EPA, the Forest Service or states to determine whether releases of hazardous substances have occurred and, if so, to develop and implement remedial actions.

Phelps Dodge has provided reserves for potential environmental obligations that management considers probable and for which reasonable estimates of such obligations can be made. For closed facilities and closed portions of operating facilities with closure obligations, an environmental liability is considered probable and is accrued when a closure determination is made and approved by management. Environmental liabilities attributed to CERCLA or analogous state programs are considered probable when a claim is asserted, or is probable of assertion, and we have been associated with the site. Other environmental remediation liabilities are considered probable based upon specific facts and circumstances. Liability estimates are based on an evaluation of, among other factors, currently available facts, existing technology, presently enacted laws and regulations, Phelps Dodge's experience in remediation, other companies' remediation experience, Phelps Dodge's status as a potentially responsible party (PRP), and the ability of other PRPs to pay their allocated portions. Accordingly, total environmental reserves of \$311.2 million and \$307.1 million, respectively, were recorded as of December 31, 2001 and 2000. The long-term portion of these reserves is included in other liabilities and deferred credits on the consolidated balance sheet and amounted to \$264.3 million and \$244.9 million at December 31, 2001 and 2000, respectively.

The sites for which Phelps Dodge has received a notice of potential liability or an information request that are currently considered to be the most significant are the Pinal Creek site in Miami, Arizona, the former American Zinc and Chemical site in Langeloth, Pennsylvania, and the Tohono O'odham Nation sites.

At the Pinal Creek site, remediation is being performed by the Pinal Creek Group, which includes Phelps Dodge Miami Inc. and other companies that have been de-

terminated to have contributed through historic mining activities to the contaminated groundwater plume in the shallow alluvial aquifers of Pinal Creek. The remediation work is being conducted in accordance with the requirements of the Arizona Department of Environmental Quality's Water Quality Assurance Revolving Fund program. In addition, the remedial action is consistent with the National Contingency Plan prepared by EPA as required by CERCLA. Ongoing remediation efforts have resulted in continued improvement of the water quality in the area. In November 1997, the Pinal Creek Group joined with the State of Arizona in requesting the District Court to approve and enter a Consent Decree resolving all matters related to an enforcement action contemplated by the State of Arizona with respect to the groundwater matter. On August 13, 1998, the court approved and entered the Decree that commits the Pinal Creek Group to complete the remediation work outlined in the remedial action plan that was submitted to the State in May 1997. Phelps Dodge Miami Inc. is pursuing contribution litigation against other parties involved in this matter and has asserted claims against certain of its past insurance carriers. While significant recoveries are expected, the Company cannot reasonably estimate the amount and, therefore, has not taken potential recoveries into consideration in the recorded reserve. Phelps Dodge Miami Inc.'s share of the planned remediation work has a cost range for reasonably expected outcomes estimated to be from \$119 million to \$222 million, and, as no point within that range is more likely than any other, the lower end of the range has been reserved as required by generally accepted accounting principles.

In June 1999, Cyprus Amax received an information request from the Pennsylvania Department of Environmental Protection regarding the former American Zinc and Chemical site in Langeloth, Pennsylvania. The site is currently being investigated by the State of Pennsylvania. Studies initiated to determine the nature and extent of remediation work that may be required on the property indicated a cost range for reasonably expected outcomes estimated to be from \$18 million to \$52 million. Phelps Dodge has reserved \$20 million for the possible remediation work at the Langeloth site representing the most likely point within the range of estimates.

Cyprus Tohono Corporation (Cyprus Tohono), a wholly owned subsidiary of Cyprus Amax Corporation, holds three leases for lands on the Tohono O'odham Indian Nation (the Nation). The leased lands include the site of an inactive mining operation, including an open pit, leach and waste rock stockpiles, tailing and evaporation ponds, ore roasting and SX/EW operations, and ancillary facilities. The leases impose certain environmental compliance, closure and reclamation requirements upon Cyprus Tohono as the lessee. The closure and reclamation requirements under the leases require action to be taken upon termination of the leases, which currently expire between 2012 and 2017, unless terminated earlier in accordance with the terms of the

leases. The Nation, along with several federal agencies who assist the Nation, have notified Cyprus Tohono of water quality concerns and concerns with other environmental impacts of historical mining operations. The Nation has requested that Cyprus Tohono consider accelerating closure and reclamation under the leases, in lieu of or in addition to interim reclamation and corrective measures being considered by Cyprus Tohono to protect water quality and mitigate other potential environmental impacts. We are unable to estimate the total costs of the corrective, closure and reclamation measures that may be instituted by Cyprus Tohono as a result of these investigations; however, preliminary studies indicate that interim reclamation and corrective measures could range from \$7 million to \$15 million. As a result of meetings and determinations in the 2001 fourth quarter, and based upon our best estimate of activities and costs, an \$11 million reserve was recognized.

In December 2001, the Company entered into a Memorandum of Understanding with the owner of a Yonkers, New York, property regarding certain environmental liabilities estimated to range from \$6 million to \$11 million. The Company sold that property to the owner in 1984. Based on information supplied by the property owner, the Company recognized a best estimate \$7 million charge associated with environmental remediation at that site. Also in the 2001 fourth quarter, the Company recognized charges of \$13 million for environmental remediation primarily at closed sites, none of which, individually was more than \$3 million.

At December 31, 2001, the cost range for reasonably possible outcomes for all reservable environmental remediation sites other than Pinal Creek and Langeloth was estimated to be from \$151 million to \$242 million of which \$172 million has been reserved. Work on these sites is expected to be substantially completed in the next several years, subject to inherent delays involved in the remediation process.

Phelps Dodge believes certain insurance policies partially cover the foregoing environmental liabilities; however, some of the insurance carriers have denied coverage. We are presently litigating these disputes. Further, Phelps Dodge believes that it has other potential claims for recovery from other third parties, including the United States Government and other PRPs, as well as liability offsets through lower cost remedial solutions. Neither insurance recoveries nor other claims or offsets are recognized unless such offsets are considered probable of realization. In 2001, the Company recognized proceeds from settlements reached with several insurance companies on historic environmental liability claims of \$61.8 million, net of fees and expenses.

Phelps Dodge has a number of sites that are not the subject of an environmental reserve because it is not probable that a successful claim will be made against the Company for those sites, but for which there is a reasonably pos-

sible likelihood of an environmental remediation liability. At December 31, 2001, the cost range for reasonably possible outcomes for all such sites was estimated to be from \$3 million to \$21 million. The liabilities arising from potential environmental obligations that have not been reserved at this time may be material to the results of any single quarter or year in the future. Management, however, believes the liability arising from potential environmental obligations is not likely to have a material adverse effect on the Company's liquidity or financial position as such obligations could be satisfied over a period of many years.

Our operations are subject to many environmental laws and regulations in jurisdictions both in the United States and in other countries in which we do business. For further discussion of these laws and regulations, please refer to PD Mining - Environmental and Other Regulatory Matters and PD Industries - Environmental Matters. The estimates given in those discussions of the capital expenditures to comply with environmental laws and regulations in 2002 and 2003, and the expenditures in 2001, are separate from the reserves and estimates described above.

The Environmental, Health and Safety Committee of the Board of Directors comprises five non-employee directors. The Committee met three times in 2001 to review, among other things, the Company's policies with respect to environmental, health and safety matters, and the adequacy of management's programs for implementing those policies. The Committee reports on such reviews and makes recommendations with respect to those policies to the Board of Directors and to management.

### Item 3. Legal Proceedings

I. We are a member of several trade associations. As a participating member of these trade associations, we also are active in legal proceedings challenging administrative regulations which are considered by the trade association to be poor policy. In some instances, the legal challenges brought by the trade associations request that the government consider the full impact and results of the proposed regulation on business operations. For example, the EPA is requiring air quality controls and air measurement obligations that industry considers too burdensome.

#### II. Water rights adjudication proceedings.

A. The following state water rights adjudication proceedings are pending in Arizona Superior Court:

1. In re the General Adjudication of All Rights to Use Water in the Little Colorado River System and Source, No. 6417 (Superior Court of Arizona, Apache County).

(a) Petition was filed by us on or about February 17, 1978, and process has been served on all potential claimants. Virtually all statements of claimant have been filed.

(b) The principal parties, in addition to us, are the State of Arizona, the Navajo Nation, the Hopi Indian Tribe, the San Juan Southern Paiute Tribe and the United States on its own behalf and on behalf of those Indian tribes. In this adjudication and in the adjudications reported in items 2.(a), (b) and (c) below, the United States and the Indian tribes seek to have determined and quantified their rights to use water arising under federal law on the basis that, when the Indian reservations and other federal reservations were established by the United States, water was reserved from appropriation under state law for the use of those reservations.

(c) This proceeding could affect, among other things, our rights to impound water in Show Low Lake and Blue Ridge Reservoir and to transport this water into the Salt River and Verde River watersheds for exchange with the Salt River Valley Water Users' Association. We have filed statements of claimant for these and other water claims. This litigation is stayed pending the outcome of current settlement negotiations. The Court has not set a final schedule of cases to go to trial, should the litigation resume.

2. In re the General Adjudication of All Rights to Use Water in the Gila River System and Source, Nos. W-1 (Salt River), W-2 (Verde River), W-3 (Gila River) and W-4 (San Pedro River) (Superior Court of Arizona, Maricopa County). As a result of consolidation proceedings, this action now includes general adjudication proceedings with respect to the following three principal river systems and sources:

(a) The Gila River System and Source Adjudication:

(i) Petition was filed by us on February 17, 1978. Process has been served on water claimants in the upper and lower reaches of the watershed and virtually all statements of claimant have been filed.

(ii) The principal parties, in addition to us, are the Gila Valley Irrigation District, the San Carlos Irrigation and Drainage District, the State

of Arizona, the San Carlos Apache Tribe, the Gila River Indian Community and the United States on its own behalf and on behalf of the tribe and the community.

(iii) This proceeding could affect, among other things, our claim to the approximately 3,000 acre-feet of water that it diverts annually from Eagle Creek, Chase Creek or the San Francisco River and its claims to percolating groundwater that is pumped from wells located north of its Morenci Branch operations in the Mud Springs and Bee Canyon areas and in the vicinity of the New Cornelia Branch at Ajo. We have filed statements of claimant with respect to waters that it diverts from these sources. This proceeding also could affect water right claims associated with recently acquired Cyprus operations at Sierrita, Twin Buttes and the Christmas mine, and miscellaneous former Cyprus land holdings in the area encompassed by the Gila River System and Source Adjudication. Statements of claimant have been filed in connection with these claims, and are under review for possible amendment and supplementation.

(iv) In 1997, issues of dispute arose between Phelps Dodge and the San Carlos Apache Tribe (the Tribe) regarding our use and occupancy of the Black River Pump Station which delivers water to the Morenci operation. On May 12, 1997, the Tribe filed suit against us in San Carlos Apache Court, seeking our eviction from the Tribe's Reservation and claiming substantial compensatory and punitive damages, among other relief. In May 1997, we reached an agreement with the Tribe, and subsequently federal legislation (Pub. L. No. 105-18, 5003, 111 stat. 158, 181-87) was adopted which mandated dismissal of the tribal court suit. The legislation prescribes arrangements intended to ensure a future supply of water for the Morenci mining complex in exchange for certain payments by us. The legislation does not address any potential claims by the Tribe relating to our historical occupancy and operation of our facilities on the Tribe's Reservation, but does require that any such claims be brought, if at all, exclusively in federal district court. By order dated October 13, 1997, the tribal court

dismissed the lawsuit with prejudice, as contemplated by the legislation.

The 1997 legislation required that the Company and the Tribe enter a lease for the delivery of Central Arizona Project (CAP) water through the Black River Pump Station to Morenci on or before December 31, 1998. In the event a lease was not signed, the legislation expressly provided that the legislation would become the lease. On January 24, 2002, a lease between the San Carlos Apache Tribe, Phelps Dodge and the United States was executed in accordance with the legislation. On the same date, and in accordance with the legislation, an Exchange Agreement between the San Carlos Apache Tribe, the United States and the Salt River Project Water User's Association was executed and subsequently approved by Phelps Dodge that will allow the delivery of Central Arizona Project water to Morenci.

(v) On September 19, 2001, the Regional Director of the Bureau of Indian Affairs issued a decision requiring the Bureau of Reclamation to cease deliveries of water to the Company from the Black River Pump Station. The decision asserts that Phelps Dodge failed to make payment for leased CAP water. Because only water collected in the Company's reservoirs (and not CAP water) is delivered through the Black River Pump Station, the Company believes that CAP water issues are irrelevant to the Black River deliveries. In addition, specific legislation governing the operation of the Black River Pump Station provides that any disputes must be resolved in federal court.

The Company appealed the decision claiming a lack of jurisdiction and authority and asserted that the decision was not supported by the relevant law or other facts. The Company also requested a stay of the decision pending the outcome of the appeal. As a result of the finalization of the San Carlos Apache-CAP lease and exchange on January 24, 2002, Phelps Dodge and the United States filed a stipulation vacating the decision by the Regional Director of the Bureau of Indian Affairs and the Company's appeal.

(vi) On May 4, 1998, we executed a settlement agreement with the Gila River Indian Community (the Community) that resolves the issues between us and the Community pertinent to this litigation. This settlement is subject to the approval of the Secretary of the Interior and the passage of federal legislation.

(b) The Salt River System and Source Adjudication:

(i) Petition was filed by the Salt River Valley Water Users' Association on or about April 25, 1974. Process has been served, and statements of claimant have been filed by virtually all claimants.

(ii) Principal parties, in addition to us, include the petitioner, the State of Arizona and the United States, on its own behalf and on behalf of various Indian tribes and communities including the White Mountain Apache Tribe, the San Carlos Apache Tribe, the Fort McDowell Mohave-Apache Indian Community, the Salt River Pima-Maricopa Indian Community and the Gila River Indian Community.

(iii) We have filed a statement of claimant to assert our interest in the water exchange agreement with the Salt River Valley Water Users' Association by virtue of which it diverts from the Black River water claimed by the Association and repays the Association with water impounded in Show Low Lake and Blue Ridge Reservoir on the Little Colorado River Watershed, and to assert our interest in "water credits" to which we are entitled as a result of our construction of the Horseshoe Dam on the Verde River.

(iv) The Salt River Pima-Maricopa Indian Community, Salt River Valley Water Users' Association, the principal Salt River Valley Cities, the State of Arizona and others have negotiated a settlement as among themselves for the Verde and Salt River system. The settlement has been approved by Congress, the President and the Arizona Superior Court. Under the settlement, the Salt River Pima-Maricopa Indian Community waived all water claims it has against all

other water claimants (including us) in Arizona.

(v) Active proceedings with respect to other claimants have not yet commenced in this adjudication.

(vi) This proceeding could affect, among other things, the water claims associated with the recently acquired Cyprus operation at Miami, and miscellaneous former Cyprus land holdings in the area encompassed by the Salt River System and Source Adjudication. Statements of claimant have been filed in connection with these claims, and are under review for possible amendment and supplementation.

(c) The Verde River System and Source Adjudication:

(i) Petition was filed by the Salt River Valley Water Users' Association on or about February 24, 1976, and process has been served. Virtually all statements of claimant have been filed.

(ii) The principal parties, in addition to us, are the petitioner, the Fort McDowell Mohave-Apache Indian Community, the Payson Community of Yavapai Apache Indians, the Salt River Pima-Maricopa Indian Community, the Gila River Indian Community, the United States on its own behalf and on behalf of those Indian communities, and the State of Arizona.

(iii) This proceeding could affect, among other things, our Horseshoe Dam "water credits" with the Salt River Valley Water Users' Association resulting from its construction of the Horseshoe Dam on the Verde River. (See the Black River water exchange referred to in Paragraph II.A. 2.(b)(iii) above.) We have filed statements of claimant with respect to Horseshoe Dam and water claims associated with the former operations of the United Verde Branch.

(iv) The Fort McDowell Mohave-Apache Indian Community, Salt River Valley Water Users'

Association, the principal Salt River Valley Cities, the State of Arizona and others have negotiated a settlement as among themselves for the Verde River system. This settlement has been approved by Congress, the President and the Arizona Superior Court. Under this settlement, the Fort McDowell Mohave-Apache Indian Community waived all water claims it has against all other water claimants (including us) in Arizona.

B. The following proceedings involving water rights adjudication are pending in the United States District Court for the District of Arizona:

1. On June 29, 1988, the Gila River Indian Community filed a complaint-in-intervention in United States v. Gila Valley Irrigation District, et al., and Globe Equity No. 59 (D. Ariz.). The underlying action was initiated by the United States in October 1925 to determine conflicting claims to water rights in certain portions of the Gila River watershed. Although we were named and served as a defendant in that action, we were dismissed without prejudice as a defendant in March 1935. In June 1935, the Court entered a decree setting forth the water rights of numerous parties, but not ours. The Court retained, and still has, jurisdiction of the case. The complaint-in-intervention does not name us as a defendant; however, it does name the Gila Valley Irrigation District as a defendant. Therefore, the complaint-in-intervention could affect the approximately 3,000 acre-feet of water that we divert annually from Eagle Creek, Chase Creek or the San Francisco River pursuant to the agreement between us and the Gila Valley Irrigation District.

During 1998, we purchased farmlands with associated water rights that are the subject of this litigation. As a result, we have been named and served as a party in this case. The lands and associated water rights are not currently used in connection with any mining operation of ours.

Cyprus Miami Mining Corporation was named and served as a defendant in this action in 1989. These proceedings may affect water rights associated with former Cyprus Miami lands in the Gila River Watershed.

2. Prior to January 1, 1983, various Indian tribes filed several suits in the United States District Court for the District of Arizona claiming prior and paramount rights to use waters which are presently being used by many water users, including us, and claiming damages for prior use in derogation of their allegedly paramount rights. These

federal proceedings have been stayed pending state court adjudication.

3. Cyprus Sierrita Corporation's predecessor in interest was a defendant in United States, et al. v. City of Tucson, et al., No. CIV 75-39 (D. Ariz.). This is a consolidation of several actions seeking a declaration of the rights of the United States, the Papago Indian Tribe (now known as the Tohono O'odham Nation), and individual allottees of the Tohono O'odham Nation, to surface water and groundwater in the Santa Cruz River Watershed; damages from the defendants' use of surface water and groundwater from the Watershed in derogation of those rights; and injunctive relief. Congress in 1982 enacted the Southern Arizona Water Rights Settlement Act, which was intended to resolve the water right claims of the Tohono O'odham Nation and its member allottees relating to the San Xavier Reservation and the Schuk Toak District of the Sells Papago Reservation. The allottees contested the validity of the Act and contended that the Court could not dismiss the litigation without their consent. This prompted additional litigation, and eventually culminated in settlement negotiations. The Court suspended most aspects of the litigation to enable the parties to negotiate a settlement with the allottees. The Court's recent attention has been devoted to the composition of appropriate classes of allottees and identification of class representatives, so that any settlement that is reached would bind the allottees. It is anticipated that a settlement and authorizing legislation would conclude all litigation on behalf of the Tohono O'odham Nation, its allottee members, and the United States as Trustee for the nation and its allottee members, relating to water rights. As of this writing, however, a settlement has not been reached. The outcome of this dispute could impact water right claims associated with the recently acquired Cyprus operations at Sierrita and Twin Buttes, and miscellaneous former Cyprus land holdings in the Santa Cruz River Watershed.

III. The Company entered into a Consent Decree in December 2000 with the Connecticut Department of Environmental Protection (CDEP) regarding purported violations of state air emissions limitations associated with the Phelps Dodge Norwich rod mill in Norwich, Connecticut. Under the terms of the Consent Decree, the Company paid a penalty of \$500,000, and is performing environmental studies on environmental impacts near the rod mill. We also funded a supplemental environmental project to be administered by CDEP, and tested the rod mill's newly installed state-of-the-art air pollution control equipment.

IV. On October 1, 1997, EPA issued a Notice of Violation (NOV) to Cyprus Amax's (now the Company's)

Sierrita operations in southeastern Arizona. The NOV alleged certain emission standards and permitting violations associated with the molybdenum roasting facility at Sierrita. On September 6, 2000, EPA also issued a NOV to Phelps Dodge Sierrita for alleged violations of Prevention of Significant Deterioration permitting requirements, and New Source Performance Standards under the federal Clean Air Act. No action has been filed at this time, and the Company has asserted defenses to the NOV's in its response to EPA. EPA and the Company have entered into a series of agreements tolling the running of the statute of limitations on certain of the alleged violations pending resolution of the issues raised in the NOV's.

V. In 2001, the Pinal Creek Group, comprising Phelps Dodge Miami, Inc. (a wholly owned subsidiary of the Company) and other companies, continued remediation of groundwater quality in the shallow alluvial aquifers along Pinal Creek near Miami, Arizona. The remediation work is being conducted in accordance with the requirements of the Arizona Department of Environmental Quality's Water Quality Assurance Revolving Fund program. In addition, the remedial action is consistent with the National Contingency Plan prepared by EPA as required by CERCLA. The ongoing remediation program has resulted in continued improvement of the water quality in the area. In November 1997, Phelps Dodge Miami, Inc., as a member of the Pinal Creek Group, joined with the State of Arizona in requesting the District Court to enter and approve a Consent Decree resolving all matters related to an enforcement action contemplated by the State of Arizona with respect to the groundwater matter. On August 13, 1998, the court approved and entered the Decree that committed Phelps Dodge Miami, Inc. and the other Pinal Creek Group members to complete the remediation work outlined in the remedial action plan that was submitted to the State in May 1997. Approximately \$119 million remained in the Company's Pinal Creek remediation reserve at December 31, 2001. Phelps Dodge Miami, Inc. is pursuing contribution litigation against other parties involved in this matter and has asserted claims against certain of its past insurance carriers. While significant recoveries may be achieved, the Company cannot reasonably estimate the amount and, therefore, has not taken potential recoveries into consideration in the recorded reserve.

VI. On February 28, 2000, Cobre Mining Company (Cobre) received an Administrative Order (Docket No. CWA-6 1014-00, the "Order") from EPA. The Order alleges violations of the Clean Water Act, requires Cobre to deliver a response stating the steps it has taken to address each of the incidents leading to the alleged violations, and requires Cobre to show cause why no further action is necessary. Cobre submitted its response to EPA and is prepared to construct certain storm water control upgrades as part of that response. Cobre and EPA entered into a Consent Order resolving EPA's civil penalty claims for this matter for \$137,500.

VII. The Company's wholly owned subsidiary, Cyprus Amax Minerals Company (Cyprus), is the plaintiff in an action entitled *Cyprus Amax Minerals Company v. Asarco Incorporated*, 99 Civ. 1198 (JSM), which was filed on November 9, 1999, in the United States District Court for the Southern District of New York. The action arises out of the merger agreement between Cyprus and Asarco dated as of July 15, 1999 (the "merger agreement"). The complaint alleges, among other things, that Asarco breached the merger agreement and subsequent agreement by soliciting an alternative takeover proposal for Asarco from another company. Cyprus seeks compensatory damages of not less than \$90 million. Asarco filed an answer to the complaint on November 30, 1999. On November 8, 2000, Asarco filed a motion for judgment on the pleadings pursuant to federal rules. On March 14, 2001, the Court denied the motion by Asarco for judgment on the pleadings pursuant to Fed. R. Civ. P. 12(c). On April 10, 2001, Asarco filed an amended answer and counterclaims against Cyprus and the Company for recovery of a \$30 million termination fee paid to the Company in October 1999 and for other unspecified damages related to the bidding process for Asarco.

VIII. In September 2000, RAG American Coal Company (RAG) filed a complaint against Cyprus Amax Minerals Company and Amax Energy Inc. (Cyprus) in the Supreme Court of New York, County of New York (*RAG American Coal Company v. Cyprus Amax Minerals Company and Amax Energy Inc.*, [CV 00-604200]). The complaint alleges claims relating to breach of contract, fraud, negligent misrepresentation, and negligence arising from alleged inaccuracies in financial statements relating to the sale by Cyprus of its coal subsidiary to RAG in June 1999. The complaint seeks damages in the amount of \$115 million under four different legal theories (breach of contract, fraud, negligent misrepresentation and negligence). Cyprus has filed a motion to dismiss, which has been fully briefed and remains pending.

IX. On June 14, 2001, the New Mexico Environmental Department (Department), pursuant to the New Mexico Air Quality Control Act, issued Compliance Orders to Chino Mines Company and Phelps Dodge Tyrone, Inc. which alleged that the companies failed to obtain construction permits for the construction of solvent extraction electrowinning plants in 1987 and 1983, respectively. In contrast, Department management reportedly had determined in the 1980s that permits were not required. Both facilities obtained permits for these plants before the Orders were issued. Chino Mines Company and Phelps Dodge Tyrone, Inc. have each filed a Request for Hearing and Answer with the Department in order to assert their defenses to the Compliance Order.

X. On May 30, 2001, the United States Department of Justice notified the Company of alleged violations of the Clean Water Act at the United Verde Mine. The

Company is preparing a response to the Department's allegations.

XI. Since approximately 1990, Phelps Dodge or its subsidiaries have been named as a defendant in a number of product liability or premises lawsuits brought by electricians and other skilled tradesmen or contractors claiming injury from exposure to asbestos found in limited lines of electrical wire products produced or marketed many years ago, or from asbestos at certain Phelps Dodge properties. Phelps Dodge believes that the corporation's liability, if any, in these matters will not have a material adverse effect, either individually or in the aggregate, upon its business, financial condition, liquidity, results of operations or cash flow. There can be no assurance; however, that future developments will not alter this conclusion.

Item 4. Submission of Matters to a Vote of Security Holders

No matters were submitted during the fourth quarter of 2001 to a vote of security holders, through solicitation of proxies or otherwise.

Executive Officers of Phelps Dodge Corporation

The executive officers of Phelps Dodge Corporation are elected to serve at the pleasure of its Board of Directors. As of March 1, 2002, the executive officers of Phelps Dodge Corporation were as follows:

<u>Name</u>	<u>Age at 3/1/02</u>	<u>Position</u>	<u>Officer of the Corporation Since</u>
J. Steven Whisler	47	Chairman of the Board, President and Chief Executive Officer	1987
Manuel J. Iraola	53	Senior Vice President; President, Phelps Dodge Industries	1995
Timothy R. Snider	51	Senior Vice President; President, Phelps Dodge Mining Company	1997
S. David Colton	46	Senior Vice President, General Counsel and Secretary	1998
Arthur R. Miele	60	Senior Vice President, Marketing	1987
Kalidas V. Madhavpeddi	46	Senior Vice President, Business Development	1999
Ramiro G. Peru	46	Senior Vice President and Chief Financial Officer	1995
David L. Pulatie	60	Senior Vice President, Human Resources	1999

Except as stated below, all of the above have been officers of Phelps Dodge Corporation for the past five years.

Mr. Colton was elected Senior Vice President in November 1999. He was elected Vice President and General Counsel in April 1998. Prior to that time, Mr. Colton was Vice President and Counsel for Phelps Dodge Exploration, a position he held since 1995.

Mr. Pulatie was elected Senior Vice President, Human Resources in March 1999. Mr. Pulatie joined Phelps Dodge in March 1999 after a 34-year career with Motorola Inc.

Mr. Madhavpeddi was elected Senior Vice President, Business Development in November 2000. He was elected Vice President, Business Development in November 1999. Prior to that time, Mr. Madhavpeddi was Vice President, Business Development of Phelps Dodge Mining Company, a position he held since 1995.

Part II

Item 5. Market for the Registrant's Common Equity and Related Stockholder Matters

The information called for in Item 5 appears on pages 48 and 49 of this report.

Item 6. Selected Financial Data

(in millions except per share amounts)

	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
Sales and other operating revenues .....	\$ 4,002.4	4,525.1	3,114.4	3,063.4	3,914.3
Net income (loss) (a) .....	\$ (275.0)	29.0	(257.8)	190.9	408.5
Per common share - basic.....	\$ (3.50)	0.37	(4.19)	3.28	6.68
Per common share - diluted.....	\$ (3.50)	0.37	(4.19)	3.26	6.63
Total assets .....	\$ 7,618.8	7,830.8	8,229.0	5,036.5	4,965.2
Long-term debt.....	\$ 2,522.0	1,963.0	2,172.5	836.4	857.1
Dividends per common share .....	\$ 0.75	2.00	2.00	2.00	2.00

(a) For a further discussion of earnings, please see Management's Discussion and Analysis.

Note: See Management's Discussion and Analysis for a discussion of the effect on our results of material changes in the price we receive for copper or in implied unit cost of copper production.

Item 7. Management's Discussion and Analysis

The information called for in Item 7 appears on pages 31 through 49 of this report.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The information called for in Item 7A appears on pages 31 and 41 through 44 of this report.

Item 8. Financial Statements and Supplementary Data

The information called for in Item 8 appears on pages 50 through 84 of this report.

Item 9. Disagreements on Accounting and Financial Disclosure

None.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

The United States securities laws provide a "safe harbor" for certain forward-looking statements. This annual report contains forward-looking statements that involve risks and uncertainties that could cause actual results to differ materially from those projected in such forward-looking statements. Statements regarding the expected commencement dates of operations, projected quantities of future production, capital costs, production rates, cash flow and other operating and financial data are based on expectations that the Company believes are reasonable, but we can give no assurance that such expectations will prove to have been correct.

Factors that could cause actual results to differ materially include, among others: risks and uncertainties relating to general U.S. and international economic and political conditions; the cyclical and volatile price of copper and other commodities; political and economic risks associated with foreign operations; unanticipated ground and water conditions; geological problems; metallurgical and other processing problems; availability of materials and equipment; delays in the receipt of or failure to receive necessary government permits; appeals of agency decisions or other litigation; volatility in the price or availability of oil (the main feedstock for our carbon black operations), diesel fuel, electricity and natural gas; currency fluctuations; changes in laws or regulations or the interpretation and enforcement thereof (including changes in treaties or laws governing international trade or tariffs); the occurrence of unusual weather or operating conditions; force majeure events; lower than expected ore grades; the failure of equipment or processes to operate in accordance with specifications or expectations; unanticipated difficulties consolidating acquired operations and obtaining expected synergies; labor relations; accidents; delays in anticipated start-up dates; environmental risks; the ability to obtain anticipated cost savings and efficiencies; the ability to obtain satisfactory insurance coverages; the ability to obtain surety bonds for closure financial assurances; and the results of financing efforts and financial market conditions.

These and other risk factors are discussed in more detail herein. Many such factors are beyond our ability to control or predict. Readers are cautioned not to put undue reliance on forward-looking statements. We disclaim any intent or obligation to update these forward-looking statements, whether as a result of new information, future events or otherwise.

### Critical Accounting Policies and Estimates

Phelps Dodge's discussion and analysis of its financial condition and results of operations are based upon its consolidated financial statements, which have been prepared

in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires Phelps Dodge's management to make estimates and assumptions that affect the reported amounts of assets and liabilities, related disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The more significant areas requiring the use of management estimates and assumptions relate to mineral reserves that are the basis for future cash flow estimates and units-of-production amortization determination; environmental, reclamation and closure obligations; asset impairments (including estimates of future cash flows); postemployment, postretirement and other employee benefit liabilities; bad debts; restructuring; valuation allowances for deferred tax assets; contingencies and litigation; and fair value of financial instruments. Phelps Dodge bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

Phelps Dodge believes the following significant assumptions and estimates affect its more critical practices and accounting policies used in the preparation of its consolidated financial statements.

Phelps Dodge, at least annually, estimates its ore reserves at active properties and properties currently on care-and-maintenance status. There are a number of uncertainties inherent in estimating quantities of reserves, including many factors beyond the control of the Company. Ore reserve estimates are based upon engineering evaluations of assay values derived from samplings of drill holes and other openings. Additionally, declines in the market price of a particular metal may render certain reserves containing relatively lower grades of mineralization uneconomic to mine. Further, availability of permits, changes in operating and capital costs, and other factors could materially and adversely affect ore reserves. Phelps Dodge uses its ore reserve estimates in determining the unit basis for mine depreciation and closure rates, as well as in evaluating mine asset impairments. Changes in ore reserve estimates could significantly affect these items.

Phelps Dodge maintains allowances for doubtful accounts for estimated losses resulting from the assessed inability of its customers to make required payments. If the financial condition of Phelps Dodge's customers were to deteriorate unexpectedly, resulting in an impairment of their ability to make payments, additional allowances may be required. Phelps Dodge routinely reviews the financial condition of its customers and makes assessments of collectibility.

