

## **management's discussion and analysis**



# management’s discussion and analysis

## Metals Market Overview

Markets for Boliden’s primary metals – copper and zinc – were generally weak in 1999, particularly during the first half of the year.

### Copper

Copper, which averaged \$0.75 per pound in 1998, averaged \$0.71 per pound in 1999 after declining to \$0.61 per pound in May, the lowest price since 1987. In June, the price of copper began to strengthen as negative sentiment about high London Metal Exchange (LME) inventory levels was replaced by optimism about increased consumption in southeast Asia and rationalization of industry capacity in the southwest United States.

LME inventory levels remain at historically high levels. Renewed optimism regarding increased consumption or additional rationalization of industry capacity will be required before the price of copper strengthens above the levels achieved in 1999.

### Zinc

Zinc, which averaged \$0.46 per pound in 1998, averaged \$0.49 per pound in 1999 after declining to \$0.41 per pound in January, the lowest price since 1994. LME inventory levels continued to decline during the year, falling to levels not experienced since 1992 and below the important level of six weeks of consumption. The price of zinc began to strengthen early in the year as a result of low LME inventory levels and a more optimistic outlook for consumption. By September, the spot price had climbed to \$0.56 per pound. During most of the autumn, the price of zinc softened to \$0.50 per pound, before rallying to reach the September price level again towards year end.

LME inventory levels remain at historically low levels. Renewed optimism regarding increased consumption or rationalization of industry capacity could cause zinc prices to strengthen above the levels achieved in 1999, and even reach cyclical highs.

Average LME/LBM Prices	Twelve months ended December 31,	
	1999	1998
Copper \$/lb	0.71	0.75
Zinc \$/lb	0.49	0.46
Lead \$/lb	0.23	0.24
Gold \$/oz	279	294
Silver \$/oz	5.22	5.54

## Consolidated Results of Operations

### Revenues

The Company generates revenues primarily from three operating segments: mining, smelting and fabrication. In 1999, consolidated revenues from operations decreased slightly to \$1,031.0 million from \$1,053.6 million in 1998.

### Mining

Revenue from mining operations was \$353.5 million in 1999 compared to \$333.5 million in 1998. The increase was due primarily to higher production from continuing operations which offset the weaker metal prices.

Copper production (excluding copper produced at the Gibraltar mine, which was closed in February and sold in July 1999) was 16% higher during 1999 than during 1998 due primarily to the addition of a full year of production from Lomas Bayas. By the end of 1999, production from Lomas Bayas had reached approximately 95% of design capacity (60,000 tonnes of copper cathode per year) following the successful implementation of an action plan to solve the chloride and nitrate problems that had limited production to about 70% of design capacity during the first eight months of the year.

Zinc production during 1999 was about 7% higher than during 1998 due primarily to the restart of mining operations at the beginning of April and concentrate production at the end of June at the Los Frailes mine in Spain.

Contained Primary Metal Production from Mining Operations			
Metal	1999	1998	change
Copper* (t)	127,475	109,611	16%
Zinc (t)	190,449	178,778	7%
Lead (t)	110,334	102,535	8%
Gold (oz)	141,027	173,125	-19%
Silver (000 oz)	8,456	8,248	3%

\* Does not include copper produced at the Gibraltar mine, which was closed at the end of February 1999 and sold during the third quarter of 1999

Smelting

Revenue from smelting operations decreased from \$661.2 million in 1998 to \$585.6 million in 1999 due primarily to weaker metal prices and lower production of copper, lead and zinc clinker at Rönnskär and lead in lead alloys at Bergsöe.

Production of copper, lead and zinc clinker at Rönnskär decreased during 1999 compared to 1998 primarily due to a combination of minor process flow irregularities resulting from construction activities related to the Rönnskär +200 expansion project and extremely cold weather during early 1999. Some of this decrease in production was offset by higher production of gold and silver. The Rönnskär +200 expansion project continued on schedule and within budget throughout 1999. The project will increase the design capacity of the complex by 71%, from 140,000 to 240,000 tonnes of copper cathode per year.

Production of zinc at Norzink increased primarily due to the positive impact of a program initiated by Norzink to improve operating and health and safety performance.

