

ANNUAL REPORT 2012

**The 2012 Annual Report** is Boliden's first integrated report in which information on the company's financial performance is described alongside the work on sustainability issues and the results thereof. Sustainability is a natural and integral part of Boliden's operations and the way in which relevant sustainability issues are managed and handled exert a very considerable influence on the company's profitability and risk, and hence on its value generation ability.

For a comprehensive presentation of Boliden's sustainability work, please go to the company's website, www.boliden.com/sustainability, where you will find a complementary GRI supplement and additional information on Boliden's sustainability work. Boliden reports in accordance with GRI 3.0 and our self-assessment indicates that we have achieved reporting level B.

For further information on measurement methodology, definitions or other guidelines, please contact Boliden Group Communication on tel. +46 8-610 16 30.

#### www.boliden.com



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#### GRI





# Boliden 2012

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Boliden's Annual Report is published in both Swedish and English. The Annual Report comprises the Directors' Report and financial reports. The Directors' Report comprises pages 27–33 and 112. The financial reports comprise pages 76–111. While every care has been taken in the translation of this annual report, readers are reminded that the original annual report, signed by the Board of Directors, is in Swedish. The translation is unaudited.

## 2012 in brief

The Kankberg gold and tellurium mine became operational during the year and the Laver copper deposit has been classified as a mineral resource. Boliden has also become a world leader in the electronic scrap recycling field and has expanded its zero tolerance vision for accidents at work to include accidents in the external environment.



Boliden becomes a world leader in recycling - January saw the new recycling facilities at Rönnskär start smelting electronic scrap and on 1st June, the facilities were officially opened by Sweden's Minister for the Environment, Lena Ék. The SEK 1.3 billion invested in the facility, increasing its annual electronic scrap recycling capacity to 120,000 tonnes, has made Boliden a world leader in this field. The investment also contributes to the creation of a more sustainable society by enabling a larger amount of environmentally hazardous





The gold and tellurium mine at Kankberg starts producing - The Kankberg mine became operational in 2012 and a total of 251 kg gold was produced during the year. The mine has average gold and tellurium grades of 3.8 g/tonne and 177 g/tonne, respectively. The investment, which

involves not only the underground mine but also complementary work on the existing gold leaching plant and the construction of a new leaching plant for tellurium, totals SEK 475 million.



electronic scrap to be recycled.

FEB

### Silver extraction at Kokkola

– A decision was taken in February to build a facility at the Kokkola zinc smelter for the extraction of silver from zinc concentrate. The investment totals SEK 240 million and production will begin during the third quarter of 2014. The annual volume of silver extracted is estimated at approximately 25 tonnes.

### MAR

Zero tolerance for accidents - Efforts to build a safe work environment continue on a daily basis at every unit. Boliden has a zero tolerance vision when it comes to accidents at work and environmental accidents. Visible leadership is a very important part of efforts to drive the trend in the right direction.

A two-day conference for all EHS (Environment, Health and Safety) Managers as well as other supervisors within Boliden was held in March. The conference emphasised the importance of environmental, health and

safety issues and its theme was "Excellence beyond zero".



### MAR

### Copper deposit in Laver classified

**as a mineral resource** – Laver, which is located in the Swedish province of Norrbotten between Aitik and the Boliden Area, is a copper deposit that was discovered in 2009.

Altik and the Boliden Area, is a copper deposit that was discovered in 2009. Boliden has drilled 75 drill holes with a total drilling distance in excess of 30,000 metres in the area since then. The exploration work has resulted in Laver now being classified as an inferred mineral resource.

### MAY

### Boliden signs a EUR 400 million

**Ioan agreement** – Boliden, in partnership with 14 banks, has concluded a syndicated Ioan agreement for EUR 400 million. The agreement has a 5-year term and replaces an existing EUR 410 million Ioan agreement that becomes due in 2012/13. The agreement is intended to act as a back-up facility and ensures Boliden's access to capital and credit. Boliden has total Ioan facilities of SEK 15 billion following the signing of the new agreement.

75 drill holes at Laver, now classified as a mineral resource

128 tonnes of silver have been

produced at Harjavalta

DEC

Expansion of Garpenberg – Boliden's biggest ongoing project – the expansion of the Garpenberg zinc and silver

the Garpenberg zinc and silver mine – continues apace. The underground work and the construction of the new concentrator are proceeding according to plan and production is scheduled to begin in the first half of 2014 NOV

Boliden rewarded by Unionen – Boliden has received the "Guldnappen" award from the Unionen trade union in 2012. The award rewards companies that create parent-friendly workplaces. Boliden regards ensuring the opportunity for employees to strike a balance between work and leisure as a competitive advantage when it comes to securing tomorrow's talent pool.

### 34.3 Mtonnes

of milled tonnage has been produced at Aitik during the year

### SEP

DEC

### Boliden signs up to the UN's Global Com-

**pact** – The Global Compact is a UN initiative set up in order to establish international principles within the corporate sector in relation to human rights, labour rights, the environment, and anticorruption. Boliden has, by signing up, undertaken to respect and promote the principles of the UN's Global Compact. This undertaking applies both to Boliden's relationships with the Group's stakeholders.

A total of over 8,700 companies in 130 countries have signed up to the UN's Global Compact.

Aitik mine well on course to achieve production targets – The new concentrator at Aitik was inaugurated in 2012. The goal for the expanded copper mine is to increase production to 36 million tonnes of ore per year by 2014. The level achieved in 2012 was 34.3 million tonnes.

### Increased mineral reserves and mineral resources –

Mineral resources increased in all mining areas. Boliden's mineral resources were boosted with the addition of two new deposits: Laver and Rockliden.

BOLIDEN ANNUAL REPORT 2012

# Metals for the modern society

Metals are an ever-present and vital component of society. Boliden extracts minerals and produces high quality metals in a cost-efficient way. The work throughout the value chain – from exploration to customer delivery – is characterised by care for people, the environment and society.

### Four mining areas, five smelters, and 88 years' experience

Boliden has been involved in exploration, mining operations and metal production since the 1920s and over the years, the company has established a competitive position in the fields of exploration, mining operations, concentration, smelting and recycling operations.

Boliden's metals are extracted from mines in Aitik, the Boliden Area, Garpenberg and Tara and refined at smelters in Rönnskär, Harjavalta, Kokkola and Odda. Rönnskär is a world-leader in the recycling of electronic scrap and the Bergsöe smelter is one of the biggest lead recycling facilities in Europe.

### Exploration

The purpose of the exploration work is to identify new deposits that can add mineral resources and reserves to Boliden's holdings on a scale sufficient to guarantee Boliden's long-term mining operations.

Boliden explores both in the vicinity of existing mining areas (known as mine-site exploration) in order to extend the mines' productive lifespans, and in new areas (known as field exploration) in order to find completely new deposits.

The mines' technology departments

carry out extensive technical and financial analyses and calculate the extent and nature of the deposit before any decision to commence mining operations is taken.

Boliden's exploration work focuses on ores that contain zinc, copper and precious metals.

### Mining

Boliden's four mining areas produce ores containing zinc, copper, lead, gold and silver.

Boliden extracts the ore from both underground mines and open-pit mines. The ore is crushed and transported to a concentrator where it is processed to produce concentrate. The concentrate is then sold to smelters, where it is refined into finished metals.

Most of the zinc concentrate and virtually all of the copper concentrate produced is refined into metals in Boliden's own smelters.

### Smelters

The smelters produce both pure metals, customised alloys, and a number of subsidiary products. The raw material comprises metal concentrates from mines and secondary materials such as metal and electronic scrap, metal ashes and scrap car batteries. The materials are purchased both from Boliden's own mines and external ones, and from metal and electronic scrap suppliers.

### Sales

The majority of Boliden's metals are sold to industrial customers in northern Europe, while a smaller percentage is sold to trading companies that sell the metals on – often to other parts of the world.

Steelworks, which use zinc to galvanise steel, protecting it against corrosion, are the main customers for Boliden's zinc. Approximately two thirds of all of the zinc produced goes, via the steelworks, for use in infrastructure and the construction industry. The automotive industry is also a significant end-user of zinc.

Wire rod and copper rod manufacturers make up the majority of Boliden's copper customers.

A large percentage of all copper used goes, via manufacturers of copper components, to the construction industry and manufacturers of electrical and electronic products. Battery manufacturers, who account for approximately 80 per cent of all lead usage, make up the majority of Boliden's lead customers. Boliden's precious metals – gold and silver – go to the jewellery and electronics industries and to financial investors.



### Mining areas

Tara – zinc and lead Garpenberg – zinc, silver, lead, gold and copper The Boliden Area – zinc, copper, gold, silver and lead Aitik – copper, gold and silver

### • Smelters

Kokkola – zinc and sulphuric acid Odda – zinc and aluminium fluoride Rönnskär – copper, gold, silver, lead, zinc clinker and sulphuric acid Harjavalta – copper, gold, silver, sulphuric acid and nickel smelting Bergsöe – lead alloys

### Offices

Stockholm – head office and Business Area Smelters Boliden – Business Area Mines Neuss – sales office Leamington Spa – sales office





The metals' route from exploration to end consumer

# Project completion and continuous improvement

Demand for Boliden's metals has remained relatively stable during a year characterised by global uncertainty about economic trends. We continued to focus our work on enhanced efficiency and expansion projects and can now look back at a year in which, despite the challenges we faced, we delivered a healthy profit.



### Market

European economic performance continued to be weak in 2012 and growth rates fell in China. Global consumption of our metals simultaneously increased overall, however, and prices remained relatively stable. Terms for Boliden's mines showed some deterioration but the smelters remained relatively constant, year on year.

Base metal prices are set on the London Metal Exchange, LME, where global demand is matched with global supply. The base metals traded there have very clearly defined properties; the metals supplied by the various smelters are almost identical and customers can exchange one supplier for another. Transport costs are low relative to the value of the metals, and local price differences are quickly equalised. All of this means that Boliden can profit from global demand despite the weak demand from our local markets.

Boliden is impacted not only by population growth, urbanisation and investments in infrastructure, but also by global increase in the use of electronic products. Increasing demands for responsible, sustainable recycling also benefit Boliden, which, thanks to its most recent investment, is one of the world's biggest operators in this sphere.

### Stable processes

Boliden operates in a global and cyclical industry in which only the best operators will survive and succeed. The most critical aspect of Boliden's competitiveness is stable production processes as they provide the basis for value generation and for high safety levels and good environmental performance. The accident frequency in 2012 was higher than in 2011 and we are now putting additional measures in place to prevent accidents and improve the safety culture.

We are working to improve every aspect of Boliden's processes within the framework of the Group's organisational and production philosophy, the New Boliden Way. A strong culture that enhances efficiency, eliminates unplanned stoppages, maximises recovery and cuts costs can only be created if every single employee has a genuine desire to contribute to our development in these respects. Our work with the New Boliden Way is a long-term project and we are beginning to see its results in many of our units. Two units to which we have paid particular attention in 2012 are the Odda smelter and the Tara mine.

Just over a year ago, we had to decide whether to make substantial maintenance investments in Odda. Odda's cost levels are high and a variety of alternative ways to proceed were analysed. Previous measures aimed at improving production stability, cutting costs and ensuring high safety levels had, however, succeeded, thanks to the hard work, strong leadership and massive commitment on the part of every single employee. We ultimately chose, therefore, to make the investments and to launch a plan that will enhance the smelter's long-term competitiveness.

Tara is Europe's biggest zinc mine. The massive scale of its operations notwithstanding, Tara is uncompetitive primarily as a result of its high energy and personnel costs. The remaining lifespan of the production plan is approximately 6 years and annual production levels will fall towards the end of this period as transport distances increase and stopes shrink. If mining out Tara is to be viable, increased production stability and lower costs must be achieved. We must identify solutions that will enable Tara to become a successful mine and also make it meaningful to continue with the exploration aimed at extending the mine's productive lifespan.

### Investments

We have worked on a number of substantial investment projects in 2012. The new electronic scrap recycling facility at Rönnskär was inaugurated in June. Production began on schedule during the first quarter and full production levels were reached during the second quarter. The project was completed on time, and on investment budget, and Boliden is now the world's biggest operator in the electronic recycling sphere. The project is based on the fact that the world's mines are finding it difficult to supply the quantities of mined concentrate demanded, while at the same time global quantities of scrap electronic products are rising. Boliden has been developing the electronic recycling processes over a number of years, and we adjudged this to be a good opportunity to expand our operations at a time when the demands for increased recycling are gradually being heard in many countries around the world.

The Aitik copper mine produced 34.3 million tonnes of ore in 2012 and the expansion is on schedule to reach full capacity, i.e. 36 million tonnes per annum, in 2014. The project mainly involves a system for crushing and transporting ore, and a new concentrator. We are delighted with the concentrator: it has the highest productivity of any concentrator in the world and the running-in process was relatively straightforward. Running in the crushers and conveyor belts, however, proved problematic. Availability did improve in 2012 and we are on course to meet the production plans. The past year's increases in mineral resources and reserves have generated the potential for a further expansion of Aitik, and we have now commenced pilot studies with a view to expanding the mine's capacity to 45 million tonnes of ore per year.

Kankberg, which is Boliden's first gold mine for many years, began production ahead of schedule in 2012, but we have experienced some delays with one of the sub-projects in the concentrator. Ongoing exploration work at Kankberg during the year identified new deposits with high grades and the mine's mineral reserves have increased.

The expansion of the Garpenberg zinc and silver mine is Boliden's second biggest investment to date. A new concentrator plus new shafts and underground facilities will expand the mine's capacity from 1.4 million to 2.5 million tonnes of ore per year. An intensive work programme involving drilling shafts for transporting ore and personnel as well as the construc-

**( The most critical aspect of our competitiveness is stable processes, as they provide the basis for value generation and for high safety levels and good environmental performance."** 

tion of infrastructure has been carried out in 2012. Production is scheduled to begin in the first half of 2014.

In early 2012, we decided to invest in a new facility at the Kokkola zinc smelter in order to extract the silver normally present in zinc concentrate. Given rising silver prices and the increasing silver content in the concentrates from Garpenberg and elsewhere, this is an interesting project that will enhance Kokkola's competitiveness. The facility will go on line in the latter half of 2014.

We have maintained our high level of exploration work in order to improve existing mines and identify the potential for new ones. In 2012, we increased our mineral resources and successfully identified two new deposits, namely Laver och Rockliden. Laver is a large, low-grade mineralisation of a type similar to that found at Aitik and we are currently working on concept studies for a potential project there. Rockliden is high-grade mineralisation but is complicated by arsenic and manganese impurities.

### Boliden – the big picture

Over the past 9 years, Boliden has generated operating cash flows of over SEK 40 billion, SEK 27 billion of which has been invested and SEK 12 billion of which has been returned to our shareholders. These are extremely large investment amounts that have been financed using our internally generated cash flow, and we now own highly competitive mines with long productive lifespans and smelters that are increasingly working with recycling metals that have already contributed to social development in their first cycle of use.

Levels of uncertainty about the global economy obviously remain high. Metal prices have a long way to fall if new problems arise in the world's economy, but also have considerable potential to rise if the economy improves. Boliden's focus in 2013 will be on making improvements to its ongoing operations and on the current investment programme. Production from low-grade areas in Aitik and Garpenberg will continue as we simultaneously mine out Maurliden Östra and the gold ores in the Kristineberg mine. Boliden's smelters will carry out a number of major maintenance shutdowns during the year. This all means 2013 will be something of an intermediate year for Boliden, the large number of ongoing investment projects notwithstanding. The Garpenberg expansion and the silver project at Kokkola will become operational in 2014 – a year that will also see Aitik's production begin a transition to better grades.

As a natural progression of our sustainability work, we have elected to write an integrated Annual and Sustainability Report this year. 2012 saw Boliden sign up to the UN's Global Compact – an undertaking that is very much in line with our ambition to be the first sustainable link in the metals' value chain.

Stockholm, February 2013

Maler

Lennart Evrell President & CEO

## Continued investments

Boliden has been successfully investing in improved efficiency and the expansion of several mining areas for some years now, while at the same time maintaining a high level of dividend payments.

Boliden is an integrated manufacturer of important base metals such as zinc, copper and lead for industrial customers throughout Europe. The production of precious metals – gold and silver – and of a number of subsidiary products is an important part of Boliden's operations.

Boliden's value chain runs from exploration and mining operations to metal production in Boliden's own smelters. Costeffective logistics solutions are used to ship the products to the Group's customers.

Successful exploration is a prerequisite of organic growth. Boliden's exploration work, both in the vicinity of existing mines and in new areas, has enabled the Group not only to extend the productive lifespan of known ore bodies but also to identify new deposits.

Improving operational efficiency is important for a cyclically sensitive company like Boliden. Competitiveness in recessions is just as important as high profits and cash flows when times are good. It builds confidence among our employees, our lenders and our shareholders and enhances Boliden's ability to attract both capital and the skills we need for continued growth. Higher metal prices, coupled with our

### Boliden's stakeholders in the day-to-day operations



efforts to improve efficiency, have resulted in productivity improvements since 2004. This has generated the preconditions for increased exploration and technological development, which have, in turn, enabled more expansion projects in recent years. Boliden has also simultaneously reduced its debt/equity ratio and maintained a high dividend level.

Value creation is also based on Boliden's ability to show consideration for people, the environment and society throughout the value chain. Boliden aims to be a positive economic force. Boliden's operations affect and touch the lives of many people – even whole communities at times. Boliden is the biggest employer in many communities and hence also a key prerequisite for fundamental societal services and facilities in the immediate area.

Boliden's indirect effect is difficult to calculate but a rough estimate suggests that for every person employed by Boliden, an average of between three and five more job opportunities are created locally.

Boliden's ambition is to continue being a force for good in the local community. The expansions at Aitik and Garpenberg are the Group's biggest investments and have not only more than doubled the mines' productive lifespans, they have also created the preconditions needed by communities such as Gällivare and Hedemora for long-term societal planning.

It is not only the local communities where we operate that are affected by the Group's operations: employees, shareholders, customers and suppliers all depend on Boliden's profitability, and by improving this aspect of our operations even further, Boliden will continue to be able to make a positive economic and social contribution to the development of these communities and their society.



### The operating cash flow of SEK 41 billion generated between 2004 and 2012 has been used as follows:

SEK 27,400 million Investment activities

SEK 12,000 million Transferred to shareholders\*

SEK 1,600 million Debt reduction, forex et al

\* Excludes the proposed dividend for 2012.

### **Revenues and operating profit**



Volatile metal prices and exchange rates affect Boliden's revenues and results, which have varied considerably since 2004 when Boliden, in its current form, was formed. Revenues have increased as prices have risen and volumes increased.



Investment activities

Boliden's investments since 2004 total in excess of SEK 27 billion. This figure includes not only the ongoing annual investments, but a number of major expansion projects that collectively account for investments in excess of SEK 10 billion.

### Accident frequency



- Number of accidents per one million hours worked

The number of accidents leading to absences from work (LTI) suffered by Boliden's own personnel increased in 2012 from 4.9 to 6.6 per one million hours worked. If contractors are included, the accident frequency is 9.1. Boliden's units had an average of 8 accident-free months during the year.

Return on shareholders' equity and capital employed



The returns on capital employed and shareholders' equity in 2012 were 13 per cent and 15 per cent respectively.

Total shareholders' return (TSR)



The total shareholders' return for the Boliden share outperformed the international mining index during the period.

### **Discharges of metals to water**



Discharges of metals to water

Discharges to water have fallen by 53 per cent since 2007. The goal is to reduce discharges by 25 per cent between 2007 and 2013 incl.

## Strategy

Boliden shall achieve a leading position among medium-sized base metal companies by creating competitive mines and smelters and by being the company of choice for customers and commercial partners alike.

**Aitik** is the world's most efficient and productive copper open-pit mine, with mine trucks that carry newly extracted ore to the crushers around the clock. The Caterpillar 795F trucks are among the biggest trucks in the world and have a load capacity of 313 tonnes. 100,000 tonnes of ore, which are processed to produce 740 tonnes of metal concentrate containing copper, gold and silver, are mined here every day. The low metal grades notwithstanding, Aitik is one of the world's most productive copper open-pit mines, thanks to the largescale advanced and rationalised extraction methods employed.

# Stability and sustainability yield profitable growth

Efficient and stable processes, financial strength, and respect for people and the environment are the cornerstones of Boliden's long-term profitability and growth.

mission

Boliden produces metals that make modern life work. Metals are vital to society's development. Boliden produces base and precious metals through exploration, mining operations, smelting operations and recycling. We do our utmost, throughout our value chain, to live up to society's demands for safety, environmental consideration and good ethical conduct.



Boliden shall be a world class metals company. This means that we shall be among the leading companies in our industry in terms of customer satisfaction, efficiency and responsibility. We operate in a raw materials market in which the trade in metal concentrates and finished metals is global, while the customer base is regional. Operational excellence is critical to success in this volatile sector.

### Boliden shall be the first choice

Boliden endeavours to maintain a leading position among mediumsized base metals companies by creating competitive mines and smelters and by being the natural choice for customers and business partners.

The primary focus for Boliden's mining operations is the creation of growth through increased exploration and investments in organic growth, coupled with improved productivity. For the smelters, meanwhile, the focus is on increasing profitability by reducing costs, improving process stability and improving the ability to process complex raw materials.



### 1 Increased operational efficiency – the New Boliden Way

The New Boliden Way (NBW) constitutes the Group's overall guidelines for values and areas with scope for continuous improvement. NBW describes how Boliden will develop into a world class metals company, respected for its ability to generate added value for its customers, shareholders and other stakeholders. NBW has been integrated into our day-today operations in order to ensure high standards and a level of competitiveness that stands up well to international comparison at every stage of our value chain. The aim of the New Boliden Way is to implement value creation as well as attitudes and actions that will promote a natural spirit of continuous improvement in every aspect of our operations, supported by the unwavering commitment of every single Boliden employee.



### Organic growth

Increased stability and productivity at existing plants boosts growth by enabling higher volumes to be produced without the need for additional investments. Boliden has invested significant resources in a range of organic growth projects for several years now, over and above its efficiency enhancement work, in the form both of a number of expansion-related investments in existing mines and facilities and of an increased level of investment in exploration.



### Acquisitions of producing mines and mine projects

Boliden is constantly evaluating acquisition projects, whether they involve operational mines or mine projects. The expansion projects approved within the framework of our existing operations have, in recent years, delivered substantially higher yield levels than the acquisition objects we have analysed.

### Boliden's priority sustainability issues

If Boliden is to achieve its mission, its vision and its overall goals, it must conduct relevant and efficient sustainability work. Boliden's work with priority sustainability issues and its endeavours to improve operational efficiency are, in many cases, two sides of the same coin.

### Boliden's priority sustainability issues are:

- To create a safe work environment
- To secure tomorrow's talent pool
- To achieve diversity and a better gender balance
- To minimise emissions and discharges to air and water
- To limit our impact on the physical environment
- To handle waste responsibly
- Improve energy efficiency
- Adapting to climate change
- Continuously improve our own and our industry's ethical standards
- A positive economic impact on the local community



The metals industry has progressed as a result of technological development that has reduced the number of heavy, manual aspects of the work, but it is still a male-dominated sphere. Boliden is keen to build an organisation characterised by diversity and its goal is for the percentage of female employees to reach at least 20 per cent by 2018. The figure is currently 16.9 per cent. One of the requirements, if this goal is to be achieved, is that women account for one in every three replacement recruitments. Picture: Kaisu Laakkonen, process operator, Kokkola.

Boliden's overall goal is to create value for its shareholders through growth based on the Group's mines and a focus on profitability throughout the operations, while simultaneously taking responsibility for people and the environment. The Group monitors its goal fulfilment by means of the financial, social and environmental goals, etc. that Boliden communicates to the outside world and through the use of a number of internally set goals.

### **Financial goals**

Boliden operates in a capital-intensive and cyclic industry in which continuous improvements in productivity must have a long-term impact.

### Returns

Boliden's investments shall generate a high return and be made in line with Boliden's strategy and available resources. The projects' internal interest rates shall be higher than Boliden's weighted average cost of capital (WACC) plus a risk surcharge. The WACC before tax is currently nominally approximately 12 per cent. Calculations for major and long-term projects are normally conducted in real terms. They are based on forecast interest rates, metal prices, exchange rates, inflation and other relevant assumptions based on internal analyses and external assessments.

### Net debt/equity ratio

The net debt equity ratio in an economic upturn shall be no higher than 20 per cent in order to maintain a reasonable financial ability to act in a recession.

### Dividend

Boliden's dividend policy states that the dividend shall correspond to approximately one third of the net profit. The Board of Directors proposes a dividend for 2012 of SEK 4 (SEK 4), corresponding to 33.4 per cent (32.3%) of the net profit for the year.

The dividend share during the period from 2008 to 2012 totals 33.1 per cent of the aggregate net profit for the period.

### Sustainability goals

Boliden's handling of its most important sustainability issues has a direct impact on our ability to create long-term profitable growth. Prioritised sustainability issues are established with a view to supporting the overall strategy, and the current goal period extends up to and including 2013.

### Social goals

- Zero accidents resulting in absence from work (LTI) every month at all units
- The absence due to sickness rate shall not exceed 4.0 per cent
- The percentage of female employees shall reach at least 20 per cent by 2018

### Environmental goals (Base year: 2007)

- Discharges of metals<sup>1</sup> to water shall be reduced by 25 per cent
- Discharges of nitrogen to water shall be reduced by 20 per cent
- Emissions of metals<sup>2</sup> to air shall be reduced by 25 per cent
- Emissions of sulphur dioxide to air shall be reduced by 10 per cent
- Carbon dioxide emissions shall not increase by more than 3 per cent (taking into account planned production increases)

1) Copper, zinc, lead, nickel, cadmium and mercury.

2) Copper, zinc, lead, nickel, cadmium and arsenic.

### Gender breakdown, 2012



818 women were working for Boliden by the end of 2012, corresponding to 16.9 per cent of the workforce – an increase of 0.8 percentage points since 2011.

### Financial goals - outcome

Capital employed and returns





Net debt and

The net debt/equity ratio at the end of 2012 was 25 per cent (29%). The reduction was due to a reduction in both operating capital and tax paid.

Dividend and dividend payout ratio



An unchanged year-on-year dividend of SEK 4 per share is proposed for 2012, corresponding to 33.4 per cent of the net profit. The goal is for the dividend to correspond to approximately one third of the net profit.

to 2012 was 14 per cent.

13 per cent (17%). The average return

per annum during the period from 2008

### Sustainability goals – outcome

### Accident frequency



The number of accidents leading to absences from work (LTI) suffered by Boliden's own personnel increased in 2012 from 4.9 to 6.6 per one million hours worked. If contractors are included, the accident frequency is 9.1. Boliden's units had an average of 8 accident-free months during the year.

### Absence due to sickness



The goal of a sick leave rate that is below 4.0 per cent has been achieved. The trend has been positive in recent years and the sick leave rate for 2012 stayed at 3.6\* per cent. The goal has been achieved for the last two years for the Group as a whole, but there are still three units that have failed to achieve this target figure and work on ensuring that they do will now be intensified.

### Emissions of metals to air



Emissions of metals to air have fallen by 43 per cent since 2007.

\* Hours lost as a result of accidents at Tara are not currently included in the figures but will be included as of 2013. If these hours are included, the sick leave rate in 2012 was 3.7 per cent.





Direct emissions (comparable since 2007/2008)

Carbon dioxide emissions have increased by 4 per cent since 2007 using the 2007/2008 calculation methods.

Indirect emissions

### Operations

Boliden extracts ore and processes it to produce concentrate in four mining areas, and produces finished metals and metal alloys in five smelters. Much of the mined production goes to the Group's smelters, but Boliden also buys in raw materials from external suppliers in the form of both concentrate and recycled materials. The smelters' customers, who are located in Europe, include steelworks and other producers of galvanised products and the copper-working industry.

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The employees at the Odda zinc smelter on Norway's west coast produced over 150,000 tonnes of zinc in 2012. An extensive programme aimed at boosting the smelter's competitiveness is currently in progress. It includes, among other things, measures aimed towards increasing productivity.

# Emerging economies are driving demand

With more and more of the world's population moving to cities, the demand for the metals needed to handle investments in housing, infrastructure and for the transmission of electricity and electrical power is growing, and with continued urbanisation and GDP growth in emerging economies, the demand for metals will most likely continue to increase. Meeting this demand will, therefore, require the exploitation of new deposits and an increased level of metal recycling.

### GDP growth and urbanisation drive demand

Demand for metals is driven by population growth, GDP growth, and urbanisation. The rapid urbanisation in emerging economies is driving the expansion in infrastructure and hence the demand for important base metals.

Demand for metals grows most rapidly when the GDP per capita grows from USD 5,000 to USD 15,000. Around 33 per cent of the world's population live in countries with a GDP/capita in this interval, while approximately 44 per cent still live in countries with a GDP per capita of less than USD 5,000.

Mature economies in the west have relatively constant metal consumption rates, but the size of these countries ensures that they still account for a significant percentage of global metals consumption.

### The metals markets – concentrates and finished metals

The metals market can be said to comprise two subsidiary markets:

- The market for concentrates (raw materials), where mines and smelters are the market players, and
- The market for finished metals, where smelters and metal consumers are the market players.

The balance between the supply of concentrates from the world's mines and global demand for concentrates from smelters controls the trend in treatment and refining charges (TC/RC), which are the payments that smelters receive for processing raw materials to produce finished metals. Base metals, such as copper, lead and zinc are traded on the London Metal Exchange (LME), where pricing is determined by global supply and demand. Strong demand from emerging economies in general, and China in particular, coupled with the difficulties that the world's mines are experiencing in meeting demand, has resulted in metal prices continuing to be relatively high.

The price paid by the customer is the LME price plus a premium. This premium is based on local supply and demand, transport costs, payments for product customisation (different alloys and dimensions), payment terms and other forms of customer service.

### Market trends in 2012

Global GDP is estimated to have risen by 3.2 per cent in 2012, which was a smaller increase than in 2011, when GDP rose by 3.9 per cent. The growth rate in mature economies is estimated to have fallen from 1.6 per cent in 2011 to 1.3 per cent in 2012, while in developing countries, it fell from 6.3 per cent to 5.2 per cent.

Demand for Boliden's main metals, zinc and copper, is driven primarily by demand from the automotive and construction industries, with the emphasis on infrastructural projects. China is currently the biggest market for base metals.

Construction industry investments continued to be high in China within both the housing and infrastructure sectors, but were variable in other emerging economies.

Investments in China's railway network increased once again in 2012 after an extended period of decline. There was a weakly positive trend in construction investments in Europe and a positive trend in the housing construction sector began in the USA, albeit from a low starting level, but the trend in infrastructural investments was weak. Production of lightweight vehicles increased in Asia, North America and Japan, but remained unchanged in South America, and fell in Europe.

The rate of global industrial growth fell in comparison with 2011 but stabilised towards the end of the year. Europe's industrial production trend was negative and in the USA, growth rates were lower than in 2011. Growth rates were also lower, year on year, in developing countries, including China, but the growth rate did improve towards the end of 2012.

### **Concentrate market trends**

The balance between the supply of concentrate from the world's mines and the smelters' demand for mined concentrate determines the trend in treatment charges, which are the payments smelters receive in order to refine the concentrate into saleable metals.

### Treatment charges – zinc

Smelters' production fell during the year, but the period also saw an increase in global mined production. This resulted in a surplus of mined concentrate and in spot market treatment charges increasing during the year from low levels.

The annual treatment charge negotiations for 2012 resulted in benchmark contracts with a price level that was lower than in the previous year. The price sharing clause in place between mines and smelters resulted in realised treatment charges remaining stable throughout the year. Realised treatment charges in benchmark contracts fell by just over 12 per cent in comparison with 2011 as a whole.

Spot market treatment charges in 2012 continued to fall short of the realised contractual treatment charges.

### Treatment and refining charges – copper

Increased mined production resulted in improved availability of mined concentrate during the year, resulting, in turn, in spot market TC/RC strengthening in the latter half of the year. By the end of the year, spot price levels were approaching those in the benchmark contracts.

The benchmark contracts negotiated for 2012 were USD 62.5 per tonne of concentrate in treatment charges and USc 6.25 per pound in refining charges, in comparison with USD 56 and USc 5.6, respectively, for 2011. The benchmark level negotiated at the end of June saw an increase in the treatment charge and the refining charge to USD 63.5 and USc 6.35, respectively.

### Metal premiums

Boliden's main metals – zinc and copper – are primarily sold to industrial customers in Europe. The regional balance between metal consumption and smelter capacity determines the level of the metal premiums paid by industrial customers in addition to the metal price.

### Zinc

The European contract premiums for zinc remained virtually unchanged in comparison with 2011. Spot market premiums in Europe remained stable at around USD 130 per tonne of metal throughout 2012.

### Copper

European contract premiums for copper fell in comparison with 2011. Spot market premiums in Europe were lower than the contract premiums but rose on average by approximately 15 per cent in comparison with levels in 2011.



European metal premiums - copper



 Copper metal premiums, European benchmark contracts Source: CBU

Treatment charges – zinc



European spot metal premiums - zinc



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## Metal prices

Average prices were lower in 2012, but strong demand from emerging economies in general and China in particular, coupled with the difficulties experienced by the world's mines in meeting demand, have resulted in metal prices continuing to be relatively high.







**Copper** The average LME price of copper fell by 10 per cent in 2012 in comparison with 2011. By the end of 2012, the price was USD 7,907, corresponding to a year on year increase of 4 per cent.

Global consumption of copper metal increased by approximately 2 per cent in comparison with 2011 to approximately 19.7 million tonnes. Consumption fell by approximately 2 per cent in mature economies but increased by 5 per cent in developing countries. Consumption increased in China by 6 per cent. Consumption increased in mature economies during the first quarter, but then fell throughout the rest of the year.

Global production of copper metal by smelters and refineries increased by approximately 2 per cent in comparison with 2011 and totalled approximately 19.9 million tonnes. Production increased in all regions, and particularly in China, where it rose by 11 per cent. China produced approximately 5.7 million tonnes of copper in 2012, or just under 29 per cent of global production.

Global mined production of copper metal concentrate increased by approximately 2 per cent in comparison with 2011. Production increased in South America by approximately 6 per cent where strikes had less of an effect on production than in 2011. Production increased in Asia and North America but remained unchanged in Europe and Australia.

Global official stock levels increased during the year by 8 per cent to 0.6 million tonnes. Stock levels at the end of 2012 corresponded to 11 days' global copper consumption.

### Demand trend – copper

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### Demand trend – zinc





**Zinc** The average price of zinc on the London Metal Exchange (LME) was 11 per cent lower in 2012 than in 2011. The price fell during the first half of the year but recovered during the latter half and by the end of 2012, the price of zinc had risen by 12 per cent from the end of 2011 to USD 2,050.

Global consumption of zinc metal totalled approximately 12.5 million tonnes in 2012, corresponding to a year on year increase of approximately 1 per cent. Consumption fell in mature economies by approximately 1 per cent, while in developing countries, it rose by approximately 2 per cent. Consumption increased in China by approximately 3 per cent. Global production of metal by zinc smelters totalled approximately 12.6 million tonnes, which corresponds to a year on year reduction of approximately 3 per cent. Production increased in mature economies but fell in developing countries. Smelter production of zinc in China, which accounts for 38 per cent of global production, fell by 6.5 per cent.

Global mined production of zinc metal concentrate increased by approximately 2 per cent in comparison with 2011. Production levels remained unchanged in South America and Europe but rose sharply in China.

Global official zinc stocks at LME and the Shanghai Futures Exchange (SHFE) increased during the year by 29 per cent to 1.5 million tonnes at the end of 2012, corresponding to 45 days' global consumption.





**Gold** The average price of gold rose by 6 per cent during 2012. The gold price at the end of the year was USD 1,664 per troy ounce, corresponding to a year on year increase of 6 per cent. Gold has long been an important asset class among financial investors and is often regarded as a lower risk option when the global economy is weak. The strong interest in gold as an investment has continued in 2012 and continues to be driven by the below par performance of the global economy, a weak US dollar, concerns about the situation in many countries' financial sectors, and relatively low interest rates.





**Silver** The price of silver was an average of 12 per cent lower than in 2011. At the end of the year, silver was priced at USD 30 per troy ounce, corresponding to a 6 per cent year on year rise. Silver consumption by the manufacturing and jewellery industries is estimated to have fallen by approximately 1 per cent during 2012. Silver supplies from mines and recycled silver are estimated to have been lower than in 2011 but still exceeded consumption. The supply surplus is estimated to have been balanced out by financial investors.