Phelps Dodge records a valuation allowance to reduce its deferred tax assets to the amount that is more likely than not to be realized. While Phelps Dodge has considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance, in the event Phelps Dodge were to determine that it would be able to realize its deferred tax assets in the future in excess of its net recorded amount, an adjustment to the deferred tax asset would increase income in the period such determination was made. Likewise, should Phelps Dodge determine that it would not be able to realize all or part of its net deferred tax asset in the future, an adjustment to the deferred tax asset would be charged to income in the period such determination was made. Phelps Dodge assesses these determinations at least quarterly.

Environmental expenditures are expensed or capitalized depending upon their future economic benefits. Liabilities for such expenditures are recorded when it is probable that obligations have been incurred and the costs reasonably can be estimated. For closed facilities and closed portions of operating facilities with closure obligations, an environmental liability is accrued when a closure determination is made and approved by management, and when the environmental liability is considered to be probable. Environmental liabilities attributed to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) or analogous state programs are considered probable when a claim is asserted, or is probable of assertion, and we have been associated with the site. Other environmental remediation liabilities are considered probable based on the specific facts and circumstances. Our estimates of these costs are based upon available facts, existing technology and current laws and regulations, and are recorded on an undiscounted basis. Where the available information is sufficient to estimate the amount of liability, that estimate has been used. Where the information is only sufficient to establish a range of probable liability and no point within the range is more likely than any other, the lower end of the range has been used. The possibility of recovery of some of these costs from insurance companies or other parties exists; however, we do not recognize these recoveries in our financial statements until they become probable. Phelps Dodge assesses environmental liabilities quarterly.

Reclamation is an ongoing activity and we recognize estimated final reclamation costs over the life of active mining properties on a units-of-production basis. Non-operating sites that are currently on care-and-maintenance status suspend accruing mine closure costs until the site resumes production. When management determines a mine should be permanently closed, any unrecognized closure obligation is recognized. Phelps Dodge assesses mine closure costs at least annually or when facts and circumstances change.

Liabilities for contingencies and litigation are recorded when it is probable that obligations have been incurred and the costs reasonably can be estimated. Gains for contingencies and litigation are recorded when realized.

Refer to discussions of Significant Accounting Policies in Note 1 to the consolidated financial statements.

### Consolidated Financial Results

Consolidated financial results (in millions except per common share amounts):

	2001	2000	1999
Sales and other operating revenues.....	\$ 4,002.4	4,525.1	3,114.4
Operating income (loss) before special items.....	\$ (76.5)	294.4	139.8
Operating income (loss).....	\$ (44.9)	237.0	(315.6)
Net income (loss) before special items.....	\$ (297.5)	72.3	21.7
Net income (loss) before cumulative effect of accounting change.....	\$ (273.0)	29.0	(254.3)
Cumulative effect .....	\$ (2.0)	-	(3.5)
Net income (loss).....	\$ (275.0)	29.0	(257.8)
Net income (loss) per common share, basic and diluted, before cumulative effect.....	\$ (3.47)	0.37	(4.13)
Net income (loss) per common share, basic and diluted .....	\$ (3.50)	0.37	(4.19)

In 2001, consolidated losses were \$297.5 million, or \$3.79 per common share, before special items. (All references to per share earnings or charges are based on diluted earnings per share.) In 2000, consolidated earnings were \$72.3 million, or 92 cents per common share, before special items. The decrease in earnings in 2001, before special items, was due to 11 cents per pound lower copper prices (\$251 million), higher implied unit cost of copper production (\$82 million), 59 million pounds of lower produced copper sales volumes (\$6 million), lower PD Industries operating income (\$43 million), lower miscellaneous income (\$12 million), and higher interest expense (\$10 million), partially offset by lower Corporate and Other selling and general administrative expenses (\$12 million).

In 1999, consolidated earnings were \$21.7 million, or 35 cents per common share, before special items. Results for the year include those of Cyprus Amax Minerals Company (Cyprus Amax) for the two and one-half month period beginning on October 16, 1999 (the effective acquisition date by Phelps Dodge). The increase in 2000 earnings from 1999, before special items, was due to 11 cents per pound higher copper prices (\$264 million) and increased sales volumes (\$30 million) resulting from the acquisition of Cyprus Amax, partially offset by higher implied unit cost of copper production (\$130 million) largely as a result of higher en-

ergy-related costs, higher Corporate and Other selling and general administrative costs (\$13 million) and higher interest expense (\$97 million).

Special items and their impact on earnings are illustrated in the following tables for 2001, 2000 and 1999:

	\$ in millions	\$/share
2001 full-year loss after-tax and before special items.....	\$ (297.5)	(3.79)
Special, after-tax items:*		
Restructuring programs.....	(29.8)	(0.38)
Environmental provisions.....	(31.1)	(0.40)
Asset impairments.....	(12.9)	(0.16)
Environmental insurance recoveries.....	61.8	0.79
Gain on sale of Sossego.....	39.9	0.51
Cumulative effect of accounting change.....	(2.0)	(0.03)
Other.....	(3.4)	(0.04)
	<u>22.5</u>	<u>0.29</u>
2001 full-year net loss after special items.....	\$ (275.0)	(3.50)
<hr/>		
2000 full-year earnings after-tax and before special items.....	\$ 72.3	0.92
Special, after-tax items:*		
Restructuring programs.....	(56.4)	(0.72)
Income tax refund and other.....	13.1	0.17
	<u>(43.3)</u>	<u>(0.55)</u>
2000 full-year net income after special items.....	\$ 29.0	0.37
<hr/>		
1999 full-year earnings after-tax and before special items.....	\$ 21.7	0.35
Special, after-tax items: *		
Asset impairments.....	(222.5)	(3.61)
Environmental provisions.....	(17.8)	(0.29)
Restructuring programs.....	(65.7)	(1.07)
Cumulative effect of accounting change.....	(3.5)	(0.06)
Adjustment for prior years' taxes.....	30.0	0.49
	<u>(279.5)</u>	<u>(4.54)</u>
1999 full-year net loss after special items.....	\$ (257.8)	(4.19)

\* Refer to Note 3 to the consolidated financial statements and Business Segments in Management's Discussion and Analysis for further discussion of these special items.

### Quest for Zero Operational Improvement Program

In May 2001, Phelps Dodge commenced *Quest for Zero*, our company-wide, comprehensive, lean-production program designed to deliver \$400 million of annual operating income improvements by the end of 2003. During 2001, we achieved \$55 million in improvements. PD Mining is pursuing aggressively its *Quest for Zero* target of all-in 60

cents per pound implied unit cost of copper production by the end of 2003. This target is the heart of our *Quest for Zero* program, and should enhance the tremendous leverage we have to rising copper prices.

### Business Segments

Results for 2001, 2000 and 1999 can be meaningfully compared by separate reference to our reporting divisions, PD Mining and PD Industries. Significant events and transactions have occurred within each segment which, as indicated in the separate discussions presented below, are material to an understanding of the particular year's results and to a comparison with results of the other periods. (Refer to Note 20 to the consolidated financial statements for further segment information.)

### **RESULTS OF PHELPS DODGE MINING COMPANY**

PD Mining is our international business segment that comprises a group of companies involved in vertically integrated copper operations including mining, concentrating, electrowinning, smelting, refining, rod production, marketing and sales, and related activities. PD Mining sells copper to others primarily as rod, cathode or concentrate, and as rod to our wire and cable segment. In addition, PD Mining at times smelts and refines copper and produces copper rod for customers on a toll basis. It is also an integrated producer of molybdenum, with mining, roasting and processing facilities producing molybdenum concentrate as well as metallurgical and chemical products. In addition, it produces gold, silver, molybdenum, copper sulfate, rhenium and copper chemicals as by-products, and sulfuric acid from its air quality control facilities. This business segment also includes worldwide mineral exploration and development programs, and a process technology center that directs its activities at improving existing processes and developing new cost-competitive technologies.

On October 16, 1999, Phelps Dodge acquired Cyprus Amax Minerals Company. This included (i) the Baghdad copper mine in northwestern Arizona; (ii) the Sierrita copper mine in south central Arizona; (iii) the Miami copper mine, smelter, refinery and rod mill near Miami, Arizona; (iv) a copper rod plant in Chicago, Illinois; (v) an 82 percent interest in the Cerro Verde copper mine in Peru; (vi) a 51 percent interest in the El Abra copper mine in northern Chile; (vii) the Henderson molybdenum mine near Empire, Colorado; (viii) the Climax molybdenum mine in Colorado, which is on care-and-maintenance status; (ix) molybdenum conversion facilities in the United States and Europe; and (x) other mining-related facilities.

Major operating and financial results for the years 2001, 2000 and 1999 are illustrated in the following table:

	2001	2000	1999*
Copper (from own mines - thousand tons) **			
Production .....	1,160.1	1,200.3	890.1
Sales.....	1,170.8	1,200.6	884.2
COMEX average spot copper price			
per pound - cathodes.....	\$ 0.73	0.84	0.72
LME average spot copper price			
per pound - cathodes.....	0.72	0.82	0.71
Implied unit cost of copper production*** .....	0.75	0.72	0.67
Molybdenum production (million pounds) ** .....	55.5	51.1	8.1
<i>Metals Week</i>			
Molybdenum oxide price per pound. \$	2.36	2.51	2.66
	(millions of dollars)		
Sales and other operating revenues unaffiliated customers.....	\$ 2,649.5	3,073.7	1,786.6
Operating income (loss) .....	\$ (92.2)	243.3	(301.0)

\* Includes the results of Cyprus Amax only for the 2.5-month period following the effective date of acquisition, October 16, 1999.

\*\* Worldwide copper and molybdenum production and sales exclude the amounts attributable to (i) the 15 percent undivided interest in the Morenci, Arizona, copper mining complex, (ii) the one-third partnership interest in Chino Mines Company in New Mexico, (iii) the 20 percent interest in Candelaria in Chile, and (iv) the 49 percent interest in the El Abra copper mining operation in Chile.

(thousand tons)	2001	2000	1999
Excluded copper production:			
Morenci - for Sumitomo.....	58.8	62.6	72.0
Chino - for Heisei.....	26.0	44.7	43.3
Candelaria - for Sumitomo.....	48.6	44.9	50.0
El Abra - for CODELCO.....	117.4	106.5	25.9
	<u>250.8</u>	<u>258.7</u>	<u>191.2</u>

\*\*\* Implied unit cost of copper production is based on PD Mining's all-in operating margin per pound of copper sold (i.e., PD Mining operating income (loss) before special items, divided by pounds of PD-mined copper sold, plus or minus the LME copper price).

PD Mining - Operating Income (Loss)

(\$ in millions)	2001	2000	1999
Operating income (loss) before special items.....	\$ (90.1)	249.1	84.2
Special, pre-tax items .....	(2.1)	(5.8)	(385.2)
Operating income (loss) after special items.....	\$ <u>(92.2)</u>	<u>243.3</u>	<u>(301.0)</u>

Our PD Mining segment reported an operating loss of \$90.1 million in 2001 before special, pre-tax items of \$2.1 million, compared with income of \$249.1 million in 2000 before \$5.8 million of special, pre-tax items and income of \$84.2 million in 1999 before special, pre-tax items of \$385.2 million. Special items in operating income are as follows:

(\$ in millions)	2001	2000	1999
Restructuring programs .....	\$ (27.1)	(5.8)	(36.6)
Environmental provisions.....	(14.9)	-	(28.2)
Gain on sale of Sossego .....	39.9	-	-
Asset impairments .....	-	-	(320.4)
	\$ <u>(2.1)</u>	<u>(5.8)</u>	<u>(385.2)</u>

The 2001 decrease in operating income of \$339.2 million, before special items, was primarily due to lower copper prices (\$251 million), higher implied unit cost of copper production costs (\$82 million) and 59 million pounds of lower produced copper sales volumes (\$6 million).

The 2000 increase in operating income of \$164.9 million, before special items, was principally a result of higher average copper prices (\$264 million) and increased sales volumes (\$30 million) resulting from the acquisition of Cyprus Amax, partially offset by higher implied unit cost of copper production (\$130 million) largely as a result of higher energy-related costs.

Copper is an internationally traded commodity, and its price is effectively determined by the two major metals exchanges -- the New York Commodity Exchange (COMEX) and the London Metal Exchange (LME). The prices on these exchanges generally reflect the worldwide balance of copper supply and demand, but also are influenced significantly from time to time by speculative actions and by currency exchange rates.

The price of copper, our principal product, was a significant factor influencing our results over the three-year period ended December 31, 2001. We principally base our

selling price for U.S. sales on the COMEX spot price per pound of copper cathode, which averaged 73 cents in 2001, 84 cents in 2000, and 72 cents in 1999. Internationally, our copper selling prices are generally based on the LME spot price for cathode. The LME spot price per pound of copper averaged 72 cents in 2001, 82 cents in 2000 and 71 cents in 1999. The COMEX and LME prices averaged 71 cents and 69 cents per pound, respectively, for the first two months of 2002, and closed at 74 cents and 73 cents, respectively, on March 7, 2002.

During 2001, two restructuring/operational improvement plans occurred. In the fourth quarter, Phelps Dodge announced a series of actions to address the current economic environment, including changes in copper operations that will lead to curtailment of approximately 220,000 metric tons of copper production annually (including our partner's share), and the reduction of approximately 1,600 employees, that resulted in a special net charge of \$17.1 million. In the second quarter, Phelps Dodge announced a restructuring of our professional, administrative and operations support functions, as well as various other operational improvements that resulted in a net charge of \$10.0 million. Additionally, 2001 included a \$14.9 million charge for environmental provisions for closed facilities and closed portions of operating facilities, and a \$39.9 million gain from the sale of our 50 percent interest in the Sossego project.

During 2000, Phelps Dodge curtailed molybdenum production by approximately 20 percent and reduced its workforce by approximately 130 workers at its Henderson mine in Colorado. The curtailment of production resulted in a special, pre-tax charge of \$4.3 million for severance-related costs. Additionally, our Miami, Arizona, copper mine reduced its mining activities. The new mine plan temporarily suspended stripping in a higher-cost portion of the mine and has allowed the redistribution of a variety of mining equipment, including shovels and haul trucks, to other PD mining operations to reduce overall capital expenditures. The reduction of mining activities resulted in a special, pre-tax charge of \$1.5 million for severance and other related costs.

During 1999, the special, pre-tax items were as follows: \$320.4 million of asset impairments including the writedown of the Hidalgo smelter in New Mexico (\$201.5 million), the Metcalf concentrator at the Morenci operations in Arizona (\$88.0 million), a real estate development project in Arizona (\$12.2 million), a mine development project at the Tyrone operations in New Mexico (\$11.9 million), mine development at the Copper Basin project in Arizona (\$6.8 million), \$28.2 million for environmental provisions, and \$36.6 million for the restructuring plan announced in the 1999 second quarter.

In 2001, implied unit cost of copper production increased 3 cents per pound to 75 cents per pound primarily due to slightly higher energy costs and depreciation expense. In 2000, implied unit cost of copper production was adversely impacted by the effects of abnormally high spot prices for energy, which increased our costs by approximately 4 cents per pound to 72 cents per pound relative to those experienced in 1999.

Energy, including electricity, diesel fuel and natural gas, represents a significant portion of the production costs for PD Mining. During 2000, our Arizona and New Mexico operations were adversely affected by significantly higher costs for electricity, diesel fuel and natural gas.

In response to the volatile electricity market, the Company implemented a power cost stabilization plan in March 2001 that reduced electricity-related costs at the U.S. mining operations. The plan consisted of an additional negotiated firm power contract; the construction of a power co-generation plant in New Mexico; short-term, alternating production curtailments at the Company's Tyrone, Sierrita, Bagdad and Henderson operations; and a partial production curtailment at Chino.

Additionally, to mitigate the Company's exposure to increases in diesel fuel and natural gas prices, Phelps Dodge entered into price protection programs in late 2000 and early 2001 designed to protect the Company against a significant upward movement in prices while retaining the flexibility to participate in any favorable price movement. (Refer to Note 19 to the consolidated financial statements for further discussion of this program.)

As a result of the above-mentioned plans and programs, in 2001 Phelps Dodge was able to reduce and mitigate the impacts of volatile electricity markets and rising diesel fuel and natural gas prices.

Any material change in the price we receive for copper, or in our implied unit cost of copper production, has a significant effect on our results. Based on expected 2002 annual production of approximately 2.0 billion pounds of copper, each 1 cent per pound change in the average annual copper price, or in average annual implied unit cost of copper production, causes a variation in annual operating income before taxes of approximately \$20 million.

Due to the market risk arising from the volatility of copper prices, our objective is to sell copper cathode and rod produced at our U.S. operations at the COMEX average price in the month of shipment, and copper cathode and concentrate produced at our international operations at the LME average price in the month of settlement with our customers. During 2001, the Company sold approximately 11

percent, 31 percent and 58 percent of its copper as concentrates, copper cathode and copper rod, respectively.

Additionally in 2001, operations outside the United States provided 22 percent of PD Mining's sales (including sales through PD Mining's U.S.-based sales company), compared with 18 percent in 2000 and 16 percent in 1999. During the year, operations outside the United States contributed a reduction of 8 percent of the segment's operating loss, compared with a contribution of operating income of 29 percent and 67 percent in 2000 and 1999, respectively.

As a result of the Cyprus Amax acquisition in the fourth quarter of 1999, Phelps Dodge acquired a 51 percent interest in the El Abra open-pit copper mining operation located in Chile's Region II. Corporación Nacional del Cobre de Chile (CODELCO), a Chilean state-owned company, owns the remaining 49 percent interest. In December 2001, El Abra completed its \$70 million Run-of-Mine project to deal with ore grade depletion issues. This capital project, combined with extremely low copper prices, resulted in a cash shortfall of approximately \$70 million in the fourth quarter that was covered by subordinated loans from Phelps Dodge and CODELCO. The proceeds from these subordinated loans were used to meet scheduled senior long-term debt payments and associated interest. It is probable that cash shortfalls could develop again in 2002 if low copper prices prevail. The sponsors are evaluating alternative strategies to address such a scenario should it unfold. Payments of scheduled long-term debt for 2002 total approximately \$105 million (divided into semi-annual payments due in May and November).

We have approximately 1 billion pounds of copper production at facilities on a care-and-maintenance status that could be brought to the market with minimal capital and lead-time. We have additional sources of copper that could be developed; however, permitting and significant capital expenditures would be required to develop such additional production capacity.

The molybdenum market is generally characterized by cyclical and volatile prices, little product differentiation and strong competition. The Platts *Metals Week* molybdenum technical grade (dealer oxide) price averaged \$2.36 per pound in 2001, compared with \$2.51 and \$2.66 per pound in 2000 and 1999, respectively. Prices for chemical products are generally less directly based on the previously noted reference prices. Prices are influenced by production costs of domestic and foreign competitors, worldwide economic conditions, world supply/demand balances, inventory levels, the U.S. dollar exchange rate and other factors. Molybdenum prices also are affected by the demand for end-use products in, for example, the construction, transportation and durable goods markets. A substantial portion of world molybdenum production is a by-product of copper mining,

which is relatively insensitive to molybdenum price levels. Exports from China can also influence competitive conditions.

The 2001 exploration program continued to place emphasis on the search for and delineation of large-scale copper, and copper and gold deposits. Phelps Dodge expended \$36.8 million on worldwide exploration during 2001, compared with \$39.7 million in 2000 and \$41.0 million in 1999. Approximately 14 percent of the 2001 expenditures occurred in the United States with 17 percent being spent at our mine sites. The balance of exploration expenditures was spent principally in Australasia, Brazil, Chile, Mexico, Canada, Peru and Central Africa. Refer to Business and Properties, Exploration for further discussion.

#### PD Mining - Other Matters

In 1997, issues of dispute arose between Phelps Dodge and the San Carlos Apache Tribe (the Tribe) regarding our use and occupancy of the Black River Pump Station which delivers water to the Morenci operation. On May 12, 1997, the Tribe filed suit against us in San Carlos Apache Court, seeking our eviction from the Tribe's Reservation and claiming substantial compensatory and punitive damages, among other relief. In May 1997, we reached an agreement with the Tribe, and subsequently federal legislation (Pub. L. No. 105-18, 5003, 111 stat. 158, 181-87) was adopted which mandated dismissal of the tribal court suit. The legislation prescribes arrangements intended to ensure a future supply of water for the Morenci mining complex in exchange for certain payments by us. The legislation does not address any potential claims by the Tribe relating to our historical occupancy and operation of our facilities on the Tribe's Reservation, but does require that any such claims be brought, if at all, exclusively in federal district court. By order dated October 13, 1997, the tribal court dismissed the lawsuit with prejudice, as contemplated by the legislation.

The 1997 legislation required that the Company and the Tribe enter into a lease for the delivery of Central Arizona Project water through the Black River Pump Station to Morenci on or before December 31, 1998. In the event a lease was not signed, the legislation expressly provided that the legislation would become the lease. On January 24, 2002, a lease between the San Carlos Apache Tribe, Phelps Dodge and the United States was executed in accordance with the legislation. On the same date, and in accordance with the legislation, an Exchange Agreement between the San Carlos Apache Tribe, the United States and the Salt River Project Water User's Association was executed and subsequently approved by Phelps Dodge that will allow the delivery of Central Arizona Project water to Morenci.

## RESULTS OF PHELPS DODGE INDUSTRIES

PD Industries, our manufacturing division, produces engineered products principally for the global energy, telecommunications, transportation and specialty chemicals sectors. Its operations are characterized by products with significant market share, internationally competitive cost and quality, and specialized engineering capabilities. The manufacturing division includes our specialty chemicals segment and our wire and cable segment. Our specialty chemicals segment includes Columbian Chemicals Company and its subsidiaries. Our wire and cable segment consists of three worldwide product line businesses including magnet wire, energy and telecommunication cables, and specialty conductors. In December 2000, Phelps Dodge announced its intention to explore strategic alternatives for, including the potential sale of, PD Industries. In May 2001, we terminated that sales process, noting that the then current economic environment was not delivering transactions that offered appropriate value for our shareholders. We have continued to seek strategic alternatives, as may be appropriate, for these businesses.

(\$ in millions)	2001	2000	1999
Sales and other operating revenues (unaffiliated customers):			
Specialty chemicals.....	\$ 582.0	598.4	543.0
Wire and cable .....	770.9	853.0	784.8
	<u>\$ 1,352.9</u>	<u>1,451.4</u>	<u>1,327.8</u>
Operating income (loss):			
Specialty chemicals.....	\$ 61.8	88.1	92.5
Wire and cable .....	12.2	(17.8)	(42.8)
	<u>\$ 74.0</u>	<u>70.3</u>	<u>49.7</u>

PD Industries reported sales to unaffiliated customers of \$1,352.9 million in 2001, compared with \$1,451.4 million in 2000 and \$1,327.8 million in 1999. The decrease in 2001 principally reflected lower sales volumes due to continued economic weakness principally in North America. The 2000 increase reflected higher average sales prices in the carbon black segment as a result of the partial pass through to customers of higher feedstock costs, partially offset by lower sales volumes. Additionally, wire and cable segment sales improved as a result of a higher level of infrastructure development worldwide.

## PD Industries - Operating Income

(\$ in millions)	2001	2000	1999
Operating income before special items.....	\$ 78.7	121.9	119.7
Special, pre-tax items .....	(4.7)	(51.6)	(70.0)
Operating income after special items.....	<u>\$ 74.0</u>	<u>70.3</u>	<u>49.7</u>

Our PD Industries division reported operating income of \$78.7 million in 2001 before special, pre-tax items of \$4.7 million, compared with \$121.9 million in 2000 before special, pre-tax items of \$51.6 million, and \$119.7 million in 1999 before special, pre-tax items of \$70.0 million. The special items in operating income were as follows:

(\$ in millions)	2001	2000	1999
Restructuring programs .....	\$ (1.4)	(7.3)	(58.1)
Hopkinsville facility write-down .....	(3.3)	-	-
Wire and cable closure/impairments.....	-	(38.7)	(11.9)
Wire and cable working capital write-downs.....	-	(5.6)	-
	<u>\$ (4.7)</u>	<u>(51.6)</u>	<u>(70.0)</u>

In 2001, operations outside the United States provided 64 percent of PD Industries' sales, compared with 63 percent in 2000 and 55 percent in 1999. During the year, operations outside the United States contributed 67 percent of PD Industries' operating income, compared with 48 percent in 2000 and 59 percent in 1999.

## Specialty Chemicals - Operating Income

(\$ in millions)	2001	2000	1999
Operating income before special items.....	\$ 63.2	88.1	110.2
Special, pre-tax items .....	(1.4)	-	(17.7)
Operating income after special items.....	<u>\$ 61.8</u>	<u>88.1</u>	<u>92.5</u>

Columbian Chemicals' 2001 operating income before special items was \$24.9 million less than in 2000 primarily due to the impact of the downturn in the U.S. economy, the deterioration of the Brazilian real to the U.S. dollar and lower sales volumes.

Columbian Chemicals' 2000 operating income decreased \$22.1 million compared with the prior year primarily due to the effect of higher oil prices on feedstock costs with only limited success in passing along these higher costs to customers, and the unfavorable impact of weaker European currencies.

In the second quarter of 2000, we acquired the remaining 40 percent share in the carbon black manufacturing business of Columbian Tiszai Carbon Ltd. in Hungary for \$19.0 million, bringing our total interest to 100 percent.

Production was discontinued at the Bataan, Philippines, facility in November 1999, resulting in a special, pre-tax item to operating income of \$17.7 million. The Philippine plant, which had a relatively small production capacity of 18,000 metric tons, did not have economies of scale necessary to compete profitably with imports from larger regional producers.

In January 1999, we acquired an 85 percent interest in the Korean carbon black manufacturing business of Korea Kumho Petrochemical Co., Ltd., for \$76.1 million. Columbian manages and operates the business, including the 110,000 metric-ton-per-year manufacturing plant located in Yosu, South Korea.

Wire and Cable - Operating Income (Loss)

(\$ in millions)	2001	2000	1999
Operating income before special items.....	\$ 15.5	33.8	9.5
Special, pre-tax items .....	<u>(3.3)</u>	<u>(51.6)</u>	<u>(52.3)</u>
Operating income (loss) after special items.....	\$ <u>12.2</u>	<u>(17.8)</u>	<u>(42.8)</u>

Wire and cable's 2001 operating income before special items was \$18.3 million less than in 2000 due to the slowdown in the U.S. economy affecting the aerospace market segment and lower sales volumes due to a decline in consumer durables, and automotive and industrial goods.

Our wire and cable segment reported operating income of \$33.8 million in 2000 before special, pre-tax items. The special, pre-tax items were as follows: \$36.1 million due to impairments in Venezuela, Austria and El Salvador, \$9.9 million for the June 30, 1999, and June 27, 2000, restructuring programs, and \$5.6 million for working capital writedowns recorded in 2000. The increase in operating income was due primarily to economic improvement in Asia and South America and the realization of benefits from the previously initiated restructuring programs in 1999 and 2000.

Our wire and cable segment reported operating income of \$9.5 million in 1999 before special, pre-tax items. The special, pre-tax items were as follows: \$11.9 million of asset impairments to write down our international telecommunications assets and \$40.4 million for the June 30, 1999, restructuring plan. (Refer to Note 3 to the consolidated financial statements for further discussion of these special items.)

In January 2001, Alcoa Aluminio, S.A. exercised a put option that required Phelps Dodge or a designee company to acquire the 40 percent minority interest in Phelps Dodge and Alcoa Fios e Cabos Electricos, S.A., a Phelps Dodge wire and cable facility in Brazil, in which we had a 60 percent interest (prior to acquiring the 40 percent minority interest). The transaction closed in March 2001 for \$44.8 million in cash.

**OTHER MATTERS RELATING TO THE STATEMENT OF CONSOLIDATED OPERATIONS**

Depreciation, Depletion and Amortization Expense

Depreciation, depletion and amortization expense was \$465.3 million in 2001, compared with \$464.2 million in 2000 and \$329.1 million in 1999. The 2001 depreciation, depletion and amortization expense remained essentially constant with the 2000 expense. The 2000 increase primarily resulted from a full year of depreciation expense (\$159.6 million) resulting from the October 1999 acquisition of Cyprus Amax, partially offset by decreases in production at certain U.S. and international mines, as well as plant shutdowns and closures. (Refer to Note 1 to the consolidated financial statements for a discussion of depreciation methods.)

Selling and General Administrative Expense

Selling and general administrative expense was \$116.5 million in 2001, compared with \$135.1 million in 2000 and \$115.5 million in 1999. The 2001 decrease primarily resulted from restructuring programs that reduced selling and general administrative employees and associated costs, including the cancellation of 2001 company-wide annual incentive compensation payments (\$10 million). The 2000 increase primarily resulted from higher costs to support acquired entities and an increase in molybdenum selling expenses, partially offset by the elimination of duplicate Cyprus sales company expenses.

Interest Expense

We reported net interest expense in 2001 of \$225.9 million, compared with \$213.3 million in 2000 and \$120.2 million in 1999. (For a further discussion on interest rates and related debt, refer to Note 12 to the consolidated finan-

cial statements.) Net interest expense increased in 2001 primarily due to higher average interest rates reflecting the Company's issuance of \$900 million in 10-year and 30-year Notes and the absence of the commercial paper program at lower rates. Net interest expense increased in 2000 primarily due to a full year of interest expense on acquired Cyprus Amax debt. The debt acquired with the purchase of Cyprus Amax totaled \$1.6 billion, which was reduced by \$15.2 million to reflect the fair value of the obligations at the acquisition date. Interest paid by the Company in 2001 was \$233.1 million, compared with \$200.6 million in 2000 and \$121.0 million in 1999.

#### Miscellaneous Income and Expense, Net

Miscellaneous income and expense, net was \$8.1 million in 2001, compared with \$30.0 million in 2000 and \$9.1 million in 1999. (Refer to Note 5 to the consolidated financial statements for a schedule of the components.)

#### Provision for Taxes on Income

The effective tax rate changed from a 39.0 percent benefit in 1999 to a 35.8 percent expense in 2000 and to a 2.2 percent expense in 2001. The effective tax rate in 2001 is due to the Company's 2001 estimated income tax expense resulting principally from taxes on earnings at international operations that could not be offset by losses at domestic operations. The change in 2000 was primarily due to a significant increase in the U.S. tax benefit from percentage depletion that was substantially offset by valuation allowances against U.S. and foreign net operating losses.

In December of 1999, we received and accepted Notices of Tax Due for the years 1992 and 1993. The Internal Revenue Service audit of the year 1994 (also settled in 1999) resulted in a refund. Issues settled in the years 1992 through 1994 also impacted the years 1990 and 1991 and enabled us to enter a closing agreement with the Internal Revenue Service for the years 1990 and 1991. As a result of these settlements, we recorded a \$30 million reduction in our tax provision in 1999 and a \$6 million reduction in 2000.

During the year 2000, we reached agreement with the Internal Revenue Service for the Cyprus Amax tax years 1994 through 1996 and paid the final assessments applicable to those years. In March 2001, we reached agreement with the Internal Revenue Service for the Phelps Dodge Corporation tax years 1995 through 1997 and paid the final assessments applicable to those years.

The Cyprus Amax federal income tax returns for the years 1997 through 1999 and the Phelps Dodge Corporation federal income tax returns for the years 1998 and 1999 are currently under examination by the Internal Revenue Service.

Our management believes that it has made adequate provision so that resolution of any issues raised, including application of those determinations to subsequent open years, will not have an adverse effect on our consolidated financial condition or results of operations.

#### Cumulative Effect of Accounting Change

On January 1, 2001, we adopted Statement of Financial Accounting Standards (SFAS) No. 133, "Accounting for Derivative Instruments and Hedging Activities," (as amended by SFAS No. 137) and SFAS No. 138, "Accounting for Certain Derivative Instruments and Certain Hedging Activities." The implementation resulted in a cumulative reduction to income of \$2.0 million (before and after taxes), or 3 cents per share, and a cumulative reduction to Other Comprehensive Income of \$7.1 million before and after taxes. (For further discussion on the cumulative effect of accounting changes, refer to Note 1 to the consolidated financial statements.)