Production at Bergsöe decreased slightly primarily due to a 17 day shutdown following a fire in the shaft furnace gas cleaning system.

Fabrication

Revenue from fabrication was \$259.3 million in 1999 compared to \$270.5 million in 1998. The decrease was a result of lower prices and reduced sales of copper tubing in northern Europe due to weakness in the European construction industry during 1999.

Smelter Production			
Smelter feed / production	1999	1998	change
<b>Rönnskär</b>			
Copper (t)	113,960	125,355	-9%
Lead (t)	34,734	40,566	-14%
Zinc clinker* (t)	35,797	37,337	-4%
Gold (kg)	9,597	9,283	3%
Silver (kg)	330,492	286,542	15%
<b>Norzink</b>			
Zinc** (t)	71,988	68,963	4%
<b>Bergsöe</b>			
Lead in lead alloys (t)	44,119	46,698	-6%
* Zinc clinker produced at Rönnskär is sold as feed to Norzink			
** Boliden's 50% share of production			

Earnings

The Company reported a net loss of \$68.2 million for 1999 compared to a net loss of \$75.7 million for 1998. The difference primarily reflects the special provision of \$42.5 million, taken by the Company in 1998, relating to the tailings dam failure at Los Frailes and higher depreciation, depletion, amortization and financing charges during 1999.

The Company reported an operating loss of \$59.4 million for 1999 compared to an operating loss of \$68.7 million (\$26.2 million before the special provision for Los Frailes) for 1998. Most of the increase in the operating loss (before the special provision for Los Frailes) is due to weaker metal prices, the rehabilitation and rampup of Myra Falls, Lomas Bayas and Los Frailes and reduced operating income from fabrication. Operating losses from mining operations and lower operating income from fabrication were partially offset by increased operating income from smelting operations and reduced corporate and other expenses during 1999.

Mining

Boliden’s mining operations had an operating loss of \$73.3 million in 1999 compared to an operating loss of \$42.4 million (before the special provision for Los Frailes) in 1998. The primary reasons for the decline in operating earnings compared to the previous year, despite an increase in production from continuing operations and the implementation of a cost cutting program, include:

- weak metal prices;
- costs associated with the rehabilitation and rampup of Myra Falls, Lomas Bayas and Los Frailes; and
- higher depreciation and depletion charges (\$90.0 million in 1999 compared to \$70.1 million in 1998) due to the recommencement of operations at Los Frailes and the first full year of operations at Lomas Bayas.

Segmented Operating Income (Loss)		
(U.S. \$ millions)	1999	1998
Mining	(73.3)	(42.4)
Smelting	30.9	27.4
Fabrication	3.5	10.5
Corporate and other	(20.5)	(21.7)
	(59.4)	(26.2)
Provision for Los Frailes	—	(42.5)
Total	(59.4)	(68.7)

Smelting

Boliden’s smelting operations had operating income of \$30.9 million in 1999 compared to operating income of \$27.4 million in 1998. The primary reason for the increase in operating income was the positive effects of the cost cutting program implemented early in the year.

### **Fabrication**

Boliden's fabrication operations had operating income of \$3.5 million in 1999 compared to operating income of \$10.5 million in 1998. The primary reasons for the decrease in operating income were a decrease in sales and product margins for copper tubing products in northern Europe and restructuring charges related to staffing reductions at Boliden's brass facility in the United Kingdom.

### **Corporate and Other**

Corporate and other includes corporate, research, exploration and development expenditures as well as earnings from Contech, the Company's engineering consulting group. The operating loss from corporate and other was \$20.5 million in 1999 compared to \$21.7 million in 1998. The main reason for this decrease was reduced exploration expenditures as part of a program to focus exploration efforts on prioritized targets close to existing operations. Operating income from Contech was nominal in 1999, compared to \$1.1 million in 1998, primarily due to a reduction in the number of consulting contracts. Contech is a major engineering contractor in the Rönnskär +200 expansion project.