### Price trend – silver









**Lead** The average LME price of lead fell by 14 per cent in 2012. The price had risen to USD 2,317 per tonne by the end of the year, however, corresponding to a rise of 15 per cent. Lead stock levels on LME fell during 2012.

Much of the world's lead consumption is met through metal recycling and changes in the mined production of lead have less of an effect on the market balance than is the case for other base metals.

Global demand for lead metal increased by approximately 4 per cent in comparison with 2011 to 10.6 million tonnes. Production and deliveries of batteries to the replacement market and for new vehicles has increased slightly overall. Global metal production by smelters increased by approximately 2 per cent, with smelter production being on a par with metal consumption levels.

The supply of mined lead metal concentrate tracks, to some extent, the mined production of zinc as lead is a subsidiary metal for many zinc mines. Global mined production is estimated to have increased by approximately 6 per cent during the year.

**Sulphuric acid** is a by-product of the smelting process (primarily at copper smelters) and is mainly used in the artificial fertiliser, pulp, mining and petrochemical industries. Sulphuric acid must be stored in special tanks and it is vital, therefore, that smelters have an outlet for their sulphuric acid production and that there is a balance between demand for metal and sulphuric acid.

Demand for sulphuric acid in northern Europe is estimated to have remained stable in Boliden's key customer segments throughout the year and the price level for 2012 as a whole was on a par with that in 2011. The market price in Europe fell, according to analysis companies, to an average level of just under EUR 80 per tonne in 2012, corresponding to a year on year fall of approximately 15 per cent.

# How the metals market works

The metals market can be said to comprise two subsidiary markets: the market for concentrates (raw materials), where mines and smelters are the market players, and the market for finished metals, where smelters and metal consumers are the market players.

### The metals market's income components

#### From metal...

The market for metal concentrates – the mines' end product – is a global one. The bases for the mines' income are the base metal prices that are set daily on the London Metal Exchange (LME) and the precious metal prices that are set by the London Bullion Market Association (LBMA). These prices are controlled by the global supply of and demand for base and precious metals. The increased demand for metals from China and other populous countries has resulted in increases in base metal prices in recent years. The metal price trend is also affected by the supply of metal concentrates from the world's

mines, and if mines are to be willing to invest in future production, they need prices that compensate for their investments in exploration, the risk associated with growth investments, and increased production costs. When metal prices fall, mines invest less in growth which, in turn, reduces the concentrate supply in the medium term.

A number of factors affect a mine's income. Concentrates with a higher payable metal content and only smaller amounts of impurities yield higher income. A high percentage of valuable by-products, such as gold and silver, also has a positive effect on income and competitiveness. Treatment and refining charges  $(TC/RC)^*$ , i.e. the payment received by the smelters for refining the raw material into finished metals, also have an effect. For a given metal price, lower TC/RC means that the mine's income increases because TC/RC comprise a deduction from the metal price and hence define the purchase prices paid by the smelters.

\* Refining charges (RC) refer to the final stage in the copper smelters' refining of copper, gold and silver metals. The zinc smelters' processes do not include a corresponding refining stage and RC is consequently not a component of the zinc smelters' income.

### How the metal value is divided between mines and smelters (not to scale)



#### ...to sales

The smelters sell the finished metal at the LME price plus a regional metal premium. The smelters also receive remuneration in the form of treatment and refining charges (TC/RC)\* for processing the metal concentrate. TC/RC are paid by the mines by means of a deduction from the concentrate price. The zinc smelters' income is also affected by price-sharing clauses, which means that changes in the metals' market prices are shared between the mines and the smelters. TC/RC and price sharing clause levels are determined by the global balance between mined production and the smelters' demand for raw materials

The smelters' income is also, in addition to TC/RC and price sharing terms,

affected by the volume of free metals produced, i.e. the metal production that occurs over and above the payable metal in the raw material. Just as with the price sharing terms, it is the current metal prices that determine the value of free metals. The metal premiums are negotiated on an individual customer basis and are affected by the regional balance between metal supply and demand.

\* Refining charges (RC) refer to the final stage in the copper smelters' refining of copper, gold and silver metals. The zinc smelters' processes do not include a corresponding refining stage and RC is consequently not a component of the zinc smelters' income.

### Smelters' gross profits, excl. by-products \* \* (not to scale)



\*\* Smelters in general, and copper smelters in particular, also produce a number of by-products such as sulphuric acid, aluminium fluoride, sulphur dioxide and palladium concentrate.

### Definition of cash cost, normal costing C1\*

Boliden uses Wood Mackenzie's cash cost metric, C1, to measure the mines' cost position in relation to other mines worldwide. The lower a mine's cash cost, the better its cost position. A cash cost of less than zero means that the value of by-products exceeds deductions for treatment and refining charges, production and administration costs, and freight charges.

C1 Cost is the Net Direct Cash Cost necessarily incurred from mining through to refined metal, less, for normal costing (section C5) net by-product credits. Depreciation includes depreciation of fixed assets and amortisation (depletion) of capitalised development expenditure. C2 Cost is C1 Cost, plus depreciation. Indirect Costs are those costs described above. Interest Changes are interest payable, less interest receivable on overdrafts, short-term loans and long-term loans. C3 Cost is C2 Cost, plus interest and indirect cost.

- + Mining production, concentration and administration costs
- + Cost of freighting concentrate to smelter
- + Treatment and refining charges (TC/RC)
- Less value of by-products
- = Cash cost 1 (C1)

\* Normal Costing in which full costs are allocated to the metal under analysis and net by-product revenue is credited against cash operating costs to give a net cash operating cost. This method is sometimes called by-product credit costing. Under normal costing, 100 per cent of the costs at each process stage are allocated to the metal under consideration, if there is any payable production of that metal percent that meaner at the source stage. cash present at that process stage.

### The base metal market's income components

Income components	
LME price, USD/tonne	А
The concentrate's metal grade, %	в
The concentrate's payable metal content, %	С
Fees for any impurities present in the metal concentrate, USD/tonne of metal concentrate	D
Percentage of metal content that individual smelters are able to refine, $\%$	Е
Treatment charge (TC), USD/tonne of metal concentrate	F
Refining charge (RC)*, USD/tonne of payable metal content	G
Effects of any price escalators, USD/tonne of metal concentrate	н
Income from any subsidiary metals and other by-products in the metal concentrate, USD/tonne of metal concentrate	I
Income from extraction of any subsidiary metals and other by-products in the smelting concentrate, USD/ tonne of metal concentrate	J
Metal premiums, USD/tonne of sold metal	к
Transport cost for metal delivery from smelter to customer, USD/ tonne of metal concentrate	L

Finished base metals are priced globally on the London Metal Exchange (LME). The mines' income is based on LME prices, but is also affected by a number of other factors. The smelters' income comprises treatment and refining charges, which are based on supply and demand for metal concentrate and a number of other components.

Mines' income	
Metal concentrate (per tonne dry weight)	A* B* C – (D+F+G) +/– H + I
Smelters' income	
Metal concentrate (per tonne dr	y weight)
Treatment and refining charges <sup>1</sup>	F + G +/- H + D
Free metals	A*B*(E–C)
Extraction of subsidiary metals and	d by-products <b>J</b>
Value of metal premiums	B* E* (K – L)

<sup>1)</sup> Refining charges (RC) refer to the final stage in the copper smelters' processing of copper, gold and silver metals. The zinc smelters' pro-cesses do not include equivalent refining and refining charges do not, therefore, form part of the zinc smelters' income

### The base metal market's pricing conditions

HIGH METAL PRICES AND HIGH TC/RC

HIGH METAL PRICES AND LOW TC/RC

for metals relative to the availability of mined metals,

while capacity utilisation levels in the smelting industry

The market is characterised by high levels of demand for

metals relative to the availability of mined metals, while

capacity utilisation levels in the smelting industry are

Base metal prices are governed by global supply and demand. Treatment and refining charges (TC/RC) are determined by demand for metals, smelter capacity and the supply of metal concentrates from the mines.

are on a high level.

below normal.

+METAL CONCENTRATE AVAILABILITY 

#### LOW METAL PRICES AND HIGH TC/RC The market is characterised by high levels of demand

The market is characterised by low levels of demand for metals relative to the availability of mined metals, while capacity utilisation levels in the smelting industry are high.

#### LOW METAL PRICES AND LOW TC/RC

The market is characterised by low levels of demand for metals relative to the availability of mined metals, while capacity utilisation levels in the smelting industry are below normal.

METALS AVAILABILITY

## How to interpret Boliden's figures

Boliden's operating profits are reported by Business Area Mines and Business Area Smelters. Transactions between the Business Areas are settled at market price. This presentation provides a brief summary of Boliden's results and profit performance at Business Area and Group level.

### 1 MINES' REVENUES are

affected by metal prices, exchange rates, TC/RC and metal price and exchange rate hedging.

(2) THE OPERATING PROFIT is affected not only by metal prices, exchange rates and price hedging, but also by metal grades and production volumes, the metal recovery during the concentration process, TC/RC levels, and the operating costs trend.

(3) SMELTERS' REVENUES are affected by metal prices and metal premiums, which are paid over and above the LME prices. The smelters' sales of a number of by-products are also an important part of the revenues. The results of metal price and exchange rate hedging are also included in this figure.

(5)

(4) THE GROSS PROFIT is made up of metal premiums, treatment charges and income from free metals and by-products, and comprises the difference between what the smelters pay for the raw material and the sales revenues.

(5) THE OPERATING PROFIT comprises the gross profit minus the operating costs. The most important cost items for the smelters are those in connection with energy, personnel and external services, which are largely affected by maintenance of the facilities. The operating profit is shown both including and excluding the revaluation of the smelters' process inventories.

Excluding the effect of process inventory revaluation provides a better picture of the underlying trend.

### 6 OTHER AND ELIMINATIONS

includes Group staff functions and Group-wide functions, and the elimination of profits on intra-Group sales.

	Business Area Mines, SEKm	2012	2011	
1	Revenues	9,509	10,279	$\left  \right $
2	Operating profit	2,908	3,913	ſ
	Investments	3,186	2,338	
	Capital employed	16,267	14,272	

	Business Area Smelters, SEK m	2012	2011	
3	Revenues	38,753	38,471	₿
4	Gross profit excl. revaluation of process inventory	7,288	7,160	C
5) {	Operating profit excl. revaluation of process inventory	1,072	1,051	D
	Operating profit	1,201	790	
	Investments	993	1,627	
	Capital employed	15,569	16,213	

$\bigcirc$	Other and Eliminations, SEK m	2012	2011
0		2012	2011
	Revenues	-8,261	-8,427
	Operating profit other	-38	45
	Of which internal profit eliminations	111	119
	Investments	6	33
	Capital employed	-415	-12

The Group, SEKm	2012	2011	
Revenues	40,001	40,323	
Operating profit	4,071	4,748	
Operating profit excl. revaluation of process inventory	3,941	5,008	
Investments	4,185	3,998 (	Ē
Capital employed	31,421	30,473	

#### (A) REVENUES FELL by 7 per cent due to lower average prices in SEK for the majority of Boliden's metals. THE OPERATING PROFIT FELL by 26 per cent as a result of lower

by 26 per cent as a result of lower prices and higher costs. The volume trend and price effect were both negative. Exchange rate effects were positive.

(B) REVENUES ROSE marginally as a result of higher volumes. This was counteracted by lower prices.

C THE GROSS PROFIT for the smelters rose by 2 per cent. The copper treatment charges, metal premium and free metal trends were positive.

(D) THE OPERATING PROFIT excluding the revaluation of process inventory rose marginally. Higher volumes were counteracted by poorer prices and terms.

### (E) INVESTMENTS CONTINUED

at a high level, primarily as a result of the expansion projects at Garpenberg and Kankberg.

## The Group

2012 was distinguished by its strong focus on the expansion projects at both mines and smelters. Lower prices yielded lower profits.

### **Revenues**

Boliden's revenues remained largely unchanged in comparison with 2011. Higher volumes from the smelters compensated for lower average prices during the year for all metals with the exception of gold. The Group's sales totalled SEK 40,001 million (SEK 40,323 m).

### **Operating profit**

The operating profit totalled SEK 4,071 million (SEK 4,748 m). The revaluation of the smelters' process inventory had a positive effect on the profit of SEK 129 million (SEK –261 m). If the revaluation is excluded, the operating profit totalled SEK 3,941 million (SEK 5,008 m).

Business Area Mines' operating profit fell to SEK 2,908 million (SEK 3,913 m) while for Business Area Smelters, the operating profit excluding revaluation of the process inventory was slightly up on last year at SEK 1,072 million (SEK 1,051 m).

The volume effect includes a negative effect of SEK 236 million attributable to Mines and to the lower volumes of payable metals from Garpenberg and Aitik. The volume effect for Smelters was positive at SEK 440 million and was primarily due to the increased volume of free metals and increased feed of secondary raw materials by the copper smelters.

Lower average prices for all metals with the exception of gold yielded a combined negative effect on the operating profit of SEK 1,154 million. The realised profit on metal price and currency hedging fell by SEK 84 million to SEK 242 million (SEK 326 m). Other changes in terms had only marginal effects on the profit in comparison with 2011.

The US dollar strengthened against both the Swedish krona and the euro and this, together with other exchange rate fluctuations, affected the operating profit with SEK 625 million.

The Group's operating expenses excluding depreciation totalled SEK 10,841 million (SEK 10,575 m). The increase in local currencies, after adjustment for a provision of SEK 125 million to the reclamation reserve in 2011, was 5 per cent. The cost increases are primarily attributable to consumables and spare parts and to personnel and energy costs. Personnel costs increased as a result both of salary increases and of the increase in the number of employees in connection with the ongoing and completed expansion projects.

Boliden's net financial items for the year totalled SEK –179 million (SEK –188 m) and the pre-tax profit totalled SEK 3,892 million (SEK 4,560 m).

Reported tax for the year totalled SEK –618 million (SEK –1,171 m). The net profit was SEK 3,274 million (SEK 3,389 m) corresponding to earnings per share of SEK 11.96 (SEK 12.39).

The net profit was positively affected by a non-recurring effect that had no impact on the cash flow and which resulted from the government decision in December to lower Sweden's corporation tax rate from 26.3 per cent to 22 per cent. The effect, which totalled SEK 415 million, reduced the year's reported tax and increased the earnings per share by SEK 1.54.

### Increased future reclamation costs

Future reclamation costs for the Swedish mines currently operational are expected to exceed those previously assumed and the reclamation reserve and fixed assets have consequently been increased by SEK 538 million. The amount has no impact on the operating profit or cash flow for the year. The annual depreciation will, as of 2013, increase by approximately SEK 30 million and approximately SEK 10 million will be charged to the net financial items each year.

Operating profit, SEK m	2012	2011
Revenues	40,001	40,323
Operating costs before depreciation	10,841	10,575
Depreciation	2,218	1,937
Operating profit	4,071	4,748
Operating profit excl. revaluation of process inventory	3,941	5,008
Operating profit analysis, SEK m	2012	2011
Operating profit	4,071	4,748
Revaluation of process inventory	129	-261
Operating profit excl. revaluation of process inventory	3,941	5,008
Change		-1,067
Analysis of change		
Volume effect		204
Prices and terms		-1,154
Metal prices and terms		-1,028
Realised metal price and currency hedging *		-84
TC/RC terms		-45
Metal premiums		3
Exchange rate effects		625
Of which translation effects		-22
Costs		-516
Depreciation		-311
Internal profit elimination		-8
Other		95
Change		-1,067
*Operating profit for resp. period	2012	2011
Realised metal price and currency bedging	242	326

### Investments

Investments for the year totalled SEK 4,185 million (SEK 3,998 m). The amount includes, over and above the amount invested, capitalised reclamation costs totalling SEK 538 million (SEK 47 m) under fixed assets. Major investments during the year included the ongoing expansion project at Garpenberg, the Kankberg gold mine in the Boliden Area, and the conclusion of the investment in increased electronic scrap recycling capacity at Rönnskär at the beginning of the year.

### **Cash flow**

The cash flow from operating activities before investments totalled SEK 5,518 million (SEK 4,021 m) in 2012. Tax paid for the year totalled SEK 1,145 million (SEK 1,540 m).

The working capital decreased by SEK 320 million (SEK 1,017 m), primarily due to higher accounts payable and lower accounts receivable. The change in working capital and the lower tax paid are the reason for the improvement in the free cash flow to SEK 1,389 million (SEK –3 m).

### **Financial position**

On 31st December 2012, Boliden's net debt totalled SEK 5,673 million (SEK 6,063 m). Shareholders' equity totalled SEK 22,949 million (SEK 21,032 m) including the net market valuation of currency, interest and raw materials derivatives totalling SEK –145 million (SEK 120 m) after fiscal effects.

The positive cash flow for the year resulted in a reduction in the net debt and the net debt/equity ratio at the end of 2012 was 25 per cent (29%).

The average term of Boliden's total loan facilities was 3.5 years (3.3 yrs.) at the end of the year. The average interest level on the debt portfolio on 31st December was 3.12 per cent (3.29%) and the fixed interest term was 0.9 years (1.0 yrs.).

At the end of the year, Boliden's current liquidity totalled SEK

Investments, SEK m	2012	2011
Investments – Mines	3,186	2,338
Investments – Smelters	993	1,627
Investments – Other	6	33
Total investments	4,185	3,998
Cash flow, SEK m	2012	2011
Cash flow from operating activities before changes in working capital	5,198	5,039
Changes in working capital	320	-1,017
Cash flow from operating activities	5,518	4,021
Cash flow from investment activities	-4,129	-4,024
Free cash flow (before financing)	1,389	3
Capital structure and return	2012	2011
Balance Sheet total, SEK m	40,035	37,615
Capital employed, SEK m	31,421	30,473
Shareholders' equity, SEK m	22,949	21,032
Net debt, SEK m	5,673	6,063
Return on capital employed, %	13	17
Return on shareholders' equity, %	15	17
Equity/assets ratio, %	57	56
Net debt/equity ratio, %	25	29

9,150 million (SEK 8,734 m), comprising liquid assets and

unutilised binding credit facilities less commercial papers issued. For further information on Boliden's debt portfolio, see Note 21 on page 104.

### **The Parent Company**

The Parent Company conducts limited operations on commission from Boliden Mineral AB and has no employees. The Income Statements and Balance Sheets for the Parent Company are shown on page 82.



### Sensitivity analysis – operating profit

The following table contains an estimation of the effect on the operating profit, before tax, of changes in market terms for the following year. The effect is calculated on the basis of closing day prices on 31st December 2012 and is based on forecast metal sales.

The sensitivity analysis does not take into account the effects of metal price and currency hedging, the effect of the smelters' process inventory revaluation or contracted TC/RC. The analysis does not include assumptions regarding such factors as cost inflation, discrepancies in production trends or macroeconomic conditions.

The starting point for calculating the effects of a 10 per cent change in metal prices is the so-called "cash price" on the LME on 31st December 2012. The corresponding starting point for changes in the value of the US dollar is spot rates on the same date. The effect of changes to treatment and refining charges is based on changes in relation to the average level during the fourth quarter.

### Principles for remuneration to the President and other senior executives

Background

Boliden applies the total remuneration level principle, i.e. fixed salary, variable remuneration, pension benefits and other benefits, with the aim of being able to offer senior executives a competitive total remuneration package as part of our ability to attract and retain the most highly skilled individuals. Remuneration to senior executives is described in Note 1 on pages 89–90.

The President's remuneration is proposed by the Remuneration Committee and approved by the Board of Directors. The President proposes the remuneration levels for other senior executives to the Remuneration Committee, which approves them and then informs the Board of Directors.

#### Guidelines

The remuneration to senior executives shall comprise a fixed salary, variable remuneration, pension benefits and other benefits. The individual's total remuneration shall reflect his or her performance, responsibility and expertise. The senior executives shall undergo an annual salary review.

The variable remuneration component shall be linked to the individual in question's principal sphere of responsibility and shall, primarily, comprise one or more financial parameters. The maximum variable remuneration shall be 60 per cent of the fixed annual salary for the President and 40–50 per cent of the same for other senior executives. 10 percentage points of this shall be conditional upon Boliden shares being purchased for the gross sum before tax.

Senior executives shall have a defined contribution pension solution and a retirement age of 65.

The Board does not intend to propose any changes to these guidelines to the 2013 Annual General Meeting.

Sensitivity analysis - Operating profit					
Change in metal prices, +10%	Effect on operating profit, SEK m	Change in USD, +10%	Effect on operating profit, SEK m	Change in TC/RC, +10%	Effect on operating profit, SEK m
Copper	390	USD/SEK	980	TC/RC Copper	80
Zinc	450	EUR/USD	375	TC Zinc	45
Lead	85	USD/NOK	75	TC Lead	-5
Gold	170				
Silver	140				

### Investments and cash flow before investments



### Free cash flow



#### Cash flow before investments and

**investments.** The cash flow from operating activities before investments increased as a result of a decrease in working capital and a lower tax paid item.

Free cash flow. The free cash flow increased by SEK 1,392 million. Investments remained on a par with levels in 2011.

# Risks and risk management

Boliden's operations are cyclically sensitive and are exposed to fluctuations in metal prices and exchange rates. The operations also have a significant impact on the surrounding environment and many processes are associated with serious work environment and safety risks. Boliden consequently works unceasingly to reduce these risks and their negative impact, e.g. through active scenario planning that builds external confidence in Boliden.

### **Operational risks**

Operational risks are managed by the operating units in accordance with the guidelines and instructions adopted by Boliden at both Business Area and Group level.

Risk	Description of risk	Management
Health and safety	Boliden handles large material flows, high temperatures and, from time to time, substances that are hazardous to health. Deviations from established routines or inadequate main- tenance can give rise to dangerous situations and the risk of injury to employees. The risk of serious accidents that can result in personal injury or death is ever-present and ongoing efforts to minimise it are vital.	Risk analysis, clear safety routines, health & safety training for all employees and contractors. Zero tolerance goal for accidents to which everyone works. Measuring, monitoring and feedback.
Unplanned stoppages	Boliden's production essentially comprises continuous pro- cesses and unplanned stoppages can affect production, emis- sions and discharges to air and water, and financial results. The stoppages can, in some cases, be long-term ones. Unplanned stoppages can, for example, occur due to technical problems, accidents or strikes.	Boliden carries out preventative maintenance work at all of its production facilities. Major maintenance shutdowns are carried out every year within the smelting operations, while maintenance work is an integral part of the day-to-day opera- tions for the mines. The smelting and mining operations have been working with a range of internal benchmark pro- jects and knowledge exchange between the production facili- ties for a number of years now, and Boliden has also adopted a zero tolerance vision for accidents in order to help prevent unplanned stoppages.
Emissions and discharges to air and water	Emissions and discharges of metals to air and water are a side- effect of the operations. The risk lies in the potential for exceed- ing limit values or in emissions/discharges that damage the environment. The challenge of reducing carbon dioxide emis- sions without cutting back on production means that a potential carbon dioxide charge poses a risk.	Risk analysis, working in line with management systems, ongoing monitoring and maintenance. Investment in new technology, transition to renewable fuels, improving process and operational efficiency. Goals, measuring, monitoring and feedback.
Impact on the physical environment	Dams, including tailings ponds and storage reservoirs, account for Boliden's most dramatic impact on the external environment. The risks comprise both the environmental impact of building a dam and the risk of a dam failure result- ing in the discharge of contaminated water.	Dam safety is a priority issue. Boliden works proactively to minimise its safety- and environment-related impact on its surroundings. Boliden also works systematically with in-house monitoring and inspections. Every operating unit with its own dam has a Dam Safety Manager and a Dam Operations Manager. The dams are operated in accordance with the Gruv- RIDAS dam safety guidelines produced by the Swedish indus- try organisation for mining and metal companies, SveMin.
Climate change	The consequences of climate change, primarily in the form of increased precipitation, increase the stresses on Boliden's water treatment processes. The risk lies in the possibility of emissions/discharges that exceed limit values and of Boliden failing to achieve its goals with regard to reduced emissions and discharges. Boliden's operations have an impact on the climate, mainly in the form of carbon dioxide emissions. The climate impact may result in increased costs.	Boliden works proactively with continuous monitoring and process optimisation and with the potential for an increase in the capacity of Boliden's water treatment processes.
Talent pool	A significant percentage of Boliden's employees will retire over the next 10 years. Stiff competition for skilled employees increases the difficulty of replacement recruitment.	Ongoing succession and knowledge transfer work. Increased involvement in the education sector, improving knowledge of Boliden among students, training under Boliden's auspices and targeted recruitment activities.

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### **Market and commercial risks**

Boliden's market and commercial risks are primarily managed within the individual Business Areas.

Risk	Description of risk	Management		
Metal prices	Changes to metal prices have a significant impact on Boliden's profits.	Boliden's policy is not to hedge metal prices, but rather to allow changes to be reflected in the result. There are some exceptions to this, e.g. when mining ore bodies with short residual lifespans or in order to ensure financial effective- ness in conjunction with major investment projects.		
Treatment and refining charges	Make up a large part of the smelters' gross profit and are determined by the supply/ demand in the metal concentrates market.	The terms are negotiated annually by the major players in the mining and smelting industries. Boliden applies these terms.		
Revaluation of process inventory	Stock tied up within the smelters' production process.	Not price or currency hedged. Price changes have an effect on the profit and are reported separately in order to clarify this item's effect on the Group's profits. Does not affect the cash flow.		
Customers	Significant reliance on a small number of large copper custom- ers. Reduced sales to industrial customers in Europe increase the risk of sales via the London Metal Exchange (LME), with lower margins as a result.	Boliden endeavours to reduce the risk by expanding the customer portfolio through targeted sales activities.		
Raw materials supply	The raw materials supply is important in enabling smelters to produce at high levels of capacity utilisation and consistent qual- ity. Approximately 75 per cent and 40 per cent, respectively, of the smelters' copper and zinc requirements are met by exter- nal suppliers.	Boliden endeavours to conclude long-term agreements with external metal concentrate and recycling materials suppliers.		
Energy prices Energy accounts for approximately 17 per cent of operating costs and changes in energy prices can have a significant effect on profitability.		Boliden endeavours to conclude long-term energy supply contracts and the majority of Boliden's energy requirements over the next 5–10 years are covered by long-term con- tracts. They are complemented by electricity price hedging with terms of up to 3 years. Boliden is also working to reduce its energy requirement and is involved in several cooperation projects aimed at securing its energy supply.		

### **Financial risks**

The financial risks are managed centrally by Boliden's treasury function. The treasury function is tasked with identifying and managing the Group's financial risks in line with the finance policy adopted by the Board of Directors. For further information on financial risks, see Note 20 on page 102. Information on legal proceedings and disputes is presented in Note 25 on page 109.

Risk	Description of risk	Management Transaction exposure in conjunction with binding undertak- ings is hedged, other than for the smelters' process invento- ries. Exposure in conjunction with forecast cash flows is nor- mally not hedged. (See also Metal prices, above.) Translation differences are eliminated with the help of external borrow- ing and currency futures contracts.		
Exchange rate risk	Boliden's products are largely priced in USD and fluctuations in the USD/SEK exchange rate consequently have a signifi- cant effect on Boliden's results. The risk comprises trans- action exposure and translation exposure.			
Interest rate risk	Fluctuations in the market interest rates affect the Group's profits and cash flows.	Boliden's financial policy provides the scope for an average fixed interest term of up to 3 years.		
Refinancing and liquidity risk	The risk that Boliden will be unable to extend existing loans or meet its payment undertakings due to insufficient liquidity.	Boliden works actively to ensure satisfactory current liquidity by making appropriate use of unutilised credit facilities. The refinancing risk is reduced by ensuring good counter- party, financing sources and term spreads.		
Credit and counterparty risk	The risk that a counterparty in a transaction may fail to fulfil their obligation, causing the Group to incur a loss.	Boliden's financial policy dictates that only highly creditworthy counterparties are accepted and that, wherever possible, the commitment per counterparty is limited.		
Risk management and insurance	The risk of damage or injury causing a financial loss.	Continuous development of the damage and injury preven- tion work and the development of Group-wide insurance solutions.		

## The Boliden share

The Boliden share is listed on the NASDAQ OMX Stockholm Exchange in the Large Cap segment and the Basic Resources sector index. The share also has a secondary listing on the Toronto Stock Exchange. The share is included in several international indices in addition to the NASDAQ OMX index. The share price rose during the year by 21 per cent thereby outperforming both the total index and the sector index.

### **Trading in the Boliden share**

The number of Boliden shares traded on the NASDAQ OMX Stockholm Exchange fell in 2012, with 662 million (823 m) shares traded during the year at a value of SEK 70 billion (SEK 86 b). An average of 2.6 million (3.3 m) shares were traded per trading day on the NASDAQ OMX Stockholm Exchange. Trading in Stockholm accounted for 55 per cent (73%) of the total turnover on the Boliden share and trading in the Boliden share accounted for 2.6 per cent (2.3%) of the total number of shares traded on the NASDAQ OMX Stockholm Exchange.

Share trading has become successively more fragmented since the implementation of the MiFID Directive at the end of 2007 and more and more of the trading in Swedish shares is taking place outside the NASDAQ OMX Stockholm Exchange. Trading in the Boliden share in so-called alternative marketplaces, Multilateral Trading Facilities (MTF), increased during the year and accounted for approximately 45 per cent (27%) of the total number of Boliden shares traded in 2012. The biggest marketplace after Stockholm was BATS Chi-X Europe, with 16 per cent of trading in the Boliden share. A total of 1,199 million shares at a combined value of SEK 129 billion were traded in the marketplaces in 2012. The share's turnover rate was 438 per cent (283%).

At the end of 2012, the Boliden share was quoted at SEK 122.10 (SEK 100.50) on the NASDAQ OMX Stockholm

Exchange, corresponding to a market capitalisation of SEK 33.4 billion (SEK 27.5 b). In common with other raw material companies, the variation in the value of the Boliden share is, on average, greater than for the broad stock market index. The socalled beta value of the Boliden share over the last five years against OMXSPI is 1.48.

### **Price trend and dividend**

The Boliden share rose by 21 per cent in comparison with the OMX Stockholm 30 and OMX Nordic 40 indices, which rose by 12 and 18 per cent respectively, in 2012. The Board of Directors intends to propose to the Annual General Meeting of the shareholders in the company that a dividend of SEK 4 (SEK 4) per share be paid for 2012. The proposed dividend corresponds to 33.4 per cent (32.3%) of the net earnings per share and a dividend yield of 3.3 per cent (4.0%), calculated on the basis of the Boliden share price at the end of 2012.

The Boliden share's total return (the sum of the dividend paid and the price trend) over the most recent 10-year period was on average 30 per cent per annum. A table of share-related key ratios over a 5-year period is shown on page 119.

### Share capital

There are a total of 273,511,169 Boliden shares. Every share has a nominal value of SEK 2.12 and the share capital totals SEK 578,914,338. Boliden's share capital comprises a single class of share in which every share has the same voting power and grants the same entitlement to dividends. There are no limitations with regard to the number of votes that a shareholder can exercise at General Meetings of the company's shareholders. The Boliden Articles of Association contain no provision restricting the right to transfer shares. Boliden has neither transferred any of its own shares nor issued any shares in 2012.

Boliden is unaware of any agreement between shareholders that may entail restrictions on the right to transfer shares in the company. Boliden is not party to any significant agreement affected by any public buyout offer. Boliden has no shareholders who, either directly or indirectly, represent at least one tenth of the total number of votes for all shares. Boliden's employees hold shares via a profit sharing foundation for which voting rights cannot be directly exercised.

### **Ownership structure**

Boliden had 90,234 (95,034) registered shareholders on 31st December 2012. Approximately 40 per cent (43%) of the shares were owned by Swedish institutions and equity funds, approximately 45 per cent (40%) by foreign owners, and approximately 15 per cent (17%) by Swedish private persons. The ten biggest single shareholders named in the official register of shareholders represent 20 per cent (24%) of the share capital.

The table overleaf shows Boliden's ownership structure on 31st December 2012.

Banks who monitor Boliden		Distribution of Boliden shares on 28th December 2012					
ABG Sundal Collier	Goldman Sachs Handelsbanken	Shareholding	Number of shareholders	Number of shares	Holding, %	Votes. %	
Merrill Lynch	HSBC	1 – 500	69,257	10,883,844	3.98%	3.98%	
Bank of Montreal	Morgan Stanley Nordea	501 - 1,000	10,658	9,116,654	3.33%	3.33%	
Carnegie		1,001 - 5,000	8,332	18,809,643	6.88%	6.88%	
Cheuvreux	Pareto Öhman	5,001 - 10,000	928	7,005,548	2.56%	2.56%	
Citi	SEB Enskilda	10,001 - 50,000	669	13,978,940	5.11%	5.11%	
Deutsche Bank	Swedbank Markets UBS	50,001 - 100,000	108	7,917,170	2.89%	2.89%	
Erik Penser		100,001 -	282	205,799,370	75.24%	75.24%	
Exane BNP Paribas		Total	90,234	273,511,169	100.0%	100.0%	

Source: Euroclear

DIRECTORS' REPORT

#### The share in brief NASDAQ OMX Marketplace Stockholm Short name BOL ISIN code SE 0000869646 1700 ICB code Highest price paid, 2012 SEK 125.60 Lowest price paid, 2012 SEK 87.80 Closing price, 2012 SEK 122.10 Market capitalisation 30th December 2012 SEK 33.4 billion Turnover rate, 2012 234% Number of shares 273,511,169 Beta value (5 years) 1.48

Source: NASDAQ OMX

Boliden's 10 biggest owners on 31st December 2012	
Percentage of capital and votes, %	)
Swedbank Robur fonder	4.38
AMF Försäkring och Fonder	3.86
Nordea fonder	2.54
AFA Försäkring	1.73
Handelsbanken fonder	1.54
Söderbloms Factoringtjänst AB	1.54
SEB Investment Management	1.48
Andra AP-fonden	1.09
Folksam – KPA – Förenade Liv	1.02
Tredje AP-fonden	1.02
Total	20.20
The above table includes only owner by name in the Euroclear register of holders	s listed share-

Source: Euroclear

### Shareholder information on the website

Boliden's website, www.boliden.com, provides continuously updated information on Boliden, the performance of the Boliden share, metal prices and currencies, and financial reports, along with details of how to contact Boliden. Presentations of Interim Reports and capital market days are also available on the website.



The share price rose by 21 per cent during the year and consequently outperformed both the total index

### **Trading in different** marketplaces



Source: Fidessa

1,600 1,400 1,200 1,000 800 600 400 200 Ο -200 03 04 05 06 07 08 09 10 11 12

Total shareholder return (TSR)

Annual return Accumulated return

The average total shareholder return on the Boliden share over the past 10 years was 30 per cent per annum and 1,320 per cent for the period as a whole. The OMX total return index rose by 215 per cent during the same period.

Source: SIX and Alert IR



Source: SIX

of the shares were in foreign ownership at the end of the year.

Source: Euroclear



Foreign financial companies were the biggest shareholder category at the end of the year. Source: Euroclear

### Share price, sector index and OMX

and the sector index.

# From exploration to customer

Boliden's value chain – from exploration to customer – comprises two Business Areas: Mines and Smelters. Mines carries out exploration, mining, concentration and concentrate sales, while Smelters handles raw materials feed, metal production and sales of metals and by-products.

### **Business Area Mines**

### **1** Exploration

Boliden's exploration focuses on deposits that contain zinc, copper and precious metals. Zinc-bearing ores often also contain silver and lead as subsidiary metals. Successful explorations conducted since 2003 have resulted in an increase in Boliden's mineral reserves and mineral resources. This has enabled the expansion of the Aitik and Garpenberg mines.

### 2 Mining

The ore extracted in Boliden's different mines contains between 3 and 7 per cent zinc and between 0.2 and 0.8 per cent copper. The average grade of the gold ore mined at Kankberg is 3.8g/tonne. Most of the mines also contain significant amounts of lead, gold, silver and other subsidiary products.

### **3** Concentration and concentrate sales

The metal grades of the zinc and copper concentrates produced in Boliden's concentrators are around 55 per cent and 25 per cent, respectively. They also contain gold and silver. The metal grade of the lead concentrate varies between 45 and 70 per cent, depending on the head grades. All of the copper concentrate is supplied to Rönnskär while both zinc and lead concentrate is sold to external customers.