In the 1999 first quarter, we adopted Statement of Position 98-5, "Reporting on the Costs of Start-Up Activities." The implementation resulted in a \$3.5 million after-tax charge, or 6 cents per common share, representing the write-off of previously unamortized start-up costs at our Candelaria mining operation in Chile and our magnet wire operation in Monterrey, Mexico.

#### Discount Rate - Pensions and Other Postretirement Benefits

Under current financial accounting standards, any significant year-to-year movement in the rate of interest on long-term, high-quality corporate bonds necessitates a change in the discount rate used to calculate the actuarial present value of our accumulated pension and other postretirement benefit obligations. The discount rate was 7.25 percent at December 31, 2001, compared with 7.75 percent at December 31, 2000 and 1999. (For further discussion of pension and other postretirement benefits, refer to Notes 15 and 16 to the consolidated financial statements.)

### **CHANGES IN FINANCIAL CONDITION; CAPITALIZATION**

#### Cash and Cash Equivalents

Cash and cash equivalents at the end of 2001 were \$386.9 million, compared with \$250.0 million at the beginning of the year. Operating activities provided \$302.7 million of cash during the year. Cash provided by operating activities together with proceeds from asset dispositions of \$45.8 million and a net increase in debt of \$149.4 million were used to fund capital outlays (\$262.9 million), invest-

ments in subsidiaries (\$48.1 million) and dividend payments on common shares (\$59.1 million).

(\$ in millions)	2001	2000	1999
Cash provided by (used in):			
Operating activities .....	\$ 302.7	511.2	204.5
Investing activities:			
Capital expenditures and investments .....	(311.0)	(422.3)	(240.4)
Cyprus Amax acquisition .....	-	-	35.7
Proceeds:			
Kinross sale .....	-	-	233.3
Cyprus Australian coal sale .....	-	150.0	-
Sossego project sale .....	42.5	-	-
Other investing activities .....	1.7	(1.9)	(22.6)
Financing activities .....	101.0	(221.2)	(198.0)
Net increase in cash and cash equivalents .....	\$ <u>136.9</u>	<u>15.8</u>	<u>12.5</u>

### Working Capital

During 2001, net working capital (excluding cash and cash equivalents and debt) decreased by \$132.3 million. This net decrease resulted principally from a \$129.9 million decrease in accounts receivable primarily due to lower copper prices and the sale of \$79.7 million of receivables.

On November 30, 2001, the Company entered into a receivable securitization program that will provide for the sale of accounts receivable up to \$85.0 million. The trade receivable securitization program expires on November 29, 2002, although it may be extended for two successive one-year periods, subject to mutual agreement. At December 31, 2001, \$79.7 million of accounts receivable had been sold through this program. (Refer to Note 1 to the consolidated financial statements for further discussion.)

### Investing Activities

Capital expenditures and investments for 2001 totaled \$311.0 million including \$200.6 million for PD Mining, \$86.5 million for PD Industries (including \$44.8 million for the acquisition of the remaining 40 percent share of the Company's wire and cable manufacturing operation in Brazil) and \$23.9 million for other corporate-related activities.

Capital expenditures and investments in 2000 totaled \$422.3 million including \$311.6 million for PD Mining, \$90.6 million for PD Industries (including \$19.0 million for the acquisition of the remaining 40 percent share of the Company's carbon black manufacturing facility in Hungary) and \$20.1 million for other corporate-related activities.

The \$1,858 million purchase price for the 1999 acquisition of Cyprus Amax comprised \$1,125 million for the

issuance of 20.6 million shares of Phelps Dodge common stock, \$10 million for the conversion of Cyprus Amax stock options, cash of \$693 million and acquisition costs of \$30 million (financial advisory, legal, accounting and printing costs). In addition, \$1.6 billion of Cyprus Amax debt was assumed by the Company.

Capital expenditures and investments for 2002 are expected to be approximately \$185 million including \$125 million for PD Mining, approximately \$50 million for PD Industries and \$10 million for other corporate-related activities. These capital expenditures and investments are expected to be funded primarily from operating cash flow and cash reserves.

### Financing Activities and Liquidity

The Company's total debt at December 31, 2001, was \$2,851.0 million, compared with \$2,687.7 million at year-end 2000. The increase in debt primarily was attributable to the issuance of \$900 million in 10- and 30-year notes partially offset by the defeasance in December 2001 of \$100 million of 7.75 percent notes due in January 2002, and other net debt payments of \$651 million. The Company's ratio of debt to total capitalization was 50.8 percent at December 31, 2001, compared with 45.7 percent at December 31, 2000.

In May 2001, the Company closed its offering of \$625 million of 8.75 percent notes due 2011, and \$275 million of 9.5 percent notes due 2031. The net proceeds were approximately \$891 million and were used to repay corporate short-term borrowings and current maturities of long-term debt. The entire amount of this fixed-rate debt was converted to floating-rate debt with the use of interest rate swap agreements to take advantage of then current market conditions. In August 2001, we unwound these interest rate swap agreements, resulting in a positive cash flow of \$23.2 million of which \$4.7 million related to reduced interest expense in 2001. The remaining \$18.5 million is being amortized into earnings over the remaining life of the respective notes.

In December 2001, we entered into several interest rate swap contracts to convert a total of \$400 million of existing notes to floating-rate debt in order to take advantage of lower short-term interest rates then available. The existing notes swapped to floating-rate debt included a portion of our 7.375 percent notes maturing in 2007 and a portion of our 6.625 percent notes maturing in 2005.

In 2000, a new revolving credit agreement between the Company and several lenders became effective. The facility is to be used for general corporate purposes. The agreement permits borrowings of up to \$1 billion from time to time until its scheduled maturity on May 10, 2005. The agreement requires us to maintain a minimum consolidated

tangible net worth of \$1.5 billion and limits indebtedness to 60 percent of total consolidated capitalization. There were no borrowings under this agreement at December 31, 2001 or 2000. (Refer to Note 12 to the consolidated financial statements for further discussion and terms of the agreement.)

On September 17, 2001, the Company's universal shelf registration statement filed with the SEC in August 2001 became effective. Under the registration statement, up to \$750 million of debt and equity securities may be sold from time to time in one or more offerings on terms and conditions to be determined in light of the circumstances. Authorized securities include common and preferred equity, senior debt and junior subordinated debt, share purchase contracts, share purchase units, and warrants. The registration statement also provides for the issuance of trust preferred securities guaranteed by the Company. The new shelf registration replaced the Company's prior \$750 million shelf registration, which was filed in 2000 and fully utilized in May 2001. The Company expects, at appropriate times and as circumstances warrant, to use proceeds from any new shelf offerings to reduce and/or restructure its existing debt portfolio and to better coordinate debt maturities with potential growth opportunities.

We established a commercial paper program on August 15, 1997, under a private placement agency agreement with two placement agents. The agreement permits us to issue up to \$1 billion of short-term promissory notes (generally known as commercial paper) at any time. Commercial paper may bear interest or be sold at a discount, as mutually agreed by the placement agents and us at the time of each issuance. Our commercial paper program requires that issuances of commercial paper be supported by an undrawn line of credit; the revolving credit agreement described above provides such support. At our current short-term credit ratings (A-3 by Standard and Poor's and P-3 by Moody's), market demand for our commercial paper is extremely limited. Borrowings under this commercial paper program were zero at December 31, 2001, compared with \$467.9 million at December 31, 2000.

Short-term borrowings other than borrowings under our Corporate commercial paper program were \$59.3 million, all by our international operations, at December 31, 2001, compared with \$50.3 million at December 31, 2000. The increase was primarily due to an increase in net short-term borrowings at our El Abra mine (\$20.3 million) primarily offset by decreased short-term borrowings due to repayments at our wire and cable plants in Honduras and Chile (\$9.8 million).

The current portion of our long-term debt, scheduled for payment in 2002, is \$269.7 million including \$14.3 million for our international manufacturing operations,

\$100.3 million primarily for our international mining operations project financed debt and \$155.1 million for Corporate debt repayments.

Dividend payments on our common shares decreased to \$59.1 million in 2001 from \$157.5 million in 2000 reflecting the reduction in the quarterly dividend by 75 percent beginning in the second quarter 2001 followed by the elimination of the quarterly dividend in the fourth quarter of 2001.

Contractual Obligations, Commercial Commitments and Other Items that May Affect Liquidity

The following tables summarize Phelps Dodge's contractual obligations and commercial commitments at December 31, 2001, and the effect such obligations are expected to have on its liquidity and cash flow in future periods. For a discussion of environmental and closure obligations, refer to Environmental Matters in Management's Discussion and Analysis.

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Contractual Obligations:

(\$ in millions)

	Total	Less Than	
		1 Year	1-3 Years
Short-term debt.....	\$ 59.3	59.3	-
Long-term debt.....	2,791.7	269.7	375.1
Take-or-pay contracts.....	551.2	126.9	240.5
Operating lease obligations.....	106.1	15.3	25.8
Capital lease obligations.....	18.0	4.9	9.1
Mineral royalty obligations.....	20.3	1.2	2.4
Total contractual cash obligation.....	\$ <u>3,546.6</u>	<u>477.3</u>	<u>652.9</u>
		After	
	4-5 Years	5 Years	
Short-term debt.....	\$ -	-	
Long-term debt.....	431.0	1,715.9	
Take-or-pay contracts.....	114.2	69.6	
Operating lease obligations.....	19.8	45.2	
Capital lease obligations.....	4.0	-	
Mineral royalty obligations.....	2.4	14.3	
Total contractual cash obligation.....	\$ <u>571.4</u>	<u>1,845.0</u>	

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Commercial Commitments:

(\$ in millions)

	Total	Less Than	
		1 Year	1-3 Years
Standby letters of credit.....	\$ 103.9	91.9	12.0
Guarantees.....	56.7	-	-
Total commercial commitments .....	\$ 160.6	91.9	12.0

	4-5 Years	After 5 Years
Standby letters of credit.....	\$ -	-
Guarantees.....	56.7	-
Total commercial commitments .....	\$ 56.7	-

Generally, Phelps Dodge does not have any debt rating triggers that would accelerate the maturity dates of its debt. In the event of a rating decline occurring within 90 days (subject to extension under limited circumstances) of certain designated events (which, to the extent beyond our control, generally involve a change of or contest for control), each holder of a note for the 10.125 percent Notes due in 2002, the 8.375 percent Debentures due in 2023, and the 6.625 percent Notes due in 2005, may require the Company to redeem the holders' notes, in whole or in part, at 100 percent of the principal plus accrued interest to the date of redemption. Ratings declines that occur at any other time do not trigger an obligation to redeem any such notes.

Phelps Dodge's credit rating could adversely affect its ability to renew existing or obtain access to new credit facilities in the future and could increase the cost of such facilities. Phelps Dodge has the ability, provided it continues to be in compliance with the covenant requirements, to draw upon its \$1.0 billion revolving credit facility prior to its commitment termination on May 10, 2005. Changes in credit ratings may affect the revolving credit facility fee, and the costs of borrowings under that facility, but credit ratings do not impact the availability of the facility.

New Mexico's mined land reclamation law requires financial assurance covering reclamation cost from all companies. In contrast, Arizona's Mine Land Reclamation Act permits a company to satisfy financial assurance requirements by demonstrating it has financial strength to fund reclamation costs identified in an approved reclamation plan. An investment grade bond rating is one of the financial strength tests under the Arizona Act. Phelps Dodge presently has a credit rating one level above non-investment grade; however, it has been placed on "Negative Outlook."

If a downgrade occurs, the Company will need to provide financial assurance in Arizona.

The costs of surety bonds (the traditional source of financial assurance) has increased significantly during the past six months. Also, many surety companies are now requiring an increased level of collateral supporting the bonds. If surety bonds are unavailable, the Company could be required to post cash or other collateral directly in support of financial assurance obligations.

Our earnings and cash flows primarily are determined by the results of our copper mining business. Based on expected 2002 annual production of approximately 2.0 billion pounds of copper, each 1 cent per pound change in the average annual copper price, or in average annual implied unit cost of copper production, causes a variation in annual operating income before taxes of approximately \$20 million. The effect of such changes in copper prices or costs similarly affects our pre-tax cash flows. Through our *Quest for Zero* program and other actions, we have taken steps intended to improve our costs and improve operating income. Higher copper prices are generally expected to occur when there is an improved worldwide balance of copper supply and demand, and copper warehouse stocks begin to reduce.

Several copper producers have announced planned curtailments of copper production. These reductions are expected to improve the worldwide supply imbalance, but it is not assured that such cutbacks can or will be sustained to achieve market balance. Further, consumption of copper is dependent on general economic conditions and expectations. Although copper consumption is expected to improve and grow, it is not assured that underlying drivers of consumption will improve in 2002. Should copper prices and costs approximate 2001 realizations, the Company would project losses in 2002 of similar magnitude to those realized in 2001. In this circumstance, 2002 cash flow from operations, existing cash balances and other sources of cash would be expected to generally meet current projected 2002 capital expenditures and investments and debt payment obligations. (Refer to risk factors in Management's Discussion and Analysis on page 31.)

Hedging Programs

We do not purchase, hold or sell derivative financial contracts unless we have an existing asset, obligation or anticipate a future activity that is likely to occur that will result in exposing us to market risk. Derivative financial instruments are used to manage well-defined commodity price, energy, foreign exchange and interest rate risks from our primary business activities. On January 1, 2001, we adopted SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," (as amended by SFAS No.

137) and SFAS No. 138, "Accounting for Certain Derivative Instruments and Certain Hedging Activities." These Statements require recognition of all derivatives as either assets or liabilities on the balance sheet. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income (loss). (Refer to Notes 1 and 19 in our consolidated financial statements for additional information on our protection programs and the associated accounting standards and their implementation.)

Our copper hedging programs consist primarily of copper swaps and futures. These programs are designed to hedge our exposure on certain fixed-price sales contracts in a manner that will allow us to realize the COMEX average price in the month of shipment or receipt while our customers receive the fixed price they requested. During 2001, 2000 and 1999, we had hedge programs in place for approximately 487 million, 575 million and 444 million pounds of copper sales, respectively. All realized gains or losses from hedge transactions were virtually offset by a similar amount of gain or loss on the related customer sales contracts at maturity. At December 31, 2001, we had outstanding copper futures and swaps for approximately 72 million pounds of copper sales maturing through December 2002.

At December 31, 2001, we prepared an analysis to determine the sensitivity of our copper futures contracts to changes in copper prices. If copper prices had dropped a hypothetical 10 percent at the end of 2001, we would have had a net loss from our copper futures contracts of approximately \$5 million. All realized losses would virtually be offset by a similar amount of gain on the related customer sales contracts at maturity.

In prior years, we have entered into a copper price protection program. The copper price protection program uses copper options to hedge a portion of our expected future mine production in order to limit the effects of potential decreases in copper selling prices. We did not have any outstanding copper price protection contracts in place during 2001.

For 2000 production, we had a total of 110 million pounds of copper cathode production protected through contracts that effectively ensured minimum (approximately 72 cents) and maximum (approximately 95 cents) prices per pound. The minimum and maximum prices were based upon average LME prices for the protection period. These contracts expired without payment on December 31, 2000. For 1999 production, we had fourth quarter protection contracts that gave us a minimum monthly average LME price of 69 cents per pound for approximately 200 million pounds of copper cathode that expired without payment on December 31, 1999. We did not have any outstanding copper price protection contracts at the end of 1999 and 2000.

Our aluminum hedging program consists of using aluminum swaps to hedge our aluminum raw material purchase price exposure on fixed-price sales contracts to allow us to lock in the cost of aluminum ingot used in fixed-price aluminum cable sold to customers. During 2001, 2000 and 1999, we had aluminum hedge programs in place for approximately 17 million, 5 million and 6 million pounds, respectively. At December 31, 2001, we had outstanding swaps of 13 million pounds of aluminum sales maturing through May 2002.

At December 31, 2001, we prepared an analysis to determine the sensitivity of our aluminum swap contracts to changes in aluminum prices. If aluminum prices had dropped a hypothetical 10 percent at the end of 2001, we would have had a net loss from our aluminum swap contracts of approximately \$1 million. All losses on these hedge transactions would have been virtually offset by a similar amount of gain on the underlying aluminum purchases.

Our energy price protection programs consist of diesel fuel swaps and option contracts and natural gas option contracts and collars. The swaps allow us to establish a fixed diesel fuel purchase price while the option contracts consist primarily of out-of-the-money call options which effectively allow us to establish a ceiling for these costs. The collars used for natural gas consumption allow us to establish both a ceiling and a floor for these costs. During 2001, we had hedge programs in place for 37 million gallons of diesel fuel and 7 million decatherms of natural gas. Gains and losses on these hedge transactions were virtually offset by a similar amount of gain or loss on the underlying energy purchases. At December 31, 2001, we had outstanding diesel fuel swaps and option contracts to hedge approximately 9 million and 24 million gallons, respectively, of diesel fuel consumption representing approximately 82 percent of our forecasted 2002 consumption. At year-end 2001, we also had outstanding natural gas option contracts to hedge approximately 2 million decatherms (80 percent of forecasted first quarter 2002 natural gas consumption). The diesel and natural gas energy programs have hedge positions maturing through December 2002 and March 2002, respectively.

At December 31, 2001, we prepared an analysis to determine the sensitivity of our diesel fuel swap contracts to changes in diesel fuel prices. If diesel fuel prices had dropped a hypothetical 10 percent at the end of 2001, it would have resulted in a potential net loss of approximately \$1 million. That loss would have been virtually offset by a similar gain on the related diesel fuel purchases.

Our interest rate hedge programs consist of both fixed-to-floating and floating-to-fixed interest rate swaps. The purpose of these hedges is to both protect against significant fluctuations in the fair value of our debt, as well as

to reduce the variability in interest payments. At December 31, 2001, we had hedge programs in place to convert \$400 million of our fixed-rate debt to floating and \$364 million of our floating-rate debt to fixed. Our interest rate swaps were considered to be fully effective with any resulting gains or losses on the derivative offset by a similar amount on the underlying interest payments or fair value of the debt. These interest rate swaps have maturity dates through May 2007 and December 2008, respectively. Additionally, during August 2001, we unwound interest rate swaps against \$900 million in fixed-rate debt. This resulted in positive cash flows of \$23.2 million of which \$4.7 million related to reduced interest expense. The remaining \$18.5 million is being amortized into earnings over the remaining life of the respective debt.

At December 31, 2001, we prepared an analysis to determine the sensitivity of our interest rate swap contracts to changes in interest rates. A hypothetical interest rate movement of 1 percent (or 100 basis points) would have resulted in a potential gain or loss of approximately \$15 million for the fixed-to-floating swaps and \$7 million for the floating-to-fixed swaps over the term of the respective arrangements.

Our foreign currency hedges consist of forward exchange contracts to protect the functional currencies of our international subsidiaries, which included exposures to the British pound, Euro and U.S. dollar. At year-end 2001, we had outstanding forward exchange contracts in place for \$13 million.

At December 31, 2001, we prepared an analysis to determine the sensitivity of our forward foreign exchange contracts to changes in exchange rates. A hypothetical exchange rate movement of 10 percent would have resulted in a potential gain or loss of approximately \$1 million. The loss would have been virtually offset by a gain on the related underlying transactions.

In addition, during January 2002, we entered into out-of-the-money feedstock oil call options. The purpose of these hedges was to protect us against the variability in cash flows associated with feedstock oil (a derivative of petroleum) used in the manufacturing of carbon black. We have entered into options for approximately 75 percent of our projected February and March 2002 North American feedstock oil purchases.

#### Environmental Matters

Phelps Dodge is subject to various federal, state and local environmental laws and regulations that govern emissions of air pollutants; discharges of water pollutants; and generation, handling, storage and disposal of hazardous substances, hazardous wastes and other toxic materials. The

Company is also subject to potential liabilities arising under the CERCLA or similar state laws that impose responsibility on persons who arranged for the disposal of hazardous substances, and on current and previous owners and operators of a facility for the cleanup of hazardous substances released from the facility into the environment. In addition, the Company is subject to potential liabilities under the Resource Conservation and Recovery Act (RCRA) and analogous state laws that require responsible parties to remediate releases of hazardous or solid waste constituents into the environment associated with past or present activities.

Phelps Dodge or its subsidiaries have been advised by the U.S. Environmental Protection Agency (EPA), the United States Forest Service and several state agencies that they may be liable under CERCLA or similar state laws and regulations for costs of responding to environmental conditions at a number of sites that have been or are being investigated by EPA, the Forest Service or states to determine whether releases of hazardous substances have occurred and, if so, to develop and implement remedial actions.

Phelps Dodge has provided reserves for potential environmental obligations that management considers probable and for which reasonable estimates of such obligations can be made. For closed facilities and closed portions of operating facilities with closure obligations, an environmental liability is considered probable and is accrued when a closure determination is made and approved by management. Environmental liabilities attributed to CERCLA or analogous state programs are considered probable when a claim is asserted, or is probable of assertion, and we have been associated with the site. Other environmental remediation liabilities are considered probable based upon specific facts and circumstances. Liability estimates are based on an evaluation of, among other factors, currently available facts, existing technology, presently enacted laws and regulations, Phelps Dodge's experience in remediation, other companies' remediation experience, Phelps Dodge's status as a potentially responsible party (PRP), and the ability of other PRPs to pay their allocated portions. Accordingly, total environmental reserves of \$311.2 million and \$307.1 million, respectively, were recorded as of December 31, 2001 and 2000. The long-term portion of these reserves is included in other liabilities and deferred credits on the consolidated balance sheet and amounted to \$264.3 million and \$244.9 million at December 31, 2001 and 2000, respectively.

The sites for which Phelps Dodge has received a notice of potential liability or an information request that are currently considered to be the most significant are the Pinal Creek site in Miami, Arizona, the former American Zinc and Chemical site in Langeloth, Pennsylvania, and the Tohono O'odham Nation sites.

At the Pinal Creek site, remediation is being performed by the Pinal Creek Group, which includes Phelps Dodge Miami Inc. and other companies that have been determined to have contributed through historic mining activities to the contaminated groundwater plume in the shallow alluvial aquifers of Pinal Creek. The remediation work is being conducted in accordance with the requirements of the Arizona Department of Environmental Quality's Water Quality Assurance Revolving Fund program. In addition, the remedial action is consistent with the National Contingency Plan prepared by EPA as required by CERCLA. Ongoing remediation efforts have resulted in continued improvement of the water quality in the area. In November 1997, the Pinal Creek Group joined with the State of Arizona in requesting the District Court to approve and enter a Consent Decree resolving all matters related to an enforcement action contemplated by the State of Arizona with respect to the groundwater matter. On August 13, 1998, the court approved and entered the Decree that commits the Pinal Creek Group to complete the remediation work outlined in the remedial action plan that was submitted to the State in May 1997. Phelps Dodge Miami Inc. is pursuing contribution litigation against other parties involved in this matter and has asserted claims against certain of its past insurance carriers. While significant recoveries are expected, the Company cannot reasonably estimate the amount and, therefore, has not taken potential recoveries into consideration in the recorded reserve. Phelps Dodge Miami Inc.'s share of the planned remediation work has a cost range for reasonably expected outcomes estimated to be from \$119 million to \$222 million, and, as no point within that range is more likely than any other, the lower end of the range has been reserved as required by generally accepted accounting principles.

In June 1999, Cyprus Amax received an information request from the Pennsylvania Department of Environmental Protection regarding the former American Zinc and Chemical site in Langeloth, Pennsylvania. The site is currently being investigated by the State of Pennsylvania. Studies initiated to determine the nature and extent of remediation work that may be required on the property indicated a cost range for reasonably expected outcomes estimated to be from \$18 million to \$52 million. Phelps Dodge has reserved \$20 million for the possible remediation work at the Langeloth site representing the most likely point within the range of estimates.

Cyprus Tohono Corporation (Cyprus Tohono), a wholly owned subsidiary of Cyprus Amax Corporation, holds three leases for lands on the Tohono O'odham Indian Nation (the Nation). The leased lands include the site of an inactive mining operation, including an open pit, leach and waste rock stockpiles, tailing and evaporation ponds, ore roasting and SX/EW operations, and ancillary facilities. The leases impose certain environmental compliance, clo-

sure and reclamation requirements upon Cyprus Tohono as the lessee. The closure and reclamation requirements under the leases require action to be taken upon termination of the leases, which currently expire between 2012 and 2017, unless terminated earlier in accordance with the terms of the leases. The Nation, along with several federal agencies who assist the Nation, have notified Cyprus Tohono of water quality concerns and concerns with other environmental impacts of historical mining operations. The Nation has requested that Cyprus Tohono consider accelerating closure and reclamation under the leases, in lieu of or in addition to interim reclamation and corrective measures being considered by Cyprus Tohono to protect water quality and mitigate other potential environmental impacts. We are unable to estimate the total costs of the corrective, closure and reclamation measures that may be instituted by Cyprus Tohono as a result of these investigations; however, preliminary studies indicate that interim reclamation and corrective measures could range from \$7 million to \$15 million. As a result of meetings and determinations in the 2001 fourth quarter, and based upon our best estimate of activities and costs, an \$11 million reserve was recognized.

In December 2001, the Company entered into a Memorandum of Understanding with the owner of a Yonkers, New York, property regarding certain environmental liabilities estimated to range from \$6 million to \$11 million. The Company sold that property to the owner in 1984. Based on information supplied by the property owner, the Company recognized a best estimate \$7 million charge associated with environmental remediation at that site. Also in the 2001 fourth quarter, the Company recognized charges of \$13 million for environmental remediation primarily at closed sites, none of which, individually was more than \$3 million.

At December 31, 2001, the cost range for reasonably possible outcomes for all reservable environmental remediation sites other than Pinal Creek and Langeloth was estimated to be from \$151 million to \$242 million of which \$172 million has been reserved. Work on these sites is expected to be substantially completed in the next several years, subject to inherent delays involved in the remediation process.

Phelps Dodge believes certain insurance policies partially cover the foregoing environmental liabilities; however, some of the insurance carriers have denied coverage. We are presently litigating these disputes. Further, Phelps Dodge believes that it has other potential claims for recovery from other third parties, including the United States Government and other PRPs, as well as liability offsets through lower cost remedial solutions. Neither insurance recoveries nor other claims or offsets are recognized unless such offsets are considered probable of realization. In 2001, the Company recognized proceeds from settlements reached

with several insurance companies on historic environmental liability claims of \$61.8 million, net of fees and expenses.

Phelps Dodge has a number of sites that are not the subject of an environmental reserve because it is not probable that a successful claim will be made against the Company for those sites, but for which there is a reasonably possible likelihood of an environmental remediation liability. At December 31, 2001, the cost range for reasonably possible outcomes for all such sites was estimated to be from \$3 million to \$21 million. The liabilities arising from potential environmental obligations that have not been reserved for at this time may be material to the results of any single quarter or year in the future. Management, however, believes the liability arising from potential environmental obligations is not likely to have a material adverse effect on the Company's liquidity or financial position as such obligations could be satisfied over a period of many years.

The following table summarizes environmental reserve activities for the years ended December 31:

(\$ in millions)	<u>2001</u>	<u>2000</u>
Balance, beginning of year .....	\$ 307.1	336.1
Additions to reserves .....	31.1	-
Spending against reserves .....	(27.0)	(31.8)
Liabilities assumed in Cyprus acquisition .....	-	2.8
Balance, end of year .....	<u>\$ 311.2</u>	<u>307.1</u>

The Company owns property in Maspeth, New York, that formerly was used as a refinery. In June 1999, the Company entered into an Order on Consent which requires the Company to perform, among other things, a remedial investigation and feasibility study at the site. In the Company's original feasibility study, the Company recommended that the site be remediated through targeted removal of contaminated soil and capping of the site. In March 2002, following discussions with the New York State Department of Environmental Conservation, the Company agreed in its revised feasibility study to address groundwater contamination at the site. As a result of this additional action, the Company may increase its \$8 million reserve by up to an additional \$10 million.

### Reclamation

The following table summarizes reclamation and closure reserve activities for the years ended December 31:

(\$ in millions)	<u>2001</u>	<u>2000</u>
Balance, beginning of year .....	\$ 135.0	131.1
Additions to reserves .....	9.6	10.6
Payments and deductions .....	(14.5)	(6.7)
Balance, end of year .....	<u>\$ 130.1</u>	<u>135.0</u>

Our mining operations are subject to laws and regulations establishing new requirements for mined land reclamation and financial assurance. Colorado passed a mined land reclamation law in the early 1970s establishing a Mined Land Reclamation Board that adopted regulations in 1977. Significant changes were made in 1993. Our Colorado mining operations have had approved mined land reclamation plans and financial assurance under these laws for several years. Arizona enacted its mined land reclamation law in 1994. Our Arizona mining operations submitted proposed reclamation plans and financial assurance following the adoption of implementing rules in 1997, and all of our Arizona operations have approved plans and financial assurance totaling approximately \$70 million. New Mexico passed a mined land reclamation law in 1993 authorizing regulations that were adopted in 1994. The permitting process for New Mexico mining operations commenced in December 1994. Approval of "closeout plans" describing the reclamation planned for the Chino, Tyrone and Cobre mines currently is due by October 1, 2002. Two New Mexico State agencies currently are reviewing the permit applications for facility closure and reclamation, and one public hearing was held on Chino's plan to protect water quality in August 2001. A second public hearing was held in February 2002 on the Chino plan to discuss a draft permit proposed jointly by Chino and the New Mexico Environmental Department (NMED). The Company is awaiting the hearing officer's decision. The cost estimate to carry out this plan, including water treatment for 100 years, if needed, is \$386 million in current dollars. This figure compares to Chino's previous estimate of approximately \$100 million. The final cost estimate is subject to the results of the hearing and any subsequent judicial appeals. Actual reclamation costs may differ significantly from the cost estimate based on a variety of factors including possible changes in legal standards over time and potential cost savings from use of the Company's own personnel and equipment at each site versus third-party contractor costs (under New Mexico law, financial assurance requirements are calculated based on estimated third-party costs), advances in technology and reclamation techniques, and opportunities to prepare each site for more effi-

cient reclamation through careful development of the site over time. The plan also calls for studies over the next four to five years to refine the plan.

The Company is continuing to negotiate with the State regarding the amount of financial assurance required to cover the \$386 million cost estimate. When adjusted to reflect net present value based upon appropriate escalation and discount rates, the amount required for financial assurance would be reduced. The final permits are subject to the public hearing process and consideration of public comments, and a portion of the plan will require the issuance of a waiver of certain standards as authorized by the New Mexico Mining Act.

The Company expects the next hearing on the Tyrone plan in May 2002. The anticipated cost estimate, financial assurance requirement, and actual reclamation costs for the Tyrone plan are expected to be comparable to the Chino plan. The initial hearing for the Cobre plan will likely occur in summer 2002. The Company expects the cost estimate for the Cobre plan to be approximately \$40 million.

Refer to discussion of Contractual Obligations, Commercial Commitments and Other Items that May Affect Liquidity for related financial assurance issues.

The federal Bureau of Land Management adopted amended regulations governing mined land reclamation for mining on federal lands in January 2001. New financial assurance requirements for existing operations took effect in June 2001, although the new reclamation requirements took effect only for new mining and certain modifications to existing mining activities. Mined land reclamation is an ongoing activity and we recognize estimated reclamation costs using a units-of-production basis calculation. These laws and regulations and the associated plan approval and permitting requirements will likely increase our regulatory obligations and compliance costs over time with respect to mine closure and reclamation.

We also are subject to federal and state laws and regulations pertaining to plant and mine safety and health conditions. These laws include the Occupational Safety and Health Act of 1970 and the Mine Safety and Health Act of 1977. Present and proposed regulations govern worker exposure to a number of substances and conditions present in work environments. These include dust, mist, fumes, heat and noise. We are making and will continue to make expenditures to comply with health and safety laws and regulations.

We estimate that our share of capital expenditures for programs to comply with applicable environmental laws and regulations that affect our operations will total approximately \$26 million in 2002 and approximately \$45 million in 2003; \$15

million was spent on such programs in 2001. We also anticipate making significant capital and other expenditures beyond 2003 for continued compliance with such laws and regulations. In light of the frequent changes in the laws and regulations and the uncertainty inherent in this area, we are unable to reasonably estimate the total amount of such expenditures over the longer term, but it may be potentially material.