### **Expenses**

#### **Operating Expenses**

Depreciation, depletion and amortization expense increased by 19% to \$117.7 million in 1999 compared to \$99.0 million in 1998. The increase was primarily due to additional expenses associated with a full year of operations at Lomas Bayas in 1999 compared to four months in 1998 and nine months of operations at Los Frailes in 1999 compared to four months in 1998. Selling, general and administrative expenses also increased slightly to \$71.6 million in 1999 compared to \$70.2 million in 1998. Exploration, research and development expenses decreased 32% to \$16.5 million in 1999 compared to \$24.3 million in 1998 due to reduced exploration expenses.

#### **Non-Operating Expenses**

Interest on long-term debt was \$44.6 million in 1999 compared to \$21.7 million in 1998. Total debt outstanding at December 31, 1999 was \$813.5 million compared to \$785.1 million a year earlier. Interest and other income in 1999 was consistent with 1998.

As a result of operating losses and financial charges, recovery of income taxes in 1999 was \$19.4 million compared to a \$1.7 million provision for income taxes in 1998.

Currencies

Most of the Company’s costs are in Swedish, Canadian, Norwegian and Spanish currencies. The average rates of exchange for these currencies for the twelve-month period ended December 31, 1999 compared to the same period in 1998 were as follows:

Average Exchange Rates		
Currency (per U.S.\$1.00)	1999	1998
SEK	8.26	7.95
CAD	1.49	1.48
NOK	7.80	7.55
ESP	156	149

Divestiture of Non-Core Assets

In March 1999, the Company decided to divest of certain non-core assets in order to focus on its core operations and improve its balance sheet. During 1999, the following non-core assets were sold.

- In July 1999, Boliden transferred the closed Gibraltar open pit copper mine, mill and solvent extraction-electrowinning (SX-EW) circuit located in central British Columbia, Canada to a subsidiary of Taseko Mines Limited in exchange for the assumption by Taseko and its subsidiary of various liabilities and obligations (including enviromental) with respect to Gibraltar. As part of the transaction, Boliden subscribed for C\$17 million of non-interest-bearing Taseko debentures which are convertible into Taseko common shares at the option of Boliden or Taseko and mature in July 2009. Gibraltar was acquired as part of the acquisition by the Company of the shares of Westmin Resources Limited in 1998. Boliden closed Gibraltar because of ongoing capital requirements, high operating costs and the weak copper price environment.
- In November 1999, Boliden sold, for a purchase price of approximately \$20.2 million, \$15.3 million payable in cash and the balance by the assumption of certain liabilities, the Arv Andersson metals recycling business to Arvamet AB, a company owned 75% by Kuusakoski Oy of Finland and 25% by Boliden.
- In December 1999, Boliden sold, for approximately \$6.9 million, its 50% interest in the Saudi Company for Precious Metals (SCPM), to the Saudi Arabian Mining Company (Ma’aden).

## Financial Matters

### Financing Activities

#### Preferred Share Offering

In March 1999, the Company completed a convertible preferred share rights offering. A total of 5,046,958 5% cumulative convertible preferred shares, series 1, were issued by the Company for net proceeds of \$82.9 million.

#### Bridge Facility

On February 8, 2000, the Company entered into a credit agreement (Bridge Facility) with an international banking syndicate pursuant to which it may borrow up to an aggregate of \$191 million (the Committed Amount), \$85 million (Tranche A) of which is available until February 1, 2001 (subject to extension at the option of the lenders) and \$106 million (Tranche B) of which is available until February 8, 2002. As part of the compensation paid to the lenders in connection with the Bridge Facility, the Company issued warrants, exercisable until February 8, 2005, to purchase an aggregate of one million common shares at an exercise price of C\$4.05 per share.

Under the credit agreement, if Boliden receives funds (a) under any credit agreement entered into after February 8, 2000, (b) through an issuance of debt or equity securities (including under the common share offering described below) or (c) through a disposal of assets for cash proceeds (except in the ordinary course of business), then the Committed Amount will be reduced, pro rata between Tranche A and Tranche B, by an amount equal to all or part of the net funds received. The actual amount of the reduction will depend on Boliden's liquidity requirements at the time, and as agreed with the lenders.