### **Business Area Smelters**

### **4** Raw materials feed

The zinc and copper concentrates produced by Boliden's mines meet approximately 60 per cent of the zinc smelters' raw materials requirements and approximately 25 per cent of the copper smelters' requirements. The remaining raw materials requirements are met by external suppliers. Approximately one third of the raw materials comprise recycling materials. Harjavalta also smelts approximately 250,000 tonnes of nickel concentrate each year.

### **5** Metal production

The zinc and copper metals refined have purity levels of 99.995 and 99.9975 per cent respectively. The smelters also produce gold, silver, lead and a number of subsidiary by-products such as sulphuric acid, zinc clinker, aluminium fluoride, liquid sulphur dioxide, palladium concentrate and small quantities of a number of other metals.

### 6 Sales

The automotive and construction industries are important end-consumers of base metals. Boliden's metals and other products are mainly sold to industrial customers in Europe. The zinc is supplied to steel companies, among others, while the copper is supplied to manufacturers of wire rod, copper rods and copper alloys.


**Business Area Mines** 

## **Business** Area Mines

**64 Our expertise in mine** design, mining technology and extraction methods, coupled with a high level of technology development, means that several of Boliden's mines have achieved world-class productivity."

Jan Moström, President Boliden Mines

**The drill bit** drills 30 cm-wide holes for the explosive, 17 m straight down into the ore at Aitik. The holes are positioned in series of 200–300 in a 7 x 9 m area and then packed with one tonne of explosive each. Once all the holes have been charged, and all of the personnel have retreated to a safe distance, the charge is fired, releasing 700,000 tonnes of rock, ready for crushing, loading and, finally, concentrating.

## Operating profit

Boliden Mines comprises four mining areas: Aitik, the Boliden Area and Garpenberg in Sweden, and the Tara mine in Ireland. The Business Area also includes responsibility for exploration, technological development, the environment/reclamation, and sales of mined concentrates.

#### **Revenues and operating profit**

The majority of Business Area Mines' sales are made to the Group's smelters, with a smaller percentage sold to external smelters. All sales are made on market terms.

Revenues fell by 7.5 per cent to SEK 9,509 million (SEK 10,279 m), of which external sales totalled SEK 1,088 million (SEK 1,646 m). Mines' operating profit fell to SEK 2,908 million (SEK 3,913 m).

The operating profit fell for all mines. Milled tonnage has increased across the board in all mining areas, but lower grades resulted in a fall in metal production. In addition, metal prices were lower and costs higher, which collectively resulted in a lower operating profit for Mines as a whole.

Prices and terms had a negative effect on the operating profit, although this was compensated for to some extent by the positive exchange rate effects of a stronger US dollar.

Business Area Mines' operating costs before depreciation increased to SEK 5,417 million (SEK 5,189 m), or by 4.3 per cent, and the increase in costs in local currency was 5.3 per cent. The cost increase is primarily attributable to energy, consumables and personnel. The start-up of the Kankberg mine and a higher percentage of ore from underground mines pushed up costs in the Boliden Area towards the end of the year. Tara's costs were also higher than in 2011, primarily due to higher energy and personnel costs.

### Production

Milled ore tonnage increased in all mining areas in 2012.

Aitik achieved an ore production level of 34.3 million tonnes, corresponding to an increase of just under 9 per cent since the previous year. Lower grades did, however, mean that copper production levels remained largely unchanged, while gold production levels fell. Higher silver grades boosted the volume of silver produced. The copper grade is expected to remain around the 0.2 per cent level for the next two years.

Zinc grades were lower in the Boliden Area and this resulted in lower levels of zinc production for the year. Copper production fell due to lower grades and as a consequence of the fact that the Maurliden Östra copper mine is approaching the end of its productive lifespan. Gold production increased with the start-up of the Kankberg mine. Higher gold grades and better recovery also helped ensure a higher volume of gold than in 2011. Silver production fell slightly due to lower grades. The ore mix in the Boliden Area is gradually shifting towards an increased percentage of zinc and gold ore and a smaller percentage of copper ore.

Zinc, silver and lead production fell at Garpenberg as grades fell. The zinc grade in 2012 has approached the average grade for the mineral reserve as a whole and is expected to remain at this level for the first six months of 2013.

Milled ore tonnage at Tara remained on a par with levels in 2011. Zinc and lead production increased slightly, primarily due to better recovery and a slightly higher lead grade.

The trend in 2012 for mining production as a whole saw production levels for all metals fall slightly in comparison with 2011. The biggest reduction was noted in the production of zinc.

Key data	2012	2011
Revenues, SEK m	9,509	10,279
Operating costs, SEK m	5,417	5,189
Depreciation, SEK m	1,326	1,110
Operating profit, SEK m	2,908	3,913
Investments, SEK m	3,186	2,338
Capital employed, SEK m	16,267	14,272
Return on capital employed, %	19	28
Average number of employees	2,440	2,285

Operating profit analysis, SEK m	2012	2011
Operating profit	2,908	3,913
Change		-1,005
Analysis of change		
Volume effect		-236
Prices and terms		-648
Exchange rate effects		369
Costs		-397
Depreciation		-227
Other		135
Change		-1,005
Operating profit for resp. period		
Realised metal price and currency hedging	184	231

### Revenues and operating profit







### Revenues and operating profit. All the mines posted poorer profits

posted poorer profits than in 2011, primarily due to lower prices and reduced volumes.

### Breakdown of revenue

**by metal.** Gold's share of revenues increased slightly.

Breakdown of

operating costs. Costs increased by a total of 4.3 per cent. Energy costs rose by 18 per cent.

### Copper production



### Zinc production



Milled tonnage — Metal content

### **Gold production**



**Silver production** 



### Lead production



Copper production.

The milled tonnage increased at Aitik but lower grades resulted in only a marginal increase in copper production. Production fell in the Boliden Area due to lower grades.

### Zinc production.

The milled ore tonnage increased but lower grades resulted in a fall in production both at Garpenberg and in the Boliden Area. Production at Tara increased slightly.

**Gold production.** Gold production increased in the Boliden Area in conjunction with the startup of the Kankberg mine during the year. Lower grades and recovery at Atik resulted in a reduction in gold volumes.

#### Silver production.

Silver grades, and hence production, fell at Garpenberg and in the Boliden Area, but were slightly higher at Aitik.

### Lead production.

Production declined at Garpenberg but increased at Tara due to better recovery. Overall, volumes remained on a par with levels in 2011.

#### Investments

### Garpenberg expansion

The expansion of Garpenberg is continuing. The new facilities will become operational in 2014 and full capacity will be reached by the end of 2015. Full operation will see ore production increase to 2.5 million tonnes per year from the current production level of just over 1.4 million tonnes. The project accounts for just over SEK 1.2 billion of the Group's investments in 2012 and is expected to involve a total investment of SEK 3.9 billion.

#### Gold production at Kankberg

The start-up of the gold and tellurium

mine at Kankberg began in the run up to the summer of 2012. The project involved not only the start of production at the underground mine in Kankberg, but also complementary work on the existing gold leaching plant in Boliden and the construction of a new leaching plant for tellurium extraction. The investment decision was taken in 2011 and the total investment sum is SEK 475 million.

### Other investments and improvement projects

Boliden announced two new potential expansion projects during the year. The potential for an ongoing expansion aimed at bringing production levels up to 45 million tonnes of ore per year is being investigated at Aitik.

A new copper mineralisation has been identified in Laver, which is located approximately 100 km to the north of the Boliden Area. The deposit is similar in nature to the Aitik one, with low grades but high volumes. Drilling work has been carried out in the area during the year and in November it became possible to classify the deposit as an inferred mineral resource. Drilling work is continuing in the area. The project is currently in an early phase and any decision to commence mining operations lies many years into the future.

#### The 10 biggest zinc mining players

#### metal production in 2012, ktonnes Xstrata AG Hindustan Zin Teck Minmetals Resources Glencore International Vedanta Resources Votorantim Bolider Nyrsta Minera Volcan 1 400 Π 200 400 600 800 1 000 1.200

Boliden is one of the world's ten biggest players in the zinc mining sector.

Source: Wood Mackenzie

### The 10 biggest copper mining players

metal production in 2012, ktonnes

				Codelco
			F-McM Copp	er & Gold
			BHP Billiton	
		Xstrata AG		
	S	outhern Copper (e	x SPCC)	
	Rio	Tinto		
	Angl	o American plc		
	KGHN	/I Polska Miedz		
	Antofag	asta plc		
	Norilsk			
0	500	1,000	1,500	2,00

Boliden is the third biggest copper producer in Europe, with a production of approximately 80,000 tonnes. Boliden is a smaller copper mining player globally. Source: Wood Mackenzie

### Cash cost in the mining industry, C1 normal costing

The graphs below show the global cash cost curves for zinc and copper mines with Boliden's mines highlighted. The curves are based on Wood Mackenzie's databases with their estimates and assumptions. Boliden's own data for cash cost per mine may differ from Wood Mackenzie's data due to differences in the input data.



Wood Mackenzie's global cash cost analysis is used to compare mines' cost position. Based on this analysis, Garpenberg and the Boliden Area have cash costs of USc –38 and USc –66/lb., respectively, while Tara has a cash cost of USc 57/lb.

Source: Wood Mackenzie



According to Wood Mackenzie's analysis, Aitik has a cash cost of USc 170/lb. See page 23 for a definition of cash cost.

Source: Wood Mackenzie

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## Exploration

Boliden invested SEK 350 million in exploration activities in 2012. Exploration is conducted both in the vicinity of existing mines in order to increase their lifespan and in new areas. For further information on Boliden's exploration work, mineral resources and mineral reserves, see pages 114-115.



### Long-term growth

The implementation of a new exploration strategy in 2006 saw the start of a new focus on exploration. Investments in exploration have increased dramatically since 2009 and by 2012 had reached SEK 350 million (SEK 282 m). Boliden's exploration work has been successful and the last ten years have seen a substantial increase in the Group's mineral resources, primarily in Garpenberg and Aitik, but the Boliden Area has also developed very well in recent years. Tara's mineral reserves are currently only slightly lower than they were ten years ago, despite the mining work carried out, but the mine's mineral resources have declined.

Boliden was able to announce two new additions to its mineral resources in 2012; Laver, in Norrbotten, is a large but low

grade copper deposit of a type similar to that at Aitik, while Rockliden, in Västernorrland, is a rich polymetallic mineralisation that contains not only gold, silver, copper, zinc and lead but also high grades of problem minerals such as antimony and arsenic. The deposit has been known since the 1980s, but ongoing exploration work and improved technical conditions mean that it can now be classified as a mineral resource.

Mineral resources and mineral reserves are the basis of a mining company's operations. Successful exploration results in mineral resources and reserves increasing at a higher rate than mined production and thereby generates long-term growth. The final outcome of exploration work often lies many years into the future and is associated with uncertainty and risk.



### From exploration to mine

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## How a mine works

Boliden has both open-pit mines and underground mines. The geometry and composition of the ore body determine how it is mined and concentrated. The ore is crushed in several stages in the concentrator. Different minerals are then separated out from one another and from waste rock through a variety of concentration methods, of which flotation is the most common for base metals.



bottom of the tank and are transported

to tailings ponds.

250 micrometres.

that contains approx. 25 per cent copper.

## Four mining areas

Boliden's mines primarily contain complex polymetallic ores with several different metals, which raises the bar in terms of both the mining technique and the concentration processes required. From a global perspective, Boliden's mines produce ores with relatively high metal grades, with the exception of Aitik where the copper grade is low.

Over the years, Boliden has developed and refined its mine design, extraction methods and concentration processes, e.g. by increasing levels of automation. This is an important reason for the mines' high levels of productivity and cost-effectiveness, from an international standpoint. Boliden's expertise in the fields of mine design, mining technology and extraction methods, coupled with a high level of technological development, have enabled several of Boliden's mines to achieve world class productivity levels.

Boliden's mines are located in northern Europe. This region means long distances and high cost levels. Grades are low at Aitik, making cost-effective production even more important if Boliden's competitiveness is to be maintained.

Most of the zinc and lead concentrate as well as virtually all of the copper concentrate are processed into metals in Boliden's own smelters. Some of the metal concentrate is sold to external customers.

The mines' metal production <sup>1) 2)</sup>	2008	2009	2010	2011	2012	Change 12/11, %
Zinc, tonnes	297,423	307,128	293,814	283,217	271,203	-4
Copper, tonnes	57,220	54,602	75,977	81,205	79,363	-2
Lead, tonnes	53,041	56,669	49,585	49,477	48,809	-1
Gold, kg	2,603	3,130	3,727	3,681	3,644	-1
Silver, kg	211,683	214,120	230,756	231,388	229,791	-1

1) Refers to the metal content of concentrates.

2) See pages 120–121 for more detailed information.



**Aitik** is Sweden's biggest copper mine. The deposit comprises chalcopyrite that contains copper, gold and silver. The ore is extracted in two open-pits and all the mined concentrate is delivered to Rönnskär.

The open-pits work with large scale extraction where large volumes and high levels of automation ensure high levels of productivity. High productivity and favourable waste rock conditions combined with the gold and silver subsidiary metal production ensure that in spite of the ore's low copper grades, the mine's cost position is healthy.

As with all other mines, Aitik will be subject to reclamation work once mining operations there cease.

### Doubling production to 36 million tonnes in 2014

2010 saw the inauguration of the new facilities that will double Aitik's annual ore production from 18 to 36 million tonnes by 2014. The fine-tuning work has proceeded according to plan and in 2012 production totalled 34.3 million tonnes of ore and 67,108 tonnes of copper. Metal production in the current and next two years will be limited by the fact that mining is taking place in areas with low grades that are below the average grade for the mine's mineral reserve.

The expansion project began in 2006 and the investment, which totalled just over SEK6 billion, is one of the biggest industrial investments made in Sweden in recent years.

### Continued exploration extends productive lifespan

The expansion has also generated the preconditions for extracting even more ore, and work on investigating the potential for further increasing the production volume is being carried out in parallel with the existing expansion project. The pilot study involves further expanding the Aitik mine to 45 million tonnes of ore per year.

\* LTI = Lost Time Injury. An accident that occurs at work and which results in absence from work on the following day or for a longer period of time. Measured as the number of accidents/million hours worked.



The Boliden Area is located in the mineral-rich Skellefte field where Boliden has operated over 30 mines since production began there in the 1920s. The area currently comprises the Renström, Kristineberg and Kankberg underground mines and the Maurliden and Maurliden Östra open-pit mines. All of the mines in the area supply ore for the concentrator at Boliden, which is also home to a leaching plant for the production of gold and tellurium. Polymetallic ore containing zinc, copper, lead, gold and silver is extracted in all of the mines.

### Extensive exploration work extends productive lifespan

Extensive field exploration is being carried out in the Boliden Area in addition to the mine-site exploration work. Exploration successes have successively extended the productive lifespan of the Boliden Area, identifying new mineralisations at greater depth and in the vicinity of the ores currently being mined.

#### Gold and tellurium mine at Kankberg

The Kankberg mine became operational in 2012 and produces both gold and tellurium. The investment, which totals SEK 475 million includes both the underground facilities, installations and machinery, and the renovation of the Boliden Area's concentration and gold leaching plant, as well as a new tellurium leaching plant. The mine's anticipated productive lifespan extends to 2020.

The deposit's mineral reserve totals 3.58 million tonnes, with a gold grade of 3.8 grams per tonne and a tellurium grade of 177 grams per tonne. Gold and tellurium production from the mine will total an average of 1,150 kg and 41 tonnes per year respectively. Tellurium is a rare metal that is used primarily in steel alloys and as a semiconductor in solar cells.

**Garpenberg** Extraction of the deposits at Garpenberg began way back in the 13th century, making Garpenberg the oldest mine in Sweden that is still operational. It was acquired by Boliden in 1957.

Garpenberg produces complex ore that contains zinc, silver and lead, together with small quantities of copper and gold. It is the metal mix and the relatively high levels of silver that has helped ensure the mine's favourable cost position.

### Continued production thanks to exploration successes

The old mining areas at Garpenberg were scheduled to be decommissioned in the early part of the new millennium, but successful exploration work resulted in entirely new ore bodies being located which have resulted in substantial increases in mineral reserves and an extended productive lifespan for the mine. The ongoing expansion project is designed to optimise the mining of the new ore bodies where extraction work began in 2001.



### Expansion increases capacity to 2.5 million tonnes

A major expansion of Garpenberg's operations was approved in January 2011. The investment totals SEK 3.9 billion and will increase ore production at Garpenberg from 1.4 million tonnes to 2.5 million tonnes per year. The expansion project will take place between 2011 and 2014 and will involve a successive increase in production from early **1,484** Ktonnes Milled tonnage

**366 <sub>people</sub>** Average number of employees



2014 until full production is reached at the end of 2015. In 2012, Garpenberg was in the midst of an intensive developmental phase with regard to both the new concentrator and the underground facilities.



2,502 Ktonnes Milled tonnage

**718 <sub>people</sub>** Average number of employees

4.7 LTI frequency\*

**Tara** is Europe's biggest zinc mine and the ninth biggest in the world, and produces not only zinc, but also lead concentrate. Mining operations began in 1977 and the mine was acquired by Boliden in early 2004.

Tara's relative cost position is deteriorating due to the fact that the mine, in addition to its lead production, produces no subsidiary metals and that mining is occurring at ever greater depths. Recent years have, therefore, seen Tara focusing on improving its cost position through productivity enhancing investments and cost cutting measures. Focus in the coming year will remain on efficiency-enhancing and cost-cutting measures.

## **Business Area Smelters**

If We are focusing our efforts on improving both our productivity and our competitiveness. We opened our new electronic scrap recycling facility at Rönnskär during the year and our efficiency enhancement programme at Odda is continuing apace. All of the copper and zinc smelters posted improved operating profits in 2012."

Kerstin Konradsson, President Boliden Smelters

Zinc galvanisation – an anticorrosion technique – can rustproof steel for over 50 years. The metal can also be endlessly reused without the slightest deterioration in its quality. Boliden has two zinc smelters, located in Kokkola in Finland and Odda in Norway. Our smallest product is a 25 kg slab and our biggest is a 4,000 kg zinc jumbo.

## Operating profit

Boliden Smelters comprises the Kokkola and Odda zinc smelters, the Rönnskär and Harjavalta copper smelters, and the Bergsöe lead smelter. The Business Area also includes the smelters' purchases of mined concentrates and recycled raw materials, and metal sales. Production has increased during the year, which had a positive effect on both revenues and operating profit.

### **Revenues and profit**

Revenues totalled SEK 38,753 million (SEK 38,471 m). Higher volumes for all metals, particularly gold and lead, and by-products were counteracted by lower prices for all metals with the exception of gold.

The smelters' gross profits excluding revaluation of process inventory rose by SEK 128 million to SEK 7,288 million (SEK 7,160 m). The improvement was due to an increased contribution made by TC/RC in the copper smelters, a positive free metals trend at all smelters, and metal premiums in the zinc smelters. The profit from by-products fell. The operating profit excluding the revaluation of process inventory rose marginally to SEK 1,072 million (SEK 1,051 m). If the process inventory revaluation effect of SEK 129 million (SEK –261 m) is included, the operating profit totalled SEK 1,201 million (SEK 790 m).

The smelters' operating costs remained largely unchanged in comparison with the previous year and totalled SEK 5,353 million (SEK 5,358 m). Costs increased in local currencies by 1.5 per cent. Costs fell sharply at Odda as a result of ongoing improvement programmes, while at Rönnskär, the cost increase was higher as a consequence of the start-up of the new electronic recycling facility as well as production disturbances and a long maintenance shutdown during the year.

The operating profit (excluding the revaluation of process

inventory) improved at all smelters with the exception of Bergsöe in comparison with 2011. The increased electronic scrap recycling feed at Rönnskär had a positive effect on the operating profit during the year, while at Harjavalta and Odda, improved efficiency and production stability resulted in an improvement in the operating profit. Rising raw material prices led to a fall in the operating profit at Bergsöe.

Prices and terms had a negative effect on the operating profit, with lower metal prices and lower TC for the zinc smelters, although exchange rate effects did compensate, in part, for this trend.

### Production

The smelters' production of all products increased, with the biggest increase reported for lead and the precious metals, gold and silver.

Rönnskär's precious metal and lead production rose, while the production of copper and sulphuric acid fell. The start-up of the new electronic scrap recycling facility at Rönnskär has gone well, and electronic scrap feed totalled 108,223 tonnes (63,798 tonnes) during the year. Other parts of the smelter, however, have been hit by a string of production disturbances during the year. A remedial programme designed to get to grips with these problems is now running.

Key data	2012	2011
Revenues, SEK m	38,753	38,471
Gross profit, excluding revaluation of process inventory, SEK m	7,288	7,160
Operating costs, excluding depreciation, SEK m	5,353	5,358
Depreciation, SEK m	891	823
Operating profit, excluding revaluation of process inventory, SEK m	1,072	1,051
Operating profit, SEK m	1,201	790
Investments, SEK m	993	1,627
Capital employed, SEK m	15,569	16,213
Return on capital employed, %	8	5
Average number of employees	2,242	2,210

Operating profit analysis		
SEK m	2012	2011
Operating profit	1,201	790
Revaluation of process inventory	129	-261
Operating profit excluding revaluation of process inventory	1,072	1,051
Change		21
Analysis of change		
Volume effect		440
Prices and terms		-467
Exchange rate effects		253
Costs		-78
Depreciation		-83
Other		-43
Change		21
Operating profit for respective period		
Realised metal price and currency hedging	58	94

#### **OPERATIONS | BUSINESS AREA SMELTERS**













**Breakdown** 



**Breakdown** 

Personnel, 23% (24) Energy, 23% (24) Consumables & spare parts, 16% (15) Transport, 6% (6) External services, 16% (17) Depreciation & other, 16% (14)

### **Revenues and operating** profit. All of the smelters, with the exception of

Bergsöe, improved operating profits.

#### Breakdown of gross

profit. Free metals and sulphuric acid contributed a greater share of the gross profit than in 2011. With the exception of sulphuric acid, the profit for other by-products fell.

#### Breakdown of operating

costs. Operating costs excluding depreciation increased in local currencies by 1.5 per cent.

### Breakdown of operating costs



#### **Copper production**



Breakdown of operating costs – zinc smelters. Energy is the single biggest cost item for

the zinc smelters.

Breakdown of operating costs - copper smelters. Personnel and external services are the biggest cost items for the copper smelters.

Zinc production. Kokkola and Odda both reported increases in zinc production while concentrate feed fell slightly.

#### Copper production.

Copper production and concentrate feed fell slightly at Rönnskär but increased at Harjavalta. Electronic scrap feed increased substantially at Rönnskär.

A slight improvement in the availability of raw material batteries resulted in a modest increase in the production of lead alloys at Bergsöe during the year.

Harjavalta has reported better production stability, particularly during the latter half of the year, and has consequently reported increased raw materials feed and higher production volumes for the year as a whole.

Production also increased slightly at Kokkola, beating the previous whole year production record with 314,742 tonnes (307,352 tonnes) of zinc. Odda's production levels remained on a par with levels last year in spite of a serious breakdown in one of the direct leaching tanks in October, resulting in limited production during most of the fourth quarter.

### Investments

### Increased electronic scrap recycling capacity

The new electronic scrap recycling facility at Rönnskär came on line in the middle of January 2012, increasing the plant's electronic scrap processing capacity to 120,000 tonnes per year. The start-up went well and the new facility was fully operational before the summer. The entire investment totalled approximately SEK 1.3 billion.

### Silver extraction at Kokkola

Kokkola is currently investing in its capacity for the extraction of silver from zinc raw material. The facility will come on line during the third quarter of 2014 and the investment as a whole will total SEK 240 million. The volume of silver to be extracted is estimated at approximately 25 tonnes per year.



### The 10 biggest zinc smelting players

metal production in 2012, ktonnes

						Korea Zi	nc Group	
						Nyrstar		
	Hindustan Zinc							
			Xs	trata AG				
			Voto	rantim				
			Boliden					
		Shaar	nxi Nonferr	ous Metal	3			
		Glencore	e Internatio	nal				
		Teck						
		Huludao Z	Zinc					
0	200	400	600	800	1,000	1,200	1,400	

Boliden is one of the world's top ten players in the zinc smelting sector.

Source: Wood Mackenzie

### The 10 biggest copper smelting players

metal production in 2012, ktonnes

	Codelco						
	Jiangxi Copper Company						Company
				Aurubis	6		
				Xstrata A	G		
			Jinc	huan			
			Nippo	n Mining a	and Metals		
			KGHN	1 Polska N	1iedz		
	Sumitomo Metal Mining						
	F-McM Copper & Gold						
			Mitsubis	hi Materia	s		
0	200	400	600	800	1,000	1,200	1,400

Boliden is the third biggest player in Europe, with a production of approximately 339,000 tonnes. Boliden is a smaller copper smelting player globally. Source: Wood Mackenzie

#### **Gold production.** Rönnskär and Harjavalta reported

Harjavalta reported substantial increases in gold production.

### Silver production.

Silver production increased both at Rönnskär and, in particular, at Harjavalta where it rose by 78 per cent from levels in 2011.

Lead production.

Rönnskär's lead production increased sharply during the year.

## Electronic scrap recycling

Boliden is the world's biggest player in the electronic scrap recycling sector – a raw material that is continually growing in importance.

### The world's biggest electronic scrap recycling player

The importance of electronic scrap recycling is increasing in response to stricter regulations governing the collection and processing of electronics and the shorter lifespans of electronic products. Boliden has the world's biggest facility for the recycling of electronic scrap at the Rönnskär smelter and the past year saw the increased capacity, totalling 120,000 tonnes of electronic scrap per annum, become fully operational. The Group recycled a total of 108,000 tonnes of electronic scrap in 2012. Boliden buys electronic scrap that has been pre-processed by contractors. It is crushed, smelted and then refined in a Kaldo furnace. Boliden's unique Kaldo technology eliminates the need to separate out plastic and metal before smelting, making the process flexible and enabling Boliden to produce metals from a number of different smelting materials.

The plastic aids the smelting, yielding so much energy for the smelting process that there is no need to add any additional energy. The plastic can also generate surplus energy that is utilised in the form of district heating or electricity. The energy is returned to the plant and, in the event of a surplus, is supplied to the surrounding community.



1. Material stocks 2. Feed in 3. Processing 4. Tapping from the furnace 5. Steam boiler 6. Gas purification system 7. Transport to the refinery

## How a smelter works

Boliden's smelters refine mined concentrates into pure metals. The concentrates are processed to separate out the impurities from the metals with the aid of high temperature reactions. Different processes are used to refine the concentrates at the zinc and copper smelters respectively.



### **Copper smelters**

Copper smelters have no uniform process in that they are often specialised and tailored for handling specific raw materials. Processes such as smelting and converting are, however, a common denominator. These processes take place at extremely high temperatures and often comprise a substantial part of the overall refining process.



Cu 25 per cent

Metal concentrate Metal concentrate from mines usually comprises approx. 25 per cent copper.

Smelting The smelting takes place in various different types of furnaces, depending on the raw material and process technology. An upper layer of slag and a lower one of copper matte, which has a copper content of approx. 55 per cent, form in the furnace. **Converting** The copper matte is tapped into a converter where iron and other impurities, together with sulphur, are separated out. The converter is also charged with metal scrap and smelted electronic scrap, known as black copper, which is then refined using the same process. The result is known as blister copper, and contains 97–98 per cent copper.

SO2

#### Sulphur products plant

The process gases, primarily sulphur dioxide, are ducted away to the sulphur products plant for the production of sulphuric acid and other sulphur products.



Anode furnace and casting plant The blister copper is further processed in an anode furnace to reduce the oxygen content. This increases the purity level to 98–99 per cent and the copper is then cast to form anodes.

#### Precious metals plant

Other metals, such as gold, silver, palladium and platinum, which have fallen down to the bottom of the electrolysis tanks, are refined.



Electrolytic refining The anodes are placed in tanks with steel cathode plates. Chemical solutions and electrical current cause the anodes to dissolve and the copper ions to migrate to the steel plates. The cathodes are then stripped from the steel plates and washed, after which they are ready for delivery.

## Five smelters

Boliden's smelters enjoy a strong market position in Europe with high capacity levels based on advanced process technological expertise, flexible smelting processes and the ability to produce high quality metals from complex mined concentrates and secondary raw materials.

The smelters are supplied with concentrates from Boliden's mines and with concentrates and recyclable raw materials from external suppliers. Boliden's inhouse copper concentrate production meets approximately 25 per cent of the smelters' demand, while the corresponding figure for the zinc smelters is approximately 60 per cent. The zinc smelters primarily produce zinc metal and sulphuric acid, but Odda also produces aluminium fluoride. The copper smelters mainly produce copper, gold, silver, lead and sulphuric acid. Harjavalta also

smelts nickel concentrate. The copper smelters' processes also generate a number of by-products. The Bergsöe lead smelter mainly produces lead from recycled car batteries.

						Change
The smelters' metal production <sup>1)</sup>	2008	2009	2010	2011	2012	12/11, %
Zinc, tonnes	443,191	434,022	456,006	460,552	467,389	1
Copper, tonnes	349,593	302,355	303,184	335,771	338,577	1
Lead, tonnes	14,235	13,013	17,013	11,429	18,970	66
Lead alloys, tonnes	42,577	38,561	42,166	41,009	42,558	4
Gold, kg	15,489	15,028	14,220	12,848	16,175	26
Silver, kg	488,285	539,564	450,280	488,147	575,959	18
Sulphuric acid, tonnes	1,328,904	1,123,336	1,372,480	1,597,072	1,633,676	2
Aluminium fluoride, tonnes	34,611	33,161	21,951	34,812	35,708	3

1) See pages 122–123 for more detailed information

Rönnskär The main products are copper, gold, silver and lead, plus several byproducts such as sulphuric acid and zinc clinker. Rönnskär processes Boliden's entire internal production of copper concentrate and is Boliden's biggest production unit.

#### World leader in electronic scrap recycling

Rönnskär's Kaldo and fuming plants enables it to complement its copper production with the recycling of metals from electronic scrap and other secondary materials. Rönnskär has long been one of the world's biggest recyclers of electronic scrap and the expansion of the plant's recycling capacity has made Boliden a world leader in this sphere. The smelter has the capacity to handle several different types of raw material, with recycling materials becoming an increasingly important component of this mix. The biggest increase in recent years has come in the form of collected waste electronic products, primarily in the form of crushed circuit



boards from computers and mobile phones, for example. The majority of the electronic scrap suppliers are located in Europe.

Quantities of electronic waste are increasing globally but the number of smelters that can handle electronic scrap is small. Rönnskär's electronic recycling capacity increased substantially in conjunction with the investment in new facilities for materials processing and Copper production

Average number of

7.5 LTI frequency\*

smelting that came on line in early 2012 and the building of a new e-Kaldo plant to complement the existing Kaldo furnace has given Rönnskär an annual capacity of 120.000 tonnes.

\* LTI = Lost Time Injury. An accident that occurs at work and which results in absence from work on the following day or for a longer period of time. Measured as the number of accidents/million hours worked.



125 Ktonnes Copper production

388 people Average number of employees

315 Ktonnes Zinc production

561 people

employees

Average number of

7.4 LTI frequency\*

12.4 LTI frequency\*

Harjavalta produces copper, gold and silver as well as a number of byproducts such as sulphuric acid. The raw material consists primarily of metal concentrates from external copper mines in South America, South East Asia and Portugal.

Harjavalta also smelts nickel concentrate, which is owned by the customer, on a so-called tolling basis.

Harjavalta uses the in-house developed energy saving flash smelting method for copper that uses the energy in the raw materials' sulphur content. The method was initially used back in 1949 and has been continuously developed ever since. It is now the world's most widely used method of smelting copper concentrate.

Kokkola produces zinc and zinc alloys, and sulphuric acid. It is the world's fifth largest zinc smelter with a production capacity of over 300,000 tonnes.

The majority of the zinc concentrate smelted comes from Boliden's mines in Sweden and Ireland. Approximately 85 per cent of the zinc production is exported to primarily European customers.

Kokkola uses the in-house developed direct leaching method that enables it to also process complex and less pure metal concentrates. Development work has ensured that the company is now one of the world's most cost effective and modern zinc smelters and construction work is currently in progress on a facility which, starting in 2014, will extract silver from zinc raw materials.

**Boliden Bergsöe** The Bergsöe lead smelter is one of Europe's biggest recyclers of scrap car batteries and the Nordic region's only secondary lead smelter. Its main products are pure lead and customised lead alloys. Approximately 60 per cent of the smelter's lead production is sold to the battery industry in Europe, with the remainder used in other applications, including lead sheet and radiation shields. Furthermore, excess heat from the lead smelter's processes is used in sections of the Landskrona district heating network.

By recycling approximately 62,000 tonnes of scrap lead from the entire Nordic region – the equivalent of around 4 million scrap batteries - Bergsöe helps establish an ecocycle that is profitable in a variety of ways.



Odda The Odda zinc smelter produces pure zinc and zinc alloys as well as aluminium fluoride and sulphuric acid. Approximately 80 per cent of the raw materials for production is supplied by Boliden's mines in Sweden and Ireland with the remainder coming from countries such as Canada and Peru. Zinc clinker is, in turn, supplied by Boliden's Rönnskär copper smelter. The raw materials for the production of aluminium fluoride are fluorspar from Morocco and South Africa and aluminium hydrate from Ireland and Spain.

93 per cent of the zinc production is exported and is primarily sold to the steel industry in the UK. France. Germany. the Benelux countries and Scandinavia. Aluminium fluoride is an additive used in the aluminium industry and 75 per cent of the production is sold within Norway.

Odda, like Kokkola, uses the direct leaching method



Odda's P100 improvement programme

A comprehensive programme designed to improve the smelter's competitiveness was launched at Odda in 2011. The programme includes both cost-cutting measures and a number of other measures designed to boost productivity. The smelter aims to save a total of NOK 120 million NOK 70 million of which had been achieved by the end of 2012. The current programme runs until the end of 2013



## Sustainable development

If Sustainability has probably never been as important for Boliden as it is right now. It's not simply a matter of complying with the law and threshold limits; it's also about exceeding the demanding goals we have set internally and about being an attractive company for the coming generation of employees."

Henrik Östberg, Senior Vice President Corporate Responsibility

Hydroelectricity is the main source of the energy used by the Swedish and Norwegian production units, while the electricity used in Finland comes from nuclear power stations and renewable sources. The electricity used in Ireland is primarily generated from fossil fuels. Boliden's units are extremely energy-intensive and the source of the electricity used is determined by the socalled national mix provided by the respective operating countries' electricity grids.

## Boliden's employees

Boliden generates value by offering top quality products and services. To do this, Boliden must have employees who are skilled, committed, and secure and who accept personal responsibility. To achieve this, Boliden must, in turn, offer safe work environments, skill development programmes, opportunities to take on new challenges and for career development, and the possibility for employees to establish a balance between their professional and private lives.

Boliden has identified the following areas as priority ones from an employee perspective:

- Create a secure work environment
- Secure the future talent pool
- Create diversity and a better gender balance

### Create a secure work environment

Arguing in favour of a safe and healthy workplace in which Boliden's employees feel safe and secure and do not become ill feels unnecessary. A safe work environment is a top priority for Boliden and the Group has adopted a zero tolerance vision for accidents at work. The basis for achieving this is the creation of a strong safety culture.

A safe work environment may seem obvious, but it's not always a goal we achieve, which shows both the importance of and the need for a continuous ongoing dialogue about our work with health, safety, routines, attitudes and behaviour.

### Zero harm philosophy

Boliden operates in a sector that handles substantial material flows, high temperatures and, from time to time, substances that are hazardous to health. This is an environment in which there is a risk of accidents occurring, which demands stringent safety requirements, and in which every individual employee must accept personal responsibility for behaving correctly and safely.

Boliden has achieved a positive trend in the number of accidents suffered by its own personnel between 2005 and 2011. The past year, however, saw the accident frequency (LTI) rise for Boliden's own employees, from 4.9 in 2011 to 6.6 in 2012. The LTI figure, if contractors are included, is 9.1. Boliden is currently working to identify the causes of this trend, to implement the proper corrective measures, and to thereby reverse the trend.

Boliden has conducted risk and causal analyses throughout the Group in order to gain a better overview of the risks of injury present within the operations and to ensure more effective, proactive work in this sphere. The way in which the organisation performs in relation to Boliden's zero tolerance of accidents vision is followed up monthly during management meetings at both Group and unit level.