We do not expect that the additional capital and operating costs associated with achieving compliance with the many environmental, health and safety laws and regulations will have a material adverse affect on our competitive position relative to other U.S. copper producers. These domestic copper producers are subject to comparable requirements. However, because copper is an internationally traded commodity, these costs could significantly affect us in our efforts to compete globally with those foreign producers not subject to such stringent requirements.

#### Other Matters

In 1995, legislation was introduced in both the U.S. House of Representatives and the U.S. Senate to amend the Mining Law of 1872. None of the bills were enacted into law. Also, mining law amendments were added to the 1996 budget reconciliation bill, which was vetoed by the President. Among other things, the amendments contained in the 1996 bill would have imposed a 5 percent net proceeds royalty on minerals extracted from federal lands, required payment of fair market value for patenting federal lands, and required that patented lands used for non-mining purposes revert to the federal government. Several of these same concepts likely will continue to be pursued legislatively in the future.

In August 2001, the Financial Accounting Standards Board (FASB) issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." This Statement supersedes SFAS No. 121 and the accounting and reporting provisions of APB Opinion No. 30, and also amends ARB No. 51. This Statement will require that one accounting model be used for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired, and will broaden the presentation of discontinued operations to include more disposal transactions. This Statement is required to be adopted by the Company on January 1, 2002. We are in the process of evaluating the effect that SFAS No. 144 will have on our financial reporting and disclosures and are developing procedures to effect its implementation.

In June 2001, FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." With the adoption of this Statement, retirement obligations will be recognized when they are incurred and displayed as liabilities and the initial measurement will be at fair value. In addition, the

asset retirement cost will be capitalized as part of the asset's carrying value and subsequently allocated to expense over the asset's useful life. This Statement is required to be adopted by the Company on January 1, 2003. We are in the process of evaluating the effect that SFAS No. 143 will have on our financial reporting and disclosures and are developing procedures to effect its implementation.

In addition, in June 2001, FASB issued SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 was adopted on June 30, 2001, and any business combinations initiated after that date require the purchase method of accounting. Under SFAS No. 142, goodwill and intangible assets that have indefinite useful lives will not be amortized but rather will be tested at least annually for impairment. Intangible assets that have finite useful lives will continue to be amortized over their useful lives, but without the constraint of the 40-year ceiling. SFAS No. 142 is required to be adopted by the Company on January 1, 2002. We are in the process of evaluating the effect that SFAS No. 142 will have on our financial reporting and disclosures and are developing procedures to effect its implementation. As of December 31, 2001, we had goodwill of \$115.2 million less accumulated amortization of \$26.7 million for Columbian Chemicals and goodwill of \$70.8 million less accumulated amortization of \$16.2 million for Wire and Cable, for a total of \$186.0 million less accumulated amortization of \$42.9 million (\$143.1 million, net).

During 2001, we adopted SFAS No. 140, "Accounting for the Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." The Statement provides consistent standards for distinguishing transfers of financial assets that are sales from transfers that are secured borrowings.

## CAPITAL OUTLAYS

Capital outlays in the following table exclude capitalized interest and the minority joint-venture interest portions of the expenditures at Morenci, Chino, El Abra and Candelaria.

(\$ in millions)	2001	2000	1999
Phelps Dodge Mining Company:			
Copper - United States .....	\$ 128.6	272.0	95.9
Copper - International .....	61.9	29.9	4.3
Molybdenum .....	8.7	8.9	20.4
Other .....	1.0	0.8	0.8
	<u>200.2</u>	<u>311.6</u>	<u>121.4</u>
Phelps Dodge Industries:			
Specialty chemicals .....	28.9	55.7	45.0
Wire and cable .....	12.8	16.9	28.4
	<u>41.7</u>	<u>72.6</u>	<u>73.4</u>
Corporate and other .....	21.0	13.0	6.1
	<u>\$ 262.9</u>	<u>397.2</u>	<u>200.9</u>

Capital outlays exclude investments in subsidiaries.

## INFLATION

The principal impact of general inflation upon our financial results has been on implied unit cost of copper production, especially supply costs, at our mining and industrial operations. It is important to note, however, that there is generally no correlation between the selling price of our principal product, copper, and the rate of inflation or deflation.

## DIVIDENDS AND MARKET PRICE RANGES

The principal market for our common stock is the New York Stock Exchange. At March 7, 2002, there were 28,853 holders of record of our common shares. During 1999 and 2000, the quarterly dividend rate was 50 cents on each common share. Beginning in the second quarter of 2001, the dividend was reduced to 12.5 cents on each common share. It was eliminated in the fourth quarter of 2001. Additional information required for this item is provided in the Quarterly Financial Data table.

**QUARTERLY FINANCIAL DATA**

(\$ in millions except per common share amounts)

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
<b><u>2001</u></b>				
Sales and other operating revenues.....	\$ 1,100.7	1,063.5	937.0	901.2
Operating income (loss) before special items.....	3.5	(3.9)	(53.1)	(23.0)
Operating income (loss).....	34.4	(17.2)	(52.9)	(9.2)
Income (loss) before cumulative effect of accounting change.....	16.2	(110.5)	(100.4)	(78.3)
Net income (loss) before special items.....	(14.7)	(103.0)	(100.6)	(79.2)
Net income (loss).....	14.2	(110.5)	(100.4)	(78.3)
Net income (loss) per common share - basic.....	0.18	(1.41)	(1.28)	(1.00)
Net income (loss) per common share - diluted.....	0.18	(1.41)	(1.28)	(1.00)
Stock prices *				
High.....	55.69	51.00	41.84	37.25
Low.....	39.55	37.82	25.74	26.30
Close.....	40.18	41.50	27.50	32.40
<b><u>2000</u></b>				
Sales and other operating revenues.....	\$ 1,119.7	1,112.9	1,193.4	1,099.1
Operating income before special items.....	81.9	55.8	104.6	52.1
Operating income.....	79.8	5.2	101.3	50.7
Net income before special items.....	20.7	4.5	41.5	5.6
Net income (loss).....	19.4	(37.8)	39.3	8.1
Net income (loss) per common share - basic.....	0.25	(0.48)	0.50	0.10
Net income (loss) per common share - diluted.....	0.25	(0.48)	0.50	0.10
Stock prices *				
High.....	73.00	53.00	46.75	57.00
Low.....	44.25	36.06	36.50	40.00
Close.....	47.38	37.19	41.75	55.81

\* As reported in the Wall Street Journal.

**PHELPS DODGE CORPORATION AND  
CONSOLIDATED SUBSIDIARIES  
INDEX TO CONSOLIDATED FINANCIAL  
STATEMENTS**

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The consolidated balance sheet at December 31, 2001 and 2000, and the related consolidated statements of operations, of cash flows and of common shareholders' equity for each of the three years in the period ended December 31, 2001, and notes thereto, together with the report thereon of PricewaterhouseCoopers LLP dated January 28, 2002, appear on pages 51 to 84 of this report. The financial statement schedule which appears on page 90 should be read in conjunction with these financial statements. Schedules not included have been omitted because they are not applicable or the required information is shown in the financial statements or notes thereto. The individual financial statements of the Company have been omitted because the Company is primarily an operating company and all subsidiaries included in the consolidated financial statements, in the aggregate, do not have minority equity interests and/or indebtedness to any person other than the Company or its consolidated subsidiaries in amounts which together exceed 5 percent of total consolidated assets at December 31, 2001. Separate financial statements of subsidiaries not consolidated and investments accounted for by the equity method, other than those for which summarized financial information is provided in Note 4 to the consolidated financial statements, have been omitted because, if considered in the aggregate, such subsidiaries and investments would not constitute a significant subsidiary.

**ADDITIONAL FINANCIAL DATA**

Financial statement schedule for the years ended December 31, 2001, 2000 and 1999.

II - Valuation and qualifying accounts and reserves on page 90.

**REPORT OF MANAGEMENT**

Our management is responsible for the preparation, integrity and objectivity of the consolidated financial statements presented in this annual report. The financial statements have been prepared in accordance with accounting principles generally accepted in the United States and include amounts that are based on management's best estimates and judgments. Management also accepts responsibility for the preparation of other financial information included in this document.

Management maintains a system of internal controls to provide reasonable assurance that assets are safeguarded and that transactions are properly recorded and exe-

cuted in accordance with management's authorization. The system includes formal policies and procedures that are communicated to employees with significant roles in the financial reporting process and updated as necessary. The system also includes the careful selection and training of qualified personnel, an organization that provides a segregation of responsibilities and a program of internal audits that independently evaluates the effectiveness of internal controls and recommends possible improvements.

The Audit Committee, currently consisting of six non-employee directors, meets at least three times a year to review, among other matters, internal control conditions and internal and external audit plans and results. It meets periodically with senior officers, internal auditors and independent accountants to review the adequacy and reliability of our accounting, financial reporting and internal controls.

PricewaterhouseCoopers LLP, our independent accountants, have audited the annual financial statements in accordance with auditing standards generally accepted in the United States. The independent accountants' report expresses an informed judgment as to the fair presentation of our reported operating results, financial position and cash flows. This judgment is based on the results of auditing procedures performed and such other tests that they deemed necessary, including consideration of our internal controls.

Our management also recognizes its responsibility for fostering a strong ethical climate so that our affairs are conducted according to the highest standards of personal and corporate conduct. This responsibility is characterized and reflected in our code of business ethics and policies, which is distributed throughout the Company. The code of conduct addresses:

- the necessity of ensuring open communication within the Company;
- potential conflicts of interest;
- compliance with all applicable laws (including financial disclosure); and
- the confidentiality of proprietary information.

We maintain a systematic program to assess compliance with these policies.

**REPORT OF INDEPENDENT ACCOUNTANTS**

To the Board of Directors and Shareholders of  
Phelps Dodge Corporation

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of operations, of cash flows and of common shareholders' equity present fairly, in all material respects, the financial position of Phelps Dodge Corporation and its subsidiaries at December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Corporation's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As described in Note 1 to the consolidated financial statements, the Corporation changed its method of accounting for derivative instruments and hedging activities effective January 1, 2001, and its method of accounting for start-up costs effective January 1, 1999.

/s/ PricewaterhouseCoopers LLP

Phoenix, Arizona  
January 28, 2002

**REPORT OF INDEPENDENT ACCOUNTANTS ON  
FINANCIAL STATEMENT SCHEDULE**

To the Board of Directors and Shareholders of Phelps  
Dodge Corporation

Our audits of the consolidated financial statements referred to in our report dated January 28, 2002, appearing in this Annual Report on Form 10-K of Phelps Dodge Corporation also included an audit of the financial statement schedule listed in item 14(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PricewaterhouseCoopers LLP

Phoenix, Arizona  
January 28, 2002

**STATEMENT OF CONSOLIDATED OPERATIONS**

(in millions except per share data)

	For the years ended December 31,		
	2001	2000	1999
<b>Sales and other operating revenues</b> .....	\$ 4,002.4	4,525.1	3,114.4
<b>Operating costs and expenses</b>			
Cost of products sold.....	3,440.8	3,580.2	2,477.8
Depreciation, depletion and amortization.....	465.3	464.2	329.1
Selling and general administrative expense.....	116.5	135.1	115.5
Exploration and research expense.....	56.3	56.8	52.2
Special items and provisions.....	(31.6)	51.8	455.4
	<u>4,047.3</u>	<u>4,288.1</u>	<u>3,430.0</u>
<b>Operating income (loss)</b> .....	(44.9)	237.0	(315.6)
Interest expense.....	(227.5)	(217.8)	(120.4)
Capitalized interest.....	1.6	4.5	0.2
Miscellaneous income and expense, net.....	8.1	30.0	9.1
<b>Income (loss) before taxes, minority interests, equity in net earnings (losses) of affiliated companies and cumulative effect of accounting change</b> .....	(262.7)	53.7	(426.7)
Provision for taxes on income.....	(5.9)	(19.2)	165.2
Minority interests in consolidated subsidiaries.....	(4.1)	(7.0)	2.1
Equity in net earnings (losses) of affiliated companies.....	(0.3)	1.5	5.1
<b>Income (loss) before cumulative effect of accounting change</b> .....	(273.0)	29.0	(254.3)
Cumulative effect of accounting change.....	(2.0)	-	(3.5)
<b>Net income (loss)</b> .....	\$ <u>(275.0)</u>	<u>29.0</u>	<u>(257.8)</u>
<b>Average number of shares outstanding - basic</b> .....	78.5	78.4	61.6
<b>Basic earnings (loss) per share before cumulative effect of accounting change</b> .....	\$ (3.47)	0.37	(4.13)
Cumulative effect of accounting change.....	(0.03)	-	(0.06)
<b>Basic earnings (loss) per share</b> .....	\$ <u>(3.50)</u>	<u>0.37</u>	<u>(4.19)</u>
<b>Average number of shares outstanding - diluted</b> .....	78.5	78.8	61.6
<b>Diluted earnings (loss) per share before cumulative effect of accounting change</b> .....	\$ (3.47)	0.37	(4.13)
Cumulative effect of accounting change.....	(0.03)	-	(0.06)
<b>Diluted earnings (loss) per share</b> .....	\$ <u>(3.50)</u>	<u>0.37</u>	<u>(4.19)</u>

See Notes to Consolidated Financial Statements

**CONSOLIDATED BALANCE SHEET**

(in millions except per share values)

	December 31, 2001	December 31, 2000
<b>Assets</b>		
Current assets:		
Cash and cash equivalents.....	\$ 386.9	250.0
Accounts receivable, less allowance for doubtful accounts (2001 - \$14.2; 2000 - \$17.6).....	398.8	528.7
Inventories.....	451.8	451.5
Supplies.....	150.3	151.2
Prepaid expenses.....	27.0	36.7
Deferred income taxes.....	89.4	89.5
Current assets.....	<u>1,504.2</u>	<u>1,507.6</u>
Investments and long-term receivables.....	105.3	110.1
Property, plant and equipment, net.....	5,665.6	5,894.6
Deferred income taxes .....	56.3	45.1
Other assets and deferred charges.....	287.4	273.4
	<u>\$ 7,618.8</u>	<u>7,830.8</u>
<b>Liabilities</b>		
Current liabilities:		
Short-term debt.....	\$ 59.3	518.2
Current portion of long-term debt.....	269.7	206.5
Accounts payable and accrued expenses.....	673.7	669.8
Accrued income taxes.....	11.5	23.4
Current liabilities.....	<u>1,014.2</u>	<u>1,417.9</u>
Long-term debt.....	2,522.0	1,963.0
Deferred income taxes.....	441.8	439.0
Other liabilities and deferred credits.....	874.2	814.2
	<u>4,852.2</u>	<u>4,634.1</u>
<b>Commitments and contingencies (see Notes 6, 17 and 18)</b>		
<b>Minority interests in consolidated subsidiaries.....</b>	<u>59.4</u>	<u>91.7</u>
<b>Common shareholders' equity</b>		
Common shares, par value \$6.25; 200.0 shares authorized; 78.7 outstanding after deducting 17.1 shares held in treasury.....		
	491.9	491.9
Capital in excess of par value.....	1,016.8	1,017.7
Retained earnings.....	1,497.6	1,831.7
Accumulated other comprehensive income (loss) .....	(292.7)	(226.4)
Other.....	(6.4)	(9.9)
	<u>2,707.2</u>	<u>3,105.0</u>
	<u>\$ 7,618.8</u>	<u>7,830.8</u>

See Notes to Consolidated Financial Statements

**CONSOLIDATED STATEMENT OF CASH FLOWS**

(in millions)

	For the years ended December 31,		
	2001	2000	1999
<b>Operating activities</b>			
Net income (loss).....	\$ (275.0)	29.0	(257.8)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation, depletion and amortization.....	465.3	464.2	329.1
Deferred income taxes.....	(8.2)	12.8	(191.7)
Equity earnings (losses) net of dividends received.....	1.7	0.9	(4.4)
Changes in current assets and liabilities:			
Accounts receivable.....	34.5	9.7	(144.5)
Proceeds from sale of accounts receivable.....	79.7	-	-
Inventories.....	(6.0)	39.3	31.2
Supplies.....	-	(5.3)	1.7
Prepaid expenses.....	9.8	2.3	9.8
Deferred income taxes.....	-	(0.3)	(5.3)
Interest payable.....	-	(16.3)	2.2
Other accounts payable.....	24.5	(12.4)	(2.2)
Accrued income taxes.....	(12.0)	(24.9)	7.2
Other accrued expenses.....	(5.0)	(68.8)	(27.4)
Special items and provisions.....	(22.5)	54.3	471.9
Other adjustments, net.....	15.9	26.7	(15.3)
Net cash provided by operating activities.....	<u>302.7</u>	<u>511.2</u>	<u>204.5</u>
<b>Investing activities</b>			
Capital outlays.....	(262.9)	(397.2)	(200.9)
Capitalized interest.....	(1.6)	(4.5)	(0.2)
Investment in subsidiaries, net of cash received.....	(48.1)	(25.1)	(39.5)
Proceeds from asset dispositions and other.....	45.8	152.6	246.6
Net cash provided by (used in) investing activities.....	<u>(266.8)</u>	<u>(274.2)</u>	<u>6.0</u>
<b>Financing activities</b>			
Proceeds from issuance of debt.....	1,203.3	114.6	348.8
Payment of debt.....	(1,053.9)	(178.3)	(209.1)
Common dividends.....	(59.1)	(157.5)	(124.3)
Debt issue costs.....	(7.3)	-	-
Other, net.....	18.0	-	(213.4)
Net cash provided by (used in) financing activities.....	<u>101.0</u>	<u>(221.2)</u>	<u>(198.0)</u>
<b>Increase in cash and cash equivalents.....</b>	<u>136.9</u>	<u>15.8</u>	<u>12.5</u>
<b>Cash and cash equivalents at beginning of year.....</b>	<u>250.0</u>	<u>234.2</u>	<u>221.7</u>
<b>Cash and cash equivalents at end of year.....</b>	<u>\$ 386.9</u>	<u>250.0</u>	<u>234.2</u>

**Supplemental schedule of noncash investing and financing activities:**

In 1999, as partial consideration for the acquisition of Cyprus Amax, the Company issued 20.6 million common shares valued at \$1,125 million. (See Note 2.)

See Notes to Consolidated Financial Statements

**CONSOLIDATED STATEMENT OF COMMON SHAREHOLDERS' EQUITY**

(in millions)

	Common Shares		Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income (loss)		Common Shareholders' Equity
	Number of Shares	At Par Value			Income (loss)	Other	
<b>Balance at December 31, 1998</b> .....	57.9	\$362.1	\$ 1.8	\$2,345.0	\$ (113.9)	\$ (7.6)	\$ 2,587.4
Stock options exercised.....	0.1	0.4	2.4				2.8
Tax benefit from stock options .....				0.4			0.4
Restricted shares issued/cancelled, net.....	0.1	0.6	4.6			(3.1)	2.1
Other investment adjustments.....			1.0				1.0
Dividends on common shares.....				(127.8)			(127.8)
Cyprus Amax acquisition.....	20.6	128.5	1,006.6				1,135.1
Comprehensive income (loss):							
Net loss.....				(257.8)			(257.8)
Other comprehensive income (loss), net of tax:							
Reclassification adjustment* .....					11.8		11.8
Translation adjustment.....					(81.0)		(81.0)
Translation, net of reclass adjustments.....					(69.2)		(69.2)
Unrealized losses on securities.....					(0.2)		(0.2)
Minimum pension liability.....					3.0		3.0
Other comprehensive loss.....					(66.4)		(66.4)
Comprehensive loss.....							(324.2)
<b>Balance at December 31, 1999</b> .....	78.7	491.6	1,016.4	1,959.8	(180.3)	(10.7)	3,276.8
Stock options exercised.....		0.2	1.4				1.6
Tax benefit from stock options .....				0.4			0.4
Restricted shares issued/cancelled, net.....		0.1	0.5			0.8	1.4
Other investment adjustments.....			(0.6)				(0.6)
Dividends on common shares.....				(157.5)			(157.5)
Comprehensive income (loss):							
Net income.....				29.0			29.0
Other comprehensive income (loss), net of tax:							
Translation adjustment.....					(45.9)		(45.9)
Unrealized gains on securities.....					0.8		0.8
Minimum pension liability.....					(1.0)		(1.0)
Other comprehensive loss.....					(46.1)		(46.1)
Comprehensive loss.....							(17.1)
<b>Balance at December 31, 2000</b> .....	78.7	491.9	1,017.7	1,831.7	(226.4)	(9.9)	3,105.0
Stock options exercised.....			0.5				0.5
Restricted shares issued/cancelled, net.....			(1.4)			3.5	2.1
Dividends on common shares.....				(59.1)			(59.1)
Comprehensive income (loss):							
Net loss.....				(275.0)			(275.0)
Other comprehensive income (loss), net of tax:							
Translation adjustment.....					(42.9)		(42.9)
Cumulative effect of accounting change.....					(7.1)		(7.1)
Net loss on derivative instruments.....					(13.6)		(13.6)
Unrealized gains on securities.....					0.3		0.3
Minimum pension liability.....					(3.0)		(3.0)
Other comprehensive loss.....					(66.3)		(66.3)
Comprehensive loss.....							(341.3)
<b>Balance at December 31, 2001</b> .....	78.7	\$491.9	\$ 1,016.8	\$1,497.6	\$ (292.7)	\$ (6.4)	\$ 2,707.2

**Disclosure of reclassification amount:**

\* The 1999 reclassification adjustment represents the write-off of cumulative translation adjustments as a result of the sale of PD Mining Ltd.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Dollar amounts in tables stated in millions except as noted)

### 1. Summary of Significant Accounting Policies

*Basis of Consolidation.* The consolidated financial statements include the accounts of Phelps Dodge Corporation (the Company, which may be referred to as Phelps Dodge, PD, we, us or ours), and its majority-owned subsidiaries. Interests in mining joint ventures in which we own more than a 50 percent participation are reported using the proportional consolidation method. Interests in other majority-owned subsidiaries are reported using the full consolidation method; the consolidated financial statements include 100 percent of the assets and liabilities of these subsidiaries and the ownership interests of minority participants are recorded as "Minority interests in consolidated subsidiaries." All material intercompany balances and transactions are eliminated.

Investments in unconsolidated companies owned 20 percent or more are recorded on an equity basis. Investments in companies less than 20 percent owned, and for which we do not exercise significant influence, are carried at cost.

*Management's Estimates and Assumptions.* The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The more significant areas requiring the use of management estimates and assumptions relate to mineral reserves that are the basis for future cash flow estimates and units-of-production amortization determination; environmental, reclamation and closure obligations; asset impairments (including estimates of future cash flows); postemployment, postretirement and other employee benefit liabilities; bad debts; restructuring; valuation allowances for deferred tax assets; contingencies and litigation; and fair value of financial instruments. Phelps Dodge bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

*Foreign Currency Translation.* Except as noted below, the assets and liabilities of foreign subsidiaries are translated at current exchange rates, while revenues and expenses are translated at average rates in effect for the period. The related translation gains and losses are included in accumulated other comprehensive income (loss) within common

shareholders' equity. For the translation of the financial statements of certain foreign subsidiaries dealing predominantly in U.S. dollars, and for those affiliates operating in highly inflationary economies, assets and liabilities receivable or payable in cash are translated at current exchange rates, and inventories and other non-monetary assets and liabilities are translated at historical rates. Gains and losses resulting from translation of such financial statements are included in operating results, as are gains and losses incurred on foreign currency transactions.

*Statement of Cash Flows.* For the purpose of preparing the Consolidated Statement of Cash Flows, we consider all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

*Inventories and Supplies.* Inventories and supplies are stated at the lower of cost or market. Cost for metal inventories is determined by the last-in, first-out method (LIFO), and cost for substantially all other inventories is determined by the first-in, first-out method (FIFO) or a moving average method. Cost for substantially all supplies is determined by a moving average method.

*Property, Plant and Equipment.* Property, plant and equipment are carried at cost. Cost of significant assets includes capitalized interest incurred during the construction and development period. Expenditures for replacements and betterments are capitalized; maintenance and repair expenditures are charged to operations as incurred except planned major maintenance activities at our copper smelters and molybdenum roasters as described below.

The principal depreciation method used for mining, smelting and refining operations is the units-of-production method applied on a group basis. Buildings, machinery and equipment for other operations are depreciated using the straight-line method over estimated lives of five to 40 years, or the estimated life of the operation if shorter. Upon disposal of assets depreciated on a group basis, cost less salvage is charged to accumulated depreciation.

Values for mining properties represent mainly acquisition costs or pre-1932 engineering valuations. Depletion of mines is computed on the basis of an overall unit rate applied to the pounds of principal products sold from mine production.

Mine exploration costs and development costs to maintain production of operating mines are charged to operations as incurred. Mine development expenditures at new mines and major development expenditures at operating mines that are expected to benefit future production are capitalized and amortized on the units-of-production method over the estimated commercially recoverable minerals.

Our policy for repair and maintenance costs incurred in connection with planned major maintenance activities at our copper smelters and molybdenum roasters is to charge to operations such costs equally over the subsequent periods (generally 12 months).

*Environmental Expenditures.* Environmental expenditures are expensed or capitalized depending upon their future economic benefits. Liabilities for such expenditures are recorded when it is probable that obligations have been incurred and the costs reasonably can be estimated. For closed facilities and closed portions of operating facilities with closure obligations, an environmental liability is accrued when a closure determination is made and approved by management, and when the environmental liability is considered to be probable. Environmental liabilities attributed to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) or analogous state programs are considered probable when a claim is asserted, or is probable of assertion, and we have been associated with the site. Other environmental remediation liabilities are considered probable based on the specific facts and circumstances. Our estimates of these costs are based upon available facts, existing technology and current laws and regulations, and are recorded on an undiscounted basis. Where the available information is sufficient to estimate the amount of liability, that estimate has been used. Where the information is only sufficient to establish a range of probable liability and no point within the range is more likely than any other, the lower end of the range has been used. The possibility of recovery of some of these costs from insurance companies or other parties exists; however, we do not recognize these recoveries in our financial statements until they become probable.

*Mine Closure Costs.* Reclamation is an ongoing activity and we recognize estimated final reclamation costs over the life of active mining properties on a units-of-production basis. Non-operating sites that are currently on care-and-maintenance status suspend accruing mine closure costs until the site resumes production. When management determines a mine should be permanently closed, any unrecognized closure obligation is recognized. (Refer to further discussion in this note under New Accounting Standards -- Statement of Financial Accounting Standards (SFAS) No. 143.)

*Goodwill.* Included in "Other assets and deferred charges" are costs in excess of the net assets of businesses acquired. These amounts are amortized on a straight-line basis over periods of 15 to 30 years. (Refer to further discussion in this note under New Accounting Standards -- SFAS No. 142.)

*Impairments.* We evaluate our long-term assets to be held and used, our identifiable intangible assets and goodwill for impairment when events or changes in economic circumstances indicate the carrying amount of such assets may not

be recoverable. We use an estimate of the future undiscounted net cash flows of the related asset or asset grouping over the remaining life to measure whether the assets are recoverable and measure any impairment by reference to fair value. Fair value is generally estimated using the Company's expectation of discounted net cash flows. Long-term assets to be disposed of are carried at the lower of cost or fair value less the costs of disposal. (Refer to further discussion in this note under New Accounting Standards -- SFAS Nos. 141, 142 and 144.)

*Revenue Recognition.* Revenue is recognized when title passes to the customer. The passing of title is based on terms of the contract, generally upon shipment. Copper revenue is determined based on the monthly average of prevailing commodity prices according to the terms of the contracts.

Due to the market risk arising from the volatility of copper prices, our objective is to sell copper cathode and rod at the New York Commodity Exchange (COMEX) or London Metal Exchange (LME) average price in the month of delivery, and copper concentrate at the LME average price in the month of settlement with our customers. We initially record certain copper sales at a provisional price at the time of sale, and adjust the pricing for all outstanding shipments to reflect spot prices at the end of each month until a final adjustment is made to the price of the shipments upon settlement with our customers pursuant to the terms of the contract. Historically, these final settlement adjustments have been insignificant.

*Shipping and Handling Fees and Costs.* Amounts billed to customers for shipping and handling are classified as sales and other operating revenues. Amounts incurred for shipping and handling are included in costs of products sold.

*Hedging Programs.* We do not purchase, hold or sell derivative financial contracts unless we have an existing asset, obligation or anticipate a future activity that is likely to occur that will result in exposing us to market risk. Derivative financial instruments are used to manage well-defined commodity price, energy, foreign exchange and interest rate risks from our primary business activities. For a discussion on why we use derivative financial contracts, our year-end derivative position and related financial results, refer to Note 19.

We recognize all derivative financial instruments as assets and liabilities and measure them at fair value. For derivative instruments that are designated and qualify as cash flow hedges (specifically, aluminum swap contracts, floating-to-fixed interest rate swaps, diesel fuel swaps and call options, and natural gas call options and collars), the effective portions of changes in fair value of the derivative are recorded in other comprehensive income, and are recog-

nized in the statement of operations when the hedged item affects earnings. Ineffective portions of changes in the fair value of cash flow hedges are recognized currently in earnings. For derivative instruments that are designated and qualify as fair value hedges (specifically, fixed-price copper swap and futures contracts, currency forward exchange contracts, and fixed-to-floating interest rate swaps), gains or losses resulting from changes in their fair value are recognized currently in earnings. In addition, the gain or loss resulting from changes in the fair value of the hedged item attributable to the hedged risk is adjusted and recognized currently in earnings. Therefore, any ineffectiveness would be reported currently in earnings.

Effectiveness testing for qualified hedge programs (with the exception of interest rate swaps) utilizes an intrinsic valuation methodology. This methodology excludes the time value of money component, which is recognized immediately in earnings. The interest rate swaps meet the criteria to assume no hedge ineffectiveness.

Changes in the fair value of derivatives that do not qualify for hedge treatment (specifically, copper rod swap and futures contracts and certain currency swaps) are recognized currently in earnings.

*Stock Compensation.* In accordance with the provisions of SFAS No. 123, "Accounting for Stock-Based Compensation," we measure compensation cost using the intrinsic value based method presented by Accounting Principles Board (APB) Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations to account for our stock option plans. Note 14 contains a summary of the disclosures of pro forma net income and earnings per share as if the fair value based method of accounting as defined in SFAS No. 123 had been applied.

*Income Taxes.* In addition to charging income for taxes actually paid or payable, the provision for taxes reflects deferred income taxes resulting from changes in temporary differences between the tax bases of assets and liabilities and their reported amounts in the financial statements. The effect on deferred income taxes of a change in tax rates and laws is recognized in income in the period that such changes are enacted. Deferred income taxes have not been provided on the Company's share of undistributed earnings of certain foreign subsidiaries and unconsolidated affiliates because we consider those earnings to be reinvested indefinitely.

*Pension Plans.* We have trustee, non-contributory pension plans covering substantially all of our U.S. employees and some employees of international subsidiaries. The benefits are based on, in the case of certain plans, final average salary and years of service and, in the case of other plans, a fixed amount for each year of service. Our funding policy provides that payments to the pension trusts shall be at least

equal to the minimum funding requirements of the Employee Retirement Income Security Act of 1974 for U.S. plans or, in the case of international subsidiaries, the minimum legal requirements in that particular country. Additional payments may also be provided from time to time.

*Postretirement Benefits Other Than Pensions.* We have postretirement health care and life insurance benefit plans covering most of our U.S. employees and, in some cases, employees of international subsidiaries. Postretirement benefits vary among plans and many plans require contributions from employees. We account for these benefits on an accrual basis. Our funding policy provides that payments shall be at least equal to our cash basis obligation, plus additional amounts that may be approved by us from time to time.

*Postemployment Benefits.* We have certain postemployment benefit plans covering most of our U.S. employees and, in some cases, employees of international subsidiaries. The benefit plans may provide severance, disability, supplemental health care, life insurance or other welfare benefits. We account for these benefits on an accrual basis. Our funding policy provides that payments shall be at least equal to our cash basis obligation. Additional amounts may also be provided from time to time.

*Earnings Per Share.* Basic earnings per share are computed by dividing income available to common shareholders by the weighted average number of common shares outstanding for the period. Diluted earnings per share are similar to basic earnings per share except that the denominator is increased to include the number of additional common shares that would have been outstanding if the potentially dilutive common shares had been issued.