#### Common Share Offering

In March 2000, the Company completed a common share rights offering (Rights Offering). A total of 107.1 million additional common shares were issued by the Company under the offering for net proceeds of \$142.6 million. The net proceeds of the offering will be applied to repay amounts outstanding under the Bridge Facility and the balance will be used to fund the completion of the Rönnskär +200 expansion project.

### Liquidity and Capital Resources

The Company has fully drawn down all amounts available to it under its existing credit facilities other than the Bridge Facility. The Committed Amount available to the Company under the Bridge Facility will be reduced as a result of the Rights Offering. See "Financial Matters – Financing Activities – Bridge Facility." See also note 6 to the consolidated financial statements for a description of the Company's long-term debt.

The Company believes that cash on hand and cash generated from operations, the undrawn portion of the Committed Amount under the Bridge Facility and the net proceeds of the Rights Offering (after repayment of outstanding borrowings under the Bridge Facility) will permit the Company to fund its operations through 2000, including the completion of the Rönnskär +200 expansion, provided that the Company's operations continue to meet planned production levels and there is no significant deterioration in copper or zinc prices.



### Capital Expenditures

The following table summarizes Boliden’s capital expenditures for the periods indicated.

Capital Expenditures			
	1998	1999 (unaudited) (U.S.\$ millions)	Budgeted 2000
Lomas Bayas	103.1	13.0	11.0
Los Frailes <sup>(1)</sup>	19.6	16.6	7.8
Rönnskär +200 expansion	28.0	99.7 <sup>(2)</sup>	117.3
Sustaining and other <sup>(3)</sup>	85.0	58.1	68.2
<b>Total</b>	<b>235.7</b>	<b>187.4</b>	<b>204.3</b>

Notes:

(1) Includes waste rock removal costs associated with operations (\$14.5 million in 1999)

(2) Includes \$19.8 million of assets which are leased

(3) Includes waste rock removal costs associated with operations at Boliden's open pit mines (other than Los Frailes)

The estimated capital expenditure required to carry out the Rönnskär +200 expansion project is approximately \$245 million, of which \$128 million had been spent as at December 31, 1999. The Company expects that it will spend most of the balance by the end of the second quarter of 2000.

### Debt Maturity

The following table sets forth the amounts maturing over the next five years under Boliden’s credit facilities outstanding at December 31, 1999.

Debt Maturity					
	2000	2001	2002	2003	2004
	(U.S.\$ thousands)				
U.S.\$300 million revolving credit facility	—	—	120,000	120,000	60,000
U.S.\$230 million term loan facility	—	—	—	230,000	—
Lomas Bayas facility	14,350	14,700	15,400	15,400	18,200
Other	—	1,677	—	—	—
<b>Total</b>	<b>14,350</b>	<b>16,377</b>	<b>135,400</b>	<b>365,400</b>	<b>78,200</b>

Boliden’s ability to repay or refinance the amounts outstanding under its credit facilities will depend, among other things, on the ability of the Company to sell non-core assets, the market price of the metals produced by the Company (principally copper and zinc) and the ability of the Company’s operations to meet planned production levels.

### **Gearing Ratio**

The Company is required under certain credit facilities to maintain a Gearing Ratio (the ratio of the Company's total consolidated borrowings minus cash and cash equivalents to the Company's tangible consolidated net worth) equal to or less than 1.25:1. The Gearing Ratio as at December 31, 1999 was 1.14:1. The Gearing Ratio will be reduced as a result of the Rights Offering. The Gearing Ratio is calculated at the end of each quarter based on the interim or annual consolidated financial statements of the Company.

The Bridge Facility contains a mechanism that may be used to ensure that the Company does not exceed the Gearing Ratio limit. If so requested by the Company, the lenders may exchange all or part of their respective advances under the facility on a dollar for dollar basis for preferred shares of Boliden Rönnskär AB, the subsidiary of the Company that owns the Rönnskär smelter. The banking syndicate may also exercise the exchange feature if an event of default occurs under the facility.

### **Risks and Uncertainties**

Boliden's earnings and cash flows are sensitive to a number of factors, over some of which the Company has little or no control. These include fluctuations in production levels at Boliden's mining and smelting operations, metal prices, exchange rates and interest rates.