### Activities for a safer Boliden

All of Boliden's operating units have been working with management systems that adhere to the OHSAS 18001 work environment standard for many years now.

Establishing and maintaining a desirable safety culture with high levels of awareness also requires good role models throughout the organisation and clear messages from the management. An initial round of health and safety inspections with members of the Group management team has been conducted in all units, three of which were attended by Boliden's President. A new round of inspections with the same concept is planned for 2013 and here too, the unit managers will be invited to take part. The aim is to

### Health & Safety – goals and results

GOALS 2009-2013	RESULTS 2012
<ul> <li>Boliden has adopted a zero harm vision for accidents at work and the goal is zero accidents each month at all units.</li> </ul>	<ul> <li>The number of accidents (LTI*) increased in 2012 from 4.9 to 6.6 per one million hours worked. The accident frequency, if contractors are included, is 9.1. Boliden's units had an average of 8 accident-free months during the year. Bergsöe had no accidents at all.</li> </ul>
<ul> <li>Boliden's absence due to sickness shall not exceed 4.0 per cent by the end of 2013.</li> </ul>	<ul> <li>The absence due to sickness in 2012 was 3.6** per cent (3.7%). Work aimed at ensuring that all units achieve absence due to sickness that meet or are lower than this goal level continues.</li> </ul>

\* LTI – the number of accidents resulting in absence from work per one million hours worked.

\*\* Hours' absence resulting from accidents at Tara are not included but will be as of 2013. If these hours are included, the absence due to sickness in 2012 was 3.7 per cent.

### "Excellence beyond zero"

The Group's EHS\* managers, production and maintenance managers, and the Group management team – a total of 135 people – met up in March for a two-day conference on safety work. The theme was "Excellence beyond zero" and the focus of the conference was on our efforts to achieve our zero tolerance vision for accidents at work.

The main message was that attitude and behaviour are vitally important and that managers must always set a good example and practice visible leadership.

One of the speakers was Professor Marianne Törner from the University of Gothenburg who stated that one of the main factors that reduces safety is a rapid individual assessment, such as a desire to save time. Making the effort to behave safely instead can take longer or require a change in approach that might, at the moment in question, seem unnecessary. It is Boliden's responsibility – and in the Group's own interests – to work single-mindedly to ensure that every single employee places their own health and safety, and that of their colleagues, before instant gratification at all times.

\* Environment, health and safety



increase knowledge sharing at the most senior management level, but also, in practical terms, to give the management the chance to show their commitment to safety and to make the management visible. A programme aimed at creating a visual, unambiguous and unified body of information on safety measures, correct behaviour and correct equipment has also been launched in all of Boliden's units. During the year, several units have implemented methods of ensuring that their workplaces are kept clean and tidy within the framework of the New Boliden Way. It might sound elementary, but by conducting these activities systematically and to a regular schedule, some risks can be reduced.

Work on formulating new goals for the period from 2014 to 2018 began in 2012. The zero tolerance vision for accidents will be maintained.

### Healthy employees

Well-being is not just good for the individual in question, it also promotes Boliden's success. To this end, and in order to maintain the positive trend in sick leave noted in recent years, Boliden will be continuing with its systematic and preventative programme of health work and will continue to offer a wide range of activities that increase employee health and well-being, such as our recurring "back schools", exercise tips, free 24/7 access to the company gym, staff canteens that specialise in healthy foods, and our recurring "Stub it out" campaigns.

Well-being also requires effective rehabilitation activities – something that is particularly important when it comes to reducing long-term sick leave. The goal of our rehabilitation work is to ensure that employees are able to return to their previous positions, but where this is not possible, Boliden endeavours to offer a position elsewhere within the operations.

A study of the causes of sick leave duration was carried out in 2011 and the results showed, among other things, that the most important factor when it comes to cutting the length of absence due to sickness was the manager's contact with the employee on sick leave. This knowledge has formed the basis for our change management work on behaviour and increased contact between Boliden and employees on sick leave.

### Securing tomorrow's talent pool

Boliden's ability to retain and attract employees with the right skill sets and commitment levels are vital for our competitiveness. In a time when many of our employees are reaching retirement age, coupled with a mining boom and the fact that fewer and fewer students are studying scientific subjects, the competition for skilled employees is stiff.

Boliden endeavours to offer a work environment that is characterised by pro-

fessionalism, good developmental opportunities, good leadership and management, a safe work environment and a long-term sustainable approach. Our skill development and recruitment work is based on Boliden's needs and strategic goals, such as the creation of a multifaceted workforce, an increase in the number of women working for the Group, and the need to manage the generation shift.

#### Talent pools – a real challenge

Boliden is facing a generation shift. Just over one quarter of Boliden's employees will retire in the next ten years, posing a challenge that we share both with the rest of the sector and with large parts of heavy industry in general. This, coupled with the fact that our operations are often con-

### Apprenticeships for tomorrow's skills

Boliden's apprenticeship programme has deep roots and is a vital and fundamental precondition for ensuring that the organisation has access to the desired skillsets. Tomorrow's specialists in a number of different areas are trained through a combination of practical work experience and theoretical study. A total of one quarter of the employees at the Harjavalta smelter have completed an apprenticeship programme and the past year has seen a further dozen people complete their professional qualification in metal refining. All of them now have full-time positions within Boliden. ducted in regions with a limited population base, demands that Boliden increases its exposure to the next generation of employees. The competition for certain occupational categories, such as mining engineers, geologists, geophysicists, process engineers and experienced miners, is particularly tough. Our operational bases all have their own recruitment plans and are responsible for ensuring their respective talent pools are filled.

#### Tomorrow's talent hunt

Boliden is working to increase knowledge of the company, and of the professional roles and opportunities for development it can offer its employees, in order to expand its potential recruitment base. We create interesting career opportunities by encouraging mobility within the Group and prioritising internal recruitment in the talent and managerial pool. Boliden monitors students' preferences when it comes to their future careers and employers very closely, and surveys have shown, among other things, that issues that come under the banner of sustainable development are valued particularly highly by students and "young professionals".

### Boliden's development is based on employee development

Boliden offers massive potential for an individual to grow while remaining within the Group and has several skill development programmes designed to generate the preconditions and structures needed for career and skill planning.

For further information, please see Boliden's website at www.boliden.com

### Diversity

A highly diverse organisation is better equipped to understand the outside world and live up to its expectations. Boliden is consequently keen to recruit employees with different backgrounds and types of experience and from different age groups.

The metals industry is traditionally male-dominated and although some progress has been made in this respect, e.g. through technological development that has reduced the number of heavy, manual aspects of the job, Boliden still faces a

challenge when it comes to attracting women. One important factor in this context is the establishment of a good workplace culture. Boliden's goal is for 20 per cent of its workforce to be made up of women by the end of 2018 and if we are to achieve this goal, one in every three recruits must be female.

### Work-life balance

Boliden regards a work environment that offers work-life balance as a prerequisite for successfully attracting and retaining talented employees. Some of the countries in which Boliden conducts operations offer economic compensation to employees on parental leave.

Employees on parental leave are also kept informed of what is going on and how things are developing at their workplace.

Boliden has received external acknowledgement of its efforts to create this balance, and in 2012, the Unionen trade union declared Boliden to be Sweden's most parent-friendly workplace, awarding Boliden the "Guldnappen" (Golden Pacifier) prize.

### Boliden's 100 most senior managers, male/female, %



Full-time/part-time employees, %







The percentage of women working within Boliden was 16.9 per cent at the year-end, corresponding to an increase of O.8 percentage points since 2011.

#### Age breakdown



Boliden has a total of 4,795 (4,597) employees (equivalent full-time positions), 2,440 (2,285) of whom work within Mines, 2,242 (2,208) of whom work within Smelters, and 113 (104) of whom work within Group staff functions and Group-wide functions. Boliden's workforce fell by 4.4 per cent (4.5%) in 2012.

## Boliden's environmental work

Environmental impact is an unavoidable result of Boliden's operations. The ambition is, however, to be much better than we are required to be by law by ensuring that Boliden meets and exceeds applicable guideline and threshold values by a good margin. This will ensure that Boliden is better equipped to live up to the outside world's expectations and, in the longer term, to boost our competitiveness.

Boliden has identified the following environmental issues as priority areas:

- Minimising emissions and discharges to air and water
- Limiting our impact on the physical environment
- Managing waste management in a responsible manner

### Boliden shall have zero environmental accidents

Boliden has a zero harm philosophy when it comes to environmental accidents, and that includes the smallest spillage. Boliden's aim, with this philosophy, is to underline the importance of accident-free operations and to encourage the preventative work. If this ambition is to be realistic, however, efficient systems and stable processes in every link in the value chain are a must, as is an ongoing, continuous programme of work comprising risk assessments, remedial action plans, improved routines, and the introduction of new and improved technology. Ultimately, it is the combination of a sound structural basis and the individual employee's attitude and behaviour that will determine how well Boliden succeeds in realising this ambition, which means that our work with attitudes and behaviour is key.

Nine environmental accidents occurred in 2012, two of which involved incidents when threshold values were exceeded. Boliden's efforts to prevent spillages and leaks will continue in 2013 with the focus on increased incident reporting, causal analyses and efficient maintenance work.

### Minimising emissions and discharges to air and water

The process of extracting metals generates emissions and discharges to the surrounding environment and Boliden is responsible for continuously managing and minimising these emissions and discharges, and their negative effect. Stable processes that can be run in an optimum manner with the fewest possible maintenance shutdowns are important in this respect,

### Environmental goals and results for the period 2009–2013

Boliden is performing well in relation to its environmental goals. These goals are well below the threshold values specified in the relevant permits, and thereby help ensure that the Group is well positioned to deal with any changes in environmental legislation.

### GOALS

#### RESULTS

<ul> <li>Discharges of metals<sup>1)</sup> to water shall be</li></ul>	<ul> <li>Discharges of metals to water have been reduced by 53 per cent</li></ul>
reduced by 25 per cent.	since 2007.
<ul> <li>Discharges of nitrogen to water shall be</li></ul>	<ul> <li>Discharges of nitrogen to water have been reduced by 14 per cent</li></ul>
reduced by 20 per cent.	since 2007.
<ul> <li>Emissions of metals<sup>2)</sup> shall be reduced</li></ul>	<ul> <li>Emissions of metals to air have been reduced by 43 per cent</li></ul>
by 25 per cent.	since 2007.
<ul> <li>Emissions of sulphur dioxide to air shall be</li></ul>	<ul> <li>Emissions of sulphur dioxide to air have fallen by 5 per cent</li></ul>
reduced by 10 per cent.	since 2007.
<ul> <li>Carbon dioxide emissions shall not increase</li></ul>	<ul> <li>Carbon dioxide emissions have increased by 4 per cent since 2007 using the</li></ul>
by more than 3 per cent (taking into account	2007/2008 calculation methods. (Using current calculation methods <sup>3)</sup> , emis-
planned production increases).	sions have increased by 23 per cent, but these figures are not comparable.)
The environmental goals are given in absolute figures (kilos or tonnes). Base year: 2007. The goals have been broken down by the respective operating units in order to facilitate follow-up work. They are also reported internally every month in order to increase transparency. <sup>1)</sup> Copper, zinc, lead, nickel, cadmium and mercury. <sup>2)</sup> Copper, zinc, lead, nickel, cadmium and arsenic.	<sup>3)</sup> The calculation method has changed. The original calculation was based primarily on the consumption of fuels and reducing agents in production and on indirect emissions from electricity purchased. The implementation of ETS at the smelters entailed the introduction of a more complete presentation of emission and discharge sources that takes into account the input coal for raw materials, for example. There is no source data (in the form of reliable carbon content provisions for all materials) that would enable a thorough calculation of these emissions retroactively from the beginning of the period.

and Boliden is continuously investing in process improvements and new technologies in order to achieve this objective.

### Emissions to air

Boliden's most significant emissions to air comprise both the metal and sulphur dioxide emissions formed by the smelters' process gases and the direct emissions of carbon dioxide from incineration processes and transportation. There are also the indirect carbon dioxide emissions from the electricity consumed by the Group which account for just under half of the total carbon dioxide emissions.

The trend in sulphur emissions has been negative in the last two years. Harjavalta suffered technical problems resulting in increased emissions at the beginning of the year. These problems have now been resolved and there is every chance of meeting the 10 per cent reduction goal during 2013.

### Carbon dioxide emissions

The challenge of reducing carbon dioxide emissions can be viewed from a number of perspectives. Some of the challenge lies in the link between production and emissions: it is very difficult to reduce carbon dioxide emissions at the plants without simultaneously reducing production. Another part of the challenge lies in the fact that the falling metal grade of the ores mined demands an increased level of processing resulting in, among other things, increased energy consumption. Deteriorations in the quality of the smelters' input raw materials also results in reduced recovery and hence increased emissions. Replacing some fossil fuels with biofuels may be a way of meeting the challenges posed by increased carbon dioxide emissions in the long term, but no less important is reducing our energy consumption (and hence our carbon dioxide emissions) by increasing our production efficiency. This approach will, in turn, give rise to lower costs and a reduced environmental footprint.

Boliden has continued, as part of its ongoing effort to enhance its energy efficiency, to increase the efficiency with which we exploit the surplus heat generated at the smelters. It is estimated that approximately 568 GWh (659 GWh) was used internally in 2012 and 844 GWh (772 GWh) was supplied to external providers.

### Mode of transport affects carbon dioxide emissions

Boliden's efforts to limit its carbon dioxide emissions also include the transport used by the Group. Making careful choices when it comes to mode of transport offers the greatest potential for achieving results in this respect. Most of the transportation within the mine areas uses diesel vehicles, while approximately 70 per cent of the transportation of metal concentrates and other smelting materials is done by ship or rail. The transport of finished metals from the smelters to customers or terminals within Europe is primarily by ship or rail, and often involves reloading on to trucks for the final stretch of the journey to the customer.

Boliden makes demands of its transport providers, e.g. with regard to driving hours and rest periods, speeds, eco-driving styles, and the eco classification of engines.

### Emissions Trading Scheme (ETS)

The EU's Emissions Trading Scheme (ETS) is a strategic issue for Boliden involving both ways of reducing emissions – given planned production levels and available technology – and predicting the costs of Boliden's future purchases of emission rights and price increases in connection with the indirect carbon dioxide emissions to which the electricity Boliden purchases give rise.

The Rönnskär and Bergsöe smelters were subject to ETS in 2012 and were, collectively, allocated emission rights for 78,909 tonnes of carbon dioxide during the period. All of Boliden's smelters will be subject to ETS during the next trading period and an application for emission rights for the 2013–2020 period has been submitted.

### Strategic approach to energy issue work

Boliden's units are extremely energy-intensive and the availability and price of electricity are, therefore, important to the Group. Energy consumption and carbon dioxide emissions have increased in recent years, primarily as a result of increased production. Boliden intends to break this trend, increased production notwithstanding. The main ways in which we can increase our energy efficiency are by reducing our diesel usage, optimising our raw material usage, and reducing our electricity consumption.

Day-to-day responsibility for energy issues is decentralised but is coordinated via a shared function at Group level. In 2012, Boliden mapped its own energy supplies and consumption in order to set



### Boliden's energy mix

The origins of the electricity Boliden uses vary somewhat between the different countries in which the Group operates. Hydroelectricity predominates in Norway, while a variety of different sources are used in Sweden and Finland, and a higher percentage of fossil fuel energy is used in Ireland. The actual figures for Boliden's energy mix in 2012 depends on calculations that have not, as yet, been provided. Based on the results in 2011, however, it is estimated that the sources of the electricity purchased breaks down as follows: 39 per cent renewable, 31 per cent fossil fuels, and 30 per cent nuclear.

### **Certified management systems**

All of Boliden's mines and smelters work with certified management systems regarding environment (ISO 14001) and the health & safety (OHSAS 18001). The Group's energy management systems shall be updated within the framework of Boliden's strategic work on energy issues, whereby all Boliden units shall be certified in accordance with the ISO 50001 energy management standard. The Boliden Tara and Boliden Harjavalta units were approved for certification in accordance with ISO 50001 in 2012. The smelters are also certified in accordance with ISO 9001 (quality management).

goals for its ongoing energy and climate control work.

Boliden engages with the issue of longterm energy supply on several levels. The political arenas in Sweden and Europe are important fora when it comes to legislation, pricing and directives, and the availability of base load power supply and pricing are two important issues actively pursued by Boliden, often through partnerships with other players. Boliden is, along with other electricity-intensive operators in the Swedish basic industry sector, a joint-owner of BasEl, which is working to secure energy supplies, develop more sustainable solutions, and identify opportunities to enhance energy efficiency. Boliden is also involved in Industrikraft AB, a company that aims to develop new means of power generation in Sweden, and in Fennovoima, which is planning a new nuclear power plant in Finland.

### Extraction from and discharges to water sources

Boliden extracts 160 million cubic metres of water for its processes every year. Added to this are the 22 million cubic metres of rainwater processed every year at the Group's facilities. In 2012, 112 per cent of the total amount extracted was recycled.

Reusing and returning the water to the processes also enables Boliden to reduce its discharges. Boliden's discharges to water nowadays mainly comprise metals and nitrogen. 65 per cent of the metal discharges come from the smelters' water treatment plants that also treat all the rainwater that falls on the industrial park area. Boliden's mines account for the remaining 35 per cent in the form of discharges from tailings ponds at the mines' concentrators and water treatment plants.

Mining operations account for 80 per cent of Boliden's nitrogen discharges, which result mainly from the use of explosives. The other 20 per cent come from the sedimentation tank at the Kokkola zinc smelter.

Nitrogen discharges to water are due not only to the use of explosives, but also to large volumes of water arising from rainfall or snow melt. Discharges increased by 23 per cent during the year due to a combination of heavy and longlasting precipitation and increased production in several of our mining areas. Reducing these nitrogen discharges will be one of our focus areas in 2013.

### Reduced discharges to water

Efforts to improve the water treatment processes adhere to the basic principle of treating the water as close as possible to the source of the discharge. Constant monitoring is carried out to ensure that the treatment processes are working as they should, that Boliden is keeping within its threshold limits, and that zero environmental accidents occur.

### Limiting the impact on the physical environment

Boliden's operations utilise large areas of land for exploration activities, mining operations, tailings ponds and dams. One of the biggest challenges involves limiting our impact on the landscape around us. Boliden's efforts in this respect include good land management and reclamation of mining areas, both while the operations are in progress and once they have reached the end of their productive lifespan. Boliden's reclamation programmes shall, as far as possible, restore utilised areas of land to their original condition and make a positive contribution to biological diversity.

### Land management and reclamation of mining areas

Boliden has a direct reclamation responsibility for 30 or so mining areas and works systematically with risk analyses for and supervision of every area. The aim at all times is to use the best available technology in combination with continuous monitoring and evaluation. The goal is to restore the areas so that they are once again part of the surrounding landscape. A total of SEK 1,618 million (SEK 1,110 m) had been allocated for the reclamation of mining areas and smelters by the end of 2012.

### Dams

Boliden is currently responsible for around 40 dam facilities – most of which

are associated with the mining operations. The facilities are used, or have been used, to deposit tailings sand or other waste and for water management. Boliden's work with dams is based on its ambition to minimise its impact on the surrounding area and local residents with regard to safety and the environment. This principle applies both during the construction phase and during and after the dams' operating lifespans. An operating, permit checking and maintenance manual has been produced for every dam facility. Boliden complies with the mining industry's guidelines for dam safety (GruvRIDAS) and supports the dam safety policy of the Swedish trade association, SveMin, which describes how dams should be built, monitored, maintained and reclaimed.

See Boliden's website for further information about the facilities and land areas reclaimed in 2012. (http://www.boliden. com/Sustainability/Environmentalresponsibility/Land/Reclamation3/).

### Sustainable land and forestry management

Boliden owns approximately 19,800 hectares of land. Boliden needs the land to carry out its exploration work and thereby expand its operations. Boliden owns land in the vicinity of active and decommissioned mining areas and its policy is to continue being a landowner for as long as there are ongoing environmental monitoring programmes or a lack of clarity when it comes to responsibility.

Measures that restore the habitat and improve the preconditions for the establishment of flora and fauna help improve the natural recovery process and Boliden is, therefore, examining the ways in which biodiversity and ecosystem issues can be integrated into the Group's management systems.

Boliden's forestry is conducted in accordance with the principles of FSC (Forest Stewardship Council) certification. The felling level for the forests and forestry land not directly affected by Boliden's operations shall, in the long term (on a 10-year basis), correspond to 75 per cent of growth. 8 per cent of the



### **Boliden's material flows**

Maintaining biological diversity in the Långsele mine

The lake in the old Långsele open pit mine in Västerbotten is full of tadpoles - clear proof of the high quality of the water there. Boliden has been working here for just over a year to create better habitats for various species of flora and fauna as part of a bigger ecological compensation project in connection with existing and decommissioned mines. The first stage of the work involved creating new ditches, more water meadows and sand in which the hymenoptera order of insects can thrive. The overall goal of the work is to act as a role model for all of Boliden's future land reclamation initiatives. For Boliden, the work is one way of accepting its share of overall social responsibility, but also a way of accepting immediate responsibility for the local environment in which the company operates. It is also a way of minimising the Group's financial risks as legal requirements, e.g. official requirements in conjunction with permit reviews, become more stringent.



### Reclamation at Aitik and Garpenberg

Waste products are recycled at all of Boliden's facilities. Aitik processes recovered waste rock to meet the proper environmental standards, thereby generating added value and producing a material that can be sold on to external customers. The process also reduces the need for reclamation and sending waste to landfill, thereby helping both to create a better environment and to reduce handling costs. Tailings sand is recovered at Garpenberg to produce a filler material used in cut-and-fill stoping, which is an important measure in reducing the risk of collapses and thereby increasing safety.

### Zinc recovery and recycling close the cycle

Approximately 40 per cent of all the zinc produced worldwide every year comes from recycled materials. The main source is the waste product from steelworks known as electric arc furnace dust. All electric arc furnace dust is recovered in Europe today – a result of legislation, higher prices and new technology. Boliden recycles the dust through, among other things, its production of zinc clinker that is then used as a raw material. Around 60 per cent of all the zinc ever produced is now part of the recovery and recycling cycle. This figure may seem low, but it is due to the fact that the metal's durability means it takes a long time before zinc products are scrapped.

productive forestry land is set aside for nature conservation purposes and Boliden conducts landscape ecology forestry in these areas.

### Responsible waste management

Boliden's mines and smelters generate waste comprising waste rock, tailings sand, slag, sludge and dust. Some of the waste generated can be used as a raw material in another process. Boliden's waste management is, therefore, not just about minimising and processing end waste, it is also about converting waste into raw materials.

### Efficient materials recycling

Something that is regarded as a waste product by one operator can, in order words, become a raw material for another operator. Refining the production cycles of and exchanges between the Group's units allows the usage of secondary raw materials to increase.



The Group's waste products are sent to other companies for extraction in the same way as Boliden receives other companies' waste products for metal extraction. The existence of an industry-wide view of responsibility throughout the entire waste value chain is important, and not only must there be clear requirements specified in agreements, there must be on-site inspections and follow-up checks, too. Taken as a whole, Boliden's work in this area is minimising the amount of end waste that has to be sent to landfill.

### Landfill waste

The statutory definitions and criteria for what is classified as waste change over time, and it is consequently important that Boliden remains on the cutting edge of the work that determines not only whether a by-product will be classified as waste in the long term, but also how the Group should handle the waste today.

Boliden attempts, first and foremost, to identify internal solutions for recycling waste products or sending them to landfill. Waste products sent to a landfill in another country are subject to the legislation governing the export of waste to landfill sites or for recycling. Boliden also has its own routines for ensuring that waste is handled correctly and safely, including external audits carried out at waste recipient sites. Remuneration for processing waste is not paid until the work is completed.

### Permanent storage of metallic mercury

Process waste with a certain mercury content must, as a result of new EU legislation prohibiting its export and mandating safe storage, be stored underground in future. Boliden generates mercury-bearing waste, and the Kokkola and Odda smelters use underground permanent storage facilities for this type of waste. The Rönnskär smelter is working to identify a suitable location for permanent storage and a permit process is currently underway.

### Urban mining

One of the best things about metals is that they can be recycled endlessly without any deterioration in their quality. Electronic scrap and the residue from the demolition or construction of buildings and infrastructure can, therefore, be reutilised. Useful materials include telephone cables, copper roofs and copper pipes. This form of recycling is known as urban mining, underlining the fact that tomorrow's mines are also to be found in our towns and cities. The Rönnskär smelter is a shining example of this in that 65 per cent of the gold, 30 per cent of the copper, 40 per cent of the silver, and 80 per cent of zinc produced there comes from recycled materials. Boliden Bergsöe - the only smelter in the Nordic region that recycles lead – is another, producing 43,000 tonnes of lead every year, 100 per cent of which is derived from scrap car batteries and lead scrap.

Waste	2012	2011
Waste, total	1,199,000	1,090,000
Of which hazardous waste, total	756,000	750,000
Non-hazardous waste, total	443,000	340,000
Waste rock, total	41,635,000	31,646,000
Tailings sand, total	39,290,000	35,974,000

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# The first sustainable link in the metals' value chain

Boliden is, together with its suppliers and business partners, the first sustainable link in the metals' value chain. Being a stable, long-term and responsible partner means Boliden is able to work with its suppliers and business partners to promote sustainability work within the mining and metals industry.

### **Business partners**

Boliden's copper customers mainly comprise wire rod, copper rod and copper alloy manufacturers who, in turn, sell their products to the construction, electronics and automotive industries. Approximately one third of Boliden's zinc sales are made to large steelworks that use zinc to galvanise sheet metal and thereby protect it against corrosion and rust.

Boliden's suppliers can be divided into those from whom Boliden buys metal concentrates and secondary raw materials and those from whom Boliden buys in all of its other input goods and services, including logistics. Boliden has a total of approximately 330 customers and almost 6,000 suppliers, fewer than 300 of whom account for over 80 per cent of the volume of goods and services purchased.

### Evaluation of business partners

The choice of business partner has a significant impact on Boliden's profitability and sustainability performance, but in many cases, Boliden has only an indirect ability to influence the kind of environmental and work environmental issues that are managed by customers and suppliers - or the way in which they do it. Our ambition is, therefore, to develop and encourage sustainability work within and in partnership with other operators in the mining and metals industry. Boliden has been continuously conducting reviews of its business partners in a process known as EBP (Evaluation of Business Partners) since 2010. This is a systematic process in which the business partner is not only evaluated from a strictly commercial viewpoint but also from a sustainability one. Based on the 10 principles of the UN Global

Compact and ILO and ISO standards, Boliden has identified a number of areas of responsibility which we have chosen to address in cooperation with our partners. These areas are those relating to human rights, working conditions, environmental responsibility and systematic environmental work, anti-corruption and, finally, the way in which a company's own sustainability work is followed up and evaluated.

The process starts with an online selfassessment that it subsequently followed up and evaluated. A dialogue is generated with regard to the potential for improvement identified. To date, around 460 business partners have completed the self-assessment and five audits have been conducted. The audits are followed up in the form of reporting on the measures implemented. Working with improvements is a precondition of a continued partnership.



The laboratories in Boliden's smelters collaborate with many of Boliden's suppliers who work in tandem with Boliden to promote sustainable development. Picture: Harald Pohjonen, Environmental Analyst, Kokkola.

## Governance and organisation

Corporate Governance Report Sustainability management

**Board of Directors** 

Group Management

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Governance and organisation

A. | \$ LAP 17"

Boliden's values lay the foundations for the way in which Boliden conducts itself. Responsibility and authority are exercised within clear frameworks, and the Group's organisational and operational philosophy, the New Boliden Way, is an important management instrument. Sustainability issues are a natural component of the operations and hence, of the way in which Boliden is managed and run.

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### Boliden's drill core archive cur-

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rently houses around 1,700,000 metres of drill cores. The archive represents many years' combined experience and is also a massive geological knowledge base. The drill cores are used on an ongoing basis in the evaluation of potentially interesting mine projects.

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## Corporate Governance Report

Boliden is a Swedish limited company listed on the NASDAQ OMX Stockholm Stock Exchange, with a secondary listing on the Toronto Stock Exchange. Boliden's corporate governance is based on the Swedish Companies Act and the Swedish Annual Accounts Act, the regulations of the NASDAQ OMX Stockholm Stock Exchange, the Swedish Code of Corporate Governance, the Articles of Association, and other relevant regulations and guidelines, such as the Group's organisational and operational philosophy, the New Boliden Way.

### **Governance of the Boliden Group**

The shareholders exercise their right of decision at the Annual General Meeting (and at any Extraordinary General Meeting), which is the company's supreme decision-making body. The Board of Directors and the Chairman of the Board are appointed by the Annual General Meeting and the President is appointed by the Board of Directors. The company's accounting and the administration of the company by the Board of Directors and the President are reviewed by auditors appointed by the Annual General Meeting. The Annual General Meeting also appoints members to a Nomination Committee that drafts proposals that are put to the Annual General Meeting with regard to, among other things, elections of and the fees payable to the Board of Directors and auditors.

Over and above its compliance with legislative provisions, regulations and the Swedish Code of Corporate Governance, Boliden also applies internal governance instruments, such as the Group's organisational and operational philosophy, the New Boliden Way, and policies in a number of areas, including Boliden's Code of Conduct with which all employees must be familiar and in accordance with which they must conduct themselves. The Group's units also operate in accordance with health & safety, environmental, energy and quality management systems.

### **Shareholders**

Boliden has a share capital of SEK 578,914,338 divided between 273,511,169 shares and the same number of votes. There were a total of 90,234 shareholders at the end of 2012 and the biggest single shareholders were Swedbank Robur fonder, AMF, Nordea Fonder, AFA Försäkring and Handelsbanken fonder. Approximately 44 per cent of the total number of shares was held by foreign owners.

For further information on the shareholder structure within Boliden, see pages 32–33 of the Annual Report.

### **Annual General Meeting**

The duties of the Annual General Meeting include the election of Members of the Board and the Chairman of the Board and the Nomination Committee, the adoption of the Income Statement and Balance Sheet, resolutions on appropriation of profits and discharge from liability for the Members of the Board and the President of the company, the determination of fees payable to the Members of the Board and to the auditors and the principles governing conditions of employment and remuneration for the President and senior executives and, where relevant, the amending of Articles of Association and the election of auditors.

The 2012 Annual General Meeting was held on 3rd May in Boliden. 93,396,007 shares were represented at the Meeting by 723 shareholders, either in person or through their proxies. The shares represented comprised approximately 34 per cent of the total number of shares in Boliden. The Meeting resolved to reelect Board Members Marie Berglund, Staffan Bohman, Lennart Evrell, Michael G:son Löw, Ulla Litzén, Leif Rönnbäck, Matti Sundberg and Anders Ullberg. Anders Ullberg was re-elected as the Chairman of the Board.

The Meeting further resolved:

- to pay a dividend of SEK 4 per share, in accordance with the proposal by the Board of Directors;
- that the following persons shall be appointed as members of the Nomination Committee: Jan Andersson (Swedbank Robur fonder), Lars-Erik Forsgårdh, Frank Larsson (Handelsbanken fonder), Anders Oscarsson (AMF), and Anders Ullberg (Chairman of the Board);
- that the Directors' fees payable shall comprise payments of SEK 1,035,000 to the Chairman of the Board and of SEK 415,000 to Members who are not Boliden employees, that the fees payable to the Chairman of the Audit Committee and to each of the two members of the Audit Committee shall be SEK 150,000 and SEK 75,000, respectively, and that the fees payable to each of the Remuneration Committee's two members shall be SEK 50,000;
- that Members of the Board shall be entitled to collect remuneration via companies;
- that auditors' fees shall be payable in accordance with the approved invoices received;
- that remuneration payable to the members of the Group management shall comprise a fixed salary, any variable remuneration, other benefits and pensions. The variable remuneration shall be maximised at 60 per cent of the fixed salary for the President and maximised at 50 per cent of the fixed salary for other senior executives and shall be based on results in relation to targets set. 10 per cent of the variable remuneration shall be used to acquire shares in the company. The variable remuneration shall not comprise pensionable income;
- to publish the Minutes of the 2012 Annual General Meeting on Boliden's website.

### **Nomination Committee**

The Annual General Meeting passes resolutions on the principles governing the appointment and duties of the Nomination Committee. The Nomination Committee shall, in accordance with the Instructions for the Nomination Committee adopted by the 2012 Annual General Meeting, comprise a minimum of five and a maximum of seven members. Five members shall be elected at the Annual General Meeting, of whom three shall represent the biggest shareholders and one the smaller shareholders, and one of whom shall be the Chairman of the Board. The Nomination Committee appoints its own Chairman and works in the best interests of all shareholders. The Nomination Committee may, in order better to reflect the shareholder structure in the event of changes in ownership, offer places on the Committee to other larger shareholders.

### Composition of the Nomination Committee

In November, the Chairman of the Board convened the members elected by the Meeting, at which time Jan Andersson (Swedbank Robur fonder), was appointed Chairman. Thomas Ehlin also joined the Nomination Committee as a representative of Nordea Fonder.

### Duties of the Nomination Committee

The Nomination Committee is tasked with drafting proposals for resolution by Boliden's Annual General Meeting. The proposals relate to, among other things, the number and the election of Members of the Board, the Chairman of the Board, fees payable to the Board and its committees, and, where relevant, fees payable to the company's auditors and to the process and the criteria that shall govern the appointment of the members of the Nomination Committee ahead of next Annual General Meeting.

The Nomination Committee has met a total of three times in 2012 and 2013 and has also had telephone contact and held one meeting with the Members of the Board. Information on the way in which shareholders can submit proposals to the Nomination Committee have been published on Boliden's website.

The focus of the Nomination Committee's work is on ensuring that the company's Board of Directors comprises Members who, collectively, possess the knowledge and experience that corresponds to the requirements made of the company's most senior governing body by the shareholders. The Chairman of the Board accordingly presents the Nomination Committee with the evaluation conducted of the work of the Board and the individual Members during the past year as part of the process of drafting proposals for Board Members. The Company President also presents Boliden's operations and future orientation. The Nomination Committee is also afforded the opportunity to meet the Members of the Board. The Nomination Committee has also drafted proposals for the election of auditors at the impending Annual General Meeting during the year.

### **The Board of Directors**

Boliden's Board of Directors shall, under the provisions of the Articles of Association, comprise a minimum of three and a maximum of ten Members, without Deputy Members, elected by the Annual General Meeting. The company's employees have a statutory entitlement to appoint three Members and three Deputy Members to the Board.

Board of Directors as of the 2012 Annual General Meeting	Elected	Present, 2012	Committee work	Present, 2012	Director's fee, SEK	Fee, Audit Committee, SEK	Fee, Remuneration Committee, SEK	Independent of the company and the company management	Independent of major shareholders
			Audit Committee	5 of 5					
Anders Ullberg, Chairman	2005	7 of 7	Remuneration Committee	1 of 1	1,035,000	75,000	50,000	Yes	Yes
Marie Berglund	2003	7 of 7			415,000			Yes	Yes
Staffan Bohman	2007	7 of 7	Remuneration Committee	1 of 1	415,000		50,000	Yes	Yes
Lennart Evrell, President	2008	7 of 7						No	Yes
Ulla Litzén	2005	7 of 7	Audit Committee	5 of 5	415,000	150,000		Yes	Yes
Michael G:son Löw	2010	6 of 7			415,000			Yes	Yes
Leif Rönnbäck	2005	7 of 7	Audit Committee	5 of 5	415,000	75,000		Yes	Yes
Matti Sundberg	2005	7 of 7			415,000			Yes	Yes
Roland Antonsson (ER)	2009	6 of 7							
Marie Holmberg (ER)	2008	6 of 7							
Hans-Göran Ölvebo (ER)	2001	6 of 7							
Ola Holmström (ER) Deputy	2012	4 of 5							
Ditte Kilsgaard Möller (ER) Deputy	2012	4 of 5							
Einar Mikkelsen (ER) Deputy	2012	4 of 5							

#### **Board of Directors 2012**

### The composition of the Board

The Board of Directors has comprised eight Members elected by the Annual General Meeting and three Members appointed by the trade union organisations since the 2012 Annual General Meeting.

The Board Meetings are attended both by the ordinary Members and by the union Members' three Deputy Members. The Senior Vice President of Legal Affairs is the Board's Secretary.