	2001	2000	1999
<b>Basic Earnings (Loss) Per Share Computation</b>			
Numerator:			
Net income (loss).....	\$ (275.0)	29.0	(257.8)
Denominator:			
Weighted average common shares outstanding.....	<u>78.5</u>	<u>78.4</u>	<u>61.6</u>
Basic earnings (loss) per share.....	<u>\$ (3.50)</u>	<u>0.37</u>	<u>(4.19)</u>
<b>Diluted Earnings (Loss) Per Share Computation</b>			
Numerator:			
Net income (loss).....	\$ (275.0)	29.0	(257.8)
Denominator:			
Weighted average common shares outstanding.....	78.5	78.4	61.6
Weighted average employee stock options* .....	-	0.1	-
Weighted average restricted stock issued to employees* .....	-	0.3	-
Total weighted average common shares outstanding.....	<u>78.5</u>	<u>78.8</u>	<u>61.6</u>
Diluted earnings (loss) per share.....	<u>\$ (3.50)</u>	<u>0.37</u>	<u>(4.19)</u>

\* Additional common shares were anti-dilutive in 2001 and 1999.

Stock options excluded from the computation of diluted earnings per share because option prices exceeded fair market value were as follows:

	2001	2000	1999
Outstanding options .....	7.7	4.4	3.1
Option price .....	\$ 39.84	56.34	65.88

*New Accounting Standards.* In August 2001, the Financial Accounting Standards Board (FASB) issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." This Statement supersedes SFAS No. 121 and the accounting and reporting provisions of APB Opinion No. 30, and also amends ARB No. 51. This Statement will require that one accounting model be used for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired, and will broaden the presentation of discontinued operations to include more disposal transactions. This Statement is required to be adopted by the Company on January 1, 2002. We are in the process of evaluating the effect that SFAS No. 144 will have on our financial reporting and disclosures and are developing procedures to effect its implementation.

In June 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." With the adoption of this Statement, retirement obligations will be recognized when they are incurred and displayed as liabilities and the initial measurement will be at fair value. In addition, the asset retirement cost will be capitalized as part of the asset's carrying value and subsequently allocated to expense over the asset's useful life. This Statement is required to be adopted by the Company on January 1, 2003. We are in the process of evaluating the effect that SFAS No. 143 will have on our financial reporting and disclosures and are developing procedures to effect its implementation.

In addition, in June 2001, the FASB issued SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 was effective on June 30, 2001, and any business combinations initiated after that date require the purchase method of accounting. Under SFAS No. 142, goodwill and intangible assets that have indefinite useful lives will not be amortized but rather will be tested at least annually for impairment. Intangible assets that have finite useful lives will continue to be amortized over their useful lives, but without the constraint of the 40-year ceiling. SFAS No. 142 is required to be adopted by the Company on January 1, 2002. We will adopt the provisions of SFAS No. 142 in our first quarter ended March 31, 2002. The Company is in the process of preparing for our adoption of SFAS No. 142 and is making the determinations as to what our reporting units are and what amounts of goodwill, intangible assets, other assets and liabilities should be allocated to those reporting units. In preparation for the adoption of SFAS No. 142, the Company is in the process of evaluating what amounts, if any, will require reclassification between goodwill and intangible assets. Any impairment loss resulting from the transitional impairment tests will be reflected as the cumulative effect of a change in accounting principle in the first quarter 2002. We have not yet determined what effect these impairment tests will have on our earnings and financial position. As of December 31, 2001, we had goodwill of \$186.0 million less accumulated amortization of \$42.9 million (\$143.1 million, net). Amortization expense was approximately \$7 million in 2001 and approximately \$8 million in 2000 and 1999, respectively.

During 2001, we adopted SFAS No. 140, "Accounting for the Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." This Statement provides consistent standards for distinguishing transfers of financial assets that are sales from transfers that are secured borrowings.

In November 2001, the Company entered into an agreement (the Receivables Facility) whereby it sells on a continuous basis an undivided interest in all eligible trade accounts receivable. Pursuant to the Receivables Facility,

the Company formed PD Receivables LLC (PD Receivables), a wholly owned, special purpose, bankruptcy-remote subsidiary. PD Receivables was formed for the sole purpose of buying and selling receivables generated by the Company, and is consolidated with the operations of the Company. Under the Receivables Facility, the Company transfers certain of its trade receivables to PD Receivables. PD Receivables, in turn, has sold and, subject to certain conditions, may from time to time sell an undivided interest in these receivables, and is permitted to receive advances of up to \$85.0 million for the sale of such undivided interest. The agreement expires on November 29, 2002, although it may be extended for two successive one-year periods, subject to mutual agreement.

The transaction is accounted for as a sale of receivables under the provisions of SFAS No. 140. There was \$79.7 million advanced under the Receivables Facility at December 31, 2001. Costs associated with the sales of receivables, primarily related to funding and service costs charged by the finance group, were \$0.3 million during 2001 and are included in cost of products sold in the statement of consolidated operations.

On January 1, 2001, we adopted SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," (as amended by SFAS No. 137) and SFAS No. 138, "Accounting for Certain Derivative Instruments and Certain Hedging Activities." These Statements require recognition of all derivatives as either assets or liabilities on the balance sheet and measurement of those instruments at fair value. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income (OCI). Appropriate accounting for changes in the fair value of derivatives held is dependent on whether the derivative transaction qualifies as an accounting hedge and on the classification of the hedge transaction. The implementation resulted in a cumulative reduction to income of \$2.0 million (before and after taxes), or 3 cents per share, and a cumulative reduction to OCI of \$7.1 million (before and after taxes).

In 1999, we adopted Statement of Position (SOP) 98-5, "Reporting on the Costs of Start-Up Activities." The implementation resulted in a \$3.5 million after-tax charge, or 6 cents per common share, representing the write off of previously unamortized start-up costs at our Candelaria mining operation in Chile and our magnet wire operation in Monterrey, Mexico.

*Reclassification.* For comparative purposes, certain prior year amounts have been reclassified to conform with the current year presentation.

## 2. Acquisitions and Divestitures

*Sossego Divestiture.* In October 2001, Phelps Dodge and Companhia Vale do Rio Doce (CVRD) entered into an agreement in which Phelps Dodge sold to CVRD, through CVRD's subsidiary, Itabira Rio Doce Company Limited (ITACO), its 50 percent stake in the joint-venture company, Mineração Serra do Sossego S.A., for \$42.5 million in cash. The joint venture has conducted exploration and feasibility studies for the potential development of the Sossego copper-gold deposit in the Carajás region of Brazil. In connection with the sale, the Company recognized a gain of \$39.9 million (before and after taxes).

*Alcoa Fios e Cabos Electricos Acquisition.* In January 2001, Alcoa Alumínio, S.A. exercised a put option that required Phelps Dodge to acquire an additional 40 percent interest in Alcoa Fios e Cabos Electricos, S.A., our wire and cable facility in Brazil, in which we already held a 60 percent interest. The transaction closed in March 2001. The final settlement price of \$44.8 million was allocated to goodwill (\$13.0 million), fixed assets (\$3.2 million), other net assets (\$1.3 million) and minority interests in consolidated subsidiaries (\$27.3 million).

*Columbian Hungary Acquisition.* In the second quarter of 2000, we acquired the remaining 40 percent share in the carbon black manufacturing business of Columbian Tiszai Carbon Ltd. in Hungary, bringing our total interest to 100 percent. The final settlement price of \$19.0 million was allocated to minority interests in consolidated subsidiaries (\$11.4 million) and other assets and liabilities (\$7.6 million), which was primarily fixed assets.

*Cyprus Amax Acquisition.* In the 1999 fourth quarter, Phelps Dodge acquired all the issued and outstanding shares of Cyprus Amax Minerals Company (Cyprus Amax). The acquisition of Cyprus Amax was accounted for using the purchase method and accordingly, the results of Cyprus Amax operations have been included in the accompanying consolidated financial statements from the date of the acquisition, October 16, 1999.

The total purchase price for Cyprus Amax was \$1,858 million including \$1,125 million for the issuance of 20.6 million shares of Phelps Dodge common stock, \$10 million for the conversion of Cyprus Amax stock options, cash of \$693 million and acquisition costs of \$30 million (financial, advisory, legal, accounting and printing costs). In addition, certain acquisition-related stock compensation and the resulting tax obligations of Cyprus Amax of \$29 million were recorded in purchase accounting and paid by Phelps Dodge.

Allocation of the purchase price was based on an estimate of the fair value for the assets acquired and liabilities assumed at October 16, 1999. Assets acquired were \$4.6 billion and liabilities assumed were \$2.8 billion (including \$1.6 billion of assumed debt).

On March 30, 2000, we sold Cyprus Australia Coal Company, acquired in the Cyprus Amax acquisition, to Glencore Coal Australia Pty. Ltd., a subsidiary of Switzerland-based Glencore International AG, for approximately \$150 million in cash with no gain or loss being realized.

The unaudited pro forma information set forth below is presented to show the estimated effect of the acquisition on the consolidated operations of Phelps Dodge had it been consummated at the beginning of the period, after giving effect to certain adjustments, including additional depreciation and amortization of assets acquired. The pro forma financial information gives effect to Cyprus Amax's disposition of its coal segment in 1999, prior to the merger. Accordingly, the operating results and resulting loss of this segment have been excluded from income (loss) from continuing operations and included in net income (loss).

Pro Forma	Year ended December 31, 1999 (Unaudited)	
Revenue.....	\$	4,018
Loss from continuing operations.....	\$	(419)
Net loss.....	\$	(449)
Loss per share		
Loss from continuing operations.....	\$	(5.32)
Net loss.....	\$	(5.71)

The unaudited pro forma financial information is provided for illustrative purposes only and does not purport to represent what the actual consolidated results of operations of Phelps Dodge would have been had the acquisition of Cyprus Amax occurred on the date presented, nor is it necessarily indicative of future consolidated operating results. The pro forma adjustments do not include operating efficiencies or cost savings.

**KKPC Acquisition.** In January 1999, we acquired an 85 percent interest in the Korean carbon black manufacturing business of Korea Kumho Petrochemical Co., Ltd. Our Columbian Chemicals Company subsidiary manages and operates the business, including the 110,000 metric-ton-per-year manufacturing plant located in Yosu, South Korea. The final settlement price of \$76.1 million was allocated to net assets (\$97.7 million), which included \$6.5 million of goodwill, partially offset by liabilities (\$8.2 million) and minority interests in consolidated subsidiaries (\$13.4 million).

### 3. Special Items and Provisions

The following schedule summarizes special items and provisions for the year ended December 31, 2001:

<u>Statement of Consolidated Operations Line Item</u>	<u>Pre-tax Earnings</u>	<u>After-tax Earnings</u>
<b>Special items and provisions, net:</b>		
PD Mining -		
Restructuring programs.....	\$ (27.1)	(27.1)
Environmental provisions.....	(14.9)	(14.9)
Gain on sale of Sossego.....	<u>39.9</u>	<u>39.9</u>
	(2.1)	(2.1)
PD Industries -		
Restructuring programs.....	(1.4)	(1.4)
Hopkinsville facility write-down.....	<u>(3.3)</u>	<u>(3.3)</u>
	(4.7)	(4.7)
Corporate and other -		
Restructuring programs.....	(1.3)	(1.3)
Environmental provisions.....	(16.2)	(16.2)
Environmental insurance recoveries, net.....	61.8	61.8
Other.....	<u>(5.9)</u>	<u>(5.9)</u>
	<u>38.4</u>	<u>38.4</u>
	31.6	31.6
<b>Miscellaneous income and expense, net:</b>		
Impairment loss on investments.....	(12.9)	(12.9)
Other.....	<u>5.8</u>	<u>5.8</u>
	<u>(7.1)</u>	<u>(7.1)</u>
<b>Cumulative effect of accounting change ...</b>	<u>(2.0)</u>	<u>(2.0)</u>
Total .....	\$ <u>22.5</u>	<u>22.5</u>

During 2001, we recorded charges of \$29.8 million (before and after taxes) for restructuring programs comprising \$27.1 million (before and after taxes) at PD Mining, \$1.4 million (before and after taxes) at PD Industries and \$1.3 million (before and after taxes) at Corporate. These charges comprised an \$11.3 million charge primarily for employee severance and benefit costs associated with restructuring of our professional, administrative and operations support functions, as well as various other operational improvement initiatives, and an \$18.5 million net charge for employee reductions and facility closures associated with announced production curtailments resulting from the economic environment. The restructuring programs consist of changes in copper operations that will lead to curtailment of approximately 220,000 metric tons of copper production annually (including our partner's share) and curtailment of 54,000 metric tons of North American carbon black production annually in 2002. These actions resulted in the layoff of approximately 1,600 employees mostly in January 2002. The Chino and Miami mines were temporarily closed, the

Bagdad and Sierrita mines are operating at one-half capacity, the Chino smelter and the Miami refinery were temporarily closed, and Columbian Chemicals Company temporarily closed its El Dorado, Arkansas, facility.

A net charge for environmental provisions of \$31.1 million (before and after taxes) was recognized for closed facilities and closed portions of operating facilities. (Refer to Note 18 for further discussion of environmental matters.)

A gain of \$39.9 million (before and after taxes) was recognized from the sale of our 50 percent interest in the Sossego project.

A \$3.3 million (before and after taxes) charge was taken to write down the closed Hopkinsville, Kentucky, magnet wire facility to its net realizable value.

Net insurance recoveries of \$61.8 million (before and after taxes) were received from settlements reached with several insurance companies on historic environmental liability claims. In addition, there was a \$5.9 million charge (before and after taxes) related to other net special items recognized in 2001.

Special charges in miscellaneous income and expense in 2001 included a \$12.9 million (before and after taxes) charge to recognize the impairment of our investment in Compañía San Ignacio de Morococha S.A. (SIMSA), a Peruvian zinc mine, and the Piedres Verdes project in Sonora, Mexico. Additionally, a \$5.8 million (before and after taxes) charge was recognized for other net special items, which was primarily \$4.3 million (before and after taxes) of interest income on prior years' tax refunds.

A \$2.0 million (before and after taxes) charge was recorded for the cumulative effect of accounting change arising from the implementation of SFAS Nos. 133 and 138. (Refer to Note 1 under New Accounting Standards for further discussion.)

The following schedule presents a roll-forward of the current liabilities incurred in connection with the 2001 restructuring programs.

	2001 Provision*	(Payments/ Deductions)**	December 31, 2001
<b>PD Mining:</b>			
Employee severance and relocation .....	\$ 13.3	(3.9)	9.4
Mothballing/take or pay contracts.....	<u>8.7</u>	<u>(0.4)</u>	<u>8.3</u>
	<u>22.0</u>	<u>(4.3)</u>	<u>17.7</u>
<b>PD Industries:</b>			
<b>Specialty Chemicals</b>			
Disposal & dismantling .....	0.6	(0.1)	0.5
Employee severance and relocation .....	<u>0.8</u>	<u>-</u>	<u>0.8</u>
	<u>1.4</u>	<u>(0.1)</u>	<u>1.3</u>
<b>Corporate &amp; Other:</b>			
Employee severance and relocation .....	<u>0.9</u>	<u>(0.9)</u>	<u>-</u>
<b>Total .....</b>	<b>\$ <u>24.3</u></b>	<b><u>(5.3)</u></b>	<b><u>19.0</u></b>

\* Additions exclude \$6.3 million of pension and other postretirement charges for the second quarter 2001 restructuring, included in long-term liabilities.

\*\* Of the \$5.3 million in payments, \$4.1 million relates to payments for the second quarter 2001 restructuring.

The following schedule summarizes special items and provisions for the year ended December 31, 2000:

<u>Statement of Consolidated Operations Line Item</u>		
	<u>Pre-tax Earnings</u>	<u>After-tax Earnings</u>
<b>Special items and provisions, net:</b>		
PD Mining -		
Mining curtailments.....	\$ (5.8)	(3.8)
PD Industries -		
Wire & cable closure/impairments.....	(38.7)	(35.3)
Restructuring programs.....	(7.3)	(4.5)
	<u>(46.0)</u>	<u>(39.8)</u>
	<u>(51.8)</u>	<u>(43.6)</u>
<b>Cost of products sold:</b>		
PD Industries -		
Wire & cable working capital write-downs.....	(5.6)	(5.6)
<b>Miscellaneous income and expense, net:</b>		
Interest income on prior years' tax refunds....	5.8	3.6
Philippines investment impairment.....	(7.2)	(7.2)
Settlement of insurance claim.....	4.5	3.0
	<u>3.1</u>	<u>(0.6)</u>
<b>Provision for taxes on income:</b>		
Income tax refund.....	-	6.5
Total.....	\$ <u>(54.3)</u>	<u>(43.3)</u>

As a result of a plan to reduce operating costs and restructure operations at our mining and wire and cable segments during 2000, the Company recognized a special, pre-tax charge of \$57.4 million (\$49.2 million after-tax). This plan comprised the following actions: (i) curtailing higher-cost production at the Miami mine and reducing production at the Henderson molybdenum mine; (ii) ceasing production at two wire and cable plants in Venezuela; (iii) initiating the closure of a telephone cable operation in El Salvador; and (iv) an impairment of assets at our wire and cable operations in Austria.

We received a tax refund of \$6.5 million and related pre-tax interest income of \$5.8 million (\$3.6 million after-tax) resulting from the settlement of the Company's 1990 and 1991 income tax audits. Additionally, we recognized a \$7.2 million (before and after taxes) impairment charge related to our wire and cable operations in the Philippines.

A pre-tax \$4.5 million (\$3.0 million after-tax) settlement of a business interruption insurance claim by a former Cyprus Amax property was recognized as miscellaneous income.

The following schedule summarizes special items and provisions for the year ended December 31, 1999:

<u>Statement of Consolidated Operations Line Item</u>		
	<u>Pre-tax Earnings</u>	<u>After-tax Earnings</u>
<b>Special items and provisions, net:</b>		
PD Mining -		
Asset impairments.....	\$ (320.4)	(202.3)
Environmental provisions.....	(28.2)	(17.8)
Restructuring programs.....	(36.6)	(26.7)
	<u>(385.2)</u>	<u>(246.8)</u>
PD Industries -		
Asset impairments.....	(11.9)	(11.9)
Restructuring programs.....	(58.1)	(39.6)
	<u>(70.0)</u>	<u>(51.5)</u>
Corporate -		
Restructuring programs.....	(0.2)	-
	<u>(455.4)</u>	<u>(298.3)</u>
<b>Miscellaneous income and expense, net:</b>		
Impairment loss on investments.....	(11.6)	(11.6)
<b>Provision for taxes on income*</b> .....		
	-	30.0
<b>Minority interests in consolidated subsidiaries**</b> .....		
	3.9	3.9
<b>Cumulative effect of accounting change</b> .....		
	(4.9)	(3.5)
Total.....	\$ <u>(468.0)</u>	<u>(279.5)</u>

\* Reflects adjustment to prior year's taxes.

\*\* Reflects \$1.5 million for asset impairments and \$2.4 million for restructuring programs.

During 1999, we recorded special, pre-tax charges for asset impairments of \$320.4 million at PD Mining and \$11.9 million at PD Industries. The PD Mining impairments included the writedown of the Hidalgo smelter (\$201.5 million) and the Metcalf concentrator at the Morenci operations (\$88.0 million). As a result of the successful acquisition of Cyprus Amax and the planned conversion of Morenci to a mine-for-leach operation, the Hidalgo smelter is expected to be reconfigured to allow it to continue to be a reliable source of acid. Management also determined that the Metcalf concentrator, which was on care-and-maintenance status, would thereafter be permanently closed and the Morenci concentrator, which will be required through the mine-for-leach start-up, subsequently will be placed on care-and-maintenance status to provide alternative processing capability.

The acquisition of Cyprus Amax necessitated a review of the combined Company's resources, particularly those in the southwestern United States where the acquisition added 2.1 billion tons of proven and probable copper ore reserves to the existing 4.8 billion tons. This review of the combined Company's mineral resources included an assessment of the capital requirements to develop individual resources, the investment returns associated with the exploitation of individual resources and the optimal utilization of smelting and refining facilities. The resulting analysis indicated that the mineral resources at the Copper Basin property and a portion of the Tyrone property had been marginalized by the acquisition of the Cyprus Amax mineral resources. Management's assessment of the combined mineral resources in the southwestern United States indicated that it would be unlikely that the Copper Basin mine project and a portion of the Tyrone mine project would ever be fully exploited given the low investment returns available at these projects relative to the other mineral resources controlled by the Company. As a result of this decision, the Company recorded impairment charges of \$18.7 million.

The Company's review of its combined assets and strategic focus resulted in an in-depth review of all significant assets and the related business plans. In conjunction with this review, senior management decided that the development of real estate venues on Company-owned land was not considered to be a core business. Accordingly, also in the fourth quarter of 1999, the entire carrying value of \$12.2 million for such properties was considered to be impaired.

PD Industries impairment charge of \$11.9 million was for the impairment of the wire and cable business international telecommunications assets. The minority interest add-back against the impairment totaled \$1.5 million.

The Company also recognized a special, pre-tax charge of \$28.2 million for estimated future costs associated with environmental matters applicable to PD Mining. (Refer to Note 18 for further discussion of environmental matters.)

Earlier in 1999, we initiated a plan to reduce costs and improve operating performance at all of our business segments by (i) curtailing higher cost copper production by temporarily closing our Hidalgo smelter and the Metcalf concentrator, as well as curtailing production by 50 percent at our copper refinery in El Paso; (ii) selling a non-core South African fluorspar mining unit; (iii) restructuring certain wire and cable assets to respond to changing market conditions; and (iv) suspending operations at Columbian Chemicals Company's carbon black plant in the Philippines. These actions resulted in a total restructuring, pre-tax charge of \$94.9 million (\$66.3 million after-tax) in 1999.

Miscellaneous income and expense in 1999 included an \$11.6 million charge to recognize the impairment

of our investments in China (\$6.7 million), the Philippines (\$3.1 million) and Cobre Colada (\$1.8 million).

The following schedule presents a roll-forward from December 31, 2000, of the liabilities incurred in connection with the 2000 and 1999 restructuring programs, which were reflected as current liabilities in our consolidated balance sheet.

	December 31, 2000	(Payments/ Deductions)	December 31, 2001
<b>PD Mining:</b>			
Employee severance.....	\$ 2.0	(1.8)	0.2
Mothballing/take or pay contracts.....	<u>2.5</u>	<u>(1.1)</u>	<u>1.4</u>
	<u>4.5</u>	<u>(2.9)</u>	<u>1.6</u>
<b>PD Industries:</b>			
<b>Wire and Cable</b>			
Employee severance and relocation .....	0.4	(0.4)	-
Take or pay contracts .....	2.0	(0.9)	1.1
Plant removal and dismantling .....	<u>3.8</u>	<u>(1.7)</u>	<u>2.1</u>
	<u>6.2</u>	<u>(3.0)</u>	<u>3.2</u>
<b>Specialty Chemicals</b>			
Disposal & dismantling .....	1.3	(1.0)	0.3
Environmental.....	<u>0.7</u>	<u>(0.1)</u>	<u>0.6</u>
	<u>2.0</u>	<u>(1.1)</u>	<u>0.9</u>
	<u>8.2</u>	<u>(4.1)</u>	<u>4.1</u>
Total .....	\$ <u>12.7</u>	<u>(7.0)</u>	<u>5.7</u>

#### 4. Investments and Long-Term Receivables

Investments and long-term receivables at December 31 were as follows:

	<u>2001</u>	<u>2000</u>
<b>Equity basis:</b>		
International wire & cable manufacturers.....	\$ 4.9	4.8
SIMSA 26.6% (Peruvian zinc mining company)*.....	-	11.3
Port Carteret (50%).....	23.0	21.7
Other.....	6.2	7.7
<b>Cost basis and notes receivable:</b>		
Southern Peru Copper Corporation (14.0%).....	13.2	13.2
Long-term bond investments .....	20.7	16.9
Other cost basis investments.....	21.0	16.8
Notes receivable and other.....	16.3	17.7
	<u>\$ 105.3</u>	<u>110.1</u>

\* Refer to Note 5, Miscellaneous Income and Expense, Net, for further discussion.

Equity earnings (losses) were as follows (in millions): 2001 - (\$0.3); 2000 - \$1.5; 1999 - \$5.1.

Dividends from equity basis investments were received as follows (in millions): 2001 - \$1.4; 2000 - \$2.5; 1999 - \$0.7.

Our retained earnings include undistributed earnings of equity basis investments of (in millions): 2001 - \$65.2; 2000 - \$66.9; 1999 - \$67.9.

Condensed financial information for our equity basis investments at December 31, for the years noted, was as follows:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Sales .....	\$ 109.7	119.2	162.8
Net income (loss) .....	\$ 3.1	(7.8)	1.1

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Net current assets .....	\$ 14.8	3.2	49.7
Fixed assets, net .....	62.9	90.5	152.2
Long-term debt .....	(7.3)	(11.6)	(37.9)
Other assets and liabilities, net.....	(1.0)	21.8	(4.3)
Net assets.....	<u>\$ 69.4</u>	<u>103.9</u>	<u>159.7</u>

#### 5. Miscellaneous Income and Expense, Net

Miscellaneous income and expense, net for the years ended December 31 were as follows:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Interest income .....	\$ 23.3	19.5	17.9
Investment impairments *.....	(12.9)	(7.2)	(11.6)
Asarco merger termination (net of related expenses).....	-	-	14.0
Southern Peru Copper Corporation dividend (14.0% minority interest) .....	4.0	3.8	1.7
Interest on IRS refund.....	4.3	5.8	-
Gain on sale of Australian iron ore royalties.....	-	4.7	-
Willow Creek insurance settlement .....	1.5	4.5	-
Foreign currency exchange loss.....	(1.2)	(1.5)	(13.0)
Rabbi trust mark-to-market .....	(3.3)	(0.2)	-
Miscellaneous non-operating expenses.....	(7.7)	(3.6)	(0.8)
Royalties and rental income.....	2.7	1.3	0.8
Other.....	(2.6)	2.9	0.1
	<u>\$ 8.1</u>	<u>30.0</u>	<u>9.1</u>

\* Impairment of investment in SIMSA (\$9.1 million) and Equatorial Mining (\$3.8 million) during 2001, PD Philippines (\$7.2 million) during 2000, and Cobre Colada (\$1.8 million), PD Philippines (\$3.1 million) and PD Yantai (\$6.7 million) during 1999.

#### 6. Income Taxes

We use the balance sheet approach for accounting and reporting income taxes, whereby the classification of deferred income taxes is determined by the balance sheet classification of the related asset or liability.

Geographic sources of income (loss) before taxes, minority interests and equity in net earnings (losses) of affiliated companies for the years ended December 31 were as follows:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
United States .....	\$ (305.2)	42.4	(408.4)
Foreign .....	42.5	11.3	(18.3)
	<u>\$ (262.7)</u>	<u>53.7</u>	<u>(426.7)</u>

The provision (benefit) for income taxes for the years ended December 31 were as follows:

	2001	2000	1999
Current:			
Federal .....	\$ 6.0	(12.8)	1.3
State .....	(6.2)	2.3	0.2
Foreign.....	14.3	16.9	23.8
	<u>14.1</u>	<u>6.4</u>	<u>25.3</u>
Deferred:			
Federal .....	(13.4)	4.1	(187.3)
State .....	(0.5)	(1.0)	(8.0)
Foreign.....	5.7	9.7	3.6
	<u>(8.2)</u>	<u>12.8</u>	<u>(191.7)</u>
Deferred taxes on start-up costs .....	-	-	1.2
	<u>\$ 5.9</u>	<u>19.2</u>	<u>(165.2)</u>

A reconciliation of the U.S. statutory tax rate to our effective tax rate was as follows:

Expense (benefit)	2001	2000	1999
Statutory tax rate .....	(35.0) %	35.0	(35.0)
Depletion .....	(1.8)	(48.4)	(1.4)
State and local income taxes .....	(2.6)	2.3	(1.8)
Effective international tax rate .....	7.6	9.0	0.8
Adjustments to prior years.....	(2.8)	(12.0)	(6.8)
Valuation allowance.....	37.3	42.8	4.6
Non-deductible goodwill.....	0.4	2.2	0.3
Other items, net .....	(0.9)	4.9	0.3
Effective tax rate .....	<u>2.2</u> %	<u>35.8</u>	<u>(39.0)</u>

We paid federal, state, local and foreign income taxes of approximately \$43 million in 2001, compared with approximately \$75 million in 2000 and \$31 million in 1999.

We received refunds of federal, state, local and foreign income taxes of approximately \$36 million in 2001, compared with approximately \$78 million in 2000 and \$2 million in 1999.

At December 31, 2001, we had alternative minimum tax credits of approximately \$318 million available for carryforward for U.S. federal income tax purposes. These credits can be carried forward indefinitely, but may only be used to the extent the regular tax exceeds the alternative minimum tax in any given year. The Company also has Venezuelan business assets tax credits of \$2 million expiring from 2002 to 2004. The business assets tax is an alternative tax that is paid when it is greater than the income tax, but may be carried forward for three years and used as a credit against future income tax liabilities.

The Company has alternative minimum tax foreign tax credit carryforwards for federal income tax purposes of approximately \$21 million expiring from 2002 to 2005.

The Company has U.S. net operating loss carryforwards for regular tax purposes of \$978 million expiring from 2002 to 2021, Venezuelan net operating loss carryforwards of \$91 million expiring from 2002 to 2004, and Chilean net operating loss carryforwards of \$442 million that do not expire. The Company also has Peruvian net operating loss carryforwards of \$14 million that may be carried forward and utilized in the first year the Company has taxable profits following the loss year as well as the subsequent three years. The U.S. losses include \$377 million of Cyprus Amax U.S. net operating loss carryforwards that are subject to annual limitations on their usage after the October 1999 acquisition. The annual limitation on the utilization of these losses is approximately \$98 million. The Company also has U.S. alternative minimum tax net operating loss carryforwards of approximately \$652 million expiring from 2018 to 2021.

The Company has \$218 million of U.S. capital loss carryforwards that expire in 2004 and 2005. Capital loss carryforwards may only be used to offset net capital gains in the carryforward periods. These losses include \$122 million of Cyprus Amax capital loss carryforwards that are subject to annual limitations on their usage after the acquisition.

A valuation allowance of \$409 million has been recorded against all of these benefits. The Company has established a valuation allowance for certain deferred tax assets that management believes, more likely than not, will not be realized. A full valuation allowance has been provided against U.S. capital loss carryforwards and Venezuelan tax loss carryforwards because the ultimate realization of these deferred tax assets depends on our ability to generate sufficient capital gain and taxable income in the future. The remaining valuation allowance primarily relates to carryforwards of U.S. tax losses and alternative minimum tax credits. The increase in the valuation allowance during 2001 is due primarily to the increase in U.S. tax loss carryforwards and alternative minimum tax credits.

The Cyprus Amax federal income tax returns for the years 1997 through 1999 and the Phelps Dodge federal income tax returns for the years 1998 and 1999 are currently under examination by the Internal Revenue Service. Our management believes that it has made adequate provision so that resolution of any issues raised, including application of those determinations to subsequent open years, will not have an adverse effect on our consolidated financial condition or results of operations.

Deferred income tax assets (liabilities) comprised the following at December 31:

	<u>2001</u>	<u>2000</u>
Minimum tax credits .....	\$ 317.9	288.6
Postretirement and postemployment benefits .....	115.8	114.5
Environmental, closure and other reserves .....	180.6	173.7
Mining costs .....	89.0	81.0
NOL carryovers .....	444.6	336.0
Capital loss carryovers .....	76.5	74.1
Other .....	<u>22.8</u>	<u>22.6</u>
Deferred tax assets .....	1,247.2	1,090.5
Valuation allowance .....	<u>(409.2)</u>	<u>(280.2)</u>
Net deferred tax assets .....	<u>838.0</u>	<u>810.3</u>
Exploration and mine development costs .....	(97.3)	(98.4)
Depreciation .....	(943.8)	(927.0)
Mining properties .....	(70.0)	(70.0)
Pensions .....	<u>(23.0)</u>	<u>(19.3)</u>
Deferred tax liabilities .....	<u>(1,134.1)</u>	<u>(1,114.7)</u>
	\$ <u>(296.1)</u>	<u>(304.4)</u>

Income taxes have not been provided on our share (\$571 million) of undistributed earnings of international manufacturing and mining interests over which we have sufficient influence to control the distribution of such earnings and have determined that such earnings have been reinvested indefinitely. These earnings could become subject to additional tax if they were remitted as dividends, if foreign earnings were lent to any of our U.S. entities, or if we sell our stock in the subsidiaries. It is estimated that repatriation of these earnings would generate additional foreign tax withholdings and U.S. tax of \$79 million and \$8 million, respectively.