### **Production Levels**

Boliden's planned contained metal production at its mining operations for 2000 is approximately 280,000 tonnes of zinc, 150,000 tonnes of copper, 130,000 tonnes of lead, 150,000 ounces of gold and 10 million ounces of silver, an increase over 1999 production levels following the rehabilitation and rampup of Myra Falls, Lomas Bayas and Los Frailes. Boliden's ability to reach these production levels will require good operating performance at all its mining operations.

Boliden's ability to continue to produce at or near capacity levels at Rönnskär will depend, among other things, on its ability to complete the Rönnskär +200 expansion project without incident.

**Metal Prices**

At December 31, 1999, Boliden had sold 30 million ounces of silver in an option strategy that provides the Company with a maximum average price of \$5.67 per ounce. Boliden’s other metals are essentially unhedged.

The following table shows the approximate impact of changes in metal prices on Boliden’s operating income for a full year based upon planned production levels for 2000 and average 1999 metal prices. The sensitivities relate only to Boliden’s mining and smelting businesses and do not take into account the impact of metal price and foreign exchange hedging.

	Change in Metal Price (U.S. \$)	Impact on Operating Income (U.S. \$ millions)
Copper	0.10 per pound	33.1
Zinc	0.05 per pound	20.9
Lead	0.01 per pound	3.1
Gold	10.00 per ounce	1.6
Silver	0.10 per ounce	0.9

**Exchange Rates**

The Company publishes its financial statements in United States dollars and has significant investments in operations in Sweden, Spain, Canada and Norway. Most of Boliden’s revenues are in United States dollars while most of its costs are in Swedish, Spanish, Canadian and Norwegian currencies.

At December 31, 1999, the Company had in place a hedging program covering more than two years exposure to exchange rate fluctuations in these currencies. A combination of options and forward contracts has been used to hedge costs in Swedish, Spanish, Canadian and Norwegian currencies against the United States dollar at minimum average rates of 7.81, 149, 1.48 and 7.62, respectively, and maximum average rates of 7.89, 151, 1.48 and 7.65, respectively.

**Interest Rates**

The interest rates on Boliden’s long-term debt are floating rates and are largely unhedged.

**Hedging**

Boliden’s total position under hedging instruments at December 31, 1999 is summarized in note 13 to the consolidated financial statements. The Company does not consider the credit risk associated with its hedging instruments to be significant.

### Credit Risk

Boliden sells its metals to a limited number of high quality customers. All of Boliden's credit risks are managed through a rigorous cash management program. The Company does not consider the credit risk with its customers, or with any single customer, to be significant.

### Los Frailes

In 1998, the Company took a special provision of \$42.5 million to cover the estimated loss, net of insurance proceeds, from the tailings dam failure at the Los Frailes mine owned by the Company's Spanish subsidiary, Boliden Apirsa SL. While the Company has not been required to do so to date, there can be no assurance that the Company will not be required to increase the special provision or to write down the carrying value of the Company's investment in Apirsa and Los Frailes.

### Year 2000 Computer Issue

Before the end of 1999, Boliden implemented an action plan with specific contingency plans to address potential Year 2000 problems. Boliden did not experience any Year 2000 related disruptions at any of its operations. Costs related to Year 2000 compliance were \$5 million of which \$1.5 million was spent in 1999.

### Outlook

The Company's financial performance in 2000 will depend primarily on metal prices and production levels at its mining and smelting operations. Although metal prices improved during the second half of 1999, no clear trends are evident. The Company believes that renewed optimism regarding increased consumption or rationalization of industry capacity are required before copper and zinc prices exceed the price levels reached in 1999.

Management faces two important challenges, each of which will have an effect on the financial performance of Boliden in 2000:

- completion of the Rönnskär +200 expansion project on schedule and within budget; and
- the continuation of the rampup at Los Frailes in Spain.

The Company intends to continue its program to reduce expenditures and operating costs and increase productivity at all of its operations during 2000, excluding those expenditures required to complete the Rönnskär +200 expansion project. During 2000, management will continue to monitor the Company's financial situation closely, including keeping tight controls on discretionary expenditures.