Boliden's Senior Vice President for the Group Treasury and Finance also usually attends the meetings on behalf of the Group management. Other members of the Group management and other executives also attend and present reports on individual issues as required.

The Board Members elected by the Annual General Meeting are all to be regarded as independent in relation to major shareholders, and all, with the exception of the President, to be regarded as independent in relation to the company and the Group management.

The Members of the Board are presented on pages 70–71 and on Boliden's website. For more detailed information on attendance at Meetings and independence, amongst other things, see the table on the previous page.

### The responsibilities of the Board of Directors and the Chairman

The Board of Directors is appointed by Boliden's owners to bear ultimate responsibility for the organisation and management of the company's affairs. The Board adopts a Formal Work Plan every year at the Board Meeting following the election, held after the Annual General Meeting. The Formal Work Plan regulates the work and the responsibilities of the Board in greater detail, together with the special duties with which the Chairman of the Board is tasked. The Chairman of the Board guides the work of the Board and monitors Boliden's operations through an ongoing dialogue with the President. The Board receives information on Boliden's economic and financial position through monthly reports and at Board Meetings. Prior to every Board Meeting, the Chairman and the President review the issues to be discussed at the Meeting. The source data for the Board's discussion of the issues is sent to the Members approximately one week before each Board Meeting. The division of labour between the Board of Directors and the President is clarified in the written "Instructions to the President" adopted by the Board at the Board meeting following election.

In 2012, the Board has, as in previous years, established an Audit Committee and a Remuneration Committee.

### Boliden's Corporate Governance Structure



### The Board of Directors' work in 2012

The Board of Directors held seven ordinary meetings in 2012. A number of the Board Meetings are regularly held at the company's operating units in order to give the Members an increased insight into the operations. In 2012, the Board visited the Boliden mining area and the Odda smelter, and attended the inauguration of Boliden's new electronic scrap recycling facility at Rönnskär.

At the beginning of every year, the Board sets a number of themes that it particularly wishes to address during the year. Some of the issues addressed during the year, in addition to the operational review conducted at every Board Meeting were:

- February: Year-end Report, Audit Report, investment in silver extraction at Kokkola, remuneration issues, the Annual Report and matters to be discussed at the Annual General Meeting. Boliden's auditors presented reports detailing their observations from the audit of the company at the Board Meeting in February. The Board had, at this time, the opportunity to meet the auditors without the presence of the Group management.
- May: Q1 Interim Report, preparation for the preparation of the Laver exploration project and a possible future expansion of Aitik from 36 to 45 million tonnes/year, structural changes transactions in the mining industry, and long-term borrowing.
- July: Q2 Interim Report, Audit Report, energy issues, global metals market trends, pricing and economic climate analyses.
- August: Zinc market trends and the price of zinc, and the remedial action programme and investments at Odda.
- October: Q3 Interim Report, New Boliden Way follow-up, Corporate Social Responsibility (CSR) and evaluation of the Board.
- December: Strategy, budget and business plan, trading companies and purchasing.

#### Evaluation of the Board's work

The Chairman ensures that the Board and its work are evaluated annually and that the results of the evaluation are conveyed to the Nomination Committee. The evaluation is carried out by the Board itself under the guidance of the Chairman or, at regular intervals, with the help of an independent consultant. The 2012 evaluation was a self-evaluation during which the Members answered a number of questions in writing on a range of different subjects and held one-on-one discussions with the Chairman of the Board, followed by a joint discussion, during which the Board discussed the conclusions drawn from the evaluation.

### Audit Committee

The Audit Committee meets before the publication of every financial report, and as necessary. The Committee prepares a number of issues for consideration by the Board and thereby supports the Board in its endeavours to fulfil its responsibilities within the areas of auditing and internal control and with assuring the quality of Boliden's financial reporting. This requires, among other things, that the company has a satisfactory organisation and appropriate processes to this end. Boliden has an internal control function whose work involves mapping risk areas and following up on work in identified areas. The Committee also works with the procurement of services from the company's auditors over and above the actual auditing services and, when so tasked by the Nomination Committee, with the procurement of auditing services.

The Audit Committee works on the basis of a set of "Instructions for the Audit Committee" adopted every year by the Board of Directors and reports back to the Board on the results of its work. Special attention was paid in 2011 to industryrelated accounting issues and changes to IFRS, to following up on internal controls, and the procurement of auditors for the impending Annual General Meeting. The Audit Committee comprises Ulla Litzén (Chairwoman), Leif Rönnbäck and Anders Ullberg and met five times in 2012. The Committee members have specialist competence, experience of and interest in financial and accounting issues.

### **Remuneration Committee**

The Remuneration Committee submits proposals for resolution by the Board regarding salary and other terms of employment for the President and follows up on and evaluates programmes for variable remuneration for the management. The Committee also approves proposals regarding salaries and other terms of employment for the Group management, as proposed by the President. The Remuneration Committee is, furthermore, tasked with submitting proposals regarding remuneration principles for the President and Group management, proposals which are then submitted by the Board to the Annual General Meeting for resolution. The application of the guidelines and applicable remuneration structures and levels within the company is also followed up by the Committee and the results of this evaluation are published on the company's website.

The Remuneration Committee works on the basis of a set of "Instructions for the Remuneration Committee" adopted every year by the Board of Directors and reports back to the Board on the results of its work. The Committee has held one meeting during the year and had telephone contact on a number of occasions. The Remuneration Committee comprises Anders Ullberg (Chairman), and Staffan Bohman.

See Note 1 on pages 89–90 for an account of the remuneration paid to the Group management.

### **Business management**

Management by the Board goes through a chain of command from the President to the operating units. Boliden has an organisation in which responsibilities and authority are delegated within clear frameworks. These frameworks are defined by an annual budget which is broken down by unit, a strategic plan, and Boliden's steering documents. The steering documents, which are available on the intranet and which comprise the internal framework required for effective management, include the Financial Policy, the Code of Conduct, the Communications Policy, the Environmental Policy and the Health & Safety Policy.

#### Sustainability governance in Boliden

Sustainability issues are an integral part of Boliden's operations and the work is conducted from the starting point of the most operationally critical issues. Sustainability issues are discussed at every management group and Board meeting, as is the case at the local management group meetings. The Board dedicates one meeting every year to current Corporate Responsibility issues (CR). The day-to-day responsibility is decentralised to the respective units. Central sustainability, environmental, energy and HR functions follow up on the units' work and are responsible for creating a structure and orientation for the work. Networks have been established within the respective functions in order to promote knowledge exchange and development.

The sustainability issues identified as of the greatest significance and most highly prioritised in both the work and the governance are closely linked to Boliden's operations, strategy and vision. Factors that form the basis for prioritisation include Boliden's operations and their impact on people and the environment, the way in which work on these issues can support the operations, expectations of Boliden from internal and external stakeholders, risks and opportunities, external factors and applicable regulations. The challenges that will be prioritised change over time and are, therefore, regularly reviewed – usually once a year or every other year. It is the responsibility of the various interested parties within the Group to set local goals with regard to the overall issues.

Matters of business ethics and anti-corruption have become topical during the year as a result of, among other things, the UK Bribery Act, the new Swedish Bribery Act and a new anti-corruption code. Risk mapping was carried out in 2012 in order to identify potential corruption-related risks present within the Group. Boliden's Code of Conduct has been updated and complemented in line with the results of the risk mapping work and new regulations, and a new anti-corruption policy has been adopted. Boliden already has a whistle-blower function that can be used to report suspected cases of impropriety.

Boliden signed up, in 2012, to the UN Global Compact, which is an undertaking whereby Boliden agrees to actively

support and promote its ten principles on human rights, labour, the environment, and anti-corruption. The undertaking also covers Boliden's relationships with external stakeholders.

Boliden has internally set sustainability goals that apply until the end of 2013. During the year ahead, new goals for the sustainability work will be set for the period 2014–2018.

#### **Group management**

Boliden's Group management comprises the President, the heads of the Group's two Business Areas, the Senior Vice President for the Group Treasury and Finance, and the Senior Vice President for Corporate Social Responsibility. The Group management team meets once a month to monitor operations and discuss issues that concern the Group as a whole, and to generate proposals for strategic plans, business plans and budgets that the President will submit to the Board of Directors for a decision.

The company's 150 or so senior managers and specialists meet annually at management meetings with a view to establishing a consensus, and where they also have the opportunity for discussions aimed at establishing widespread support for the measures proposed.

See pages 72–73 for a presentation of the Group management team.

### **Auditors**

The accounting firm of Ernst & Young AB was elected at the 2009 Annual General Meeting to serve as the company's auditors until the conclusion of the 2013 Annual General Meeting. Authorised Public Accountant Lars Träff is the senior auditor.

Lars Träff's audit engagements, in addition to Boliden, include Scania, BillerudKorsnäs, Lantmännen, ÅF, SJ and JM.

Remuneration is paid to the company's auditors in accordance with invoices received as agreed. See Note 2 on page 90 for information on remuneration disbursed in 2012.

### Internal control report by the Board of Directors

The purpose of internal control with regard to financial reporting is to provide reasonable assurance with regard to the reliability of the external financial reporting and to ensure that the reports are produced in accordance with generally accepted accounting principles, applicable legislation and statutes, and with other requirements imposed on listed companies.

The Board of Directors has overall responsibility for ensuring that an efficient internal control system exists within the Boliden Group. The President is responsible for the existence of a process and organisation that ensure internal control and the quality of the internal and external financial reporting.

### Internal control function

Boliden has an internal control function responsible for implementing processes and frameworks that secure internal control and ensure the quality of the financial reporting.

The internal control function reports to the Head of the Treasury and Finance function and presents reports on issues relating to internal control at the Audit Committee's meetings.

#### Control environment

The control environment within Boliden is characterised by the fact that the Group has relatively few but large operating units that have carried out their operations for many years, using well-established processes and control activities.

A structure of steering documents in the form of binding policies and guidelines for the organisation's delegated responsibilities has been established to ensure a collective attitude and methodology within the Group.

The starting point is the New Boliden Way, together with associated steering documents which include the Code of Conduct, decision-making and authorisation instructions, and a financial manual covering financial policy, accounting and reporting instructions.

Local management systems with more detailed instructions and descriptions of important processes have also been set up.

Work continued at both Business Area and Group level in 2012 on charting the financial transaction flows, identifying risks and documenting control activities in a uniform and standardised way.

#### **Risk analysis**

The operating units conduct ongoing risk analyses with regard to financial reporting. All units shall, within the framework of this work, which began in 2008, map and evaluate risks in the various accounting and reporting processes.

#### **Control** activities

Various types of control activities are carried out within the Group and within every different aspect of the accounting and reporting process on an ongoing basis. The control activities are carried out in order to manage known risks and to detect and rectify any errors and discrepancies in the financial reporting.

Documentation of significant control activities within the accounting and reporting process continued in 2012, and testing of all of these control activities, including general IT controls, was conducted during the autumn.

### Information and communication

Information on policies, guidelines and manuals is available on Boliden's intranet. Information on updates and changes to reporting and accounting principles is issued via email and at the regular treasury and controller meetings.

External information is provided and communication conducted in accordance with the Group's Communications Policy. All information must be communicated in a discerning, open and transparent manner.

Group-wide steering documents are updated and communicated on a continuous basis.

### Follow-ups

Systems, processes and controls within the Group are followed up, improved and developed continuously.

Areas where scope for improvement is identified in conjunction with audits are documented, analysed and actioned. Examples of such activities in 2012 include the internal audit of maintenance processes, focusing on the environment and work environment.

### Auditors' Report on the Corporate Governance Statement

To the annual meeting of the shareholders of Boliden AB (publ), corporate identity number 556051-4142.

It is the Board of Directors that is responsible for the Corporate Governance Report for 2012 on pages 62–73 and for ensuring that it has been prepared in accordance with the provisions of the Swedish Annual Accounts Act.

We have read the Corporate Governance Report and, based on that reading and our knowledge of the company and the Group, believe that we have a sufficient basis for our opinions. This means that our statutory examination of the Corporate Governance Report has a different focus and is substantially less in scope than that of an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden.

In our opinion, the Corporate Governance Report has been prepared in accordance with and its statutory content complies with the provisions of the Swedish Annual Accounts Act and is consistent with the consolidated accounts.

Stockholm, 26 February 2013

Ernst & Young AB

Lars Träff Authorised Public Accountant

## **Board of Directors**



### Au

Anders Ullberg Chairman of the Board since 2005 Born: 1946

Directorships: Chairman of the Boards of BE Group, Diamorph, Eneqvist consulting, Natur&Kultur and Studsvik. Member of the Boards of Atlas Copco, Beijer Alma, Sapa, Valedo Partners and Åkers. Chairman of the Swedish Financial Reporting Board.

Shareholding (with family): 45,000



### Mb

Marie Berglund Member of the Board since 2003 M. Sc. Biology. Raw Materials Manager, NCC Roads AB, Sverige Nord Born: 1958

Directorships: Member of the Boards of Baltic Sea 2020, Eurocon Consulting, the Water Delegation of the Gulf of Bothnia's Water District, the Advisory Council of the County Administrative Board of Västernorrland, the Swedish Forest Agency, and MODO Hockey. Shareholding (with family): 1,000



Sb

**Staffan Bohman** Member of the Board since 2007 B.Sc. Economics **Born:** 1949

Directorships: Chairman of the Boards of Cibes LiftGroup and Ersta diakoni. Deputy Chairman of the Board of Rezidor Hotel Group and of SNS – Centre for Business and Policy Studies Board of Trustees. Member of the Boards of Atlas Copco, Inter-IKEA Holding, Ratos, Rolling Optics and the Swedish Corporate Governance Board.

Shareholding (with family): 40,000



### Le

Lennart Evrell Member of the Board since 2008 M.Sc. Engineering, Economics. President and CEO of Boliden AB Born: 1954 Directorships: Chairman of the Board of SveMin. Shareholding (with family): 33,000



### Mg

Michael G:son Löw Member of the Board since 2010 B.Sc. Economics Born: 1951

Directorships: Member of the Boards of Concordia Maritime, Norstel, Preem, Stena LNG, the Confederation of Swedish Enterprise, Deputy chairman of the Swedish industrial and Chemical Employers Association, the Swedish-Russian Chamber of Commerce, Member of the Chalmers Advisory Committee and the Royal Swedish Academy of Engineering Sciences. Shareholding (with family): 100



### UI

Ulla Litzén Member of the Board since 2005 M.Sc. Economics and MBA Born: 1956 Directorships: Member of the Boards of Alfa Laval, Atlas Copco, Husqvarna, NCC and SKF. Shareholding

(with family): 8,400



### Lr

Leif Rönnbäck Member of the Board since 2005 B.Sc. Natural Sciences, Geology Born: 1945 Shareholding (with family): 1,000

### Ms

Matti Sundberg Member of the Board since 2005 Mining Counsellor. Master of Economics, Honorary Doctor of Economics Born: 1942 Directorships: Chairman of

the Boards of Chempolis and the Finnish Ski Association. Member of the Boards of FIS, Grängesberg Iron, Skanska and SSAB, et al. Shareholding (with family): 12,000


# Mh

Marie Holmberg Employee Representative Member of the Board since 2008 Deputy Member of the Board: 2005–2008 Representative of the Swedish Asso-

ciation of Graduate Engineers Born: 1963 Shareholding (with family): 248



#### Hg Hans-Göran Ölvebo Employee Representative Member of the Board since 2009 Member of the Board: 2001–2005 Deputy Member of the Board

2005–2009 Representative of IF Metall (Swedish Metalworkers' Union) Production worker, Aitik **Born:** 1955

Shareholding (with family): 50



## Ra

Roland Antonsson Employee Representative Member of the Board since 2012 Deputy Member: 2009–2012 Representative of IF Metall. Chairman of the IF Metall (Swedish Metalworkers' Union) branch, Rönnskär Born: 1957 Shareholding (with family): 0



## Dk

Ditte Kilsgaard Möller Employee Representative Deputy Member of the Board since 2012

Representative of the Swedish Association of Graduate Engineers MA in design, B.Sc. in Geology Geologist working with field exploration, Chairman of the local trade union at Boliden Mines **Born:** 1979

Shareholding (with family): 0



# Em

Einar Mikkelsen Employee Representative Deputy Member of the Board since 2012 Representative of the Industry Energy trade union in Norway and the Unionen salaried employees' trade union in Sweden Member of the Board of Boliden Odda Born: 1964 Shareholding (with family): 0

# Oh

Ola Holmström Employee Representative Deputy Member of the Board since 2012 Representative of IF Metall (the Swedish Metalworkers' Union). Chairman of the IF Metal (Swedish Metalworkers' Union) branch, Kristineberg. Deputy Chairman of Boliden's Group Council and Boliden Works Council Born: 1965 Shareholding (with family): 170

# Group Management



## Le

Lennart Evrell M.Sc. Engineering, Economics President and CEO of Boliden AB Born: 1954 Employed: 2007 Shareholding (with family): 33,000



Jm Jan Moström B.Sc. Engineering President – Business Area Mine Born: 1959 Employed: 1979–1998, 2000 Shareholding (with family): 17,500



Kerstin Konradsson M.Sc. Engineering President – Business Area Smelters from 1st February 2012 Born: 1967 Employed: 2012 Shareholding (with family): 80



Mikael Staffas M.Sc. Engineering, MBA CFO Born: 1965 Employed: 2011 Shareholding (with family): 4,000



## Hö

Henrik Östberg M.A. in languages and pedagogics Senior Vice President – Corporate Responsibility Born: 1960 Employed: 2008 Shareholding (with family): 1,200



# Financial reporting

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The copper cathodes are loaded and shipped to industrial customers, mainly in Europe, where they are used in the electronics industry, etc. The copper is manufactured from mined concentrate and recycled materials at the Rönnskär and Harjavalta smelters. Mined concentrate usually contains approximately 25 per cent copper. Once the smelters' refining processes are completed, the copper plates are 99.998 per cent pure copper.

# Consolidated income statements – The Group

Amount in SEK million	Note	2012	2011
Revenues	26	40,001	40,323
Cost of goods sold	3	-34,636	-34,404
Gross profit		5,365	5,919
Selling expenses	3	-385	-384
Administrative expenses	2, 3	-558	-540
Research and development costs	З	-429	-358
Other operating income	4	80	113
Other operating expenses		-3	-2
Results from participations in associated companies	12	1	-
Operating profit	1–4, 8–10, 26	4,071	4,748
Interest income and other similar items	5	87	71
Interest expenses and other similar items	6	-266	-259
Profit after financial items		3,892	4,560
Taxes	13	-618	-1,171
Net profit for the year		3,274	3,389
Net profit for the year attributable to:			
The Parent Company's shareholders		3,272	3,387
Minority holdings		2	2
Earnings per share, SEK	17	11.96	12.39
There are no potential shares and hence no dilution effect			
Average number of shares, before and after dilution		273,511,169	273,511,169

# Consolidated statement of comprehensive income

Amount in SEK million	Note	2012	2011
Net profit for the year		3,274	3,389
Other comprehensive income			
Cash flow hedging			
Change in market value of derivative instruments		-147	523
Fiscal effect on derivative instruments		39	-138
Transfers to the Income Statement		-201	-297
Tax on transfers to the Income Statement		53	78
Effect of change in tax rate on the market value of derivative instruments		-8	-
		-265	167
Year's translation difference when converting overseas operations		-169	-32
Result of hedging of net investments in overseas operations		219	42
Tax on net profit for the year from hedging instruments		-48	-11
		2	-1
Total other comprehensive income		-263	166
Comprehensive income for the year		3,011	3,555
Comprehensive income for the year attributable to:			
The Parent Company's shareholders		3,009	3,553
Minority holdings		2	2

# Consolidated balance sheets – The Group

Amount in SEK million	Note	31-12-2012	31-12-2011
ASSETS			
Fixed assets			
Intangible fixed assets	8	3,160	3,184
Tangible fixed assets	9		
Buildings and land		4,317	3,711
Deferred mining costs		4,770	4,094
Machinery and other technical facilities		15,552	14,263
Equipment, tools, fixtures and fittings		217	237
New construction work in progress		424	621
		25,279	22,927
Other fixed assets			
Participations in associated companies	12	8	7
Other shares and participations		24	55
Deferred tax receivables	13	61	46
Financial investments		0	0
Long-term receivables		104	120
		197	228
Total fixed assets		28,635	26,339
Current assets			
Inventories	14	8,244	7,737
Accounts receivable	15	1,016	1,014
Tax receivables		12	30
Interest-bearing receivables		3	3
Derivative instruments	23	322	1,257
Other current receivables	16	791	880
Liquid assets	7	1,011	355
Total current assets		11,399	11,276
TOTAL ASSETS		40,035	37,615

Amount in SEK million	Note	31-12-2012	31-12-2011
SHAREHOLDERS' EQUITY AND LIABILITIES			
Shareholders' equity	17		
Share capital		579	579
Other capital injected		5,941	5,944
Translation reserve		-89	-91
Hedging reserve		-145	120
Profit carried forward		16,649	14,467
Shareholders' equity attributable to the Parent Company's sharehold	lers	22,935	21,020
Minority holdings		14	12
Total shareholders' equity		22,949	21,032
Long-term liabilities			
Liabilities to credit institutions	21	4,310	4,957
Other interest-bearing liabilities	21	5	10
Provisions for pensions and similar undertakings	18	707	653
Deferred tax liabilities	13	2,766	3,004
Other provisions	19	1,539	1,041
Total long-term liabilities		9,327	9,665
Current liabilities			
Liabilities to credit institutions	21	1,666	801
Accounts payable	21	4,192	3,551
Provisions	19	139	123
Current tax liabilities		105	450
Derivative instruments	22	394	810
Other current liabilities	24	1,263	1,183
Total current liabilities		7,759	6,918
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		40,035	37,615
Pledged assets	25	None	None
Contingent liabilities	25	682	740

Net debt, SEK m	31-12-2012	31-12-2011
Liabilities to credit institutions	5,976	5,758
Other interest-bearing liabilities	5	10
Pension liabilities	707	653
Other long-term securities holdings	0	0
Short-term interest-bearing assets	-3	-3
Short-term investments	0	0
Cash and bank balances	-1,011	-355
	5,673	6,063

Capital employed, SEK m	31-12-2012	31-12-2011
Intangible assets	3,160	3,184
Tangible assets	25,279	22,927
Participations in associated companies	8	7
Other shares and participations	24	55
Inventories	8,244	7,737
Accounts receivable	1,016	1,014
Other receivables	1,217	2,257
Provisions, other than for pensions and tax	-1,678	-1,164
Accounts payable	-4,192	-3,551
Other non-interest-bearing liabilities	-1,657	-1,993
	31.421	30.473

# Changes in shareholders' equity – The Group

Amount in	SEK million	Note

	Shareholders' equity attributable to the Parent Company's shareholders							
	Share capital	Other capital contributed	Translation reserve	Hedging reserve	Profit carried forward	Total Boli- den's share- holders	Minority holdings	Total share- holders' equity
17								
Closing balance on Balance Sheet, 31st Dec. 2010	579	5,944	-90	-47	12,448	18,834	12	18,846
Net profit for the year	-	-	-	-	3,387	3,387	2	3,389
Other comprehensive income	-	-	–1	167	_	166	-	166
Comprehensive income for the year	_	-	-1	167	3,387	3,553	2	3,555
Minority holding in conjunction with acquisition	-	-	_	-	_	-	_	-
Dividend to Boliden AB's shareholders	_	-	-	-	-1,367	-1,367	_	-1,367
Dividend to minorities	-	-	-	-	-	-	-2	-2
Closing balance on Balance Sheet,								
31st Dec. 2011	579	5,944	-91	120	14,467	21,020	12	21,032
Net profit for the year	-	-	-	-	3,272	3,272	2	3,274
Other comprehensive income	-	-	2	-265	-	-263	-	-263
Comprehensive income for the year	-	-	2	-265	3,272	3,009	2	3,011
Minority holding in conjunction with acquisition	_	-	_	-	_	-	_	-
Reclassification	-	-4	-	-	4	-	-	0
Dividend to Boliden AB's shareholders	_	-	_	-	-1,094	-1,094	_	-1,094
Dividend to minorities	-	-	-	-	-	-	-	-
Closing balance on Balance Sheet, 31st Dec. 2012	579	5,941	- 89	- 145	16,649	22,935	14	22,949

#### Other capital contributed

Refers to shareholders' equity contributed by the owners. When shares are issued at a premium, an amount corresponding to the amount received in excess of the nominal value of the shares is reported as other capital contributed.

#### **Translation reserve**

The current method is used to convert the Income Statements and Balance Sheets of overseas subsidiaries. Any exchange rate differences that apply are reported directly under other comprehensive income. Boliden currency hedges net investments in overseas subsidiaries by adopting the opposite position in the relevant foreign currency. The exchange rate difference on hedging instruments is, after the fiscal effect, reported under other comprehensive income.

#### Hedging reserve

Boliden applies hedge accounting for financial derivatives acquired with a view to hedging part of forecast currency, metal and interest flows. Changes in the market value of hedging instruments are reported under other comprehensive income until such time as the underlying flows are reported in the Income Statement.

#### **Profit carried forward**

Refers to profits earned.

# Consolidated statements of cash flow – The Group

Amount in SEK million	Note	2012	2011
	7		
Operating activities			
Profit after financial items		3,892	4,560
Adjustments for items not included in the cash flow:			
Depreciation, amortisation and write-down of assets	8, 9	2,219	1,937
Provisions		62	32
Translation differences		170	50
Tax paid		-1,145	-1,540
Cash flow from operating activities before changes in working capital		5,198	5,039
Cash flow from changes in working capital			
Increase(-)/Decrease(+) in inventories		-534	182
Increase(-)/Decrease(+) in operating receivables		234	-827
Increase(+)/Decrease(-) in operating liabilities		615	-372
Other		5	0
Cash flow from operating activities		5,518	4,021
Investment activities			
Acquisition of intangible fixed assets		-24	-23
Acquisition of tangible fixed assets	9	-4,151	-3,992
Acquisition of financial assets		29	-29
Other investment activities		17	20
Cash flow from investment activities		-4,129	-4,024
Free cash flow		1,389	-3
Financing activities			
Dividend		-1,094	-1,369
Loans raised		2,280	1,542
Amortisation of loans		-1,916	-638
Cash flow from financing activities		-730	-464
Cash flow for the year		659	-467
Opening liquid assets		355	821
Exchange rate difference on liquid assets		-3	1
Closing liquid assets	7	1,011	355

# The Parent Company

### Income statements

Amount in SEK million	Note	2012	2011
Dividends from subsidiaries	11	2,607	3,218
Write-down of participa- tions in Group companies		-17	0
Profit after financial items		2,590	3,218
Profit before tax		2,590	3,218
Tax on the profit for the		_	_
your			
Net profit for the year		2,590	3,218

The operations of Boliden AB are limited in scale and are conducted on its behalf by Boliden Mineral AB, which means that the profit is reported as part of Boliden Mineral AB. Boliden AB has no sums to report under other comprehensive income.

## **Balance sheets**

Amount in SEK million	Note	31-12-2012	31-12-2011
ASSETS			
Fixed assets			
Financial fixed assets			
Participations in Group companies	11	3,911	3,911
Participations in other companies		5	5
Other long-term receivables from Group companies		7,017	5,521
Total fixed assets		10,934	9,438
Current receivables			
Current receivables from Group companies		1,266	166
Total current assets		1,266	166
TOTAL ASSETS		12,200	9,605
SHAREHOLDERS' EQUITY AND LIABILITIES			
Shareholders' equity	17		
Restricted equity			
Share capital		579	579
Statutory reserve		5,252	5,252
		5,831	5,831
Non-restricted equity			
Profit carried forward		2,513	389
Net profit for the year		2,590	3,218
		5,103	3,607
Total shareholders' equity		10,934	9,438
Current liabilities			
Liabilities to credit institutions	21	1,266	166
		1,266	166
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		12,200	9,605
Pledged assets		None	None
Contingent liabilities	25	7,125	6,659

## Changes in shareholders' equity

Amount in SEK million						
	Share capital	Statutory reserve	Non- restricted share- holders' equity	Total share- holders' equity		
Closing balance on Balance Sheet,						
31st Dec. 2010	579	5,252	1,757	7,588		
Dividend			-1,368	-1,368		
Net profit for the year			3,218	3,218		
Closing balance on Balance Sheet,	- 70	F 050	0.007	0.400		
31st Dec. 2011	579	5,252	3,607	9,438		
Dividend			-1,094	-1,094		
Net profit for the year			2,590	2,590		
Closing balance on Balance Sheet, 31st Dec. 2012	579	5 252	5 103	10 934		

The statutory reserve includes amounts which, prior to 1st January 2006, were transferred to the share premium reserve. The profit carried forward comprises, together with the net profit for the year, the total non-restricted equity. The non-restricted shareholders' equity in the Parent Company is available for distribution to the shareholders.

### Statements of cash flow

Amount in SEK million	31-12-2012	31-12-2011
Cash flow from operating activities	2,590	3,218
Financing activities		
Loans raised	2,616	355
Amortisation of loans	-1,516	-638
Dividend	-1,094	-1,368
Loans from Group companies	-2,596	-1,567
Cash flow from financing activities	-2,590	-3,218
Cash flow for the year	-	-
Opening liquid assets	-	-
Closing liquid assets	-	-

# **Accounting Principles**

#### **General Accounting Principles**

Boliden AB (publ), Swedish corporate ID no. 556051-4142, is a limited liability company registered in Sweden. The company's registered office is in Stockholm at the address: Klarabergsviadukten 90, SE-101 20 Stockholm. The Boliden share is listed on NASDAQ OMX Stockholm's Large Cap list. Boliden's shares are also traded on the Toronto Stock Exchange in Canada, where they have a secondary listing.

The Company is the Boliden Group's Parent Company, whose principal operations involve the mining and production of metals and operations compatible therewith.

The Consolidated Statements have been compiled in accordance with EU-approved International Financial Reporting Standards (IFRS) and interpretations of the International Financial Reporting Interpretations Committee (IFRIC). In addition, the Group applies the Swedish Financial Reporting Board's recommendation RFR 1 Supplementary accounting regulations for corporate conglomerates specifying the supplements to IFRS required pursuant to the stipulations of the Swedish Annual Accounts Act.

The Parent Company's functional currency is the Swedish krona (SEK) and this is also the reporting currency for both the Group and the Parent Company. All amounts in the financial reports are stated in millions of Swedish kronor (SEK m) unless otherwise specified.

Items have been valued at their acquisition value in the consolidated accounts, with the exception of certain financial assets and liabilities (derivative instruments), which have been valued at their fair value, and inventories in those cases where they are hedged at fair value.

The Parent Company's accounting principles follow those of the Group with the exception of the mandatory regulations stipulated in the Swedish Financial Reporting Board's recommendation, RFR 2, Accounting for legal entities. The Parent Company's accounting principles are specified under the heading, "The Parent Company's accounting principles".

The most important accounting principles that have been applied are described below. These principles have been applied consistently for all years presented, unless otherwise specified.

The Annual Report was approved for publication by the Board of Directors on 11th February 2013. The Balance Sheets and Income Statements are subject to approval by the Annual General Meeting on 3rd May 2013.

#### New or amended standards and interpretations from IASB and IFRIC pronouncements that came into force in the 2012 calendar year are presented below.

None of the innovations that came into force in the 2012 calendar year have any effect on Boliden's financial reporting or accounts.

# The new standards and interpretations that come into force in the 2013 calendar year or thereafter are presented below.

The standards and interpretations presented are those that may, in the opinion of the Group, have an effect in future. The Group intends to implement these standards when they become applicable.

- IFRS 7, Financial instruments: Disclosures (revised). The amendment refers to requirements for disclosure regarding entitlements to offset financial assets and liabilities. The amendment will apply to financial years beginning on or after 1st January 2013.
- IFRS 9, Financial instruments: Recognition and Measurement. This standard is part of the complete revision of the existing standard, IAS 39. The standard entails a reduction in the number of valuation categories for financial assets and means that the main categories for reporting are at acquisition value (accrued acquisition value) and fair

value, via the Income Statement. The potential exists, for certain investments in shareholders' equity instruments, to report at fair value in the Balance Sheet with the change in value reported directly under other comprehensive income, where no transfer to the result for the period occurs in conjunction with disposal. The standard will be complemented with regulations regarding write-downs and hedge accounting in the Balance Sheet. The EU has postponed approval of the standard to an unspecified later date. The Group has not evaluated the effects of the new standard, pending the completion of work on all parts of the standard.

- IFRS 10, Consolidated Financial Statements (replaces IAS 27 and SIC 12). Entails the introduction of a single model for determining whether a controlling influence exists for all of a company's investments. This will result in uniform regulations for consolidation. A controlling influence exists if the investor 1) is exposed to or is entitled to variable returns from the investment, 2) has the ability to affect the return through its power over the investee, and 3) there is a link between the return received and the power over the investee. The new standard will probably not have any significant effect on Boliden's financial reporting, but a review of the Group's subsidiary companies will be conducted in order to verify this. The standard will apply to companies within the EU as of 1st January 2014.
- IFRS 11, Joint Arrangements (replaces IAS 31). Divides existing joint ventures into joint operations the owners are entitled to assets and undertakings for liabilities in the investment or joint ventures the owners are entitled to the net assets of the investment. The new standard amends existing criteria for determining the accounting method where accounting has previously been determined by the legal structure of the arrangement and a free choice between the equity method and the proportional method. The proportional method will disappear for joint ventures, but shall be applied to joint operations. Boliden will review the new standard to determine whether it will have any effect on the Group's associated companies. The standard will apply to companies within the EU as of 1st January 2014.
- IFRS 12, Disclosures of Interest in Other Entities. Brings together disclosure requirements regarding subsidiary companies, joint arrangements and associated companies in a single standard. A number of new disclosure requirements are included. A review of how the requirements will affect Boliden will be conducted in conjunction with the review of IFRS 10 and 11. The standard will apply to companies within the EU as of 1st January 2014.
- IFRS 13, Fair Value Measurement. The purpose of a new standard is to define a unified framework for the measurement of fair value. IFRS 13 will be applied to all standards that demand or permit valuation at fair value for reporting or disclosure purposes, with the exception of IFRS 2, IAS 17, 19, 26 and 36. The standard defines fair value and provides instructions on how to determine fair value but does not change the requirements with regard to which items shall be valued at fair value. Boliden is of the opinion that the new standard will not affect the financial reports to any significant degree, with the exception of additional disclosure requirements. The standard will apply to financial years beginning on or after 1st January 2013.
- IAS 19, Employee benefits (revision). The biggest changes that affect Boliden are:
  - All changes to the defined benefit pension liability shall be reported immediately, i.e. the periodisation mechanism entailed by the corridor method is abolished. This will result in an increased volatility in the Balance Sheet and in Other comprehensive income if a company has, as is the case with Boliden, previously applied the corridor method.
  - The yield calculated for plan assets shall be based on the discount rate, i.e. the rate that is also used to calculate the pension liability.

- Actuarial profits and losses shall be reported under Other comprehensive income. Other comprehensive income will also include the difference between actual yield and yield in accordance with the discount rate for plan assets.
- Supplementary disclosure requirements will be expanded such that, for example, a sensitivity analysis based on the discount rate will be required, together with a description of future cash flows that affect pension disbursements, must be provided.

Boliden has estimated the effects of applying the revised standard and is prepared to implement the changes. See Note 18 Provisions for pensions and similar undertakings, for details of the anticipated effect on the Group's financial reporting. The standard was adopted by the EU in 2012 and will come into force for financial years beginning on 1st January 2013.

- IAS 32, Financial instruments: Presentation (revision). The revision specifies the requirements for net reporting of financial assets and liabilities. The revision will probably not have any major effect on Boliden's reporting. The revision will apply to financial years beginning on or after 1st January 2014.
- IFRIC 20, Stripping Costs in the Production Phase of a Surface Mine. The interpretation addresses the reporting of costs for waste rock stripping during a surface mine's production phase. The previous absence of guidelines within IFRS has resulted in a variety of different reporting methods being applied within the sector. The innovation that affects Boliden is that the costs in connection with waste rock stripping shall be carried forward as part of an asset when it is possible to identify that part of an ore body where access is improved. The approach differs from that currently used, whereby the average value of the relationship between ore and waste rock is calculated for an entire mine. The focus is shifted, instead, to dividing the mine up into different components.