## 7. Inventories and Supplies

Inventories at December 31 were as follows:

	<u>2001</u>	<u>2000</u>
Metals and other raw materials .....	\$ 374.9	373.8
Work in process .....	11.4	10.6
Finished manufactured goods .....	64.5	64.4
Other .....	<u>1.0</u>	<u>2.7</u>
	\$ <u>451.8</u>	<u>451.5</u>

Inventories valued by the last-in, first-out method would have been greater if valued at current costs by approximately \$112 million and \$109 million at December 31, 2001 and 2000, respectively.

Supplies in the amount of \$150.3 million and \$151.2 million at December 31, 2001 and 2000, respec-

tively, are stated net of a reserve for obsolescence of \$27.2 million and \$24.2 million, respectively.

## 8. Property, Plant and Equipment

Property, plant and equipment at December 31 comprised the following:

	<u>2001</u>	<u>2000</u>
Buildings, machinery and equipment .....	\$ 7,072.8	6,939.0
Mining properties and capitalized mine development .....	1,823.7	1,831.0
Land and water rights .....	<u>158.4</u>	<u>156.9</u>
	9,054.9	8,926.9
Less accumulated depreciation, depletion and amortization .....	<u>3,389.3</u>	<u>3,032.3</u>
	\$ <u>5,665.6</u>	<u>5,894.6</u>

## 9. Other Assets and Deferred Charges

Other assets and deferred charges at December 31 were as follows:

	<u>2001</u>	<u>2000</u>
Goodwill, less accumulated amortization (2001 - \$42.9; 2000 - \$37.1) .....	\$ 143.1	154.6
Employee benefit plans .....	108.9	79.1
Debt issue costs .....	27.6	18.5
Other .....	<u>7.8</u>	<u>21.2</u>
	\$ <u>287.4</u>	<u>273.4</u>

## 10. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses at December 31 were as follows:

	<u>2001</u>	<u>2000</u>
Accounts payable .....	\$ 287.3	265.9
Salaries, wages and other compensation .....	54.9	44.9
Employee benefit plans .....	34.3	41.6
Insurance reserves .....	24.9	14.9
Environmental reserves** .....	46.9	62.2
Smelting, refining and freight .....	40.1	35.7
Other accrued taxes .....	31.3	34.5
Closure reserves* .....	11.2	30.9
Accrued utilities .....	16.4	23.0
Interest** .....	32.8	32.7
Returnable containers .....	5.4	8.0
Other .....	88.2	75.5
	<u>\$ 673.7</u>	<u>669.8</u>

\* Short-term portion of these reserves. Please refer to Note 11 for long-term portion of reserves and Note 18, Contingencies, for further discussion.

\*\* Interest paid by the Company in 2001 was \$233.1 million compared with \$200.6 million in 2000 and \$121.0 million in 1999.

## 11. Other Liabilities and Deferred Credits

Other liabilities and deferred credits at December 31 were as follows:

	<u>2001</u>	<u>2000</u>
Pension, postretirement and postemployment benefit plans* .....	\$ 412.6	412.9
Environmental reserves** .....	264.3	244.9
Insurance reserves .....	36.6	16.9
Closure reserves** .....	118.9	104.1
Swap contracts - fair value .....	20.7	-
Other .....	21.1	35.4
	<u>\$ 874.2</u>	<u>814.2</u>

\* Please refer to Note 15, Pension Plans and Note 16, Postretirement and Other Employee Benefits Other Than Pensions, for further discussion.

\*\* Please refer to Note 10 for short-term portion of reserves and Note 18, Contingencies, for further discussion.

## 12. Debt and Other Financing

Debt at December 31 is summarized below:

	<u>2001</u>	<u>2000</u>
10.125% Notes due 2002 .....	\$ 150.9	154.6
9.875% Notes due 2001 .....	-	92.5
9.50% Notes due 2031 .....	280.1	-
8.75% Notes due 2011 .....	635.7	-
8.375% Debentures due 2023 .....	151.2	151.2
7.75% Notes due 2002 .....	-	100.0
7.375% Notes due 2007 .....	240.5	238.7
7.125% Debentures due 2027 .....	150.0	150.0
6.625% Notes due 2005 .....	239.4	236.6
6.375% Notes due 2004 .....	100.0	100.0
Air Quality Control Obligations:		
5.45% Notes due 2009 .....	81.1	81.1
6.50% Installment sale obligations due 2013 .....	90.0	90.0
Candelaria Project Financing .....	202.9	236.8
Columbian Chemicals Korea .....	15.0	-
Columbian Tiszai Carbon Ltd. (Hungary) .....	10.2	15.2
Columbian Carbon Spain, S.A. ....	-	1.6
Columbian Chemicals Canada .....	2.1	4.4
Phelps Dodge Wire and Cable Group .....	8.0	14.5
Cyprus Amax Chile Ltd. ....	10.0	-
Phelps Dodge Dublin .....	5.0	5.0
Capital lease obligations .....	13.7	16.4
El Abra Project Financing .....	295.3	348.9
Cerro Verde Project Financing .....	72.0	82.0
Various Pollution Control and Industrial Development Revenue Bonds .....	36.5	41.7
Cerro Verde Bank Loan, due 2004 .....	2.0	8.0
Other .....	0.1	0.3
Debt and capital lease obligations, including current portion .....	2,791.7	2,169.5
Less current portion .....	(269.7)	(206.5)
Debt excluding current portion .....	<u>\$ 2,522.0</u>	<u>1,963.0</u>

The amounts included above are shown net of unamortized discounts and purchase price adjustments of \$20.6 million and \$17.7 million at December 31, 2001 and 2000, respectively.

The following is a schedule of future maturities of long-term debt at December 31, 2001:

	Corporate	Project and Subsidiary Debt Financing	Total
2002 .....	\$ 155.1	114.6	269.7
2003 .....	3.0	141.4	144.4
2004 .....	111.5	119.2	230.7
2005 .....	252.8	97.1	349.9
2006 .....	1.5	79.6	81.1
Thereafter .....	1,655.2	60.7	1,715.9
	<u>\$ 2,179.1</u>	<u>612.6</u>	<u>2,791.7</u>

The revolving credit agreement between the Company and several lenders that became effective on May 10, 2000, remains in effect. The facility is to be used for general corporate purposes. The agreement permits borrowings of up to \$1 billion from time to time until its scheduled maturity on May 10, 2005. The agreement allows for one-year extensions of the maturity date under certain conditions subject to the approval of lenders holding at least a majority of the commitments. In the event of such approval, total commitments under the agreement may total less than \$1 billion depending upon the willingness of the approving and other lenders to assume the commitments of those lenders electing not to participate in the renewal. Under the agreement, interest is payable at a variable rate based on the agent bank's prime rate or at a fixed rate, based on the LIBOR or at fixed rates offered independently by the several lenders, for maturities of up to 360 days. This agreement provides for a facility fee (currently 22.5 basis points (0.225 percent)) ranging from 9 basis points to 35 basis points (depending on our public debt rating) on total commitments. The agreement requires us to maintain a minimum consolidated tangible net worth of \$1.5 billion and limits indebtedness to 60 percent of total consolidated capitalization. There were no borrowings under the current agreement at December 31, 2001, or at December 31, 2000.

We established a commercial paper program on August 15, 1997, under a private placement agency agreement between two placement agents and us. The agreement permits us to issue up to \$1 billion of short-term promissory notes (generally known as commercial paper) at any time. Commercial paper may bear interest or be sold at a discount, as mutually agreed by the placement agents and us at the time of each issuance. Our commercial paper program requires that issuances of commercial paper be backed by an undrawn line of credit; the revolving credit agreement described above provides such support. At our current short-term credit ratings (A-3 by Standard and Poor's and P-3 by Moody's), market demand for our commercial paper is extremely limited. Borrowings under this commercial paper program were zero at December 31, 2001, and \$467.9 million at December 31, 2000.

Short-term borrowings were \$59.3 million, all by our international operations, at December 31, 2001, compared with \$518.2 million (including \$467.9 million under our commercial paper program) at December 31, 2000.

The weighted average interest rate on total short-term borrowings at December 31, 2001, and December 31, 2000, was 5.3 percent and 6.5 percent, respectively.

On May 24, 2001, we issued \$625 million of 8.75 percent notes maturing on June 1, 2011, and \$275 million of 9.5 percent notes maturing on June 1, 2031, under an indenture dated September 22, 1997 between the Company

and First Union National Bank, as successor trustee. Net proceeds received were approximately \$891 million. Interest on these notes is payable semi-annually on June 1 and December 1 of each year. These notes are redeemable in whole or in part, at the option of the Company, at a redemption price equal to any accrued and unpaid interest plus the greater of (i) 100 percent of the principal amount of the notes to be redeemed and (ii) the sum of the present values of the remaining scheduled payments discounted to the redemption date, on a semi-annual basis, at the yield of a U.S. Treasury security having a comparable maturity to the remaining term of the notes plus, in the case of the notes due 2011, 45 basis points and, in the case of the notes due 2031, 50 basis points. The notes are not entitled to any sinking fund. We applied proceeds from the sale of these notes to repay corporate short-term borrowings and current maturities of long-term debt.

On December 31, 2001, we retired the 7.75 percent Notes due January 1, 2002, in their entirety by depositing cash in an amount equal to all accrued and unpaid interest through the maturity date plus the outstanding principal amount with Chase Manhattan Bank and Trust Company, the trustee, and by meeting all other requirements of defeasance.

The 10.125 percent Notes, due in 2002, bear interest payable semi-annually on April 1 and October 1. In the event of a rating decline occurring within 90 days of certain designated events (which, to the extent beyond our control, generally involve a change of or contest for control), each holder of a note may require the Company to redeem the holder's notes, in whole or in part, at 100 percent of the principal amount plus accrued interest to the date of redemption. Otherwise, the notes are not redeemable by the Company prior to maturity.

The 8.375 percent Debentures, due in 2023, bear interest payable semi-annually on February 1 and August 1. The debentures are not redeemable prior to February 1, 2003. On or after that date, at the option of the Company, the debentures may be redeemed in whole or in part at 103.73 percent of the principal amount, together with any accrued and unpaid interest, declining at the rate of 0.375 percent per year to February 1, 2013, and at 100 percent on February 1, 2013, and thereafter. In the event of a rating decline occurring within 90 days (subject to extension under limited circumstances) of certain designated events (which, to the extent beyond our control, generally involve a change of or contest for control), each holder of a note may require the Company to redeem the holders' notes, in whole or in part, at 100 percent of the principal amount plus accrued interest to the date of redemption. Rating declines that occur at any other time do not trigger an obligation to redeem any such notes. The notes are not redeemable by the Company prior to maturity.

The 7.375 percent Notes, due May 15, 2007, bear interest payable semi-annually on May 15 and November 15. The 6.375 percent Notes, due in 2004, bear interest payable semi-annually on May 1 and November 1. These notes are not redeemable by the Company prior to maturity and will not be entitled to any sinking fund.

The 6.625 percent Notes, due October 15, 2005, bear interest payable semi-annually on October 15 and April 15. In the event of a rating decline occurring within 90 days of certain designated events (which, to the extent beyond our control, generally involve a change of or contest for control), each holder of a note may require the Company to redeem the holder's notes, in whole or in part, at 100 percent of the principal amount plus accrued interest to the date of redemption. Otherwise, the notes are not redeemable by the Company prior to maturity.

The 7.125 percent Debentures, due in 2027, bear interest payable semi-annually on May 1 and November 1. The notes are redeemable by the Company at any time prior to maturity at par plus a yield maintenance premium.

As of December 31, 2001, our 80 percent-owned joint venture interest in Candelaria mining operation in Chile had project debt outstanding of \$202.9 million. The debt comprises \$180.2 million of floating-rate, dollar-denominated debt and \$22.7 million of fixed-rate, dollar-denominated debt. The debt and repayments are scheduled to vary from period to period with all debt maturing by the year 2008. Candelaria did not borrow funds in 2001, and prepaid an intercompany loan with the Corporation totaling \$85.2 million in September 2001. The floating-rate debt is tied to six-month LIBOR, but has been converted to fixed-rate debt with the use of interest rate swap agreements. At December 31, 2001, the overall weighted average interest rate including the interest rate swap was 7.76 percent. The debt obligations and the interest rate swaps are non-recourse to us. Under the proportional consolidation method, the debt amounts listed above represent our 80 percent share.

At year-end 2001, our 51 percent-owned joint venture interest in El Abra mining operation had outstanding project-financing debt of \$295.3 million. This debt has two components: (i) a syndicated loan facility with two tranches totaling \$251.0 million (Tranche A: \$191.9 million; Tranche B: \$59.1 million); and (ii) a trade-related facility with a German institution totaling \$44.3 million. The Company currently has guarantees outstanding of \$115.8 million on this project debt (including its share of Tranche B debt, as well as Corporación Nacional del Cobre de Chile's (CODELCO) share. The debt has a 9.5-year term, due May 15, 2007, and requires semi-annual principal payments that began on May 15, 1998. A portion of the floating-rate debt has been converted to fixed-rate debt with the use of interest rate swap agreements. The weighted average interest rate

including the interest rate swaps on this debt at December 31, 2001, was 5.93 percent. The loan agreement specifies certain restrictions on additional borrowings by El Abra and on dividend and subordinated debt payments. Under the proportional consolidation method, the debt amounts listed above represent our 51 percent share.

On December 31, 2001, our Cerro Verde mine had a total of \$72.0 million in project debt comprising two tranches, a \$42.0 million facility that requires semi-annual installments of varying amounts through April 1, 2005 (Tranche A), and a \$30.0 million revolving bullet loan due in the year 2003 (Tranche B). All of this facility is variable rate debt, with LIBOR as a base rate, but a portion has been converted to fixed-rate debt with the use of interest rate swap agreements. The weighted average interest rate including the interest rate swap on this debt at December 31, 2001, was 9.02 percent. The project debt is backed by proceeds from sales collections, plus a pledge of \$45 million in assets on the bullet loan. In addition, Cerro Verde has a subordinated loan facility, for up to \$34 million, that can be used and repaid whenever it has excess cash. The amount outstanding on the subordinated loan facility as of December 31, 2001, was \$2.0 million, compared with a balance outstanding of \$8.0 million as of December 31, 2000.

The various pollution control and industrial development revenue bonds are due from 2003 through 2009. The interest on the bonds is paid either quarterly or semi-annually at various times of the year. The interest rates on the bonds at December 31, 2001, ranged from 3.16 percent to 9.9 percent.

### **13. Shareholders' Equity**

As of December 31, 2001, there were 78.7 million shares outstanding and 1.7 million shares authorized for purchase. During 1999, we issued 20.6 million common shares along with a cash payment to acquire Cyprus Amax.

We have 6,000,000 authorized preferred shares with a par value of \$1.00 each; no shares were outstanding at either December 31, 2001, or December 31, 2000.

We have in place a Preferred Share Purchase Rights Plan that contains provisions to protect stockholders in the event of unsolicited offers or attempts to acquire Phelps Dodge, including acquisitions in the open market of shares constituting control without offering fair value to all stockholders and other coercive or unfair takeover tactics that could impair the board of directors' ability to represent the stockholders' interests fully.

#### 14. Stock Option Plans; Restricted Stock

Executives and other key employees have been granted options to purchase common shares under stock option plans adopted in 1987, 1993 and 1998. The option price equals the fair market value of the common shares on the day of the grant and an option's maximum term is 10 years. Options granted vest ratably over a three-year period.

If an optionee exercises an option under the 1987, 1993 or 1998 plan with already owned shares of the Company, the optionee receives a "reload" option that restores the option opportunity on a number of common shares equal to the number of shares used to exercise the original option. A reload option has the same terms as the original option except that it has an exercise price per share equal to the fair market value of a common share on the date the reload option is granted and is exercisable six months after the date of grant.

The 1998 plan provides (and the 1993 and 1987 plan provided) for the issuance to executives and other key employees, without any payment by them, of common shares subject to certain restrictions (Restricted Stock). There were 189,734 shares of Restricted Stock outstanding and 1,004,091 shares available for grant at December 31, 2001.

The 1997 Directors Stock Unit Plan provides to each non-employee director an annual grant of stock units having a value equivalent to our common shares. This plan replaced the 1989 Directors Stock Option Plan.

At December 31, 2001, 1,057,605 shares were available for option grants (including 1,004,091 shares as Restricted Stock awards) under the 1998 plan. These amounts are subject to future adjustment as described in the plan agreement. No further options may be granted under the 1993, 1989 or 1987 plans.

During 2001, 2000 and 1999, the Company awarded 11,700, 69,000 and 97,400 shares, respectively, of Restricted Stock under the 1998 plan, with weighted-average fair values at the date of grant of \$40.33, \$54.44 and \$57.29 per share, respectively. Compensation expense recorded in 2001, 2000 and 1999 for restricted stock was \$2.1 million, \$3.4 million and \$2.2 million, respectively. Restricted stock generally becomes fully vested in five years.

In addition, former Cyprus Amax stock options were converted to 1,870,804 Phelps Dodge options. These options retain the terms by which they were originally granted under the Cyprus Amax Management Incentive Program. These options carry a maximum term of 10 years and became fully vested upon the acquisition of Cyprus Amax in October 1999. Exercise periods ranged up to eight years at

acquisition. No further options may be granted under this plan.

Changes during 1999, 2000 and 2001 in options outstanding for the combined plans were as follows:

	Shares	Average option prices per share
Outstanding at December 31, 1998 .....	4,271,520	\$ 63.10
Granted .....	1,208,176	52.93
Cyprus Amax options converted .....	1,870,804	68.30
Exercised.....	(80,517)	48.53
Expired or terminated .....	<u>(65,190)</u>	64.24
Outstanding at December 31, 1999 .....	7,204,793	62.89
Granted .....	1,450,412	51.81
Exercised.....	(44,122)	42.86
Expired or terminated .....	<u>(431,247)</u>	64.65
Outstanding at December 31, 2000 .....	8,179,836	60.95
Granted .....	1,420,090	34.80
Exercised.....	(12,403)	40.30
Expired or terminated .....	<u>(468,670)</u>	60.73
Outstanding at December 31, 2001 .....	<u>9,118,853</u>	56.91

Options outstanding based on a range of exercise prices at December 31, 2001 were as follows:

Range of Exercise Prices	Options Outstanding	Average Remaining Term	Average Outstanding Option Price
\$ 27-40	1,650,622	9 years	\$ 34.39
40-60	3,923,565	7 years	52.79
60-80	3,186,439	4 years	69.95
80-100	232,214	2 years	83.25
100-102	126,013	1 year	102.14
	<u>9,118,853</u>		56.91

Exercisable options by plan and by range of exercise prices at December 31, 2001 were as follows:

	Shares	Average option price per share
PD Plans		
1998 Plan	2,177,605	\$ 53.73
1993 Plan	2,481,975	66.70
1989 Plan	49,364	50.10
1987 Plan	53,897	47.14
Cyprus Amax Plans	1,751,783	68.81
	<u>6,514,624</u>	

Range of Exercise Prices	Options Exercisable at 12/31/01	Average Outstanding Option Price
\$ 27-40	246,432	\$ 32.77
40-60	2,731,193	53.24
60-80	3,178,772	69.96
80-100	232,214	83.25
100-102	126,013	102.14
	<u>6,514,624</u>	62.64

Changes during 1999, 2000 and 2001 in Restricted Stock were as follows:

	Shares
Outstanding at December 31, 1998	196,150
Granted	97,400
Terminated	(4,100)
Released	(7,600)
Outstanding at December 31, 1999	281,850
Granted	69,000
Terminated	(18,000)
Released	(113,272)
Outstanding at December 31, 2000	219,578
Granted	11,700
Terminated	(26,533)
Released	(15,011)
Outstanding at December 31, 2001	<u>189,734</u>

In accordance with the provisions of SFAS No. 123, "Accounting for Stock-Based Compensation," we apply APB Opinion No. 25 and related interpretations in accounting for our stock option plans and, accordingly, do not recognize compensation cost. If we had elected to recognize compensation cost based on the fair value of the options granted at grant date as prescribed by SFAS No. 123, net income and earnings per share would have been reduced to the pro forma amounts indicated in the table below:

	2001	2000	1999
Net income (loss) – as reported	\$ (275.0)	29.0	(257.8)
Net income (loss) – pro forma	(287.0)	16.5	(265.5)
Earnings (loss) per share			
- as reported (basic)	(3.50)	0.37	(4.19)
Earnings (loss) per share			
- pro forma (basic)	(3.66)	0.21	(4.31)
Earnings (loss) per share			
- as reported (diluted)	(3.50)	0.37	(4.19)
Earnings (loss) per share			
- pro forma (diluted)	\$ (3.66)	0.21	(4.31)

The fair value of each option grant is estimated on the date of grant using a Black-Scholes option-pricing model with the following assumptions:

	2001	2000	1999
Expected dividend yield	3.16%	3.30%	3.10%
Expected stock price volatility	40.9%	39.0%	32.0%
Risk-free interest rate	3.4%	5.4%	6.0%
Expected life of options	3 years	3 years	3 years

The weighted-average fair value of options per share granted during 2001 was \$8.84, compared with \$13.47 in 2000 and \$12.18 in 1999.

## 15. Pension Plans

Our pension plans cover substantially all of our U.S. employees and certain employees of our international subsidiaries. Benefits are based on years of service and depending on the plan either final average salary or a fixed amount for each year of service. Participants generally vest in their benefits after five years of service. In a number of these plans, the plan assets exceed the accumulated benefit obligations (overfunded plans) and in the remainder of the plans, the accumulated benefit obligations exceed the plan assets (underfunded plans). For the underfunded plans, the aggregate benefit obligation is \$153 million and the aggregate fair value of plan assets is \$94 million as of December 31, 2001.

Our pension plans were valued between December 1, 1999, and January 1, 2000, and between December 1, 2000, and January 1, 2001. The obligations were projected to and the assets were valued as of the end of 2000 and 2001. The majority of plan assets are invested in a diversified portfolio of stocks, bonds and cash or cash equivalents. A small portion of the plan assets is invested in pooled real estate and other private investment funds.

The following table presents the benefit obligation, changes in plan assets, the funded status of the pension plans and the assumptions used at December 31:

	<u>2001</u>	<u>2000</u>
Assumptions:		
Discount rate .....	7.25%	7.75%
Rate of increase in salary levels .....	4.00%	4.00%
Change in benefit obligation:		
Benefit obligation at beginning of year .....	\$ 969	967
Service cost – benefits earned during the period .....	19	22
Interest cost on benefit obligation .....	69	70
Plan amendments .....	1	1
Actuarial loss (gain) .....	19	(21)
Benefits paid .....	(74)	(66)
Curtailments and settlements .....	-	(1)
Special termination benefits .....	4	-
Currency translation adjustments .....	(1)	(3)
Benefit obligation at end of year .....	<u>\$ 1,006</u>	<u>969</u>
Change in plan assets:		
Fair value of plan assets at beginning of year .....	\$ 1,050	1,076
Actual return on plan assets .....	(42)	38
Employer contributions .....	7	5
Currency translation adjustments .....	(1)	(3)
Benefits paid .....	(74)	(66)
Fair value of plan assets at end of year .....	<u>\$ 940</u>	<u>1,050</u>
Funded status .....	\$ (66)	81
Unrecognized actuarial loss (gain) .....	44	(118)
Unrecognized prior service cost .....	28	31
Net amount recognized .....	<u>\$ 6</u>	<u>(6)</u>
Amounts recognized in the balance sheet consist of:		
Prepaid benefit cost .....	\$ 53	80
Accrued benefit liability .....	(58)	(94)
Intangible asset .....	3	2
Deferred tax benefit .....	2	2
Accumulated other comprehensive income .....	6	4
Net amount recognized .....	<u>\$ 6</u>	<u>(6)</u>

The assumptions used and the annual cost related to these plans consist of the following:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Assumptions:			
Discount rate.....	7.75%	7.75%	6.75%
Expected long-term rate of return.....	9.50%	9.50%	9.50%
Rate of increase in salary levels.....	4.00%	4.00%	4.00%
Components of net periodic benefit cost:			
Service cost – benefits earned			
during the period.....	\$ 18.8	22.3	19.6
Interest cost on benefit obligation.....	69.4	70.1	54.3
Expected return on plan assets.....	(99.0)	(94.3)	(70.5)
Amortization of transition obligation (asset).....	0.3	-	(1.3)
Amortization of prior service cost.....	3.9	4.2	4.4
Recognized actuarial loss (gain).....	(6.0)	(3.1)	0.8
Net periodic benefit cost (recoveries) \$	<u>(12.6)</u>	<u>(0.8)</u>	<u>7.3</u>

We recognize a minimum liability in our financial statements for our underfunded pension plans. The accrued pension benefit cost for the underfunded plans is \$58 million, which includes an additional minimum liability of \$11 million and is included in "Other Liabilities and Deferred Credits" at December 31, 2001, compared with \$8 million at December 31, 2000. The additional minimum liability was offset by a \$3 million intangible asset, a \$6 million reduction in "Common Shareholders' Equity" and a \$2 million deferred tax benefit at December 31, 2001, compared with a \$2 million intangible asset, a \$4 million reduction in "Common Shareholders' Equity" and a \$2 million deferred tax benefit at December 31, 2000.

## 16. Postretirement and Other Employee Benefits Other Than Pensions

We record obligations for postretirement medical and life insurance benefits on the accrual basis. One of the principal requirements of the method is that the expected cost of providing such postretirement benefits be accrued during the years employees render the necessary service.

Our postretirement plans provide medical insurance benefits for many employees retiring from active service. The coverage is provided on a noncontributory basis for certain groups of employees and on a contributory basis for other groups. The majority of these benefits are paid by the Company. We also provide life insurance benefits to our U.S. employees who retire from active service on or after normal retirement age of 65 and to some of our international employees. Life insurance benefits also are available under certain early retirement programs or pursuant to the terms of certain collective bargaining agreements. The majority of

the costs of such benefits were paid out of a previously established fund maintained by an insurance company.

The following table presents the change in benefit obligation, change in plan assets and the funded status of the other postretirement benefit plans and the assumptions used at December 31:

	<u>2001</u>	<u>2000</u>
Assumptions:		
Expected long-term rate of return on plan assets.....	8.00%	8.00%
Weighted average discount rate.....	7.25%	7.75%
Change in benefit obligation:		
Benefit obligation at beginning of year.....	\$ 331	307
Service cost – benefits earned during the year.....	4	4
Interest cost on benefit obligation.....	23	23
Amendments.....	-	16
Actuarial loss (gain).....	-	2
Benefits paid, net of contributions.....	(29)	(21)
Benefit obligation at end of year.....	<u>\$ 329</u>	<u>331</u>
Change in plan assets:		
Fair value of plan assets at beginning of year.....	\$ 10	10
Actual return on plan assets.....	(1)	1
Benefits paid, net of contributions.....	(1)	(1)
Fair value of plan assets at end of year.....	<u>\$ 8</u>	<u>10</u>
Funded (unfunded) status.....	\$ (321)	(321)
Unrecognized actuarial gain.....	(10)	(13)
Unrecognized prior service cost.....	14	15
Net amount recognized – accrued liability.....	<u>\$ (317)</u>	<u>(319)</u>

The assumptions used and components of net periodic postretirement benefit cost were as follows at December 31:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Assumptions:			
Expected long-term rate of return on plan assets.....	8.00%	8.00%	8.00%
Discount rate.....	7.75%	7.75%	6.75%
Rate of increase in salary levels.....	4.00%	4.00%	4.00%
Components of net periodic benefit cost:			
Service cost – benefits earned			
during the year.....	\$ 3.9	4.4	4.8
Interest cost.....	22.6	22.6	12.9
Expected return on plan assets.....	(0.8)	(0.8)	(0.8)
Net periodic benefit cost.....	<u>\$ 25.7</u>	<u>26.2</u>	<u>16.9</u>

For 2001 measurement purposes, the annual rate of increase in the cost of covered health care benefits was assumed to average 14.0 percent for 2002 and was projected to decrease to 5.5 percent by 2008 and remain at that level.

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plan. A 1 percentage-point change in assumed health care cost trend rates assumed for postretirement benefits would have the following effects:

	1 Percentage-Point	
	Increase	Decrease
Effect on total of service and interest cost components.....	\$ 1.3	(1.2)
Effect on postretirement benefit obligation .....	\$ 16.2	(14.7)

We also sponsor savings plans for the majority of our employees. The plans allow employees to contribute a portion of their pre-tax and/or after-tax income in accordance with specified guidelines. The principal savings plan is a 401(k) plan for all U.S. salaried and non-bargained hourly employees. Assets in this plan totaled \$462.7 million at December 31, 2001. In this plan, employees direct the investment of their contributions among several investment options, including company stock. Employees also may direct their contributions into a brokerage option through which they can invest in stocks, bonds and mutual funds. Employees may change investment direction or transfer existing balances at any time without restriction, with some exceptions for certain officers and other insiders. We match a percentage of employee contributions up to certain limits. These matching contributions are made in cash, which is immediately invested according to each employee's current investment direction. Our contributions amounted to \$13.3 million in 2001, \$6.9 million in 2000, and \$5.3 million in 1999.

## 17. Commitments

Phelps Dodge leases mineral interests and various other types of properties, including shovels, offices and miscellaneous equipment. Certain of the mineral leases require minimum annual royalty payments, and others provide for royalties based on production.

Summarized below at December 31, 2001, are future minimum rentals and royalties under non-cancelable leases:

	Operating Leases	Mineral Royalties	Capital Leases
2002.....	\$ 15.3	1.2	4.9
2003.....	13.7	1.2	5.0
2004.....	12.1	1.2	4.1
2005.....	10.1	1.2	4.0
2006.....	9.7	1.2	-
After 2006 .....	<u>45.2</u>	<u>14.3</u>	-
Total payments.....	\$ <u>106.1</u>	<u>20.3</u>	<u>18.0</u>
Present value of lease payments.....			\$ 13.7
Less current portion .....			<u>(3.2)</u>
Present value of long-term payments .....			\$ <u>10.5</u>

Summarized below at December 31, 2001, is future sub-lease income:

	Sub-lease Income
2002.....	\$ 3.8
2003.....	3.0
2004.....	2.9
2005.....	2.8
2006.....	2.8
After 2006 .....	<u>5.0</u>
Total.....	\$ <u>20.3</u>

Rent and royalty expense for the years ended December 31 were as follows:

	2001	2000	1999
Rental expense.....	\$ 22.4	29.1	17.5
Mineral royalty .....	<u>0.6</u>	<u>0.8</u>	<u>0.1</u>
Total charges .....	\$ <u>23.0</u>	<u>29.9</u>	<u>17.6</u>

## 18. Contingencies

### Environmental

Phelps Dodge is subject to various federal, state and local environmental laws and regulations that govern emissions of air pollutants; discharges of water pollutants; and generation, handling, storage and disposal of hazardous substances, hazardous wastes and other toxic materials. The Company is also subject to potential liabilities arising under the CERCLA or similar state laws that impose responsibility on persons who arranged for the disposal of hazardous substances, and on current and previous owners and operators of a facility for the cleanup of hazardous substances released from the facility into the environment. In addition, the Company is subject to potential liabilities under the Resource Conservation and Recovery Act (RCRA) and analogous state laws that require responsible parties to remediate releases of hazardous or solid waste constituents into the environment associated with past or present activities.

Phelps Dodge or its subsidiaries have been advised by the U.S. Environmental Protection Agency (EPA), the United States Forest Service and several state agencies that they may be liable under CERCLA or similar state laws and regulations for costs of responding to environmental conditions at a number of sites that have been or are being investigated by EPA, the Forest Service or states to determine whether releases of hazardous substances have occurred and, if so, to develop and implement remedial actions.