Boliden has drawn up a method of applying the new interpretation. The interpretation shall be applied as of 1st January 2013 and will reduce Boliden's capitalised waste rock assets by approximately SEK 150 million, which will reduce the equity by a corresponding amount before tax. Adjustments will be made in the 2012 comparison year.

Other amendments to standards and interpretative pronouncements that come into effect as of 1st January 2013 are not expected to have any effect on Boliden's financial reporting or accounting.

#### **Estimates and assessments**

In order to compile the Financial Statements in accordance with IFRS accounting principles, assessments and assumptions must be made that impact the reported asset and liability amounts, the income and expense amounts, as well as other information provided in the Financial Statements. The estimates and assessments of the Board of Directors and the company's management are based on historical experience and forecast future trends. The actual outcome may differ from these assessments.

#### Valuation of inventories

It is not easy, in the smelters' process inventories and stocks of finished metals, to differentiate between externally purchased material and mined concentrate from the Group's own operations. Assessments of the internally supplied percentage of process inventories and the stocks of finished metals are, therefore, carried out with the aid of an historically based breakdown of raw materials feed.

#### Pension undertakings

Pension provisions are dependent on the assumptions made in conjunction with the calculations of the amounts. The assumptions refer to discount interest rates, future returns on plan assets, rate of salary increases, future increases in pensions, the number of remaining working years for employees, mortality rates, and other factors. The assumptions are made for every country in which Boliden has defined benefit pension plans. The most critical factors are the discount rate on undertakings and the anticipated return on plan assets. Boliden's undertakings are shown in note 18. Boliden reviews the actuarial assumptions annually and amends them when necessary.

#### Legal disputes

Boliden regularly reviews outstanding legal disputes using internal company legal counsel and, when necessary, with the help of external

advisors, in order to assess the need for provisions to be made. See note 25, Pledged assets and contingent liabilities.

#### Reclamation costs

Provisions for reclamation are made on the basis of an assessment of future costs based on current conditions. Provisions are reviewed regularly by internal or external specialists and updates made when necessary when the estimated lifespans, costs, technical preconditions, regulations or other conditions of mine or smelter assets change. See Note 9, Tangible fixed assets and Note 19, Other provisions.

#### Valuation of fixed assets

Impairment tests for tangible and intangible assets are based on the company's internal business plan and on assumptions with regard to future trends in metal prices and exchange rates, among other things. Changes in market prices of metals and currencies have a substantial effect on the company's future cash flows and hence on the estimated write-down requirement. Assumptions with regard to prices trends for metals and currencies are made by the company management with the help of external experts. The assumptions are reviewed on an annual basis and adjusted when necessary. For further information, see Note 9, Tangible fixed assets.

The depreciation periods for deferred mining costs, installations and equipment in mines depend on future ore extraction and the lifespan of the mine. The assessment of these aspects is, in turn, heavily dependent on mineral reserves and, consequently, on future metal prices, among other things. Changes to conditions may entail changes to the rate of depreciation applied. Business Area Mines draws up annual production plans for the mines' lifespans.

#### **Consolidated Statements**

The Consolidated Statements cover the Parent Company and all companies over which the Parent Company through ownership, directly or indirectly, exercises a controlling influence. The term "controlling influence" refers to companies in which Boliden has the right to formulate financial and operational strategies. This is generally achieved by ensuring that its ownership share, and the share of votes, exceeds 50 per cent. The existence and effect of potential voting rights that can currently be utilised or converted are taken into account when assessing whether the Group is capable of exercising a controlling influence over another company. Subsidiaries are included in the Consolidated Statements as of the point in time at which a controlling influence was attained, while companies that have been sold are included in the Consolidated Statements up to the time when the sale occurred, i.e. up to the point in time when controlling influence ceased to be exercised.

The Consolidated Statements have been compiled in accordance with the acquisition accounting method, which means that the acquisition value of a company comprises the fair value of the payment made (including the fair value of any assets, liabilities and own equity instruments issued). The identifiable assets, liabilities and contingent liabilities acquired which meet the criteria for reporting in accordance with IFRS 3 are reported at their fair value on the acquisition date. A determination of whether a holding without a controlling influence shall be reported at fair value or at the holding's proportional share of the acquired company's net assets is conducted in conjunction with every acquisition. When required, the subsidiaries' accounts are adjusted to ensure that they follow the same principles applied by other Group companies. All internal transactions between Group companies and intra-Group transactions are eliminated when the Consolidated Statements are compiled.

Unrealised losses are also eliminated except for transactions where there is a clear need for a write-down.

#### Associated companies

Shareholdings in associated companies, in which the Group has a minimum of 20 per cent and a maximum of 50 per cent of the votes, or otherwise has a significant influence over operational and financial management, are reported in accordance with the equity method. Under the equity method, the consolidated book value of the shares in the associated companies corresponds to the Group's share of the associated companies' shareholders' equity and any residual values from consolidated surplus values. Shares in associated companies' results are reported in the Consolidated Income Statement as part of the operating profit and comprise the Group's share in the associated companies' net results. Shares in profits accumulated after the acquisition of associated companies but not yet realised through dividends constitute part of the Group's equity.

# Conversion of foreign subsidiaries and other overseas operations

The currency in the primary economic environment in which the company conducts operations is the functional currency. The current method is applied in the conversion of Income Statements and Balance Sheets to the Group's reporting currency. Under the current method, all assets, provisions and liabilities are converted at the rate of exchange applying on the closing day, while all items in the Income Statement are converted at the average exchange rate. Any exchange rate differences that apply are reported directly under other comprehensive income. Accumulated translation differences arising in connection with the conversion of subsidiaries' results are reported as Other comprehensive income, as of 2004.

Boliden hedges its net investments in foreign subsidiaries by taking an opposite position (in the form of loans or currency futures) in the relevant foreign currency. Any exchange rate differences on hedging measures are reported as part of Other comprehensive income.

In conjunction with the sale of overseas operations whose functional currency is different from the Group's reporting currency, the accumulated translation differences attributable to the operations are realised in the Consolidated Income Statement, after deductions for any currency hedging activities.

#### **Financial instruments**

The following financial instruments are recognised in the Balance Sheet: shares, receivables, liquid assets, liabilities and derivatives.

Financial assets and liabilities are booked in the Balance Sheet when the company becomes bound by the instrument's contractual terms (the economic approach). Liabilities to credit institutions are, however, not reported until the settlement date. Financial assets are removed from the Balance Sheet when the rights entailed by the agreement are utilised, mature or are transferred to another counterparty. Financial liabilities are removed from the Balance Sheet when the agreement's obligations are fulfilled or if highly significant aspects of the loan terms are renegotiated.

Financial instruments are reported using the fair value or accrued acquisition value, depending on the initial categorisation under IAS 39. On each reporting occasion, the Group performs an impairment test to determine whether objective indications exist of the need to write down a financial asset or group of financial assets.

#### Valuation principles

#### Fair value

The fair value of derivatives is based on listed bid and ask prices on the closing day and on a discounting of estimated cash flows. Market prices for metals are taken from the trading location of metal derivatives, i.e. the London Metal Exchange (LME) and the London Bullion Market Association (LBMA). Discount rates are based on current market rates per currency and time to maturity for the financial instrument. Exchange rates are obtained from the Riksbank.

When presenting the fair value of liabilities to credit institutions, the fair value is calculated as discounted agreed amortisations and interest payments at estimated market interest margins.

If a change in value cannot be determined, the instrument is reported at the acquisition value of the instrument at the time it was acquired, which corresponds to the fair value at the time of acquisition plus transaction costs.

Boliden has, in accordance with IFRS 7, reported on the financial instruments valued at fair value in the Balance Sheet on the basis of a three-level fair value hierarchy. Level one comprises instruments that are listed and traded on an active market where identical instruments are traded. Level two comprises instruments that are not traded on an active market, but where observable market data is used for valuation of the instrument (either directly or indirectly). Level three comprises instruments where the valuation is, to a not inconsiderable extent, based on unobservable market data.

The assessments have been conducted on the basis of the circumstances and factors obtaining with regard to the various instruments. Metal futures are classified as level two, in that the discounted prices are based on listed daily prices from the exchanges. Currency futures and interest swaps have also been classified as level two, with reference to the fact that the valuation is based on observable market data.

#### Accrued acquisition value

Accrued acquisition value is calculated using the effective interest rate method. This means that any premiums or discounts, as well as expenses or income directly attributable to them, are distributed over the duration of the contract with the aid of the estimated effective interest rate. The effective interest rate is the interest rate that yields the instrument's acquisition value as a result in conjunction with current value calculation of future cash flows.

#### Valuation category

Boliden divides financial instruments into the following valuation categories (see note 23).

#### Holdings valued at fair value

Derivatives valued at fair value for which changes in value are reported in the Income Statement (net financial items). The derivatives comprise currency futures and are not included in hedge accounting.

#### Loans and accounts receivable

This category includes financial investments, receivables (not listed on an active market) and liquid assets. Liquid assets are defined as, in addition to cash and bank balances, short-term investments with a maximum term of three months at the time of acquisition and which can easily be converted to cash. Liquid assets are only exposed to an insignificant risk of fluctuations in value and are reported at their nominal amounts. Receivables are defined as accounts receivable and interestbearing short-term holdings of securities or other investments which are not classified as fixed assets and which are not attributable to liquid assets. Receivables are reported in the anticipated recoverable amount, i.e. after deductions for bad debts, which are assessed on an individual basis. The anticipated term of accounts receivable and other current receivables is short and the value is, therefore, reported at a nominal amount without discounting in accordance with the accrued acquisition value method.

#### Financial assets available for sale

Assets in this category comprise shares valued at fair value with changes in value recognised in the Balance Sheet. If it is not possible to establish the fair value of such shares, they are reported at their acquisition value, taking into account accumulated write-downs.

#### Derivatives used in hedging accounting

This category comprises derivatives valued at fair value and which form part of fair value hedging, cash flow hedging and hedging of net investments in overseas operations. The derivatives comprise metals futures, currency futures, and interest derivatives. See also Note 20 for details of derivatives used for hedging purposes.

#### Other financial liabilities

Financial liabilities primarily comprise liabilities to credit institutions and accounts payable. The anticipated term of accounts payable is short and the value is, consequently, reported at a nominal amount in accordance with the accrued acquisition value method. Liabilities to credit institutions are initially valued at amounts received, less any setup fees, and are then valued at the accrued acquisition value. Interest expenses are periodised and reported on a rolling basis in the Income Statement with the exception of the part included in the acquisition value for tangible fixed assets. Capitalised set-up fees are reported directly against the loan liability to the extent that the loan agreement's underlying loan guarantee has been utilised, and are periodised in the Income Statement (under Other financial expenses) over the contractual term of the loan. If a loan agreement is terminated or otherwise ceases to obtain at a point in time prior to the end of the original contractual term, capitalised set-up fees are taken up as income. If a current agreement is renegotiated during the contractual term, any additional fees in connection with the renegotiation are periodised over the remaining contractual term of the loans.

#### Assets and liabilities in foreign currencies

Receivables, liabilities and derivatives in foreign currencies are converted to Swedish kronor at the exchange rate applying on the closing date. Exchange rate differences on operating receivables and operating liabilities are included in the operating profit, while exchange rate differences on financial assets and liabilities are reported under financial items with the exception of financial instruments used for hedge accounting, the exchange rate differences for which are reported under Other comprehensive income.

# Classification and reporting of derivatives used for hedging purposes

(See Note 20)

#### Fair value hedging (binding undertakings)

Changes in the value of financial derivatives used to hedge a binding undertaking are reported under the operating profit together with changes in the value of the asset or liability that the hedging is designed to counter. The fair value of the financial derivatives is reported in the Balance Sheet as other assets and liabilities. Parts of inventories constitute binding undertakings and are reported at market value as inventory value, and changes in the value of the derivatives consequently effectively match the changes in value from hedged items in the Income Statement and Balance Sheet.

#### Cash flow hedging (forecast flows)

Hedge accounting is applied to financial derivatives that refer to the hedging of forecast flows, which means that the effective share of the unrealised market values is reported under Other comprehensive income up to the point in time when the hedged item, such as forecast metal sales, dollar income and interest expenses, is realised and thus reported in the Income Statement. Realised results attributable to metal and currency derivatives are reported under net sales while the result of interest derivatives is reported under net financial items. The ineffective part of cash flow hedging is reported under net financial items.

#### Hedging of net investments

Hedge accounting is applied to the results of hedging in respect of net investments in overseas operations and to cash flow hedging under Other comprehensive income. Any ineffective component of these hedges is reported under net financial items. In conjunction with the sales of overseas operations, associated hedging results are reported in the Income Statement, together with the translation effect of the net investment.

#### Offsetting financial assets against liabilities

Financial assets and liabilities are used to offset each other and are reported in a net amount per counterparty in the Balance Sheet whenever a legal right of offset exists, and when the intention is to settle the items using a net amount, or to realise the asset and settle the liability simultaneously. Net reporting is applied for financial derivatives.

#### State contributions and support

State support in the form of subsidies, grants or premiums designed to provide an economic benefit, or state support in the form of transfers of resources to the company that may be applied to an undertaking, occur on such a limited scale that they neither affect the Group's results nor afford the Group an operational advantage.

#### **Revenue recognition**

Sales of metal concentrates, metals and by-products are reported at the time of delivery to the customer in accordance with the terms and conditions of sale, that is to say revenue is recognised whenever significant rights and obligations associated with the title transfer to the purchaser. These sales are reported net after VAT, discounts and exchange rate differences when sales are made in foreign currencies.

Preliminary invoices are issued for the Group's metal concentrates at the time of delivery. Definitive invoices are issued when all component parameters (concentrate quantity, metal content, impurity content, and the metal price for the agreed pricing period – normally the average price on the LME in the month after delivery) have been established. The Group's metals are invoiced to the customers at the time of delivery. The Group eliminates the price risk in conjunction with the sale and purchase of metals by hedging the imbalance between quantities purchased and sold on a daily basis. The smelters' income comprises TC/RC, free metals, compensation for impurities in the raw materials, and the worth of by-products.

Income from activities outside the sphere of the regular operations is reported as Other operating income.

#### Exploration, research and development

Boliden's R&D primarily comprises exploration, that is searching for new deposits of base metals. Boliden is also involved, to a limited extent, in developing mining and smelting processes. Expenses associated with research and development are primarily booked as costs when they arise. When the financial potential for the exploitation of a mine deposit has been confirmed, the expenses are booked as costs up to that date. After that date, the expenses are capitalised as deferred mining costs, the governing principles of which are described under the Tangible fixed assets heading.

#### Intangible fixed assets

Intangible fixed assets include patents, licenses, similar rights and goodwill, which are booked at their acquisition value less depreciations and any write-downs. Goodwill comprises the amount by which the acquisition value exceeds the fair value of the Group's share of the acquired subsidiary's identifiable net assets as well as any contingent liabilities at the time of acquisition. Goodwill is reported in the Balance Sheet at the value given in conjunction with the acquisition, converted, where relevant, at the closing day rate, after deduction for accumulated write-downs. Calculations of the profit or loss on the sale of a unit include any remaining reported goodwill value ascribed to the operations sold.

Goodwill has been assessed as having an indefinable useful life. Goodwill is allocated to the smallest possible unit or groups of units that generate cash where separate cash flows can be identified, and an impairment test is performed on the reported value at least once a year to determine whether there is any need of a write-down. Such impairment tests are, however, performed more frequently if there are indications that the value may have fallen during the year.

Other intangible fixed assets are amortised over their anticipated useful lives.

#### **Emission rights**

The Boliden Group participates in the European system for emission rights. Rights are allocated across the European market. One emission right grants entitlement to emit the equivalent of one tonne of carbon dioxide or a similar gas. Emission rights allocated are valued at the acquisition price of zero while rights acquired are valued at the purchase price. An intangible asset and a provision in the corresponding amount are reported during the current year in the event of any need arising to purchase additional emission rights. The asset is depreciated over the remaining months of the year, thereby distributing the cost in parallel with production. Any remaining liability is revalued at the market value on the closing day.

#### Tangible fixed assets

Land, plants and equipment, and capitalised costs associated therewith for development and pre-production measures and future reclamation costs, are booked at the acquisition value less depreciations and any write-downs. Interest expenses attributable to financing development and completion of significant tangible fixed assets are included in the acquisition value. Repair and maintenance expenses are booked as costs, while substantial improvements and replacements are capitalised. Estimated future expenses for the dismantling and removal of an asset and the restoration of a site or area where the asset is located (reclamation costs) are capitalised. Capitalised amounts comprise estimated expenses, calculated at current value, which are simultaneously reported as provisions. Effects of subsequent events that change the valuation of existing capitalised reclamation costs are then adjusted in accordance with IFRIC 1.

Deferred mining costs at mines comprise the waste rock excavation required to access the ore body, work relating to infrastructural facilities, roads, tunnels, shafts and inclined drifts, as well as service, electricity and air distribution facilities. Deferred mining costs arising from capacity expansion of the mining operation, the development of new ore bodies and the preparation of mining areas for future ore production are capitalised. Mining costs associated with waste rock removal from open-pit sites are capitalised and booked as costs in the operations based on the average percentage of waste rock per mine. The average percentage of waste rock is calculated as the estimated number of tonnes of waste rock that must be mined divided by the estimated number of tonnes of ore that the deposit is believed to contain. When the percentage of waste rock for the mines remains relatively constant over the useful life of the mines, the costs are normally reported when they arise.

#### Depreciation principles for tangible fixed assets

Depreciation according to plan is based on the original capitalised value and the estimated economic lifespan. The Group normally depreciates tangible assets and equipment used in the mining operations linearly over whichever is the lower of their anticipated useful life and the useful life of the mine to which they relate. Depreciation is effected to the estimated residual value. Estimated residual values and estimated lifespans are subject to ongoing review. Smelters and production plants are depreciated linearly over their anticipated useful lives. The following depreciation periods are applied to tangible fixed assets including future reclamation costs:

Buildings	20–50 years
Land improvements	20 years
Deferred mining costs and capitalised	
restoration costs	Concurrently with ore
	depletion
Machinery and other technical facilities	
Machinery	3–10 years
Processing facilities	10–25 years
Equipment, tools, fixtures and fittings	3–10 years

Boliden applies component depreciation, which means that larger processing facilities are broken down into component parts with different useful lives and thus different depreciation periods.

#### Write-downs

On each reporting occasion, an assessment is performed to determine whether there is any indication that the value of the Group's assets has depreciated or been impaired. Should this be the case, a calculation is performed of the recovery value of the asset in question. Goodwill is, together with any intangible assets with an indefinable useful life, subjected to annual impairment tests even if there are no indications of a reduction in its value. Impairment tests are, however, performed more frequently if indications exist of a decline in value. The recovery value comprises whichever is the higher of the value in use of the asset in the operations and the value that would result if the asset was sold to an independent party, fair value minus selling expenses. The value in use comprises the present value of all incoming and outgoing payments attributable to the asset over the period that it is expected to be used in the operations, plus the present value of the net sales value at the end of the asset's useful life. If the estimated recovery value is lower than the booked value, the latter is written down to the former.

Write-downs are reported in the Income Statement. Any write-downs performed are reversed if changes in the assumptions leading to the original write-down mean that the write-down is no longer warranted. Writedowns that have been performed are not reversed in such a way that the reported value exceeds the amount that would, following deductions for amortisation according to plan, have been reported if no write-down had been performed. Reversals of write-downs performed are reported in the Income Statement. Goodwill write-downs are not reversed.

#### Leasing

A financial leasing agreement is an agreement whereby the financial risks and benefits associated with a title are, in all significant respects, transferred from the lessor to the lessee. Leasing agreements that are not classified as financial leasing agreements are classified as operational leasing agreements.

Assets held in accordance with financial leasing agreements are reported initially as fixed assets in the Consolidated Balance Sheet at the lower of the market value of the assets or the present value of the future lease payments. The Group's liability in relation to the lessor is reported in the Balance Sheet under the heading Liabilities to credit institutions, broken down into current and long-term components.

Lease payments are broken down into interest and amortisation of the liability. The interest is distributed over the leasing period so that an amount corresponding to the fixed interest amount payable on the liability reported in each period is charged to each reporting period. The leased asset is depreciated according to the same principles as those that apply to other assets of the same type.

The leasing charges for operational leasing agreements are booked as costs on a linear basis over the leasing period.

#### Inventories

The Group's inventories primarily comprise mined concentrates, materials tied up in the smelters' production processes, and finished metals. Inventories are valued at whichever is the lower of the acquisition value in accordance with the so-called first-in-first-out principle and the net sale value, taking into account the risk of obsolescence. The acquisition value of inventories of metals from the company's mines and semi-finished and finished products manufactured in-house comprises the direct manufacturing costs plus a reasonable surcharge for indirect manufacturing costs. Supplies inventories are valued at whichever is the lower of the average acquisition value and the replacement value. When mined concentrates are bought in from external sources and definitive pricing has not yet occurred, the acquisition value is estimated at the closing day price. Fair value hedging is effected in conjunction with definitive pricing of mined concentrates. The change in value of hedged items in the inventory value is also reported in conjunction with fair value hedging of mined concentrates.

#### Taxes

The tax expense (income) for the period comprises current tax and deferred tax. Taxes are reported in the Income Statement under Other comprehensive income and in shareholders' equity.

Current tax is the tax calculated on the taxable result for each period. The year's taxable result differs from the year's reported result before tax in that it has been adjusted for non-taxable and non-deductible items and temporary differences. The Group's current tax liability is calculated in accordance with the taxation rates stipulated or announced on the closing day.

Deferred tax is reported using the Balance Sheet method, under which deferred tax liabilities are reported in the Balance Sheet for all taxable temporary differences between reported and fiscal values of assets and liabilities. Deferred tax receivables are reported in the Balance Sheet in respect of deficit deductions and all deductible temporary differences to the extent that it is likely that the amounts can be used to offset future taxable surpluses. The reported value of deferred tax receivables is checked at the end of each accounting period and reduced to the extent that it is no longer likely that sufficient taxable surpluses will be available for its use. Deferred tax is calculated in accordance with the taxation rates that are expected to apply to the period in which the asset is recovered or the liability is settled.

Both deferred and current tax receivables and tax liabilities are offset when they relate to income tax levied by the same tax authority.

#### **Provisions**

Provisions are reported when the Group has, or may be considered to have an obligation as a result of events that have occurred and it is likely that disbursements will be required in order to fulfil this obligation. A further prerequisite is that it should be possible to make a reliable estimate of the amount to be paid.

Provisions are made for the estimated reclamation costs that are expected to arise when operations are decommissioned.

When a significant effect arises due to the point in time at which a provision is paid, the provision is valued at the present value of the amount estimated to be required to fulfil the obligation. A discount interest rate before tax, that reflects current market evaluations of the time value of money and the risks associated with the provision, is applied in conjunction herewith. The increase that is due to time passing is reported as an interest expense.

Provisions are broken down into short-term and long-term provisions.

#### **Contingent liabilities**

A contingent liability is a potential undertaking that derives from events which have occurred and whose incidence is only confirmed by one or more uncertain future events. A contingent liability can also be an existing undertaking that has not been reported in the Balance Sheet because it is unlikely that an outflow of resources will be required or because the size of the undertaking cannot be calculated. See Note 25 Pledged assets and contingent liabilities.

#### **Employee benefits**

#### Pension undertakings

The Group's companies have a variety of pension systems in accordance with local conditions and practices in the countries in which they operate. They are generally financed through payments made to insurance companies or through the company's own provisions which are determined through periodic actuarial calculations. The Group's provisions for pension undertakings are calculated in accordance with IAS 19, Employee benefits.

For pension systems where the employer is committed to premiumbased solutions, the undertaking in relation to the employee ceases when the agreed premiums have been paid. Premiums paid are booked as costs on an ongoing basis.

For pension systems where a defined benefit pension has been contractually agreed, the undertaking does not cease until the

agreed pensions have been paid out. Boliden commissions independent actuaries to calculate pension undertakings relating to the defined benefit pension plan arrangements in each country. These calculations take account of future salary increases, the discount rate and the return on plan assets, as well as other significant actuarial assumptions. The pension cost for the year comprises the present value of pensions earned during the year, plus interest on the undertaking at the start of the year, less deductions for the return on each pension plan's plan assets. Amortisation of actuarial profits/losses and for changes to plans is added to this figure. Accumulated profits and/or losses totalling less than 10 per cent of whichever is the higher of the pension undertaking and the fair value of the plan assets are not amortised. When the accumulated profit or loss exceeds this 10 per cent limit, the excess amount is amortised over the average remaining period of employment of each of the pension plan's employees.

Remuneration may be payable in the event of notice being given if an employee is given notice prior to the end of the normal retirement date or when an employee accepts voluntary redundancy. The Group reports a liability and a cost in connection with a notice being given when Boliden is obligated to give the employee in question notice prior to the normal point in time for employment cessation, or to provide remuneration with a view to encouraging early retirement.

#### **Share capital**

Ordinary shares are classified as share capital. Transaction costs in conjunction with a new share issue are reported as a net amount after tax for deduction from the issue proceeds received.

#### **Buy-back of own shares**

Boliden's holdings of its own shares are reported as a reduction in shareholders' equity. Transaction costs are reported directly against shareholders' equity.

#### Dividend

A dividend payment proposed by the Board of Directors does not reduce the shareholders' equity until it has been approved by the Annual General Meeting. Anticipated dividends can be reported in those cases where the Parent Company has the sole right to determine the size of the dividend and has ensured that the dividend does not exceed the subsidiary company's dividend payment capacity.

#### Information per segment and geographical market

Boliden's operations are organised into two segments: Business Area Smelters and Business Area Mines. The Business Areas correspond to Boliden's operating segments in that 1) the Business Area Managers are directly responsible to the CEO, 2) the CEO controls the Group's component parts via two "Business Area Boards", one for each Business Area, through which the financial results in relation to financial goals are evaluated 3) financial goals and investment plans and overhead budgets for the respective Business Areas are set in the business plan and budget processes, 4) decisions on goals and resource allocation for units within the respective Business Areas are made within the respective Business Areas' management groups, and 5) heads of operating units report not to the CEO but to the Business Area Managers.

Business Area Mines comprises the operations of the Swedish mines, Aitik, the Boliden Area and Garpenberg, and the Tara mine in Ireland. Aitik produces copper concentrate with some gold and silver content. The other Swedish mines produce zinc, copper and lead concentrates, with variable gold and silver content. Tara produces zinc and lead concentrates. Business Area Mines is also responsible for sales of mined concentrates.

Business Area Smelters comprises the Kokkola and Odda zinc smelters, the Rönnskär and Harjavalta copper smelters, and the Bergsöe lead smelter. The Business Area is responsible for all sales of the smelters' products and handles all raw material flows between the Group's mines, smelters and customers. This includes responsibility for purchases of metal concentrates and recycling materials from external suppliers. The zinc smelters' production primarily comprises zinc metal, but also includes aluminium fluoride and sulphuric acid. The copper smelters' production primarily comprises copper, gold, silver, lead and sulphuric acid. The copper smelters also recycle metal and electronic scrap and smelt nickel. The Bergsöe lead smelter recycles lead metal mainly from scrap car batteries.

Transactions between the Business Areas, primarily involving metal concentrates, are settled on market terms.

Group staff functions, Group-wide functions that are not assigned to Smelters or Mines are reported under the heading Other. The market valuation of financial derivatives used to manage currency and metal price risks are reported under Other until such time as their underlying flows are reflected in the Income Statement. Accounting principles applied in the segment accounting otherwise correspond to the principles applied within the Group.

Note 26 on pages 110–111 contains details of revenues per segment and geographical market, showing the location of external customers and information on major customers. Assets and investments per geographical market are also reported there.

#### The Parent Company's accounting principles

The Parent Company's annual accounts are compiled in accordance with the Swedish Annual Accounts Act, the Swedish Financial Reporting Board's recommendation, RFR 2, Accounting for legal entities, and the statements issued by the Swedish Financial Reporting Board. RFR 2 means that the Parent Company shall, in the annual accounts for the legal entity, apply all EU-approved International Financial Reporting Standards (IFRS) and statements to the extent that this is possible within the framework of the Swedish Annual Accounts Act and while taking into account the connection between reporting and taxation. The recommendation specifies the exceptions and additions to be made in relation to IFRS. The differences between the Group's and the Parent Company's accounting principles are described below.

# Reporting Group contributions and shareholders' contributions

Group contributions received or made are reported as appropriations. Shareholders' contributions are booked directly against non-restricted equity by the recipient and as an increase in the item "Participations in Group companies" by the contributor.

#### **Financial instruments**

Financial instruments are not valued in the Parent Company in accordance with IAS 39. The valuation is conducted on the basis of the acquisition value (see the Group's accounting principles).

#### **Subsidiaries**

Participations in subsidiary companies are reported in the Parent Company in accordance with the acquisition value method. Transaction expenses are reported as costs in the consolidated accounts, while in the Parent Company, they are reported as part of the acquisition value.

Determination of the value of subsidiary companies is effected when there are indications of a decline in value.

# Notes

All amounts are in SEK million unless otherwise stated. All notes refer to the Group unless otherwise stated.

#### **Note O1** Employees and personnel costs

The Parent Company has no employees. The Group management is employed by Boliden Mineral AB.

Average number of employees <sup>1)</sup>	2012	of whom women	of whom men	<b>2011</b> <sup>2)</sup>	of whom women	of whom men
Subsidiaries						
Sweden	2,814	582	2,232	2,644	510	2,134
Finland	949	143	806	917	144	773
Norway	297	46	251	315	43	272
Ireland	718	35	683	706	34	672
Other	17	7	10	15	5	10
Total in subsidiaries/Group	4.795	813	3.982	4.597	736	3.861

1) Refers to full-time employees.

2) The comparison figures for 2011 have been adjusted due to changes in the calculation method

Percentage of women at Group management level	2012	2011
Board of Directors	27 %	27 %
Group Management	17 %	0%

	2	2012	2	2011	
Salaries, other remunerations and social security expenses	Salaries and remunerations	Social security expenses	Salaries and remunerations	Social security expenses	
Subsidiaries	2,437	934	2,382	808	
(of which pension expenses)		-580		-453	
Group total	2,437	934	2,382	808	
(of which pension expenses)		-580		-453	

		2012		2011
Salaries and other remunerations broken down by country and between Board Members etc. and other employees	Board of Directors, President & other senior executives	Other employees	Board of Directors, President & other senior executives	Other employees
Subsidiaries in Sweden	24	1,308	24	1,254
Subsidiaries abroad				
Finland	3	403	4	414
Norway	2	172	2	180
Ireland	4	510	3	491
Other	1	10	-	10
Group total	34	2,403	33	2,349

#### Profit sharing system

A new profit-sharing system was introduced for all employees of the Boliden Group in 2007. A profit share is payable when the return on capital employed reaches 10 per cent, and the maximum profit share (SEK 25,000/full-time employee) is payable when the return on capital employed reaches 20 per cent. The annual maximum allocation must never, however, exceed one third of the dividend paid to shareholders. The funds cannot be disbursed to employees for 3 years. An allocation of SEK 8,575 (SEK 16,800) per full-time employee has been made for 2012 as the return on capital employed was 13 per cent (17%). The total amount allocated is SEK 41 million (SEK 79 m). The allocation for each year is invested in liquid interest-bearing assets and shares in Boliden.

#### Remunerations paid to the Board Members and senior executives *Principles*

Fees as approved by the Annual General Meeting are payable to the Chairman of the Board and to members of the Board. The President and Employee representatives receive no Directors' fees. Remuneration paid to the President and other senior executives comprises the basic salary, variable remuneration, other benefits and pensions. The term "senior executives" refers to those persons who have comprised the Group management during the year. The Group management comprised five persons, including the President, at the end of the year. All members of the Group management are employed in Sweden.

The breakdown between basic salary and variable remuneration shall be in proportion to the executive's responsibilities and authority. The variable remuneration is maximised to 60 per cent of the basic salary for the President, while for other senior executives, it is maximised to 40–50 per cent of the basic salary. 10 percentage points of this is conditional on the purchase of Boliden shares for the gross sum before tax.

Pension benefits and other benefits payable to the President and other senior executives are taken into account when determining fixed and variable remunerations.

#### Note O1 Employees and personnel costs, cont.

#### Remunerations and other benefits paid during the year

Specification of remunerations paid to the Board Members and senior executives.

SEK	Directors' fees,	/Basic salary	Variable	remuneration	Oth	er benefits	Pen	sion benefits
	2012	2011	2012	2011	2012	2011	2012	2011
Board of Directors								
Anders Ullberg, Chairman	1,160,000	1,125,000						
Marie Berglund	415,000	400,000						
Staffan Bohman	465,000	450,000						
Ulla Litzén <sup>1)</sup>	565,000	550,000						
Michael G:son Löw	415,000	400,000						
Leif Rönnbäck	490,000	475,000						
Matti Sundberg	415,000	400,000						
Group management								
Lennart Evrell, President	6,486,572	6,284,542	1,170,432 <sup>3)</sup>	1,609,273 <sup>4)</sup>	191,848	194,732	2,158,989	2,169,956
Other members of the Group management <sup>2)</sup>	9,005,544	8,675,324	1,887,909 <sup>3)</sup>	1,839,464 <sup>4)</sup>	318,331	349,588	3,504,688	3,409,720

1) Ulla Litzén invoices her fee through her own company, at which point social security contributions are payable.

<sup>2)</sup> A total of 5 people in 2012 and 2011.

<sup>3)</sup> The amounts are attributable to 2012 but will be disbursed in 2013.

<sup>4)</sup> The amounts are attributable to 2011 but were disbursed in 2012.

Directors' fees, as shown above, also include remuneration for work on the Remuneration Committee and the Audit Committee.

#### Variable remuneration

The variable remuneration paid to the President in 2012 was based on the Group's return on shareholders' equity, production volumes at Rönnskär and the Group's cost trend.

For other members of the Group management, 20–60 per cent of the variable remuneration for 2012 was based on the Group's financial goals and 40–80 per cent on their personal spheres of responsibility and individual goals. Other benefits refer primarily to company cars.

#### Pensions

The President has a defined contribution pension plan to which the company allocates 35 per cent of the fixed monthly salary on a rolling basis. The President decides for himself the level of the survivor annuity, indemnity for medical treatment or disability, etc. component of his insurance solution. The President's retirement age is 65.

All of the Group management members have defined contribution pension plans to which the company allocates 25–50 per cent of the fixed monthly salary. Extra allocations comprising 20 per cent of the fixed basic salary are made to one of the members of the Group management up to and including 2015. The retirement age is 65.

#### Severance pay

The President and the company shall give six and twelve months' notice of the termination of the President's position, respectively. If notice is given by the company, severance pay corresponding to twelve months' salary is payable, over and above the notice period pay. Other income shall be offset against the severance pay. No severance pay is payable in the event of notice being given by the President.

Other members of the Group management have notice periods of between three and six months if they give notice themselves. If notice of termination is given by the company, the period of notice is between six and twelve months. In addition, severance pay corresponding to a maximum of twelve months' salary shall be payable. Other income shall be offset against the severance pay. No severance pay is payable in the event of notice being given by the member of the Group management.

#### Preparation and decision-making process

See pages 62–73 of the 2012 Corporate Governance Report.

## Note O2 Auditors' fees and reimbursement of expenses

	2012	2011
Ernst & Young AB		
Audit engagements	5	5
Auditing assignments over and above audit engagements	1	1
Tax consultancy	0	0
Other services	1	0
	7	6

#### **Note 03** Key expense items

	2012	2011
Raw material costs, incl. inventory changes	22,950	23,175
Personnel costs	3,482	3,282
Energy costs	2,269	2,190
Other external costs	5,089	5,113
Depreciation and amortisation according to plan	2,218	1,927
	36 008	35 687

The specification of key expense items relates to the following Income Statement items: "Costs of goods sold", "Selling expenses", "Administrative expenses" and "Research and development costs".

Depreciation and amortisation are reported under the following Income		
Statement items:	2012	2011
Cost of goods sold	2,206	1,912
Selling expenses	1	1
Administrative expenses	9	12
Research and development costs	2	1
	2 2 1 8	1 927

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#### Note 04 Other operating income

	2012	2011
Compensation for sludge deliveries	15	14
Rental income from industrial premises in Finland	12	21
Other	53	78
	80	113

#### **Note 05** Interest income and other similar items

	2012	2011
Interest income on liquid assets	4	5
Interest on currency futures	82	62
Other	2	4
	87	71

#### **Note O6** Interest expenses and other similar items

	2012	2011
Interest on loans at accrued acquisition value	160	155
Interest on pension provisions	15	18
Ineffectiveness of hedging of net investments	-4	-
Other financial items	96	86
	266	259

Deductions have been made from interest payments on loans at the accrued acquisition value for interest capitalisation attributable to the Garpenberg expansion in the sum of SEK 30 million for 2012. Deductions for interest capitalisation totalling SEK 19 million and attributable to the expansion of the electronic scrap recycling capacity at the Rönnskär copper smelter and to the Garpenberg expansion have been made for 2011. Interest expenses on loans, before deductions for interest rapitalisation, have been negatively affected due to higher interest rates in 2012. Boliden's average interest rate in 2012 totalled 3.28 per cent (3.15%), weighted against rolling debt.

# Note 07 Supplementary information to the Statements of Cash Flow

The Statements of Cash Flow are drawn up in accordance with the indirect method.  $% \left( {{{\rm{T}}_{\rm{s}}}} \right)$ 

	2012	2011
Interest received		
Interest on currency futures	200	84
Other interest received	Ο	1
	200	85
Interest paid		
Interest on external loans	-176	-176
	-176	-176
Liquid assets, as per 31st Dec.		
The following items are included in liquid assets:		
Cash and bank balances	1,011	355
Short-term investments	Ο	0
	1.011	355

The short-term investments included in liquid assets comprise investments with a term of three months or less at the point of acquisition and which can be easily converted into liquid assets. Liquid assets are only exposed to an insignificant risk of value fluctuation. 08

	Capitalised development expenses	Patents, licences and similar rights	Goodwill	Total intangible fixed assets
Acquisition values				
Closing balance on Balance Sheet, 31st December 2010				
Beginning of the year		138	3,084	3,222
Investments <sup>1)</sup>	18	5	-	23
Sales and retirements		0	-	C
Reclassifications		1	-	1
Year's translation differences		-1	-9	–10
Closing balance on Balance Sheet, 31st December 2011	18	143	3,075	3,236
Beginning of the year	18	143	3,075	3,236
Investments <sup>1)</sup>	16	8	-	24
Sales and retirements		0	-	C
Reclassifications		-4	-	-4
Year's translation differences		-6	-31	-38
Closing balance on Balance Sheet, 31st December 2012	34	141	3,044	3,219
Depreciation				
Closing balance on Balance Sheet, 31st December 2010				
Beginning of the year		-41	-	-41
Year's amortisation		-13	-	-13
Year's translation differences		1	-	1
Closing balance on Balance Sheet, 31st December 2011		-53	-	-53
Beginning of the year		-53	_	-53
Year's amortisation	Ο	-12	_	-12
Reclassifications		3	-	3
Year's translation difference		3	-	3
Closing balance on Balance Sheet, 31st December 2012	0	-59	_	-59
Closing balance, 2011	18	90	3,075	3,184
Closing balance, 2012	34	82	3,044	3,160
Amortisation according to plan, included in the operating profit				
2011		-13	-	-13
2012		-12	_	-12

The company's goodwill item arose primarily in conjunction with the acquisition of the operations from Outokumpu at the end of December 2003. The goodwill from the 2003 acquisition has been allocated in its entirety to the Group's Smelters segment.

Impairment tests have been carried out on the value of goodwill in the manner described in Note 9 under Impairment tests – Intangible and tangible fixed assets.

#### Emission rights

The Boliden Group reported a surplus of emission rights in 2012 and there was consequently no effect on the Group's financial reports. See the Accounting Principles section on page 86 for details of emission rights.

			Machinery and	Equipment,	New construction	
	Buildings and land	Deferred mining costs	other technical facilities	tools, fixtures and fittings	& advances on fixed assets	Total tangible fixed assets
Acquisition values						
Closing balance on Balance Sheet, 31st December 2010						
Beginning of year	6,789	5,160	27,053	1,405	411	40,818
Investments	358	509	2,850	19	209	3,945
Capitalised reclamation costs	-	16	-11	42	-	47
Sales and retirements	-10	-12	-287	-8	-	-318
Reclassifications	-102	365	-268	2	2	-1
Year's translation differences	-14	-8	-56	-2	-1	-82
Closing balance on Balance Sheet, 31st December 2011	7,021	6,029	29,280	1,457	621	44,409
Beginning of year	7,021	6,029	29,280	1,457	621	44,409
Investments	221	585	3,143	17	192	4,158
Capitalised reclamation costs	-	-	538	-	-	538
Sales and retirements	-11	-	-448	-3	-	-461
Reclassifications	673	412	-699	1	-384	4
Year's translation differences	-58	-46	-276	18	-6	-368
Closing balance on Balance Sheet, 31st December 2012	7,846	6,981	31,539	1,490	424	48,280
Depreciation						
Closing balance on Balance Sheet, 31st December 2010						
Beginning of year	-3 075	-1,721	-13,942	–1,191	-	-19,929
Year's depreciation	-251	-229	-1,396	-39	-	-1,914
Sales and retirements	7	12	279	8	-	306
Reclassifications	0	-	0	-	-	0
Year's translation differences	8	3	42	2	-	55
Closing balance on Balance Sheet, 31st December 2011	-3,310	-1,935	-15,017	-1,220	-	-21,483
Beginning of year	-3,310	-1,935	-15,017	-1,220	-	-21,483
Year's depreciation	-259	-290	-1,528	-41	-	-2,119
Sales and retirements	6	-	365	З	-	374
Reclassifications	-	-	-3	-	-	-3
Year's translation differences	34	14	196	-16	-	229
Closing balance on Balance Sheet, 31st December 2012	-3,529	-2,211	-15,988	-1,273	_	-23,001
Closing balance, 2011	3,711	4,094	14,263	237	621	22,927
Closing balance, 2012	4,317	4,770	15,552	217	424	25,279
Depreciation according to plan, included in the operating profit						
2011	-251	-229	-1,396	-39	-	-1,914
2012	-259	-290	-1,528	-41	-	-2,119

Capitalised reclamation costs include expenses in relation to the dismantling and removal of assets and the restoration of the sites where the assets are located. Accumulated capitalised reclamation costs total SEK 765 million (SEK 229 m). Accumulated depreciation totals SEK –33 million (SEK –17 m). The year's capitalised reclamation costs total SEK 538 million (SEK 47 m), which is a consequence of the fact that subsequent activities in relation to the Swedish mines currently in operation are expected to exceed previous estimates. The change is reported in accordance with IFRIC 1, Changes in Existing Decommissioning, Restoration and Similar Liabilities.

The year's capitalised reclamation costs are not included in the consolidated key ratios for the year's investments, and have no liquid effect on the Group's cash flow.

Investments in tangible fixed assets include financial leasing in the sum of SEK 8 million (SEK O). The same principle applies to financial leasing as to the year's capitalised reclamation costs with regard to key ratios and cash flow.

The Group's remaining contractual undertakings to acquire tangible fixed assets totalled SEK 1,741 million at the year-end. Boliden expects to regulate these undertakings in 2013.

#### Note 09 Tangible fixed assets, cont.

#### Interest expenses carried forward included in the residual value according to plan

	31-1	2-2012	31-12	2-2011
	Reported value, SEK m	Interest rate, %	Reported value, SEK m	Interest rate, %
Rönnskär's expansion, completed 2000	43	6.8	46	6.8
Odda's expansion, completed 2004	10	4.0	11	4.0
Aitik's expansion, completed 2011	221	2.5	235	2.5
Rönnskär, electronic scrap recycling, completed 2012	14	3.15	15	3.15
Garpenberg's expansion, ongoing project	36	3.32	5	3.15

Impairment tests - Intangible and tangible fixed assets

Impairment tests are carried out yearly, or throughout the year if an event occurs that may result in an impairment requirement, and are based on the Group's annual budget and strategic planning work. The planning horizon is the estimated lifespan of each mine and 10 years for smelters. Boliden's operations are characterised by long-term production plans in which every mine has set production plans for the entire estimated lifespan of the mine in question, while a substantial part of the smelters' concentrate supply is regulated by means of long-term delivery agreements. This long-term production planning also enables the use of long-term cash flow forecasts. Additional growth assumptions are not included in extrapolated cash flow forecasts at the end of a mine's lifespan is not taken into account in the discounted cash flow.

The value of discounted cash flows is highly sensitive to metal prices TC/RC and exchange rates (see sensitivity table on page 29).

The present value of estimated future cash flows is based on the budget and planning prices adopted by the Board of Directors. Planning prices for the first year comprise the relevant futures prices on metals and currency markets. The long-term planning prices used in year two and thereafter consist of an anticipated average price over a single business cycle, generally ten years. The long-term planning prices are based on internal and external analyses, primarily with regard to anticipated demand for metals and margin costs for metal producers. The long-term planning prices are compared with average long-term prices from different market players, such as industry analysts and other mining and smelting companies. The Group does not believe that futures prices from base metal markets are good indicators of long-term price trends, in that they are heavily dependent on spot prices.

The long-term, real planning prices are currently as listed in the table below.

		2012			2011	
	Metal prices	Treatment/refining charges	Exchange rates	Metal prices	Treatment/refining charges	Exchange rates
Copper	6 300 USD/t	65 USD/ton 6,5 Usc/lb	USD/SEK 7,00	5 500 USD/t	60 USD/ton 6,0 Usc/lb	USD/SEK 7,00
Zinc	2 300 USD/t	235 USD bas 2 300 USD	USD/NOK 6,12	2 100 USD/t	250 USD bas 2 100 USD	USD/NOK 6,42
Lead	2 300 USD/t	225 USD	EUR/USD 1,27	2 000 USD/t	225 USD bas 2 000 USD	EUR/USD 1,29
Gold	1 200 USD/oz			1 100 USD/oz		
Silver	20,0 USD/oz			20,0 USD/oz		

Individual mines or mining areas with shared refining facilities, copper smelters, zinc smelters, Boliden Bergsöe AB and Boliden Commercial AB are classified as cash-generating units. The discounted real cash flows before tax for the respective cash-generating units are compared with the book value of capital employed. The cash flows are discounted with a real discount rate before tax of 10 per cent (10%), which corresponds to the weighted capital cost. The value in use of the Group's assets is held to exceed the reported values and no write-down requirement is consequently deemed to exist.

The Group's goodwill is allocated to Segment Smelters. An increase in the discount rate of one percentage point did not give rise to any write-downs. A reduction in all long-term planning prices for metals of approximately 10 per cent would result in the book

values exceeding the discounted cash flows for Segment Smelters. A weakening of the US dollar by 10 per cent against all other currencies would, in the event of unchanged long-term planning prices for metals, result in the book values exceeding the value of the discounted cash flows for Segment Smelters. This presupposes, however, that no compensatory movements in metal prices, TC/RC terms, prices of by-products or input goods occur, which has, from an historic viewpoint, often been the case.

A more than 15 per cent reduction for all metals is required with regard to TC/RC before a situation is reached whereby the book value exceeds the discounted cash flows, provided that there are no compensatory movements in metal prices or other terms.

Note 10 Leasing charges		
	2012	2011
The Group		
Assets held via operational leasing agreements		
Leasing charges paid during the financial year	32	32
Contracted future leasing charges		
Maturity within one year	21	30
Maturity later than one year, but within five years	20	25
Maturity later than five years	1	1
Assets held via financial leasing agreements	2012	2011
Machinery and other equipment		
Acquisition value	15	7
Accumulated depreciation	-5	-3
Value, as per Balance Sheet on 31st December	10	4

KIP Service Oy has two contracts that are reported as financial leasing. One of these is a contract to rent and renovate a water treatment plant automation system. The lessor is Fortum Power and Heat Oy and the contract has a seven-year term. The lessee can redeem the automation system once the contract term has expired. The other is a rental contract in respect of usufruct for active carbon filters for ionized water replacement systems and domestic water supply. The lessor is OMG Kokkola Chemicals and the contract has a five-year term. OMG Kokkola chemicals has invested in the water treatment plant owned by KIP Service Oy and when the rental term expires, the assets transfer to the lessee for EUR 1.

#### Note 11 Participations in Group companies

Specification of the Parent Company's and the Group's holdings of participations in Group companies

		31-12-2012	
Subsidiary/Co. reg. no./Registered office	Shares/participations	Percentage share	Book value
Boliden Limited, 3977366, Toronto, Canada	85,811,638	100	_
Boliden Power Ltd, 700245, Toronto, Canada			-
Ontario Inc, 1393512, Toronto, Canada			-
Boliden BV, 18048775, Drunen, Netherlands			-
Boliden Apirsa S.L under liquidation, ESB-41518028, Aznalcóllar (Seville), Spain			-
Boliden Mineral AB, 556231-6850, Skellefteå	1,650,000	100	3,911
Mineral Holding Sweden AB, 556610-2918, Skellefteå			-
Boliden Harjavalta Oy, 1591739-9, Harjavalta, Finland			-
Nickel og Olivin A/S, 946255459, Ballangen, Norway			-
Boliden Kokkola Oy, 0772004-3, Kokkola, Finland			-
KIP Service Oy, 2240650-3, Kokkola, Finland			-
Boliden Commercial AB, 556158-2205, Stockholm			-
Boliden Commercial UK Ltd, 5723781, Warwickshire, UK			-
Boliden Commercial Deutschland GmbH, 165903, Neuss, Germany	1		-
Tara Mines Holding Ltd, 60135, Navan, Ireland			-
Boliden Tara Mines Ltd, 33148, Navan, Ireland			-
APC Properties Ltd, 361022, Navan, Ireland			-
Irish Mine Development Ltd, 174811, Navan, Ireland			-
Tara Prospecting Ltd, 34434, Navan, Ireland			-
Tara Exploration and Development Company Ltd, E1292, Navan, Ireland	d		-
Dowth Investment Holdings Ltd, 338698, Toronto, Canada			-
Motet Investments Ltd, E3093, Navan, Ireland			-
Mineral Holding Norway A/S, 986009183, Odda, Norway			-
Boliden Odda AS, 911177870, Odda, Norway			-
Boliden Bergsöe AB, 556041-8823, Landskrona			-
Boliden Bergsoe AS, A/S244629, Glostrup, Denmark			-
Boliden Bergsöe Oy, 411.259, Vantaa, Finland			-
Boliden International AB, 556040-1399, Skellefteå			-
Boliden France Sarl, B 612 050 13800082, Boutervilliers, France			-
Other subsidiaries, dormant or of lesser significance			-

Boliden has a 65 per cent proprietary share in Kip Service Oy, which is a service-driven cooperation company.

The parent Company, Boliden AB, has accounted for a dividend totalling SEK 2,607 million (SEK 3,218 m) from Boliden Mineral AB during the year.

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			31	1-12-2012	31-12-2011
Book value at beginning of year				7	6
Share in associated companies	' profits for the year			1	C
Reclassification of holdings				-	-
Shareholders' contribution				-	1
Book value at year-end				8	7
	Co. reg. no.	Registered office	Number of participations	Percentage share	Value of equity share in Group
Indirectly owned					· · · · · ·
Aitik EcoBallast AB	556726-2299	Gällivare	500	50	O
KB Aitik EcoBallast	969731-9748	Gällivare		50	2
Industrikraft i Sverige AB	556761-5371	Stockholm	20,000	20	5
inddoli iki dibi ovorigo / D					

#### Note 13 Taxes

Current tax expenses (-)/tax income (+)	2012	2011
Tax expenses for the period	-815	-991
Adjustment of tax attributable to previous years	1	6
	-814	-985
Deferred tax expenses (-)/tax income (+)		
Deferred tax income/tax expenses in respect of temporary differences	182	-191
Deferred tax income attributable to value of tax losses carried forward capitalised during the year	14	12
Deferred tax expenses resulting from the utilisation of previously capitalised tax losses carried forward	_	-7
	196	-186
Total reported tax expenses (-)/tax income (+)	-618	-1,171
Reconciliation of effective tax		
Reported profit before tax	3,892	4,560
Tax according to current taxation rate	-1,012	-1,192
Fiscal effect of non-deductible expenses	-22	-5
Fiscal effect of non-taxable income	1	12
Valuation of deferred tax receivables	Ο	-1
Amended tax rate in Finland	-	9
Amended tax rate in Sweden	415	-
Adjustment of tax attributable to previous years	Ο	6
Total reported tax expenses (-)/tax income (+)	-618	-1,171

Tax expenses comprise 15.9 per cent (25.7%) of the Group's pre-tax profit. The anticipated tax expense for 2012 of 26.0 per cent (26.1%) has been calculated given the current Group structure and applicable taxation rates in the respective countries.

#### Deferred tax receivable/tax liability

The receivable reported in the Balance Sheet and the provision for deferred tax come from the following assets and liabilities.

		31-12-2012			31-12-2011	
The Group	Deferred tax receivable	Deferred tax liability	Net	Deferred tax receivable	Deferred tax liability	Net
Intangible assets	1	-4	-3	1	-4	-3
Buildings and land	67	-114	-47	64	-135	-71
Machinery and fixtures and fittings	1	-2,246	-2,245	4	-2,336	-2,332
Deferred mining costs	-	-209	-209	-	-217	-217
Other tangible fixed assets	-	-6	-6	-	-7	-7
Inventories	-	-463	-463	2	-467	-465
Long-term liabilities	170	-3	167	167	-32	135
Current liabilities	41	-1	40	-	-44	-44
Tax losses carried forward	60	-	60	46	-	46
Total	340	-3,046	-2,706	284	-3,242	-2,958
Offset within companies	-279	279	-	-238	238	_
Total deferred tax receivable/tax liability	61	-2,766	-2,706	46	-3,004	-2,958

#### Change in deferred tax in respect of temporary differences and tax losses carried forward

The Group 2012	Amount at the beginning of the year	Reported in the Income Statement	Reported under Other comprehen- sive income	Translation difference	Amount at year-end
Intangible assets	-3	-	-	-	-3
Buildings and land	-71	23	-	1	-47
Machinery and fixtures and fittings	-2,332	75	-	12	-2,245
Deferred mining costs	-217	-1	-	9	-209
Other tangible fixed assets	-7	1	-	-	-6
Inventories	-465	2	-	-	-463
Long-term liabilities	135	83	-48	-3	167
Current liabilities	-44	-	84	-	40
Tax losses carried forward	46	13	-	1	60
Total	-2,958	196	36	20	-2,706

The Group 2011	Amount at the beginning of the year	Reported in the Income Statement	Reported under Other comprehen- sive income	Translation difference	Amount at year-end
Intangible assets	-2	-1	-	-	-3
Buildings and land	-99	28	-	-	-71
Machinery and fixtures and fittings	-2,017	-317	-	2	-2,332
Deferred mining costs	-261	42	-	2	-217
Other tangible fixed assets	-8	1	-	-	-7
Inventories	-500	35	-	-	-465
Long-term liabilities	127	21	-11	-2	135
Current liabilities	15	-	-59	-	-44
Tax losses carried forward	41	5	-	-	46
Total	-2,704	-186	-70	2	-2,958

#### Tax losses carried forward

Deferred tax receivables in respect of tax losses carried forward in Norway have been taken into account in full as the company is of the opinion that Boliden will be able to generate sufficient taxable income in the future to exploit these tax losses carried forward. Unutilised tax losses carried forward for which a deferred tax receivable has not been reported totalled SEK 91 million (SEK 86 m) in Canada on 31st December 2012, of which SEK 14 million matures in 2014, SEK 1 million in 2015 and the remaining SEK 76 million between 2026 and 2032.

#### Note 14 Inventories

	31-12-2012	31-12-2011
Raw materials and consumables	3,548	3,522
Goods under manufacture	3,367	3,169
Finished goods and tradable goods	1,330	1,045
	8,244	7,737

#### **Note 15** Accounts receivable

On 31st December 2012, accounts receivable to a total value of SEK 27 million (SEK 18 m) were due for payment after more than 30 days, corresponding to 2.7 per cent (1.7%) of the total accounts receivable. The maturity structure is shown in the following table:

	31-12-2012	31-12-2011
Accounts receivable, not due	797	867
Due: 0–30 days	192	129
Due: 31–60 days	14	7
Due: 61–90 days	1	0
Due: >90 days	12	11
	1,016	1,014

The majority of the Group's accounts receivable relate to European customers. Accounts receivable in foreign currencies have been valued at the closing day rate. Note 26 Information per business segment and geographical market, on page 110, shows the breakdown of revenues by geographical areas.

Accounts receivable are only written down to a minor extent and total bad debt loss is insignificant. Only a small percentage of Boliden's customers, 1.0 per cent (1.6%), are located in Greece, Italy, Spain and Portugal. The risk management of these customers is handled by means of a requirement for payment in advance.

For information on the management of credit risks, see the section entitled Credit risks in accounts receivable that forms part of Note 20 Financial risk management, on page 103.

#### Note 17 Shareholders' equity

Share capital	31-12	2-2012	31-12-2011			
	Number of shares N	lominal value, SEK	Number of shares	Nominal value, SEK		
Opening balance	273,511,169	578,914,338	273,511,169	578,914,338		
Share cancellation	-	-	-	-		
Bonus issue	-	-	-	-		
Closing balance	273.511.169	578.914.338	273.511.169	578.914.338		

The Articles of Association for Boliden AB state that the share capital shall comprise a minimum of SEK 150,000,000 and a maximum of SEK 600,000,000. The nominal value is SEK 2.12 per share. The share capital comprises a single class of share.

The Annual General Meeting of the Company's shareholders held on 3rd May 2012 resolved to pay a dividend of SEK 4 (SEK 5) per share, equivalent to a total payment of SEK 1,094,044,676.

Shareholders' equity, SEK m	31-12-2012	31-12-2011
Share capital	579	579
Other reserves	5,721	5,986
Profit carried forward, including profit for the year	16,649	14,467
Total shareholders' equity	22,949	21,032
Shareholders' equity per share, SEK	83.85	76.90

Boliden's Board of Directors will propose to the Annual General Meeting that a dividend of SEK 4 (SEK 4) per share be paid, equivalent to a total of SEK 1,094,044,676. Boliden's dividend policy stipulates that approximately one third of the net profit after tax shall be disbursed in the form of dividends.

Earnings per share	2012	2011
Profit for the year, SEK m	3,274	3,389
There are no potential shares and		

Note 16 Other current receivables

Other prepaid expenses and

Other current receivables

accrued income

VAT recoverable

31-12-2012

172

480

139 **791**  31-12-2011

151

567

162

880

# hence no dilution effect

Earnings per share, SEK	11.96	12.39
Closing number of own shares held	-	
Cancellation of own shares	_	
Opening number of own shares held	-	-
Number of own shares held		
Average number of shares, before and after dilution	273,511,169	273,511,169
Closing number of shares	273,511,169	273,511,169
Buy-back of own shares	-	-
Opening number of shares	273,511,169	273,511,169

Earnings per share are calculated by dividing the profit for the period by the average number of shares.

No instruments exist that could give rise to a dilution effect, and the calculation is, therefore, the same for earnings per share before and after dilution.

Boliden monitors its capital structure with the aid of the net debt/ equity ratio, among other things. The net debt/equity ratio is calculated as the net of interest-bearing provisions and liabilities minus financial assets including liquid assets divided by shareholders' equity. Boliden has defined benefit pension plans in Sweden, Norway and Ireland that may or may not be placed in funds. Pension agreements outside Sweden are adapted in line with local conditions and are a function of the number of years worked and the final salary. They are generally coordinated with national pension schemes. Boliden has established defined contribution pension plans in Sweden, Ireland Finland and Norway.

#### Sweden

Pension undertakings are secured by the Swedish PRI/FPG system and by insurance companies. The majority of the pension undertakings for salaried employees are secured through insurances with Alecta. Alecta has been unable to supply sufficient information for 2012 for the ITP plan (supplementary pensions for salaried employees) to be reported as a defined benefit plan, and it is consequently reported in accordance with UFR 6 as a defined contribution plan. A surplus in Alecta can be allocated to the policyholders and/or those insured. At the end of the year, Alecta's collective consolidation level was 130 per cent (113%). The collective consolidation level comprises the market value of Alecta's assets as a percentage of the insurance undertakings calculated in accordance with Alecta's actuarial calculation assumptions, which do not correspond with those of IAS 19.

#### Norway

The pension undertaking is secured by means of a combination of defined benefit and defined contribution pension plans. Boliden has three types of pension plans in Norway: a defined contribution plan that covers all employees, a contractual early retirement pension (AFP) with supplementary benefits from the ages of 62 to 67, and a defined benefit pension plan for the operations manager.

#### Ireland

The pension undertaking is secured by the transfer of funds to four defined benefit pension plans and one defined contribution plan. The defined benefit plans include undertakings for all personnel, while the defined contribution plan is a complementary solution for personnel paid an hourly wage.

#### Events and undertakings during the year

The present value of the pension undertakings is close to the level last year, while the market value of the Group's combined plan assets has fallen by 8 per cent, largely due to the fact that Norway no longer has any consolidation. The defined benefit pension undertaking in Sweden has increased during the year, largely due to an increase in the number of employees and lower discount rates.

The majority of the defined benefit pension plans in Norway were wound up during the year. They were wound up as of 1st July 2012.

The Irish Pensions Board has not, as yet, approved the so-called paragraph 50 application submitted in 2010. The pension undertaking reported as of 31st December 2012 comprises pension undertakings before the implementation of one of the three reduction in pension undertakings in Ireland agreed by the employers, Board of Directors and pension plan members.

The Group's reported pension liability totals SEK 707 million (SEK 653 m), which sum includes endowment insurance totalling SEK 61 million (SEK 62 m) in respect of defined premium plans in Sweden.

#### Undertakings during the year

Costs, undertakings and other factors in pension plans are calculated by means of the Projected Unit Credit Method, using the assumptions shown in the table below.

The discount rate is established for every geographical market with reference to the market return on company bonds on the closing day. In Sweden, where there is no functioning marketing for such bonds, the market return on housing bonds has been used and a premium for a longer term added, based on the duration of the pension undertakings.

Unrealised actuarial results are reported in accordance with IAS 19 and the corridor method.

#### Effects of revisions to IAS 19 in the years ahead

Boliden currently applies the so-called corridor method when calculating defined benefit pension liabilities. Boliden will, as of the first quarter of 2013, apply the revised IAS 19 and hence will report actuarial profits and losses under Other comprehensive income. The transition will entail an increase in the closing pension liability for the 2011 financial year of SEK 550 million and the effect after deferred tax will be booked against shareholders' equity. The 2012 comparison figures will be adjusted during the first quarter of 2013 using the above-mentioned closing values for 2011. Adjustments will also be made between the Income Statement and Other comprehensive income. The Group will, in future, report slightly lower costs in the Income Statement.

	Swe	Sweden		Ireland		way		
Significant actuarial assumptions (weighted averages)	2012	2011	2012	2011	2012	2011		
Discount rate, %	3.5	3.8	3.7	5.0	3.8	3.3		
Assumed return on plan assets, %	_	-	3.7	6.5	3.8	4.8		
Future pay increases, %	3.0	3.0	0.0	2.0	3.5	4.0		
Future pension increases, %	1.8	2.0	0.0	0.0	0.0	3.8		
Assumption concerning remaining working years for employees	16.1	16.1	23.0	15.0	7.0	2.5		

	Swe	Sweden		Ireland		Norway		Total	
Reconciliation of value according to the Balance Sheet, as per 31st Dec.	2012	2011	2012	2011	2012	2011	2012	2011	
Book value at beginning of year	362	350	230	208	-10	-20	581	538	
Reported in the Income Statement	56	49	59	50	24	24	139	123	
Payments	-28	-37	-58	-63	0	-15	-85	-115	
Translation difference	-	-	12	35	-1	0	11	35	
Book value at year-end <sup>1)</sup>	390	362	244	230	11	-10	645	581	

<sup>1)</sup> Undertakings in Sweden include undertakings in accordance with PRI/FPG of SEK 158 million (SEK 126 m) and undertakings for underground workers of SEK 230 million (SEK 232 m), and other undertakings totalling SEK 3 million (SEK 4 m). Γ

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#### **Note 18** Provisions for pensions and similar undertakings, cont.

	Sv	Sweden Ire		Ireland		Norway		Total	
Specifications of provisions for pensions, as per 31st Dec	2012	2011	2012	2011	2012	2011	2012	2011	
Present value of undertakings placed in funds		2011	1 953	1 703	0	305	1 95/	2011	
Present value of undertakings placed in funds	570	513	-,555	-	9	15	579	528	
Market value of plan assets		-	-1 285	-1 135	0	-262	_1 285	_1 398	
I Inrealised actuarial profits and losses	_180	-151	-425	-338	1	-202	-603	-1,000	
	390	362	244	230	11	-10	645	581	
	Sw	eden	Ire	eland	No	rwav	т	otal	
Specification of costs	2012	2011	2012	2011	2012	2011	2012	2011	
Benefits earned over the period	29	25	27	18	1	1	56	43	
Interest on undertaking	19	18	83	94	Ο	11	103	123	
Anticipated return on plan assets	_	_	-75	-84	0	-12	-75	-96	
Actuarial profits/losses	9	7	30	23	23	25	61	55	
Settlements/Beductions	_	_	-5			-1	-5	-1	
Total cost of defined benefit plans	56	49	59	50	24	24	139	123	
Cost of defined contribution plans							397	354	
							578	477	
Actual return on plan assets	-	-	181	-45	Ο	12	181	-33	
The plan assets primarily comprise shares and interest-bearing securities	2012	2011	2012	2011	2012	2011	2012	2011	
Shares and participations			725	847		94	725	941	
Interest-bearing securities etc	_	_	560	288	_	168	560	457	
	-	-	1,285	1,135	-	262	1,285	1,398	
Reconciliation of pension undertaking					20	12		2011	
Present value of undertakings at the beginning of	f the year				2.5	37		2 544	
Costs in respect of service during current period					L,0	56		43	
Interest expense					1	02		122	
Fees from plan participants						16		18	
Disbursements made					_4	103		-132	
Actuarial profits and losses					ר פ	991		-45	
Reductions and settlements					-	_5		-3	
Exchange rate fluctuations					_	-0			
Current value of undertakings at the end of the	e year				2,5	i <b>33</b>		2,537	
Peropeiliation of plan assets					20	12		2011	
Eain value of plan assets at the beginning of the v	000				1 3			1 //0	
Apticipated poture on plan assets	ear.				٦,١	75		1,449	
Free from the employee						57		71	
Fees from the employer						16		10	
Dishursemente mede					-	10			
					5– 1			-90	
Eveloped and fuetuations					I	20		-139	
Fair value of plan assets at the end of the year					1,2	.39 .85		1,398	
Europeneuro	0010		2044	2040		2000		2008	
Present value of undertakings	2012		2011	2010	,	2003		2000	
placed in funds Present value of undertakings not	1,954	2	2,009	2,048	}	2,015		2,080	
placed in funds	579		528	496	6	543		485	
Market value of plan assets	-1,285	-1	,398	-1,449	)	-1,495		-1,253	
Unrealised actuarial profits and	-603		-557	_557	,	_/179		-206	
Book value at year-end	645		-337 581	-JJ/	1	-4/0		-000 502	
Book value ut your thu	0-0		55.	556		505		500	

Note 19 Other provisions			
	24.4	0.004.0	24 42 2044
	31-1	1 610	1 110
		1,010	I, I IU E4
		1 670	1 164
Of which:		1,070	1,104
long-term		1 539	1 041
Short-term		139	123
		1,678	1,164
The Group 2012	Reclamation costs	Other	Total
Book value at beginning of year	1,110	54	1,164
Additions to existing provisions	548	8	556
Reversal of existing provisions	-6	-2	-8
Payments	-45	0	-45
Discount effect for the period	19	0	19
Translation difference	-7	-0	-7
Book value at year-end	1,618	60	1,678
Anticipated date of outflow of resources:			
2013	130	9	139
2014	151	3	154
2015 and 2016	155	Ο	155
2017 and later	1,182	48	1,230
	1,618	60	1,678
The Group 2011	Reclamation costs	Other	Total
Book value at beginning of year	928	73	1,001
Additions to existing provisions	162	Ο	162
Reversal of existing provisions	-5	0	-5
Payments	-38	-11	-49
Discount effect for the period	20	20	20
Translation difference	43		43
Book value at year-end	1,110	54	1,164
Anticipated date of outflow of resources:			
2012	120	3	123
2013	149	0	149
2014 and 2015	148	0	148
2016 and later	693	51	744
	1,110	54	1,164

#### **Reclamation costs**

Provisions for reclamation costs are made on the basis of an assessment of future costs based on current technology and other conditions. Provision has been made for the current value of estimated undertakings in accordance with IAS 37 and IFRIC 1. Gradual reclamation is preferable, although most of the reclamation work is done after a decision to decommission. In historical terms, Boliden has succeeded in extending the useful life of its mining assets compared with the original plans. Reclamation provisions are reviewed on an ongoing basis.

#### Note 20 Financial risk management

Boliden is exposed to a number of financial risks. Changes in metal prices, treatment charges, exchange rates and interest rates affect the Group's profits and cash flows. Boliden is also exposed to refinancing and liquidity risks as well as credit and counterparty risks.

Boliden's operating risks are described in the Directors' Report under the Risk Management heading on page 40. Events after the end of the closing day are reported in Note 29.

Boliden has a centralised treasury function whose duties involve managing financial risks, with the exception of credit risks with regard to accounts receivable. The treasury function is tasked with supporting the management and operating units at Parent Company and Group level. This results in good internal risk control and in financial and administrative economies of scale. The treasury function is also responsible for identifying and efficiently limiting the Group's financial risks in line with the finance policy adopted by the Board of Directors. This is done by means of, among other things, the quarterly and annual reporting by the Group companies of their future metal production, exchange rate and interest rate exposure. The Group's total sensitivity to these factors is calculated on the basis of these exposures. The effects of different market scenarios can be quantified on the basis of sensitivity to market changes and act as source data for managing financial risks. An assessment of the hedged part of the Group's total exposure to metal production, exchange rates and interest exposure, is calculated on the basis of forecast exposure, and reported to the management, the Board and the market. The units also report liquidity and profit forecasts on an ongoing basis, thereby generating the preconditions for efficient control and liquidity management. The treasury function carries out ongoing calculations in order to ensure that Boliden complies with the requirements of loan agreements and has a loan structure that corresponds with the financial policy.

#### Exchange rate and metal price risks

Through its operations, Boliden is exposed to both exchange rate risks and metal price risks, in that changes in exchange rates and metal prices affect the Group's profits and cash flow. The pricing terms for Boliden's products are principally determined on raw materials exchanges such as the London Metal Exchange (LME), the London Bullion Market ASS. (LBMA), and the currency and money market. The Group's exchange rate and metal price exposure covers transaction exposure and translation exposure. See also accounting principles.

#### Transaction exposure

Boliden's transaction exposure comprises both binding undertakings and forecast cash flows.

#### Exposure to binding undertakings

This exposure arises when Boliden undertakes to participate in a transaction at a fixed value and which is not compensated for by a simultaneous opposite transaction of a corresponding size and nature.

The Group buys metals in the form of raw materials which it processes into refined metals, and where the acquisition value of the raw materials as well as the exchange rates may differ from the final sales value. Such differences arise as a result of variations in size, purchasing date, processing and selling. Furthermore, some customers receive fixed prices in different currencies that are sometimes set well in advance of delivery. Boliden's policy stipulates that these risks must always be hedged in full, with the exception of the smelters' process inventory – see below. The Group uses futures contracts to ensure that the sale price and exchange rate correspond to those applicable in conjunction with the purchase of the input raw material or in conjunction with the signing of a sales agreement at a fixed price. Hedge accounting is applied to the futures contracts, thereby hedging the fair value in the Income Statement.

The Group's smelters tie up inventories in the production process. Boliden's policy is not to hedge the price exposure of this part of the process inventory and changes in metal prices and exchange rates consequently impact the Group's profits in conjunction with the revaluation of process inventory. The exposure to price changes in any inventory volumes above or below the production processes' process inventory is, however, always hedged as described above. See also Risk Management, Revaluation of process inventory on page 31 in the Directors' Report.

#### Exposure to forecast cash flows

Exposure arises from the fact that a substantial percentage of the Group's future income – primarily that relating to extracted metals and to treatment and refining charges – is affected by fluctuations in metal prices and exchange rates.