Phelps Dodge has provided reserves for potential environmental obligations that management considers probable and for which reasonable estimates of such obligations can be made. For closed facilities and closed portions of operating facilities with closure obligations, an environmental liability is considered probable and is accrued when a closure determination is made and approved by management. Environmental liabilities attributed to CERCLA or analogous state programs are considered probable when a claim is asserted, or is probable of assertion, and we have been associated with the site. Other environmental remediation liabilities are considered probable based upon specific facts and circumstances. Liability estimates are based on an evaluation of, among other factors, currently available facts, existing technology, presently enacted laws and regulations, Phelps Dodge's experience in remediation, other companies' remediation experience, Phelps Dodge's status as a potentially responsible party (PRP), and the ability of other PRPs to pay their allocated portions. Accordingly, total environmental reserves of \$311.2 million and \$307.1 million, respectively, were recorded as of December 31, 2001 and 2000. The long-term portion of these reserves is included in other liabilities and deferred credits on the consolidated balance sheet and amounted to \$264.3 million and

\$244.9 million at December 31, 2001 and 2000, respectively.

The sites for which Phelps Dodge has received a notice of potential liability or an information request that are currently considered to be the most significant are the Pinal Creek site in Miami, Arizona, the former American Zinc and Chemical site in Langeloth, Pennsylvania, and the Tohono O'odham Nation sites.

At the Pinal Creek site, remediation is being performed by the Pinal Creek Group, which includes Phelps Dodge Miami Inc. and other companies that have been determined to have contributed through historic mining activities to the contaminated groundwater plume in the shallow alluvial aquifers of Pinal Creek. The remediation work is being conducted in accordance with the requirements of the Arizona Department of Environmental Quality's Water Quality Assurance Revolving Fund program. In addition, the remedial action is consistent with the National Contingency Plan prepared by EPA as required by CERCLA. Ongoing remediation efforts have resulted in continued improvement of the water quality in the area. In November 1997, the Pinal Creek Group joined with the State of Arizona in requesting the District Court approve and enter a Consent Decree resolving all matters related to an enforcement action contemplated by the State of Arizona with respect to the groundwater matter. On August 13, 1998, the court approved and entered the Decree that commits the Pinal Creek Group to complete the remediation work outlined in the remedial action plan that was submitted to the State in May 1997. Phelps Dodge Miami Inc. is pursuing contribution litigation against other parties involved in this matter and has asserted claims against certain of its past insurance carriers. While significant recoveries are expected, the Company cannot reasonably estimate the amount and, therefore, has not taken potential recoveries into consideration in the recorded reserve. Phelps Dodge Miami Inc.'s share of the planned remediation work has a cost range for reasonably expected outcomes estimated to be from \$119 million to \$222 million, and, as no point within that range is more likely than any other, the lower end of the range has been reserved as required by generally accepted accounting principles.

In June 1999, Cyprus Amax received an information request from the Pennsylvania Department of Environmental Protection regarding the former American Zinc and Chemical site in Langeloth, Pennsylvania. The site is currently being investigated by the State of Pennsylvania. Studies initiated to determine the nature and extent of remediation work that may be required on the property indicated a cost range for reasonably expected outcomes estimated to be from \$18 million to \$52 million. Phelps Dodge has reserved \$20 million for the possible remediation work at the

Langeloth site representing the most likely point within the range of estimates.

Cyprus Tohono Corporation (Cyprus Tohono), a wholly owned subsidiary of Cyprus Amax Corporation, holds three leases for lands on the Tohono O'odham Indian Nation (the Nation). The leased lands include the site of an inactive mining operation, including an open pit, leach and waste rock stockpiles, tailing and evaporation ponds, ore roasting and SX/EW operations, and ancillary facilities. The leases impose certain environmental compliance, closure and reclamation requirements upon Cyprus Tohono as the lessee. The closure and reclamation requirements under the leases require action to be taken upon termination of the leases, which currently expire between 2012 and 2017, unless terminated earlier in accordance with the terms of the leases. The Nation, along with several federal agencies who assist the Nation, have notified Cyprus Tohono of water quality concerns and concerns with other environmental impacts of historical mining operations. The Nation has requested that Cyprus Tohono consider accelerating closure and reclamation under the leases, in lieu of or in addition to interim reclamation and corrective measures being considered by Cyprus Tohono to protect water quality and mitigate other potential environmental impacts. We are unable to estimate the total costs of the corrective, closure and reclamation measures that may be instituted by Cyprus Tohono as a result of these investigations; however, preliminary studies indicate that interim reclamation and corrective measures could range from \$7 million to \$15 million. As a result of meetings and determinations in the 2001 fourth quarter, and based upon our best estimate of activities and costs, an \$11 million reserve was recognized.

In December 2001, the Company entered into a Memorandum of Understanding with the owner of a Yonkers, New York, property regarding certain environmental liabilities estimated to range from \$6 million to \$11 million. The Company sold that property to the owner in 1984. Based on information supplied by the property owner, the Company recognized a best estimate \$7 million charge associated with environmental remediation at that site. Also in the 2001 fourth quarter, the Company recognized charges of \$13 million for environmental remediation primarily at closed sites, none of which, individually was more than \$3 million.

At December 31, 2001, the cost range for reasonably possible outcomes for all reservable environmental remediation sites other than Pinal Creek and Langeloth was estimated to be from \$151 million to \$242 million of which \$172 million has been reserved. Work on these sites is expected to be substantially completed in the next several years, subject to inherent delays involved in the remediation process.

Phelps Dodge believes certain insurance policies partially cover the foregoing environmental liabilities; however, some of the insurance carriers have denied coverage. We are presently litigating these disputes. Further, Phelps Dodge believes that it has other potential claims for recovery from other third parties, including the United States Government and other PRPs, as well as liability offsets through lower cost remedial solutions. Neither insurance recoveries nor other claims or offsets are recognized unless such offsets are considered probable of realization. In 2001, the Company recognized proceeds from settlements reached with several insurance companies on historic environmental liability claims of \$61.8 million, net of fees and expenses.

Phelps Dodge has a number of sites that are not the subject of an environmental reserve because it is not probable that a successful claim will be made against the Company for those sites, but for which there is a reasonably possible likelihood of an environmental remediation liability. At December 31, 2001, the cost range for reasonably possible outcomes for all such sites was estimated to be from \$3 million to \$21 million. The liabilities arising from potential environmental obligations that have not been reserved for at this time may be material to the results of any single quarter or year in the future. Management, however, believes the liability arising from potential environmental obligations is not likely to have a material adverse effect on the Company's liquidity or financial position as such obligations could be satisfied over a period of many years.

The following table summarizes environmental reserve activities for the years ended December 31:

	<u>2001</u>	<u>2000</u>
Balance, beginning of year .....	\$ 307.1	336.1
Additions to reserves .....	31.1	-
Spending against reserves .....	(27.0)	(31.8)
Liabilities assumed in Cyprus acquisition .....	-	2.8
Balance, end of year .....	<u>\$ 311.2</u>	<u>307.1</u>

Reclamation

The following table summarizes reclamation and closure reserve activities for the years ended December 31:

	<u>2001</u>	<u>2000</u>
Balance, beginning of year.....	\$ 135.0	131.1
Additions to reserves.....	9.6	10.6
Payments and deductions.....	(14.5)	(6.7)
Balance, end of year.....	<u>\$ 130.1</u>	<u>135.0</u>

Our mining operations are subject to laws and regulations establishing new requirements for mined land reclamation and financial assurance. Colorado passed a mined land reclamation law in the early 1970s establishing a Mined Land Reclamation Board that adopted regulations in 1977. Significant changes were made in 1993. Our Colorado mining operations have had approved mined land reclamation plans and financial assurance under these laws for several years. Arizona enacted its mined land reclamation law in 1994. Our Arizona mining operations submitted proposed reclamation plans and financial assurance following the adoption of implementing rules in 1997, and all of our Arizona operations have approved plans and financial assurance totaling approximately \$70 million. New Mexico passed a mined land reclamation law in 1993 authorizing regulations that were adopted in 1994. The permitting process for New Mexico mining operations commenced in December 1994. Approval of "closeout plans" describing the reclamation planned for the Chino, Tyrone and Cobre mines currently is due by October 1, 2002. Two New Mexico State agencies currently are reviewing the permit applications for facility closure and reclamation, and one public hearing was held on Chino's plan to protect water quality in August 2001. A second public hearing was held in February 2002 on the Chino plan to discuss a draft permit proposed jointly by Chino and the New Mexico Environmental Department (NMED). The Company is awaiting the hearing officer's decision. The cost estimate to carry out this plan, including water treatment for 100 years, if needed, is \$386 million in current dollars. This figure compares to Chino's previous estimate of approximately \$100 million. The final cost estimate is subject to the results of the hearing and any subsequent judicial appeals. Actual reclamation costs may differ significantly from the cost estimate based on a variety of factors including possible changes in legal standards over time and potential cost savings from use of the Company's own personnel and equipment at each site versus third-party contractor costs (under New Mexico law, financial assurance requirements are calculated based on estimated third-party costs), advances in technology and reclamation techniques, and opportunities to prepare each site for more efficient reclamation through careful development of the site

over time. The plan also calls for studies over the next four to five years to refine the plan.

The Company is continuing to negotiate with the State regarding the amount of financial assurance required to cover the \$386 million cost estimate. When adjusted to reflect net present value based upon appropriate escalation and discount rates, the amount required for financial assurance would be reduced. The final permits are subject to the public hearing process and consideration of public comments, and a portion of the plan will require the issuance of a waiver of certain standards as authorized by the New Mexico Mining Act.

The Company expects the next hearing on the Tyrone plan in May 2002. The anticipated cost estimate, financial assurance requirement, and actual reclamation costs for the Tyrone plan are expected to be comparable to the Chino plan. The initial hearing for the Cobre plan will likely occur in summer 2002. The Company expects the cost estimate for the Cobre plan to be approximately \$40 million.

The federal Bureau of Land Management adopted amended regulations governing mined land reclamation for mining on federal lands in January 2001. New financial assurance requirements for existing operations took effect in June 2001, although the new reclamation requirements took effect only for new mining and certain modifications to existing mining activities. Mined land reclamation is an ongoing activity and we recognize estimated reclamation costs using a units-of-production basis calculation. These laws and regulations and the associated plan approval and permitting requirements will likely increase our regulatory obligations and compliance costs over time with respect to mine closure and reclamation.

Legal

In 1997, issues of dispute arose between Phelps Dodge and the San Carlos Apache Tribe (the Tribe) regarding our use and occupancy of the Black River Pump Station which delivers water to the Morenci operation. On May 12, 1997, the Tribe filed suit against us in San Carlos Apache Court, seeking our eviction from the Tribe's Reservation and claiming substantial compensatory and punitive damages, among other relief. In May 1997, we reached an agreement with the Tribe, and subsequently federal legislation (Pub. L. No. 105-18, 5003, 111 stat. 158, 181-87) was adopted which mandated dismissal of the tribal court suit. The legislation prescribes arrangements intended to ensure a future supply of water for the Morenci mining complex in exchange for certain payments by us. The legislation does not address any potential claims by the Tribe relating to our historical occupancy and operation of our facilities on the Tribe's Reservation, but does require that any such claims be brought, if

at all, exclusively in federal district court. By order dated October 13, 1997, the tribal court dismissed the lawsuit with prejudice, as contemplated by the legislation.

The 1997 legislation required that the Company and the Tribe enter into a lease for the delivery of Central Arizona Project water through the Black River Pump Station to Morenci on or before December 31, 1998. In the event a lease was not signed, the legislation expressly provided that the legislation would become the lease. On January 24, 2002, a lease between the San Carlos Apache Tribe, Phelps Dodge and the United States was executed in accordance with the legislation. On the same date, and in accordance with the legislation, an Exchange Agreement between the San Carlos Apache Tribe, the United States and the Salt River Project Water User's Association was executed and subsequently approved by Phelps Dodge that will allow the delivery of Central Arizona Project water to Morenci.

In September 2000, RAG American Coal Company (RAG) filed a complaint against Cyprus Amax and Amax Energy Inc. The complaint alleges claims relating to breach of contract, fraud, negligent misrepresentation, and negligence arising from alleged inaccuracies in financial statements relating to the sale by Cyprus Amax of its coal subsidiary to RAG in June 1999. The complaint seeks damages in the amount of \$115 million under four different legal theories (breach of contract, fraud, negligent misrepresentation and negligence). Cyprus Amax has filed a motion to dismiss, which has been fully briefed and remains pending.

Since approximately 1990, Phelps Dodge or its subsidiaries have been named as a defendant in a number of product liability or premises lawsuits brought by electricians and other skilled tradesmen or contractors claiming injury from exposure to asbestos found in limited lines of electrical wire products produced or marketed many years ago, or from asbestos at certain Phelps Dodge properties. Phelps Dodge believes that its liability, if any, in these matters will not have a material adverse effect either individually, or in the aggregate, upon its business, financial condition, liquidity, results of operations or cash flow. There can be no assurance, however, that future developments will not alter this conclusion.

## **19. Derivative Financial Instruments Held for Purposes Other Than Trading and Fair Value of Financial Instruments**

We do not purchase, hold or sell derivative contracts unless we have an existing asset, obligation or anticipate a future activity that is likely to occur and will result in exposing us to market risk. We do not enter into any contracts for speculative purposes. We will use various strategies to manage our market risk, including the use of derivative contracts to limit, offset or reduce our market exposure. Derivative instruments are used to manage well-defined commodity price, energy, foreign exchange and interest rate risks from our primary business activities. The fair values of our derivative instruments are based on quoted market prices for similar instruments and on market closing prices at year end. A summary of the derivative instruments we hold is listed as follows:

### Metals Hedging

#### Fair Value Hedges

*Copper Fixed-Price Hedging.* Some of our copper wire customers request a fixed sales price instead of the COMEX average price in the month of shipment or receipt. As a convenience to these customers, we enter into copper swap and futures contracts to hedge our exposure in a manner that will allow us to receive the COMEX average price in the month of shipment or receipt while our customers receive the fixed price they requested. We accomplish this by liquidating the copper futures contracts and settling the copper swap contracts during the month of shipment or receipt, which generally results in the realization of the COMEX average price.

At December 31, 2001, we had net futures and swap contracts for approximately 25 million pounds of copper maturing through December 2002. We did not have any significant gains or losses during the year resulting from ineffectiveness.

#### Cash Flow Hedges

*Copper Price Protection Program.* From time to time, we may purchase or sell copper price protection contracts for a portion of our expected future mine production. We do this to limit the effects of potential decreases in copper selling prices. We did not have any outstanding copper price protection contracts in place during 2001.

*Copper Scrap Purchase Hedging.* From time to time, we may purchase copper scrap as a raw material to be processed eventually into rod for sale to customers. The copper scrap is purchased from third parties at a copper price different from the price contracted with eventual rod customers. To

mitigate the copper price risk resulting from the difference between the scrap purchase and rod sales price and shipment month, Phelps Dodge enters into a copper swap hedge program to hedge our exposure in a manner that will allow us to receive the COMEX average price in the month of rod shipment to our customers. At December 31, 2001, we did not have any outstanding copper scrap purchase hedge contracts. We did not have any significant gains or losses during the year resulting from ineffectiveness.

#### Aluminum Purchase Hedging

From time to time, our South American wire and cable operations may enter into aluminum swap contracts to hedge our aluminum raw material purchase price exposure on fixed-price sales contracts to allow us to lock in the cost of aluminum ingot used in fixed-price aluminum cable sold to customers. These swap contracts generally are settled during the month of shipment or receipt of metal, which results in a net LME price consistent with that agreed to with our customers. Hedge gains or losses from the swap contracts are recognized in cost of products sold.

At December 31, 2001, we had outstanding swap contracts for approximately 13 million pounds of aluminum, with no material amounts recorded in other comprehensive income. Our swap positions will mature through May 2002.

#### Foreign Currency Hedging

##### Fair Value Hedges

We are a global company and we transact business in many countries and in many currencies. Foreign currency transactions increase our risks because exchange rates can change between the time agreements are made and the time foreign currencies transactions are settled. We manage these exposures by entering into forward exchange and currency option contracts in the same currency as the transaction to lock in or minimize the effects of changes in exchange rates. With regard to foreign currency transactions, we may hedge or protect transactions for which we have a firm legal obligation or when anticipated transactions are likely to occur. We do not enter into foreign exchange contracts for speculative purposes.

At December 31, 2001, we had foreign exchange contracts in place with a total face value of approximately \$13 million to hedge our exposure. We did not have any significant gains or losses during the year resulting from ineffectiveness.

#### Interest Rate Hedging

##### Fair Value Hedges

*Fixed-to-Floating Interest Rate Swaps.* In some situations, we may enter into interest rate swap contracts to protect against changes in the fair value of the underlying fixed-rate debt that result from changes in the general level of market interest rates. In December 2001, we entered into several interest rate swap contracts to hedge \$400 million of fixed-rate debt. The interest rate swaps have maturities through May 2007. We did not recognize any significant gains or losses during the year resulting from ineffectiveness.

In addition, during May 2001, we entered into \$900 million in interest rate swap contracts to convert fixed-rate debt to floating-rate debt. In August 2001, we unwound these interest rate swaps, resulting in a gain of \$23.2 million of which \$4.7 million related to reduced interest expense. The remaining \$18.5 million is being amortized into earnings over the remaining life of the respective notes.

##### Cash Flow Hedges

*Floating-to-Fixed Interest Rate Swaps.* In some situations, we are exposed to increasing costs from interest rates associated with floating-rate debt. We may enter into interest rate swap contracts to protect against our exposure to variability in future interest payments attributable to increases in interest rates of the designated floating-rate debt. At December 31, 2001, we had entered into interest rate swap contracts to hedge \$364 million of floating-rate debt. At year-end 2001, we had approximately \$21 million in unrealized losses recorded in other comprehensive income related to the swap contracts. At current interest rates at December 31, 2001, approximately \$15 million of this amount would be charged to earnings in 2002. The interest rate swaps have maturities through 2008. Hedge ineffectiveness did not have a material impact during the year ended December 31, 2001.

#### Energy Price Protection Programs

##### Cash Flow Hedges

*Diesel Fuel Price Protection Program.* We purchase large quantities of diesel fuel to operate our mine sites as an input to the manufacturing process. Price volatility of diesel fuel impacts the cost of producing copper cathode and other copper products for our customers. The objective of the diesel fuel price protection program is to protect against a significant upward movement in diesel fuel prices while retaining the flexibility to participate in some downward price movement.

To implement these objectives, we may purchase out-of-the-money (OTM) diesel fuel call options and/or fixed priced swaps. Purchase of these call options protect us against significant upward movement in diesel fuel prices while allowing us full participation in downward movements. Purchase of fixed priced swaps create certainty of the diesel fuel purchase price during the hedge period.

At December 31, 2001, we had option and fixed-price swap contracts to price protect approximately 9 million and 24 million gallons, respectively, or 82 percent of our forecasted 2002 diesel fuel consumption. At December 31, 2001, we did not have any material hedge losses in other comprehensive income related to the swap contracts. The options and fixed-price swap contracts have maturities through September and December 2002, respectively. Effectiveness is assessed using an intrinsic value method with the time value of money component recognized immediately in earnings. During 2001, approximately \$1 million in option premiums were reflected in cost of products sold associated with amounts excluded from the hedge effectiveness assessment.

*Natural Gas Price Protection Program.* We purchase substantial quantities of natural gas to supply our operations primarily as an input for electricity generation and copper refining. Price volatility of natural gas impacts the cost of producing copper cathode and other copper products for our customers. The objective of the natural gas price protection program is to protect against a significant upward movement in natural gas prices while retaining the flexibility to participate in downward price movements.

To implement these objectives, we may purchase OTM call options or OTM collars (simultaneous purchase call option and sell put option) for natural gas. Purchase of these call options protects us against significant upward movement in natural gas prices while allowing us full participation in downward movements in natural gas prices. Purchase of collars also provides us with protection against significant upward movement in natural gas prices; but limits participation in downward price movements.

At December 31, 2001, we had outstanding call option contracts to protect approximately 2 million decatherms or 80 percent of our planned natural gas consumption for domestic mining operations through first quarter 2002. Effectiveness is assessed using an intrinsic value method with the time value of money component recognized immediately in earnings. During 2001, approximately \$3 million of option premiums were reflected in cost of products sold associated with amounts excluded from the hedge effectiveness assessment.

#### Other Protection Programs

Certain protection programs did not meet all of the criteria to qualify under SFAS Nos. 133 and 138 as hedge transactions. These derivative contracts and programs are discussed below.

*Copper Fixed-Price Rod Sales Program.* Some of our copper rod customers request a fixed sales price instead of the COMEX average price in the month of shipment or receipt. As a convenience to these customers, we enter into copper swap and futures contracts to protect the sales in a manner that will allow us to receive the COMEX average price in the month of shipment or receipt while our customers receive the fixed price they requested. We accomplish this by liquidating the copper futures contracts and settling the copper swap contracts during the month of shipment or receipt, which generally results in the realization of the COMEX average price.

At December 31, 2001, we had net futures and swap contracts for approximately 47 million pounds of copper. At year-end 2001, the unrealized loss of approximately \$1.6 million associated with the rod price protection program was recorded to cost of products sold.

*Currency Swap Transactions.* In some situations, we may enter into structured transactions using currency swaps to reduce our exposure to foreign exchange risk in order to maintain the value of our investment. At December 31, 2001, we had in place \$15 million in currency swap contracts with an unrealized loss of approximately \$0.5 million, which was recorded to miscellaneous expense.

#### Credit Risk

We are exposed to credit loss in cases when the financial institutions with which we have entered into derivative transactions (commodity, foreign exchange and currency/interest rate swaps) are unable to pay us when they owe us funds as a result of our protection agreements with them. To minimize the risk of such losses, we only use highly rated financial institutions that meet certain requirements. We also periodically review the creditworthiness of these institutions to ensure that they are maintaining their ratings. We do not anticipate that any of the financial institutions that we have dealt with will default on their obligations.

#### Other Financial Instruments

The methods and assumptions we used to estimate the fair value of each group of financial instrument for which we can reasonably determine a value are as follows:

*Cash and cash equivalents.* The financial statement amount is a reasonable estimate of the fair value because of the short maturity of these instruments.

*Accounts receivable.* The financial statement amount is a reasonable estimate of the fair value because of the short-term nature of these instruments.

*Investments and long-term receivables.* The fair values of some investments are estimated based on quoted market prices for those or similar investments. The fair values of other types of instruments are estimated by discounting the future cash flows using the current rates at which similar instruments would be made with similar credit ratings and maturities.

*Accounts payable and accrued expenses.* The financial statement amount is a reasonable estimate of the fair value because of the short-term nature of these instruments.

*Long-term debt.* The fair value of substantially all of our long-term debt is estimated based on the quoted market prices for the same or similar issues or on the current notes offered to us for debt with similar remaining maturities.

*Financial guarantees and standby letters of credit.* As a whole, we have various guarantees and letters of credit totaling \$160.6 million. There is no market for our guarantees or standby letters of credit. Therefore, it is not practicable to establish their fair value.

The estimated fair values of our financial instruments at December 31, 2001, were as follows:

	Carrying Amount	Fair Value
Cash and short-term investments .....	\$ 386.9	386.9
Accounts receivable, net.....	398.8	398.8
Investments and long-term receivables (including amounts due within one year) for which it is practicable to estimate fair value* .....	71.2	143.7
Accounts payable and accrued expenses .....	673.7	673.7
Long-term debt (including amounts due within one year).....	2,791.7	2,708.0

\* Our largest cost basis investment is our minority interest in SPCC, which is carried at a book value of \$13.2 million. Based on the New York Stock Exchange closing market price of listed SPCC shares on December 31, 2001, the estimated fair value of our investment is approximately \$134 million at December 31, 2001. Our ownership interest in SPCC is represented by our share of a class of SPCC common stock that is currently not registered for trading on any public exchange.

## 20. Business Segment Data

Our business consists of two divisions, PD Mining and PD Industries. The principal activities of each division are described below, and the accompanying tables present results of operations and other financial information by significant geographic area and by segment.

PD Mining is our international business segment that comprises a group of companies involved in vertically integrated copper operations including mining, concentrating, electrowinning, smelting, refining, rod production, marketing and sales, and related activities. PD Mining sells copper to others primarily as rod, cathode or concentrate, and as rod to our wire and cable segment. In addition, PD Mining at times smelts and refines copper and produces copper rod for customers on a toll basis. It is also an integrated producer of molybdenum, with mining, roasting and processing facilities producing molybdenum concentrate as well as metallurgical and chemical products. In addition, it produces gold, silver, molybdenum, copper sulfate, rhenium and copper chemicals as by-products, and sulfuric acid from its air quality control facilities. This business segment also includes worldwide mineral exploration and development programs, and a process technology center that directs its activities at improving existing processes and developing new cost-competitive technologies.

PD Industries is our manufacturing division comprising two business segments that produce engineered products principally for the global energy, telecommunications, transportation and specialty chemicals sectors. The two business segments are specialty chemicals, which comprises Columbian Chemicals Company and its subsidiaries, and wire and cable, which comprises three worldwide product line businesses and a shared support services operation. The three product line businesses in the wire and cable segment are magnet wire, energy and telecommunications cables, and specialty conductors.

Intersegment sales reflect the transfer of copper from PD Mining to PD Industries at the same prices charged to outside customers.

**FINANCIAL DATA BY GEOGRAPHIC AREA**

The following tables give a summary of financial data by geographic area and business segments for the years 1999 through 2001. (Refer to Notes 1, 2 and 3 to the consolidated financial statements for a discussion of major unusual items during the three-year period.)

---

	<u>2001</u>	<u>2000</u>	<u>1999</u>
<b>Sales and other operating revenues:</b>			
Unaffiliated customers			
United States .....	\$ 2,900.0	3,373.6	2,093.8
Latin America.....	696.1	758.0	660.2
Other.....	<u>406.3</u>	<u>393.5</u>	<u>360.4</u>
	\$ <u>4,002.4</u>	<u>4,525.1</u>	<u>3,114.4</u>
 <b>Long-lived assets at December 31:</b>			
United States .....	\$ 3,942.9	4,031.0	4,200.3
Latin America* .....	1,813.7	1,938.0	2,093.3
Other.....	<u>301.7</u>	<u>309.1</u>	<u>225.1</u>
	\$ <u>6,058.3</u>	<u>6,278.1</u>	<u>6,518.7</u>
 * Long-lived assets in Chile.....			
	\$ 1,137.9	1,201.1	1,261.5

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Revenue is attributed to countries based on the location where the sale originated.

**FINANCIAL DATA BY BUSINESS SEGMENT**

	PD Mining Company	Specialty Chemicals	Wire & Cable	PD Industries Subtotal	Segment Subtotal	Corporate Eliminations	Totals
<b>2001</b>							
Sales & other operating revenues:							
Unaffiliated customers.....	\$ 2,649.5	582.0	770.9	1,352.9	4,002.4	-	4,002.4
Intersegment .....	153.0	-	0.2	0.2	153.2	(153.2)	-
Depreciation, depletion and amortization.....	369.5	43.7	47.0	90.7	460.2	5.1	465.3
Special items and provisions .....	(2.1)	(1.4)	(3.3)	(4.7)	(6.8)	38.4	31.6
Operating income (loss) .....	(92.2)	61.8	12.2	74.0	(18.2)	(26.7)	(44.9)
Interest income .....	8.0	4.3	1.3	5.6	13.6	9.7	23.3
Interest expense .....	56.3	42.4	5.7	48.1	104.4	123.1	227.5
Equity earnings (losses).....	(3.0)	-	0.9	0.9	(2.1)	1.8	(0.3)
Income tax expense (benefit).....	(5.4)	9.4	2.9	12.3	6.9	(1.0)	5.9
Equity basis investments .....	0.8	-	4.9	4.9	5.7	28.4	34.1
Assets at December 31 .....	5,620.9	709.0	638.1	1,347.1	6,968.0	650.8	7,618.8
Expenditures for segment assets .....	200.6	28.9	57.6	86.5	287.1	23.9	311.0
<b>2000</b>							
Sales & other operating revenues:							
Unaffiliated customers.....	\$ 3,073.7	598.4	853.0	1,451.4	4,525.1	-	4,525.1
Intersegment .....	242.6	-	1.5	1.5	244.1	(244.1)	-
Depreciation, depletion and amortization.....	359.4	45.9	53.9	99.8	459.2	5.0	464.2
Special items and provisions .....	(5.8)	-	(46.0)	(46.0)	(51.8)	-	(51.8)
Operating income (loss) .....	243.3	88.1	(17.8)	70.3	313.6	(76.6)	237.0
Interest income .....	12.1	4.3	1.3	5.6	17.7	1.8	19.5
Interest expense .....	64.6	38.2	11.1	49.3	113.9	103.9	217.8
Equity earnings (losses).....	(2.8)	-	2.7	2.7	(0.1)	1.6	1.5
Income tax expense (benefit).....	55.3	12.4	8.4	20.8	76.1	(56.9)	19.2
Equity basis investments .....	18.4	-	4.8	4.8	23.2	22.3	45.5
Assets at December 31 .....	6,036.7	768.6	683.5	1,452.1	7,488.8	342.0	7,830.8
Expenditures for segment assets .....	311.6	73.7	16.9	90.6	402.2	20.1	422.3
<b>1999</b>							
Sales & other operating revenues:							
Unaffiliated customers.....	\$ 1,786.6	543.0	784.8	1,327.8	3,114.4	-	3,114.4
Intersegment .....	224.4	-	0.9	0.9	225.3	(225.3)	-
Depreciation, depletion and amortization.....	222.6	45.2	58.5	103.7	326.3	2.8	329.1
Special items and provisions .....	(385.2)	(17.7)	(52.3)	(70.0)	(455.2)	(0.2)	(455.4)
Operating income (loss) .....	(301.0)	92.5	(42.8)	49.7	(251.3)	(64.3)	(315.6)
Interest income .....	6.9	4.4	2.4	6.8	13.7	4.2	17.9
Interest expense .....	36.1	40.5	16.0	56.5	92.6	27.8	120.4
Equity earnings (losses).....	(0.9)	0.1	4.2	4.3	3.4	1.7	5.1
Income tax expense (benefit).....	(126.9)	9.4	(13.5)	(4.1)	(131.0)	(34.2)	(165.2)
Equity basis investments .....	26.8	0.3	10.8	11.1	37.9	16.1	54.0
Assets at December 31 .....	6,345.1	772.6	748.3	1,520.9	7,866.0	363.0	8,229.0
Expenditures for segment assets .....	148.7	121.1	28.5	149.6	298.3	(57.9)	240.4

Note: Refer to Notes 2 and 3 to the consolidated financial statements for a discussion of major unusual items during the three-year period.

Part III

Items 10, 11, 12 and 13.

The information called for by Part III (Items 10, 11, 12 and 13) is incorporated herein by reference from the material included under the captions "Election of Directors," "Beneficial Ownership of Securities," "Executive Compensation" and "Other Matters" in Phelps Dodge Corporation's definitive proxy statement (to be filed pursuant to Regulation 14A) for its Annual Meeting of Shareholders to be held April 30, 2002 (the 2002 Proxy Statement), except that the information regarding executive officers called for by Item 401 of Regulation S-K is included in Part I of this report. The 2002 Proxy Statement is being prepared and will be filed with the Securities and Exchange Commission and furnished to shareholders on or about April 1, 2002.

Part IV

Item 14. Exhibits, Financial Statement Schedule and Reports on Form 8-K

- (a) 1. Financial Statements: Index on page 50.
2. Financial Statement Schedule: Index on page 50.
3. Exhibits:
- 3.1 Complete composite copy of the Certificate of Incorporation of the Corporation as amended to date (incorporated by reference to Exhibit 3.1 to the Corporation's Form 10-Q for the quarter ended June 30, 1999, (SEC File No. 1-82)).
- 3.2 Amended and Restated By-Laws of the Corporation, effective as of September 5, 2001 (incorporated by reference to Exhibit 3.2 to the Corporation's Form 10-Q for the quarter ended September 30, 2001 (SEC File No. 1-82)).
- 4.1 Credit Agreement, effective May 10, 2000, among the Corporation, the Lenders parties thereto, Salomon Smith Barney Inc., Bank of Tokyo-Mitsubishi Trust Company, and Citibank, N.A., as agent (incorporated by reference to Exhibit 4.2 of the Corporation's Form 10-Q for

the quarter ended March 31, 2000 (SEC File No. 1-82)).

- 4.2 Rights Agreement, dated as of February 5, 1998 between the Corporation and The Chase Manhattan Bank (which replaces the Rights Agreement dated as of July 29, 1988 as amended and restated as of December 6, 1989, the rights issued thereunder having been redeemed by the Corporation), which includes the form of Certificate of Amendment setting forth the terms of the Junior Participating Cumulative Preferred Shares, par value \$1.00 per share, as Exhibit A, the form of Right Certificate as Exhibit B and the Summary of Rights to Purchase Preferred Shares as Exhibit C (incorporated by reference to Exhibit 1 to the Corporation's Current Report on Form 8-K and in the Corporation's Form 8-A, both filed on February 6, 1998 (SEC File No. 1-82)).

Note: Certain instruments with respect to long-term debt of the Corporation have not been filed as Exhibits to this Report since the total amount of securities authorized under any such instrument does not exceed 10 percent of the total assets of the Corporation and its subsidiaries on a consolidated basis. The Corporation agrees to furnish a copy of each such instrument upon request of the Securities and Exchange Commission.

- 4.3 Form of Indenture, dated as of September 22, 1997, between the Corporation and The Chase Manhattan Bank, as Trustee (incorporated by reference to the Corporation's Registration Statement and Post-Effective Amendment No. 1 on Form S-3 (Registration Nos. 333-36415 and 33-44380)) filed with the Securities and Exchange Com-

- mission on September 25, 1997 (incorporated by reference to Exhibit 4.3 to the Corporation's Form 10-Q for the quarter ended September 30, 1997 (SEC File No. 1-82)).
- 4.4 Form of 6.375 percent Note, due November 1, 2004, of the Corporation issued on November 5, 1997, pursuant to the Indenture, dated as of September 22, 1997, between the Corporation and The Chase Manhattan Bank, as Trustee (incorporated by reference to the Corporation's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 3, 1997 and Exhibit 4.4 of Form 10-Q for the quarter ended September 30, 1997 (SEC File No. 1-82)).
- 4.5 Form of 7.125 percent Debenture, due November 1, 2027, of the Corporation issued on November 5, 1997, pursuant to the Indenture, dated as of September 22, 1997, between the Corporation and The Chase Manhattan Bank, as Trustee (incorporated by reference to the Corporation's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 3, 1997 and Exhibit 4.5 of the Corporation's Form 10-Q for the quarter ended September 30, 1997 (SEC File No. 1-82)).
- 4.6 Tripartite/Conversion Agreement, dated as of August 8, 2000, among Chase Manhattan Bank and First Union National Bank, and acknowledged by the Corporation, pursuant to which First Union National Bank succeeded Chase Manhattan Bank as trustee under the Indenture dated as of September 22, 1997 (incorporated by reference to the Corporation's Registration Statement on Form S-3 (Reg. No. 333-43890) filed with the Securities and Exchange Commission on August 16, 2000).
- 4.7 Form of 8.75 percent Note due June 1, 2011, of the Corporation issued on May 30, 2001, pursuant to the Indenture dated September 22, 1997, between the Company and First Union National Bank, as successor Trustee (incorporated by reference to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 30, 2001 (SEC File No. 1-82)).
- 4.8 Form of 9.5 percent Note due June 1, 2031, of the Corporation issued on May 30, 2001, pursuant to the Indenture dated September 22, 1997, between the Company and First Union National Bank, as successor Trustee (incorporated by reference to the Current Report on Form 8-K filed with the Securities and Exchange Commission May 30, 2001 (SEC File No. 1-82)).
10. Management contracts and compensatory plans and agreements.
- 10.1 The Corporation's 1987 Stock Option and Restricted Stock Plan (the 1987 Plan), as amended to and including June 3, 1992, and form of Stock Option Agreement and form of Reload Option Agreement, both as modified through June 3, 1992 (incorporated by reference to Exhibit 10.2 of the Corporation's Form 10-Q for the quarter ended June 30, 1992 (SEC File No. 1-82)). Form of Restricted Stock letter under the 1987 Plan (incorporated by reference to Exhibit 10.1 to the Corporation's 1990 10-K (SEC File No. 1-82)) and the amendment thereto dated June 25, 1992 (incorporated by reference to Exhibit 10.2 to the

- Corporation's 1992 Form 10-K (SEC File No. 1-82)).
- 10.2 The Corporation's 1989 Directors Stock Option Plan (the 1989 Directors Plan), as amended to and including June 3, 1992, suspended effective November 6, 1996 (incorporated by reference to Exhibit 10.3 to the Corporation's Form 10-Q for the quarter ended June 30, 1992 (SEC File No. 1-82)). Form of Stock Option Agreement under the 1989 Directors Plan (incorporated by reference to the Corporation's Registration Statement on Form S-8 (Reg. No. 33-34363)).
- 10.3 The Corporation's 1993 Stock Option and Restricted Stock Plan (the 1993 Plan), as amended through December 1, 1993, and form of Restricted Stock letter under the 1993 Plan (incorporated by reference to Exhibit 10.4 to the Corporation's 1993 Form 10-K (SEC File No. 1-82)). Amendment to 1993 Plan effective May 7, 1997 (incorporated by reference to Exhibit 10.15 to the Corporation's Form 10-Q for the quarter ended June 30, 1997 (SEC File No. 1-82)). Amended and restated form of Stock Option Agreement, amended through February 5, 1997 (incorporated by reference to Exhibit 10.3 of the Corporation's 1997 Form 10-K (SEC File No. 1-82)). Form of Reload Option Agreement, amended through November 2, 1994, under the 1993 Plan (incorporated by reference to Exhibit 10.3 to the Corporation's 1994 Form 10-K (SEC File No. 1-82)).
- Note: Omitted from filing pursuant to the Instruction to Item 601(b) (10) are actual Stock Option Agreements between the Corporation and certain of-
- 10.4 Description of the Corporation's Incentive Compensation Plan (incorporated by reference to Exhibit 10.5 to the Corporation's 1993 Form 10-K (SEC File No. 1-82)).
- 10.5 Amended and restated Deferred Compensation Plan for the Directors of the Corporation, dated as of December 3, 1998, effective January 1, 1999 (incorporated by reference to Exhibit 10.5 to the Corporation's 1998 Form 10-K (SEC File No. 1-82)).
- 10.6 Modified form of Change-of-Control Agreement between the Corporation and certain executives, including all of the current executive officers to be listed in the summary compensation table to the 2001 Proxy Statement (incorporated by reference to Exhibit 10.6 to the Corporation's 1998 Form 10-K (SEC File No. 1-82)).
- 10.7 Amended and restated form of Severance Agreement between the Corporation and certain executives, including all of the current executive officers to be listed in the summary compensation table to the 2001 Proxy Statement (incorporated by reference to Exhibit 10.7 of the Corporation's 1997 Form 10-K (SEC File No. 1-82)).
- 10.8 The Corporation's Retirement Plan for Directors, effective January 1, 1988, terminated for active directors effective December 31, 1997 (incorporated by reference to Exhibit 10.13 to
- 10.9 Officers, under the 1987 Plan and the 1993 Plan, and certain Directors, under the 1989 Directors Plan, which contain substantially similar provisions to Exhibits 10.1, 10.2 and 10.3 above.

the Corporation's 1987 Form 10-K (SEC File No. 1-82)).

- 10.9 The Corporation's Supplemental Retirement Plan (which amends, restates and re-names the provisions of the Corporation's Comprehensive Executive Nonqualified Retirement and Savings Plan other than the supplemental savings provisions of such plan), effective (except as otherwise noted therein) as of January 1, 1997 (incorporated by reference to Exhibit 10.9 to the Corporation's 1997 Form 10-K (SEC File No. 1-82)). First Amendment to Plan, effective January 1, 1998 (incorporated by reference to Exhibit 10.9 to the Corporation's 1998 Form 10-K (SEC File No. 1-82)). Second Amendment to Plan, effective January 1, 1999 (incorporated by reference to Exhibit 10.9 to the Corporation's Form 10-Q for the quarter ended June 30, 1999 (SEC File No. 1-82)). Third Amendment to Plan, effective as of January 1, 2000 (incorporated by reference to Exhibit 10.9 of the Corporation's Form 10-Q for the quarter ended June 30, 2000 (SEC File No. 1-82)).
- 10.10 The Corporation's Supplemental Savings Plan (SSP) (which amends, restates, and replaces the supplemental savings provisions of the Corporation's Comprehensive Executive Nonqualified Retirement and Savings Plan), effective (except as otherwise noted therein) as of January 1, 1997 (incorporated by reference to Exhibit 10.10 of the Corporation's 1997 Form 10-K (SEC File No. 1-82)); as amended by the First Amendment to such SSP, effective as of January 1, 1999 (incorporated by reference to Exhibit 10.10 of the Corporation's Form 10-Q for the quarter ended September 30, 1999 (SEC File No. 1-82)). Second Amendment to SSP, effective as of January 1, 2000 (incorporated by reference to Exhibit 10.10 to the Corporation's Form 10-Q for the quarter ended June 30, 2000 (SEC File No. 1-82)).
- 10.11 The Corporation's Directors Stock Unit Plan effective January 1, 1997 (incorporated by reference to Exhibit 10.10 to the Corporation's 1996 Form 10-K (SEC File No. 1-82)) as amended and restated, effective January 1, 1998 (incorporated by reference to Exhibit 10.11 of the Corporation's 1997 Form 10-K (SEC File No. 1-82)). First Amendment to Plan, effective as of January 1, 2001 (incorporated by reference to Exhibit 10.11 of the Corporation's Form 10-Q for the quarter ended June 30, 2000 (SEC File No. 1-82)).
- 10.12 The Corporation's 1998 Stock Option and Restricted Stock Plan (the 1998 Plan) and forms of Reload Option Agreement and of Restricted Stock Agreement under the 1998 Plan, effective March 4, 1998 (incorporated by reference to Exhibit 10.12 to the Corporation's Form 10-Q for the quarter ended June 30, 1998 (SEC File No. 1-82)), and amended form of Stock Option Agreement, effective June 22, 1999 (incorporated by reference to the Corporation's Form 10-Q for the quarter ended June 30, 1999 (SEC File No. 1-82)). First Amendment to the 1998 Plan, effective as of May 4, 2000 (incorporated by reference to Exhibit 10.12 of the Corporation's Form 10-Q for the quarter ended June 30, 2000 (SEC File No. 1-82)).

Note: Omitted from filing pursuant to the Instruction to Item 601(b) (10) are actual Stock Option Agreements between the Corporation and certain officers under the 1998 Plan, which contain substantially similar provisions to Exhibit 10.12 above.

- 10.13 Advisory Services Agreement, dated as of May 3, 2000, between the Corporation and Douglas C. Yearley (incorporated by reference to Exhibit 10.13 of the Corporation's Form 10-Q for the quarter ended March 31, 2000 (SEC File No. 1-82)).
- 12 Statement regarding computation of ratios of total debt to total capitalization.
- 21 List of Subsidiaries and Investments.
- 23 Consent of PricewaterhouseCoopers LLP.
- 24 Powers of Attorney executed by certain officers and directors who signed this Annual Report on Form 10-K.

Note: Shareholders may obtain copies of Exhibits by making written request to the Secretary of the Corporation and paying copying costs of 10 cents per page, plus postage.

(b) Reports on Form 8-K:

No reports on Form 8-K were filed by the Company during the quarter ended December 31, 2001.

**PHELPS DODGE CORPORATION AND CONSOLIDATED SUBSIDIARIES**  
**VALUATION AND QUALIFYING ACCOUNTS AND RESERVES**

(In millions)

	Balance at beginning of period	Additions		Deductions	Balance at end of period
		Charged to costs and expenses	Other		
Reserve deducted in balance sheet from the asset to which applicable:					
Accounts Receivable:					
December 31, 2001	17.6	1.9	0.6	5.9	14.2
December 31, 2000	17.5	0.3	(0.2)	-	17.6
December 31, 1999	14.9	4.1	(0.6)	0.9	17.5
Supplies:					
December 31, 2001	24.2	4.0	0.5	1.5	27.2
December 31, 2000	25.0	1.8	(1.0)	1.6	24.2
December 31, 1999	6.7	3.4	16.8	1.9	25.0
Deferred Tax Asset:					
December 31, 2001	280.2	-	129.0	-	409.2
December 31, 2000	165.3	23.0	91.9 (A)	-	280.2
December 31, 1999	27.6	-	137.7 (A)	-	165.3

(A) Deferred Tax Assets recorded in conjunction with the acquisition of Cyprus Amax

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

PHELPS DODGE CORPORATION  
(Registrant)

March 8, 2002

By: /s/ Ramiro G. Peru

\_\_\_\_\_  
Ramiro G. Peru  
Senior Vice President  
and Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

/s/ J. Steven Whisler  
\_\_\_\_\_  
J. Steven Whisler  
Chairman, President, Chief Executive Officer  
and Director  
(Principal Executive Officer) March 8, 2002

/s/ Ramiro G. Peru  
\_\_\_\_\_  
Ramiro G. Peru  
Senior Vice President  
and Chief Financial Officer  
(Principal Financial Officer) March 8, 2002

/s/ Stanton K. Rideout  
\_\_\_\_\_  
Stanton K. Rideout  
Vice President and Controller  
(Principal Accounting Officer) March 8, 2002

(Robert N. Burt, Archie W. Dunham, William A. Franke, Paul Hazen, Manuel J. Iraola,  
Marie L. Knowles, Robert D. Krebs, Southwood J. Morcott, Gordon R. Parker, William J. Post, Directors) March 8, 2002

By: /s/ Ramiro G. Peru

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Ramiro G. Peru  
Attorney-in-fact

**ELEVEN-YEAR FINANCIAL SUMMARY**  
**2001-1991**

## ELEVEN-YEAR FINANCIAL SUMMARY 2001-1991

(Dollars in millions, except per share amounts)	2001 (a)	2000 (b)	1999 (c)	1998 (d)
<b>Sales and other operating revenues to unaffiliated customers</b>				
Phelps Dodge Mining Company	\$2,649.5	3,073.7	1,786.6	1,677.7
Phelps Dodge Industries	1,352.9	1,451.4	1,327.8	1,385.7
	<u>4,002.4</u>	<u>4,525.1</u>	<u>3,114.4</u>	<u>3,063.4</u>
<b>Operating expenses</b>				
Cost of products sold (h)	3,440.8	3,580.2	2,477.8	2,381.3
Depreciation, depletion and amortization	465.3	464.2	329.1	293.3
Selling and general administrative expense	116.5	135.1	115.5	102.0
Exploration and research expense	56.3	56.8	52.2	55.0
Special items and provisions	(31.6)	51.8	455.4	(190.9)
	<u>4,047.3</u>	<u>4,288.1</u>	<u>3,430.0</u>	<u>2,640.7</u>
<b>Operating income (loss)</b>	(44.9)	237.0	(315.6)	422.7
Interest expense	(227.5)	(217.8)	(120.4)	(96.4)
Capitalized interest	1.6	4.5	0.2	1.9
Miscellaneous income and expense, net	8.1	30.0	9.1	8.8
<b>Income (loss) before taxes, minority interests, equity in net earnings (losses) of affiliated companies, and cumulative effect of accounting changes</b>	(262.7)	53.7	(426.7)	337.0
Provision for taxes	(5.9)	(19.2)	165.2	(134.0)
Minority interests in consolidated subsidiaries (h)	(4.1)	(7.0)	2.1	(7.9)
Equity in net earnings (losses) of affiliated companies	(0.3)	1.5	5.1	(4.2)
<b>Income (loss) before cumulative effect of accounting changes</b>	(273.0)	29.0	(254.3)	190.9
Cumulative effect of accounting changes	(2.0)	—	(3.5)	—
Net income (loss)	<u>\$ (275.0)</u>	<u>29.0</u>	<u>(257.8)</u>	<u>190.9</u>
<b>Earnings (loss) per common share – diluted (i, j)</b>				
Income (loss) before cumulative effect of accounting changes	\$ (3.47)	0.37	(4.13)	3.26
Cumulative effect of accounting changes	(0.03)	—	(0.06)	—
Net income (loss)	<u>\$ (3.50)</u>	<u>0.37</u>	<u>(4.19)</u>	<u>3.26</u>
<b>Average number of common shares outstanding</b>				
<i>In millions (i)</i>	78.5	78.8	61.6	58.5

(a) Reported amounts include after-tax, special gains of \$61.8 million, or 79 cents per common share, for environmental insurance recoveries; and \$39.9 million, or 51 cents per common share, for the gain on the sale of Sossego; partially offset by special provisions of \$31.1 million, or 40 cents per common share, reflecting provisions for environmental costs; \$29.8 million, or 38 cents per common share, for restructuring activities; \$12.9 million, or 16 cents per common share, for investment impairments; \$2.0 million, or 3 cents per common share, for the cumulative effect of an accounting change; and \$3.4 million, or 4 cents per common share, for other items, net.

(b) Reported amounts include after-tax, special provisions of \$56.4 million, or 72 cents per common share, for restructuring activities; offset by an income tax refund and related interest of \$10.1 million, or 13 cents per common share; and an insurance settlement refund of \$3.0 million, or 4 cents per common share.

(c) Reported amounts include after-tax, special provisions of \$222.5 million, or \$3.61 per common share, for asset impairments; \$17.8 million, or 29 cents per common share, reflecting provisions for environmental costs; \$65.7 million, or \$1.07 per common share, for costs associated with restructuring activities; and \$3.5 million, or 6 cents per common share, for the cumulative effect of an accounting change; partially offset by a special gain of \$30.0 million, or 49 cents per common share, for an adjustment of prior year's taxes. Phelps Dodge acquired Cyprus Amax Minerals Company on October 16, 1999.

(d) Reported amounts include an after-tax gain of \$131.1 million, or \$2.24 per common share, from the disposition of Accuride Corporation; an after-tax loss of \$26.4 million, or 45 cents per common share, from the sale of our 44.6 percent interest in a South African mining company; and a special, after-tax provision of \$5.6 million, or 10 cents per common share, for curtailments and indefinite closures primarily at Phelps Dodge Mining Company.

1997 (e)	1996 (f)	1995	1994 (g)	1993	1992	1991
2,173.3	2,091.1	2,488.7	1,820.7	1,320.3	1,397.7	1,325.3
1,741.0	1,695.5	1,696.7	1,468.5	1,275.6	1,181.6	1,109.0
3,914.3	3,786.6	4,185.4	3,289.2	2,595.9	2,579.3	2,434.3
2,744.1	2,604.4	2,691.4	2,375.7	1,921.8	1,841.1	1,722.2
283.7	249.5	223.5	195.3	187.1	162.3	138.9
141.8	125.9	123.6	107.1	103.7	105.4	98.7
87.8	83.9	73.2	53.0	56.8	49.9	50.6
45.9	10.0	(26.8)	157.7	—	—	—
3,303.3	3,073.7	3,084.9	2,888.8	2,269.4	2,158.7	2,010.4
611.0	712.9	1,100.5	400.4	326.5	420.6	423.9
(74.2)	(68.0)	(65.1)	(57.3)	(54.5)	(47.4)	(47.4)
11.7	1.9	3.1	20.7	17.5	7.9	8.3
33.4	40.7	37.2	11.3	16.4	47.1	28.4
581.9	687.5	1,075.7	375.1	305.9	428.2	413.2
(180.4)	(220.0)	(322.7)	(104.7)	(105.9)	(114.4)	(131.4)
(4.7)	(16.2)	(12.9)	(8.0)	(12.1)	(12.8)	(12.0)
11.7	10.5	6.5	8.6	—	0.6	3.1
408.5	461.8	746.6	271.0	187.9	301.6	272.9
—	—	—	—	—	(79.9)	—
408.5	461.8	746.6	271.0	187.9	221.7	272.9
6.63	6.98	10.66	3.82	2.66	4.28	3.93
—	—	—	—	—	(1.13)	—
6.63	6.98	10.66	3.82	2.66	3.15	3.93
61.6	66.2	70.0	71.0	70.6	70.4	69.5

- (e) Reported amounts include special 1997 charges reflecting provisions for environmental costs, an early retirement program and asset dispositions of \$31.6 million after-tax, or 51 cents per common share.
- (f) Reported amounts include interest charges of \$5.9 million and reclamation reserves of \$10 million for the court-ordered rescission of a 1986 sale of property in Maspeth, New York, by Phelps Dodge to the United States Postal Service. The after-tax effect was \$10.7 million, or 16 cents per common share.
- (g) Reported amounts include special 1994 fourth quarter provisions for environmental costs and asset dispositions of \$91.7 million after-tax, or \$1.29 per common share.
- (h) All years have been presented to conform with SFAS No. 131. Prior to 1994, minority interests in the income of consolidated subsidiaries were included in cost of products sold. For comparative purposes, prior period amounts have been reclassified to conform with the current year presentation.
- (i) In 1992, Phelps Dodge's stock split two-for-one. All per share amounts and the average number of shares outstanding have been retroactively revised for all periods presented.
- (j) Based on average number of shares outstanding (diluted).

**ELEVEN-YEAR FINANCIAL SUMMARY 2001-1991** (continued)

(Dollars in millions, except per share amounts)	2001 (a)	2000 (b)	1999 (c)	1998 (d)
<b>Business segments</b> (h)				
Operating income (loss):				
Phelps Dodge Mining Company	\$ (92.2)	243.3	(301.0)	110.3
Phelps Dodge Industries	74.0	70.3	49.7	353.6
Corporate and other	(26.7)	(76.6)	(64.3)	(41.2)
	<u>\$ (44.9)</u>	<u>237.0</u>	<u>(315.6)</u>	<u>422.7</u>
Assets:				
Phelps Dodge Mining Company	\$5,620.9	6,036.7	6,345.1	3,218.2
Phelps Dodge Industries	1,347.1	1,452.1	1,520.9	1,608.7
Corporate and other	650.8	342.0	363.0	209.6
	<u>\$7,618.8</u>	<u>7,830.8</u>	<u>8,229.0</u>	<u>5,036.5</u>
<b>Common dividends declared</b>	\$ 59.1	157.5	124.3	117.3
<b>Dividends per common share</b> (i)	\$ 0.75	2.00	2.00	2.00
<b>Purchase of own shares</b> (i)				
Common shares (thousands)	—	—	—	732
Cost of shares purchased	\$ —	—	—	35.4
<b>Net cash provided by operating activities</b>	\$ 302.7	511.2	204.5	378.4
<b>Capital expenditures and investments</b>	\$ 311.0	422.3	240.4	668.3
<b>At December 31</b>				
Net current assets	\$ 490.0	89.7	275.1	328.9
Total assets	\$7,618.8	7,830.8	8,229.0	5,036.5
Long-term debt	\$2,522.0	1,963.0	2,172.5	836.4
Shareholders' equity	\$2,702.2	3,105.0	3,276.8	2,587.4
Book value per common share (i, j)	\$ 34.40	39.45	41.66	44.66
Common shares outstanding (thousands) (i)	78,700	78,709	78,656	57,934
Number of employees	14,500	15,500	16,400	13,924
<b>Stock prices (common shares)</b>				
High (i)	\$ 55.69	73.00	70.63	71.75
Low (i)	\$ 25.74	36.06	41.88	43.88
Close (i)	\$ 32.40	55.81	67.31	50.88
<b>Copper</b>				
Copper production (own production – thousand tons)	1,160.1	1,200.3	890.1	874.0
Copper sales (own production – thousand tons)	1,170.8	1,200.6	884.2	876.3
COMEX copper price (k)	\$ 0.73	0.84	0.72	0.75
LME copper price (l)	\$ 0.72	0.82	0.71	0.75
Implied unit cost of copper production (m)	\$ 0.75	0.72	0.67	0.68
Commercially recoverable copper reserves (million tons)	23.0	24.1	24.4	14.5

- (a) Reported amounts include after-tax, special gains of \$61.8 million, or 79 cents per common share, for environmental insurance recoveries; and \$39.9 million, or 51 cents per common share, for the gain on the sale of Sossego; partially offset by special provisions of \$31.1 million, or 40 cents per common share, reflecting provisions for environmental costs; \$29.8 million, or 38 cents per common share, for restructuring activities; \$12.9 million, or 16 cents per common share, for investment impairments; \$2.0 million, or 3 cents per common share, for the cumulative effect of an accounting change; and \$3.4 million, or 4 cents per common share, for other items, net.
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- (e) Reported amounts include special 1997 charges reflecting provisions for environmental costs, an early retirement program and asset dispositions of \$31.6 million after-tax, or 51 cents per common share.

1997 (e)	1996 (f)	1995	1994 (g)	1993	1992	1991
459.2	528.7	898.7	335.1	234.2	374.1	376.2
207.8	227.9	246.2	113.6	135.0	93.0	91.7
(56.0)	(43.7)	(44.4)	(48.3)	(42.7)	(46.5)	(44.0)
611.0	712.9	1,100.5	400.4	326.5	420.6	423.9
3,026.8	2,879.8	2,776.4	2,411.9	2,074.5	1,874.3	1,675.7
1,736.2	1,544.7	1,336.4	1,407.7	1,323.0	1,265.0	1,153.6
202.2	391.9	533.1	314.2	323.4	301.9	221.9
4,965.2	4,816.4	4,645.9	4,133.8	3,720.9	3,441.2	3,051.2
122.7	128.6	125.6	119.2	116.1	113.0	104.0
2.00	1.95	1.80	1.69	1.65	1.61	1.50
6,554	4,297	2,761	76	130	—	60
511.5	273.2	162.7	3.9	5.6	—	1.9
764.6	837.5	959.0	542.6	385.0	430.7	481.0
789.2	560.4	405.2	432.3	391.0	329.4	366.2
350.0	735.6	950.2	558.2	447.4	449.1	341.7
4,965.2	4,816.4	4,645.9	4,133.8	3,720.9	3,441.2	3,051.2
857.1	554.6	613.1	622.3	547.3	373.8	382.0
2,510.4	2,755.9	2,677.7	2,187.6	2,022.1	1,972.4	1,859.3
42.81	42.59	39.04	30.95	28.67	28.03	26.71
58,634	64,711	68,593	70,672	70,531	70,374	69,622
15,869	16,033	15,343	15,498	14,799	14,567	13,931
89.63	77.63	70.50	65.00	55.63	53.00	39.63
59.88	54.63	51.88	47.63	39.13	32.00	26.19
62.25	67.50	62.25	61.88	48.75	48.50	33.50
812.1	770.4	712.7	572.8	547.7	537.0	538.1
812.8	771.6	696.6	560.6	543.9	537.7	553.9
1.04	1.06	1.35	1.07	0.85	1.03	1.05
1.03	1.04	1.33	1.05	0.87	1.03	1.06
0.73	0.69	0.69	0.65	0.65	0.68	0.72
13.7	12.1	12.3	10.6	10.1	10.5	10.8

(f) Reported amounts include interest charges of \$5.9 million and reclamation reserves of \$10 million for the court-ordered rescission of a 1986 sale of property in Maspeth, New York, by Phelps Dodge to the United States Postal Service. The after-tax effect was \$10.7 million, or 16 cents per common share.

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(i) In 1992, Phelps Dodge's stock split two-for-one. All per share amounts and the average number of shares outstanding have been retroactively revised for all periods presented.

(j) Based on average number of shares outstanding.

(k) New York Commodity Exchange annual average spot price per pound – cathodes.

(l) London Metal Exchange annual average spot price per pound – cathodes.

(m) Based on Phelps Dodge Mining Company's (PD Mining) all-in operating margin per pound of copper sold (i.e., PD Mining operating income (loss) before special items, divided by pounds of PD-mined copper sold, plus or minus the LME copper price).

## DIRECTORY

### SENIOR MANAGEMENT TEAM

**J. Steven Whisler**  
Chairman, President and  
Chief Executive Officer

**Manuel J. Iraola**  
Senior Vice President  
President, Phelps Dodge Industries

**Timothy R. Snider**  
Senior Vice President  
President, Phelps Dodge Mining Company

**Ramiro G. Peru**  
Senior Vice President and  
Chief Financial Officer

**Arthur R. Miele**  
Senior Vice President, Marketing

**Kalidas V. Madhavpeddi**  
Senior Vice President, Business Development

**S. David Colton**  
Senior Vice President, General Counsel  
and Secretary

**David L. Pulatie**  
Senior Vice President, Human Resources

*This year, we welcomed William J. Post to our Board of Directors. Mr. Post, 51, is chairman and chief executive officer of Phoenix-based Pinnacle West Capital Corporation, the holding company of Arizona's largest public electric utility. Mr. Post brings to our company nearly 25 years of corporate, management and energy markets experience.*

### BOARD OF DIRECTORS

**Robert N. Burt**  
Retired Chairman and Chief Executive Officer, FMC Corporation, a producer of chemicals and machinery for industry, agriculture and government

**Archie W. Dunham**  
Chairman, President and Chief Executive Officer, Conoco Inc., an integrated energy company

**William A. Franke**  
Retired Chairman, President and Chief Executive Officer, America West Holdings Corporation, an aviation and travel services company; and retired Chairman, President and Chief Executive Officer of its subsidiary, America West Airlines, Inc.; President, Franke & Company, Inc., an investment firm

**Paul Hazen**  
Retired Chairman, Wells Fargo & Company, a bank holding company

**Manuel J. Iraola**  
Senior Vice President, Phelps Dodge Corporation; President, Phelps Dodge Industries

**Marie L. Knowles**  
Retired Executive Vice President and Chief Financial Officer, Atlantic Richfield Company (ARCO), a diversified energy company

**Robert D. Krebs**  
Chairman, Burlington Northern Santa Fe Corporation, a holding company engaged in transportation

**Southwood J. Morcott**  
Retired Chairman and Chief Executive Officer, Dana Corporation, a worldwide manufacturer and distributor of parts for the vehicular, industrial and mobile off-highway markets

**Gordon R. Parker**  
Retired Chairman and Chief Executive Officer, Newmont Mining Corporation, one of the world's largest gold producers

**William J. Post**  
Chairman and Chief Executive Officer, Pinnacle West Capital Corporation, an energy holding company; Chairman and Chief Executive Officer, Arizona Public Service, a supplier of electricity

**J. Steven Whisler**  
Chairman, President and Chief Executive Officer, Phelps Dodge Corporation

### COMMITTEES OF THE BOARD OF DIRECTORS

**Audit Committee**  
Mrs. Knowles (Chair), Messrs. Dunham, Franke, Krebs, Parker, Post

**Committee on Directors**  
Messrs. Burt (Chair), Dunham, Hazen, Krebs, Morcott

**Compensation and Management Development Committee**  
Messrs. Hazen (Chair), Burt, Dunham, (Mrs.) Knowles, Morcott, Post

**Finance Committee**  
Messrs. Krebs (Chair), Franke, Hazen, Morcott, Parker

**Environmental, Health and Safety Committee**  
Messrs. Parker (Chair), Burt, Franke, (Mrs.) Knowles, Post

**Executive Committee\***  
Messrs. Whisler (Chair), Franke, Krebs

\*All other directors appointed alternate members of the Executive Committee

## **SHAREHOLDER INFORMATION**

### **Transfer and Dividend Paying Agent and Registrar**

Mellon Investor Services LLC  
Overpeck Centre  
85 Challenger Road  
Ridgefield Park, New Jersey 07660

Phelps Dodge Shareholder Services  
(800) 279-1240  
[www.melloninvestor.com](http://www.melloninvestor.com)

### **Independent Accountants**

PricewaterhouseCoopers LLP  
1850 North Central Avenue, Suite 700  
Phoenix, Arizona 85004-4563  
(602) 364-8000

### **Phelps Dodge Common Shares**

Phelps Dodge common shares are listed on the New York Stock Exchange. The ticker symbol is PD.

### **Form 10-K Annual Report**

The Annual Report on Form 10-K for 2001 is filed with the Securities and Exchange Commission. Additional copies of this report may be obtained, excluding exhibits, in a reasonable time without charge upon written request to:

Senior Vice President, General Counsel  
and Secretary  
One North Central Avenue  
Phoenix, Arizona 85004

### **Corporate Address**

Phelps Dodge Corporation  
One North Central Avenue  
Phoenix, Arizona 85004  
(602) 366-8100

### **Internet**

[www.phelpsdodge.com](http://www.phelpsdodge.com)



ONE NORTH CENTRAL AVENUE, PHOENIX, ARIZONA 85004  
[www.phelpsdodge.com](http://www.phelpsdodge.com)