Boliden does, however, continuously calculate the way in which market changes in the currency market or metal markets affect the Group's future financial position. Boliden's policy is not to metal price hedge and currency hedge the Group's future income in conjunction with a normal commercial climate. Boliden may, however, in order to limit the risk in certain situations, hedge part of the forecast cash flow. There may be special justification, in conjunction with major investments or investments in mines with short lifespans, for example, for limiting financial risks. The Group can use futures and option agreements to hedge the cash flow against metal price and/ or exchange rate fluctuations in relation to income from forecast metal sales. Hedge accounting is applied to the derivatives as cash flow hedging under Other comprehensive income. Note 23 contains a sensitivity analysis showing the way in which Other comprehensive income is affected by a change in value in financial derivatives (cash flow hedging). Page 41 of the Directors' Report contains a sensitivity analysis of the Group's forecast exposure.

#### Translation exposure

When net investments in foreign operations are converted into Swedish kronor, a translation difference arises in conjunction with exchange rate fluctuations, and this has an impact on the Group's other comprehensive income. The effect of this exposure is eliminated by utilising external borrowing in combination with currency futures contracts, in accordance with Boliden's financial policy. During 2012, other comprehensive income has been affected to the tune of SEK 219 million (SEK 42 m) by hedging in currency futures contracts and borrowing in foreign currencies. The hedging of net investments in foreign operations exceeded the hedged item at the year-end. SEK 4 million of the hedging's market value is consequently ineffective and is reported as income in the Income Statement.

#### Interest rate risk

Fluctuations in the market interest rates affect the Group's profits and cash flows. The speed with which a change in interest rates impacts on the Group's net financial items depends on the fixed interest term of the loans. On 31st December 2012, the Group's loan portfolio had an average fixed interest term of 0.9 years (1.0 yrs.). Boliden's finance policy allows for an average fixed interest term of up to 3 years.

#### **Refinancing and liquidity risk**

The term "refinancing and liquidity risk" refers to the risk that Boliden will be unable to extend existing loans or meet its payment under takings due to insufficient liquidity. Boliden limits its refinancing risk by ensuring that its gross loan liability has a good spread in terms of counterparties, financing sources and durations. Boliden works actively to ensure satisfactory current liquidity by making appropriate use of unutilised credit facilities with operationally adjusted loan durations. The average term of total loan facilities is 3.5 years (3.3 yrs.) which is in accordance with established Group policy. The refinancing requirement is reviewed regularly by Boliden's centralised treasury function. The refinancing requirement is dependent, first and foremost, on market trends and investment plans. The loan agreements carry loan covenants which oblige Boliden to comply with certain defined key ratio conditions in order to avoid early repayment. A deterioration in the global economic climate may entail increased risks in respect of profit performance and financial position, including the risk of Boliden coming into conflict with loan terms and conditions. Boliden has complied with all loan covenants in 2012.

On 31st December 2012, Boliden's payment capacity totalled SEK 9,150 million (SEK 8,734 m) in liquid assets and unutilised binding credit facilities with a term in excess of one year, less deductions for commercial papers issued and loans that mature within the space of one year.

Boliden has established a cash pool structure that enables it to maintain a central overview of liquidity flows and ensure efficient management of the Group's overall liquidity. The term "credit and counterparty risk" refers to the risk that a counterparty in a transaction may fail to fulfil their obligation, thus causing the Group to incur a loss. In order to limit credit and counterparty risk, only highly creditworthy counterparties are accepted, and wherever possible, the commitment per counterparty is limited. These restrictions are laid down in Boliden's financial policy in the form of lowest acceptable credit ratings and maximum investment of liquid assets per counterparty.

#### Credit risks in financial operations

Boliden's financial exposure to counterparty risk mainly occurs when trading in derivative instruments. In order to limit this exposure, Boliden enters into new financial derivative agreements with counterparties that have high credit rating. The derivatives are, furthermore, spread over numerous counterparties. The risk management section of the treasury function continuously monitors exposure to counterparty risks. The creditworthiness and counterparty spread of these derivatives is deemed to have been good in 2012. On 31st December 2012, the credit risk in derivative instruments corresponded to a market value of SEK 322 million (SEK 1,257m), which relates to Boliden's receivables from external counterparties.

Boliden's financial policy mandates that Boliden only invests its liquid assets, as per Boliden's definition of cash assets and short-term investments, with issuers who have an A credit rating or better with Standard & Poor's.

#### Credit risks in accounts receivable

The risk of the Group's customers failing to fulfil their obligations constitutes a credit risk. Credit risks are managed through an established credit rating process, active credit monitoring, short credit periods and daily routines for monitoring payments. The requisite provisions for bad debts are also monitored continuously. The concentration of accounts receivable is otherwise low and the credit periods are short. The quality of the accounts receivable is deemed to be very good. Write-downs of outstanding accounts receivable on 31st December 2012 have only been affected in very limited amounts and have also, historically speaking, been insignificant. See also Note 15 Accounts receivable, on page 98.

#### **Risk management and insurance**

The objective of the Risk Management function at Boliden is to minimise the total cost of the Group's damage and injury risks. This is achieved both by continuously enhancing the damage and injury prevention and control work conducted within the operations, and by introducing and developing Group-wide insurance solutions.

#### Note 21 Financial liabilities and maturity structure

31-12-2012	F	inancial liabilit	ties		Maturity structure <sup>2)</sup>				
SEK m	Currency	Interest <sup>1)</sup> , %	Nominal amounts	2013	2014	2015	2016	2017	2018+
Syndicated credit facility	EUR	3.42%	603	21	21	613			
Syndicated credit facility	SEK	3.47%	808	29	29	854			
Credit facility	EUR	1.68%	732	12	94	92	91	90	427
Debenture loan	EUR	3.40%	1,937	66	281	272	686	126	789
Debenture loan	SEK	3.72%	630	417	9	9	232		
Commercial papers <sup>3)</sup>	SEK	2.79%	1,266	1,301					
Other		4.00%	5	5					
Accounts payable			4,192	4,192					
Total, Boliden			10,173	6,043	434	1,840	1,009	216	1,216

31-12-2011	Financial liabilities				Maturity structure <sup>2)</sup>				
SEK m	Currency	Interest <sup>1)</sup> , %	Nominal amounts	2012	2013	2014	2015	2016	2017+
Syndicated credit facility	EUR	2.87	626	18	635				
Syndicated credit facility	SEK	2.84	2,048	52	2,083				
Debenture loan	EUR	3.80	1,653	63	63	47	719	477	579
Debenture loan	SEK	3.61	1,265	678	417	25	9	230	
Commercial papers <sup>3)</sup>	SEK	2.93	166	174					
Financial leasing, other		4.00	10	10					
Accounts payable			3,551	3,551					
Total, Boliden			9,319	4,546	3,198	72	728	707	579

1) Weighted interest including interest swaps.

<sup>2)</sup> The duration analysis includes gross flows of loans and interest, including flows from any interest swaps.

<sup>3)</sup> Outstanding commercial papers are reported, by law, under the Group's Parent Company, Boliden AB.

#### Loan portfolio

Boliden has syndicated credit facilities totalling SEK 5,800 million and EUR 400 million. The SEK 5,800 million facility expires in 2015, while the EUR 400 million facility expires in 2017. In 2012, Boliden utilised a EUR 85 million credit facility from the European Investment Bank (EIB). The facility will be amortised between 2014 and 2022 and is linked to the expansion of Boliden's electronic scrap recycling facility at the Rönnskär plant. Boliden also has unutilised Swedish Export Credits Guarantee Board (EKN) credit facilities totalling SEK 2,000 million, which expire in 2017. The utilised component of the credit facilities totalled SEK 2,175 million (SEK 2,680 m) on 31st December 2012. Boliden also has a number of directed bonds issued to Swedish and Nordic institutions which, on 31st December 2012, totalled SEK 2,567 million (SEK 2,918 m) and which fall due for payment between 2013 and 2018. Boliden's commercial papers programme has a framework amount of SEK 2,500 million and on 31st December 2012, SEK 1,266 million (SEK 166 m) remained outstanding. The average term of loan facilities on 31st December 2012 was 3.5 years (3.3 yrs.) and the debt portfolio's average interest rate was 3.12 per cent (3.29%). The fixed interest term of outstanding loans, including interest swaps entered into, totalled 0.9 years (1.0 yrs.) on 31st December 2012. The above maturity analysis includes interest flows from interest swaps.

Boliden's current liquidity in the form of liquid assets and unutilised credit facilities with a term in excess of one year, less credit utilised and which shall be amortised within one year, totalled SEK 9,150 million (SEK 8,734 m) on 31st December 2012.

The maturity structure for the financial liabilities (including interest payments) above includes the undiscounted cash flows that derive from the Group's liabilities, based on the contracted remaining durations. Interest maturity (including interest swaps) has been calculated on the basis of the applicable closing interest rates.

#### Note 22 Financial derivative instruments

Boliden uses financial derivative instruments to manage currency rate risks, raw material price risks and interest rate risks arising within its operations.

	31-12-2012		31-12-2011	
Outstanding financial derivative instruments, SEK m	Nominal amount	Fair value	Nominal amount	Fair value
Transaction exposure (binding undertakings)				
Currency futures	-4,818	29	-4,506	79
Raw materials derivatives	1,109	66	1,030	74
Transaction exposure (forecast cash flows)				
Currency futures	-2,978	100	-5,742	-314
Raw materials derivatives	-4,462	-262	-9,258	515
Interest derivatives	-6,247	-22	-3,869	-27
Translation exposure				
Currency futures	-2,925	17	-4,189	120
Total		-72		447

Nominal amounts comprise the net volume of derivatives bought and sold. Derivatives for forecast cash flows exclusively comprise derivatives sold. Nominal amounts for interest swaps also include contracted derivatives commencing in 2013.

		31-1	2-2012		31-12-2011	
Maturity structure, derivative instruments, nominal amounts, SEK m	2013	2014	2015	2012	2013 2014	2015
Currency futures	-9,149	-362	-1,209	-11,177	-1,590 -385	-1,285
Raw materials derivatives	-1,576	-455	-1,323	-3,849	-2,561 -426	-1,392
Interest derivatives	-3,492	-2,755			-3,869	
Hedge accounting, SEK m				2012		2011
Hedging of fair value						
- Change in value of hedge instrum	ents in respe	ct of bindin	g undertakir	ngs – 1,186		-1,530
– Change in value of hedged item				1,186		1,530
Ineffectiveness of fair value hedging	I			0		-
Ineffectiveness of cash flow hedging	]			-		-
Ineffectiveness of hedging of net inv	estments in	overseas o	perations	4		_
Total ineffectiveness				4		0

The effect of cash flow hedging with regard to Transaction exposure on the result for 2012 totals SEK 201 million (SEK 297 m), of which SEK 242 million (SEK 325 m) refers to exchange rate and metal price hedging and SEK –41 million (SEK –28 m) to interest swaps.

## Currency derivatives in respect of the hedging of forecast exposure – Cash flow hedging

A summary of Boliden's outstanding currency hedging for currency exposure in USD/SEK, EUR/USD and USD/NOK is shown in the table below. Hedging that refers to forecast exposure between 2016

and 2017 matures in 2015, but the intention is to extend them. Boliden's other currency risks in respect of forecast exposure are, essentially, unhedged. Note 20 contains details of the Group's transaction exposure.

Currencies	2013*	2014	2015	2016	2017	2018
USD/SEK						
Hedged volume (USD m)	293	56	72	70	43	
Forward rate, USD/SEK	6.76	6.83	6.78	6.77	6.77	
Market value, SEK m	66	13	10	9	6	
EUR/USD						
Hedged volume (USD m)	91					
Forward rate, EUR/USD	1.35					
Market value, SEK m	-13					
USD/NOK						
Hedged volume (USD m)	18					
Forward rate, USD/NOK	6.03					
Market value, SEK m	9					
Total market value, SEK m	62	13	10	9	6	

\*Hedging contracts for 2013 mature during the first six months of the year, with the exception of contracts for Kankberg.

#### Note 22 Financial derivative instruments, cont.

## Raw materials derivatives in respect of forecast exposure - Cash flow hedging

The table below provides a summary of Boliden's outstanding price hedges for zinc, copper, lead, silver and gold on 31st December 2012. Hedging that refers to forecast exposure between 2016 and

2017 matures in 2015, but the intention is to extend them. Boliden's other metal price risks in respect of forecast exposure are, in every significant respect, unhedged. Note 20 contains details of the Group's transaction exposure.

Metals	2013*	2014	2015	2016	2017	2018
Zinc						
Hedged volume (tonnes)	62,250					
Forward rate, USD/tonne	2,125					
Market value, SEK m	18					
Copper						
Hedged volume (tonnes)	14,100					
Forward rate, USD/tonne	8,746					
Market value, SEK m	75					
Lead						
Hedged volume (tonnes)	11,400					
Forward rate, USD/tonne	2,219					
Market value, SEK m	-8					
Silver						
Hedged volume (OOO troy oz.)	1,524					
Forward rate, USD/troy oz.	27,12					
Market value, SEK m	-29					
Gold						
Hedged volume (troy oz.)	58,200	38,400	48,600	47,000	29,000	
Forward rate, USD/troy oz.	1,387	1,455	1,491	1,487	1,490	
Market value, SEK m	-106	-55	-61	-60	-36	
	-50	-55	-61	-60	-36	

\* Hedging contracts for 2013 mature during the first six months of the year, with the exception of contracts for Kankberg.

#### Sensitivity analysis - Other comprehensive income

The table below contains an estimation of the effect on other comprehensive income, before tax, of changes in the value of outstanding derivatives based on closing day prices and interests on 31st December 2012 (31st December 2011). Financial derivatives are entered into in order to reduce the risk to which the Group is exposed (see Note 20). Changes in the value of financial derivatives with regard to binding undertakings and translation exposure have either a very limited or no effect on the profit or Other comprehensive income. The table below hence includes the effects of changes in value of derivatives intended to counter the Group's forecast exposure and interest derivatives that relate to the hedging of interest expenses for loans.

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	31-12-2012	31-12-2011
Change in metal prices or exchange rates, +10%	Effect on other comprehensive income, SEK m	Effect on other comprehensive income, SEK m
Zinc	-84	-242
Copper	-73	-217
Lead	–17	-49
Silver	-30	-87
Gold	-244	-331
USD/SEK	-283	-543

Change in market rate +1%

Interest derivatives
#### **Note 23** Financial assets and liabilities by valuation category

	Holdings valued at	Loan receivables and accounts	Financial assets available	Derivatives used in hedge	Other financial	Total reported	Fair
31-12-2012	tair value	receivable	tor sale	accounting	liadilities	value	value
	Level 2			Leverz			
Financial fixed accets							
Other charge and participations			24			04	04
			24			24	24
Financial investments							
Current assets							
Current receivables							
Accounts receivable		1,016				1,016	1,016
Interest-bearing receivables		3				3	З
Derivative instruments	36			286		322	322
Liquid assets		1,011				1,011	1,011
Total financial assets	36	2,030	24	286		2,376	2,376
LIABILITIES							
Long-term liabilities							
Liabilities to credit institutions					4,310	4,310	4,310
Other interest-bearing liabilities					5	5	5
Current liabilities							
Liabilities to credit institutions					1,666	1,666	1,666
Accounts payable					4,192	4,192	4,192
Derivative instruments	4			390		394	394
Total financial liabilities	4			390	10,173	10,567	10,567

Boliden's entire holding of financial instruments reported at fair value in the Balance Sheet is classified as level two in the Fair value hierarchy (see Accounting Principles). The fair value of liabilities to credit institutions is calculated as discounted contractually agreed amortisations and interest payments at estimated market interest rates. The interest covenants of existing loan agreements were, on 31st December 2012, adjudged to be on a par with credit market interest rates and the fair value therefore corresponds, in every significant respect, with the reported value. The accounts receivables' and accounts payables' reported value is held to be the same as the fair value due to the short maturity date, to the fact that provision has been made for bad accounts receivable, and to the fact that any penalty interest will be debited.

#### **Note 23** Financial assets and liabilities by valuation category, cont.

31-12-2011	Holdings valued at fair value	Loan receivables and accounts receivable	Financial assets available for sale	Derivatives used in hedge accounting	Other financial liabilities	Total reported value	Fair value
Valuation category	Level 2			Level 2			
ASSETS							
Financial fixed assets							
Other shares and participations			55			55	55
Financial investments							
Current assets							
Current receivables							
Accounts receivable		1,014				1,014	1,014
Interest-bearing receivables		3				З	З
Derivative instruments	53			1,204		1,257	1,257
Liquid assets							
Cash and bank balances		355				355	355
Total financial assets	53	1,372	55	1,204		2,684	2,684
LIABILITIES							
Long-term liabilities							
Liabilities to credit institutions					4,957	4,957	4,957
Other interest-bearing liabilities					10	10	10
Current liabilities							
Liabilities to credit institutions					801	801	801
Accounts payable					3,551	3,551	3,551
Derivative instruments	22			788		810	810
Total financial liabilities	22			788	9,319	10,129	10,129

Note 24 Other current liabilit	ies	
	31-12-2012	31-12-2011
Accrued salaries and social security expenses	323	322
Accrued interest expenses	95	81
Other accrued costs and prepaid income	669	671
Other operating liabilities	175	109
	1,263	1,183

Note 25 Pledged assets and contingent liabilities

	Grou	р	Parent Co	mpany
•	2012	2011	2012	2011
Pledged assets				
For own liabilities and provisions	None	None	None	None
Contingent liabilities				
Parent Company sureties	-	-	6,971	6,499
Other sureties and guarantees	632	690	154	160
Pension liabilities	3	З	-	-
Agreed residual values according to leasing				
contracts	47	47	-	_
	682	740	7,125	6,659

The Parent Company sureties refer to guarantees issued for subsidiary companies. SEK 7,125 million (SEK 6,659 m) refer to Parent Company sureties for external financial borrowing. Parent Company sureties in the above table have been booked in the amount utilised. Guarantees in respect of unutilised credits total SEK 11,039 million (SEK 11,882 m).

In addition to the above specifications under the heading of contingent liabilities and in the financial information provided, the possibility exists that the Group may incur environmentally related contingent liabilities or contingent liabilities attributable to legal proceedings and claims which cannot currently be calculated, although they may in future entail costs or investments.

#### Legal proceedings

#### Overview

Boliden conducts extensive domestic and international operations and is occasionally involved in disputes and legal proceedings arising in the course of these operations. These disputes and legal proceedings are not expected, either individually or collectively, to have any significant negative impact on Boliden's operating profits, profitability or financial position, over and above that detailed below.

#### Disputes

Disputes arising from the dam breach accident in Spain In April 1998, a dam breach occurred in a tailings pond at the Los Frailes mine in Spain, which was then owned by Boliden's subsidiary, Boliden Apirsa S.L. ("Apirsa").

Following the dam breach, criminal proceedings were initiated against Apirsa and its representatives. In December 2000, the prosecutor withdrew the proceedings. The ruling was appealed but finally ratified in November 2001. The criminal proceedings determined that the accident was caused by design and construction errors in the dam, not by Apirsa's operations at the mine. Notwithstanding the outcome of the criminal proceedings, the Spanish Ministry of the Environment declared Apirsa liable to pay an amount corresponding to approximately EUR 45 million in clean-up costs, damages and fines. This resulted, in January 2005, in Apirsa initiating so-called insolvency proceedings in order to ensure a coordinated and orderly closure of the company. Within the framework of the insolvency proceedings, the receivers in bankruptcy have requested that Apirsa's parent company, Boliden BV, together with Boliden Mineral AB and Boliden AB, shall be held liable for Apirsa's shortfall in an amount which, according to the receivers in bankruptcy, totals approximately EUR 141 million, including a receivable of approximately EUR 89 million which the local government (Junta de Andalucía) believes it is owed, as described in greater detail below.

As a result of the dam breach, the local government sued Apirsa, Boliden BV and Boliden AB in a civil court for damages totalling approximately EUR 89 million. The suit was dismissed on formal legal grounds. The ruling was appealed, but the appeal was rejected by a higher court in the autumn of 2003. Since the dismissal of the suit in the civil court, the local government in Andalusia has initiated administrative proceedings against Apirsa, Boliden BV and Boliden AB in respect of the same claim. In these proceedings, the local government has itself enjoined the three companies to pay the amount claimed. Apirsa, Boliden BV and Boliden AB appealed the decision to the Administrative Court and in late 2011, the Supreme Administrative Court ruled that the local government's rulings against and demands on all three of the Boliden companies affected were invalid on formal grounds. The rulings are final and cannot be appealed. In light of the fact that the local government's claims have hence been ruled as inadmissible in both civil and administrative courts, the local government has requested a ruling by the Supreme Administrative Court on the correct body in which the matter may be heard. The Supreme Administrative Court has, in accordance with this request, ruled that the matter can be heard in a civil court of law. The local government's suit against the above-mentioned companies will, therefore, be reopened in the court of the first instance in Seville

Based on the legal advice and opinions given by the company's Spanish legal counsel, Boliden's overall view is that the company will not suffer any substantial financial damage as a result of the legal proceedings described. The company has made no provisions pending a final ruling.

Legal dispute arising from the earlier copper tubing cartel In June 2012, Boliden was served with claims in the UK courts by a number of companies in the Travis-Perkins corporate Group. Travis-Perkins claims to have sustained losses as a consequence of the copper tubing cartel in which Boliden and seven other companies were involved during the period from June 1988 to March 2001, and for which the companies concerned were fined by the European Commission in 2004 The fine and the interest on the same – a sum totalling SEK 367 million - was paid by Boliden in July 2010. Boliden has contested the claim and has, in order to ensure that all relevant parties are involved, also brought contribution claims against the other cartel members. One of these companies has now also submitted a claim against Boliden's former subsidiary company. Boliden Fabrication AB, which was also found to have participated in the cartel. This company was transferred to Outokumpu in 2004 in conjunction with which Boliden undertook to indemnify Outokumpu in respect of claims that may arise and which relate to the period prior to the transfer of the company. The indemnity undertaking is not expected to increase Boliden's total potential exposure in that the European Commission found Boliden to be jointly and severally liable with its former subsidiary company.

It is currently not possible to evaluate the financial effect that the cases may have on Boliden with any degree of certainty and no provision for any obligations that may arise has hence been made.

#### **Note 26** Information per segment and geographical market

For additional information, please refer to "General accounting principles" for segment reporting on page 88.

#### Segment – Business Areas

31-12-2012	Mines	Smelters	Other	Eliminations	The Group
External revenues	1,088	38,671	0	-	39,759
Effect on profit of metal price and currency hedging	184	58	-	-	242
Internal revenues	8,237	25	-48	-8,213	0
Net turnover	9,509	38,753	-48	-8,213	40,001
Results from participations in associated companies	1	-	-	-	0
Operating profit	2,908	1,201	-38	0	4,071
Net financial items					-179
Profit after net financial items					3,892
Taxes					-618
Net profit for the year					3,274
Intangible fixed assets	85	3,075	0	-	3,160
Tangible fixed assets	17,093	8,102	84	-	25,279
Equity shares and other financial fixed assets	2	2	2 28		32
Inventories	712	7,744	-	-212	8,244
Other receivables	971	1,593	501	-831	2,233
Assets in capital employed	18,863	20,516	613	-1,043	38,948
Provisions, other than for pensions and tax	1,172	440	67		1,678
Other liabilities	1,424	4,507	749	-831	5,849
Liabilities in capital employed	2,596	4,947	816	-831	7,527
Total capital employed	16,267	15,569	-134	-212	31,421
Depreciations	1,327	892	Ο	-	2,218
Investments <sup>1]</sup>	3,186	993	6	-	4,185
Significant expenses as yet unpaid	-	-	-	-	-

31-12-2011	Mines	Smelters	Other	Eliminations	The Group
External revenues	1,646	38,347	4	-	39,998
Effect on profit of metal price and currency hedging	231	94	-	-	326
Internal revenues	8,401	29	-27	-8,404	-
Net turnover	10,279	38,471	-23	-8,404	40,323
Results from participations in associated companies	-	-	0	-	C
Operating profit	3,913	790	45	-	4,748
Net financial items					-188
Profit after net financial items					4,560
Taxes					-1,171
Net profit for the year					3,389
Intangible fixed assets	88	3,095	-	-	3,184
Tangible fixed assets	14,753	8,078	95	-	22,927
Equity shares and other financial fixed assets	1	33	28	-	62
Inventories	474	7,571	-	- 309	7,737
Other receivables	838	1,850	1,466	-882	3,271
Assets in capital employed	16,154	20,627	1,589	-1,191	37,181
Provisions, other than for pensions and tax	619	434	111	-	1,164
Other liabilities	1,265	3,982	1,180	-882	5,544
Liabilities in capital employed	1,884	4,416	1,291	-882	6,709
Total capital employed	14,272	16,213	298	-309	30,473
Depreciation, incl. net disposals	1,110	823	З		1,937
Depreciation, excl. net disposals	1,108	819	-	-	1,927
Investments <sup>1]</sup>	2,338	1,627	33	-	3,998
Significant expenses as yet unpaid	-	-	-	-	-

1) Excluding capitalised restoration costs and financial leasing.

#### **Geographical areas**

Sales figures are based on the country in which the customer is located. Assets and investments are reported in the location of the asset.

Revenues	2012	2011
Sweden	6,722	7,623
Rest of the Nordic region	4,554	4,831
Germany	13,954	13,113
UK	8,440	7,314
Rest of Europe	6,169	7,049
North America	6	0
Other markets	156	393
	40,001	40,323
Assets in capital employed	31-12-2012	31-12-2011
Sweden	31,733	29,737
Finland	3.384	3.410

	38,948	37.181
Other countries	19	22
Ireland	2,273	2,390
Norway	1,539	1,622
Finland	3,384	3,410
Sweden	31,733	29,737

#### Note 27 Affiliates

#### Relationships

The Parent Company's directly owned subsidiaries are reported in Note 11 Participations in Group companies on page 95, and in Note 12 Participations in Associated companies on page 96. Information regarding Members of the Board and Group management, and the remuneration paid to the same, is presented in Note 1 Employees and personnel costs on pages 89–90, and in the Corporate Governance Report on pages 62–73.

#### Transactions

No Member of the Board or senior executive in the Group participates or has participated, directly or indirectly, in any business transactions occurring during the current or previous financial year between themselves and the Group which are or were unusual in nature with regard to their terms. Nor has the Group granted loans, issued guarantees or provided sureties to any of the Members of the Board or senior executives of the company.

Investments in fixed assets 1)	31-12-2012	31-12-2011
Sweden	3,429	3,114
Finland	426	466
Norway	61	45
Ireland	268	372
Other countries	1	1
	4,185	3.998

1) Excluding capitalised restoration costs and financial leasing.

Sales of metals, sales of concentrates and other sales accounted for SEK 35,467 million (SEK 35,063 m), SEK 1,490 million (SEK 2,114 m) and SEK 3,044 million (SEK 3,055 m), respectively, of Boliden's revenues of SEK 40,001 million (SEK 40,323 m).

#### Note 28 Events after 31 December 2012

#### Diesel tax at Aitik

During the period from April 2009 to October 2012, dyed diesel was incorrectly used at Aitik instead of un-dyed diesel. The two versions carry a different tax rate. When the mistake was discovered in October 2012, Boliden immediately contacted both the supplier, in order to switch to un-dyed diesel, and the Swedish Tax Agency in order to inform them what had happened. Boliden has also, throughout the period in question, paid the tax that would have been applicable if the correct diesel had been used and has not benefitted financially from the mistake.

In January 2013, the Swedish Tax Agency ruled, after a review of the matter, that it intends to impose an energy tax liability on Boliden of SEK 212 million plus interest. The ruling by the Swedish Tax Agency does not take into account Boliden's request for a discharge from this tax liability. Boliden believes that the error is administrative in nature and intends to appeal the Swedish Tax Agency final ruling if it is negative. No provision for the amount has consequently been made in the 2012 accounts.

### Proposed allocation of profits

#### The Board's proposed allocation of profits for 2012 and statement in accordance with the Swedish Companies Act, 18:4

Boliden has a dividend policy whereby approximately one third of the profit after tax is to be distributed. The Board of Directors proposes that the Annual General Meeting approve payment of a dividend of SEK 4 (SEK 4) per share, or a total of SEK 1,094 million (SEK 1,094 m), corresponding to 33.4 per cent of the profit after tax for 2012. The Parent Company's non-restricted shareholders' equity totals SEK 5,103 million and the Group's total shareholders' equity is SEK 22,949 million. The non-restricted shareholders' equity in the Parent Company and the Group will total SEK 4,009 million and SEK 21,855 million, respectively, after payment of the proposed dividend to the shareholders. The Board has taken the cyclic nature of the industry and the risks associated with the operations into account in its dividend proposal.

The Annual Accounts have been prepared in accordance with generally accepted accounting principles in Sweden and that the Consolidated Accounts have been prepared in accordance with EU-approved International Financial Reporting Standards, IFRS.

The Annual Accounts and the Consolidated Accounts give a true and fair view of the Parent Company's and the Group's financial position and results of operations.

The Directors' Report for the Group and the Parent Company give a true and fair overview of the Group's and the Parent Company's operations, position and results and describes the material risks and uncertainties faced by the Parent Company and the companies that make up the Group.

Stockholm, 11 February 2013

Anders Ullberg *Chairman* 

Marie Berglund *Member of the Board*  Staffan Bohman *Member of the Board*  Lennart Evrell President and CEO

Michael G:son Löw Member of the Board Ulla Litzén *Member of the Board*  Leif Rönnbäck Member of the Board

Matti Sundberg Member of the Board Roland Antonsson Employee Representative Marie Holmberg Employee Representative

Hans-Göran Ölvebo *Employee Representative* 

Our Audit Report was submitted on 26 February 2013

Ernst & Young AB

Lars Träff Authorised Public Accountant

### Auditor's report

To the annual meeting of the shareholders of Boliden AB (publ), corporate identity number 556051-4142

### Report on the annual accounts and consolidated accounts

We have audited the annual accounts and consolidated accounts of Boliden AB for the year 2012. The annual accounts and consolidated accounts of the company are included in the printed version of this document on pages 27–33 and 74–112.

#### Responsibilities of the Board of Directors and the Managing Director for the annual accounts and consolidated accounts

The Board of Directors and the Managing Director are responsible for the preparation and fair presentation, of the annual accounts in accordance with the Annual Accounts Act and, of the consolidated accounts in accordance with International Financial Reporting Standards, as adopted by the EU, and for such internal control as the Board of Directors and the Managing Director determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

#### Auditor's responsibility

Our responsibility is to express an opinion on these annual accounts and consolidated accounts based on our audit. We conducted our audit in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the annual accounts and consolidated accounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the annual accounts and consolidated accounts. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the annual accounts and consolidated accounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the company's preparation and fair presentation of the annual accounts and consolidated accounts in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Board of Directors and the Managing Director, as well as evaluating the overall presentation of the annual accounts and consolidated accounts.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Opinions**

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as of 31 December 2012

and of its financial performance and its cash flows for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the Group as of 31 December 2012 and of their financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards, as adopted by the EU, and the Annual Accounts Act. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the annual meeting of shareholders adopt the income statement and balance sheet for the parent company and the group.

#### **Report on other legal and regulatory requirements**

In addition to our audit of the annual accounts and consolidated accounts, we have examined the proposed appropriations of the company's profit or loss and the administration of the Board of Directors and the Managing Director of Boliden AB for the year 2012.

### Responsibilities of the Board of Directors and the Managing Director

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss, and the Board of Directors and the Managing Director are responsible for administration under the Companies Act.

#### Auditors' responsibility

Our responsibility is to express an opinion with reasonable assurance on the proposed appropriations of the company's profit or loss and on the administration based on our audit. We conducted the audit in accordance with generally accepted auditing standards in Sweden.

As a basis for our opinion on the Board of Directors' proposed appropriations of the company's profit or loss, we examined the Board of Directors' reasoned statement and a selection of supporting evidence in order to be able to assess whether the proposal is in accordance with the Companies Act.

As a basis for our opinion concerning discharge from liability, in addition to our audit of the annual accounts and consolidated accounts, we examined significant decisions, actions taken and circumstances of the company in order to determine whether any member of the Board of Directors or the Managing Director is liable to the company. We also examined whether any member of the Board of Directors or the Managing Director has, in any other way, acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Opinions**

We recommend to the annual meeting of shareholders that the profit be appropriated in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the Managing Director be discharged from liability for the financial year.

Stockholm, 26 February 2013

Ernst & Young AB

Lars Träff Authorised Public Accountant

# Mineral reserves and mineral resources

Mineral reserves and mineral resources are the basis on which a mining company's operations are built. Successful exploration results in mineral reserves and mineral resources growing at a rate that exceeds the rate of ore production, thereby generating long-term growth. Mineral resources and reserves are affected not only by exploration, but by important factors such as mining costs and assumed metal prices. Exploration work is carried out both in the vicinity of existing mines in order to increase their lifespan, and in new areas in order to expand the mine portfolio with new assets. The end result of exploration often lies many years into the future and is associated with a degree of uncertainty and risk, and there are no guarantees that positive results from field exploration will ultimately result in a producing asset.

#### **Positive trend in recent years**

Boliden's investments in exploration over the last 10 years have resulted in substantial increases in mineral resources and reserves, particularly at Garpenberg and Aitik, but the Boliden Area has also seen very positive development in recent years. Tara currently has only marginally smaller mineral reserves than was the case 10 years ago, despite the quantities extracted, but the mine's mineral resources have declined.

Boliden has identified two new deposits that have now reached the stage at which they can be classified as a mineral resource. Laver, in Norrbotten, is a large but relatively poor copper deposit of a type similar to Aitik, while Rockliden, in Västernorrland, is a rich polymetallic mineralisation containing gold, silver, copper, zinc and lead, along with high levels of problem minerals such as antimony and arsenic. The Rockliden deposit has been known since the 1980s, but continued exploration and improved technical and market conditions mean that it can now be classified as a mineral resource.

### Mineral resource and mineral reserve calculations, 2012

Mining companies are required to compile a calculation of their mineral resources and mineral reserves every year. Boliden's calculations and compilations are carried out in accordance with the recommendation of the Swedish industry organisation for mining and metal companies, SveMin, which are also in accordance with international regulations. See below for further information on how the calculations have been performed and the identity of the individuals responsible for them.

Aitik



Mineral resources increased significantly in 2012 but with low grades.

Boliden's mineral resources and mineral reserves have continued to develop positively with net increases for the total resources in all areas except Tara.

#### Aitik

At Aitik, 34.3 Mtonnes of ore were extracted during the year. The amount extracted has, to some extent, been compensated for by additions to the reserves yielded by the mine's drilling work. Economic conditions, primarily in the form of metal prices, have also helped by enabling 5 Mtonnes that was previously classified as waste rock with grades just below the cut-off point to be reclassified as ore. The net reduction in the mineral reserve was a mere 8 Mtonnes.

Aitik's mineral resources increased during the year by almost 1,000 Mtonnes to 2,760 Mtonnes. Exploration in the vicinity of the mine contributed 240 Mtonnes and the remainder of the increase came from changes to economic conditions brought about by higher forecasts for Aitik's valuable minerals, namely copper, gold, silver, and molybdenum.

#### The Boliden Area

The Boliden Area has developed positively in terms of both its mineral reserves and its mineral resources. The reserves have increased by 0.6 Mtonnes, or 5 per cent, while the resources have increased by 2.5 Mtonnes, or 12 per cent. In January 2012, Boliden opened the new Kankberg mine to work the Åkulla Östra gold mineralisation. The Maurliden Östra mine is scheduled to be mined out and decommissioned during 2013.

#### The Boliden Area



The positive trend seen over a number of years continued in 2012, with a particularly positive trend at Kankberg.

#### Garpenberg

Mineral reserves and mineral resources at Garpenberg increased by 2 Mtonnes and 3.4 Mtonnes, respectively. A new level was added at the Lappberget ore deposit. Successful exploration of the Dammsjön and Kvarnberget mineralisations have boosted the mine's mineral resources. Construction work on a new concentrator, hoisting installations and facilities for an expansion from the current production level of 1.6 Mtonnes of ore per year to 2.5 Mtonnes, is currently taking place at Garpenberg.

#### Tara

Exploration work in and around the mine enabled mineral resources to be added to the portfolio and upgraded to mineral reserves. This was, however, unable to compensate in full for the 2.5 Mtonnes extracted during the year and the mineral reserve declined, overall, by 1.7 Mtonnes while the mineral resources increased by 0.9 Mtonnes.

#### About the classification

Mining companies divide their mineral resources into different categories, depending on how much is known about the deposit. Technical analyses that enable an assessment to be made of whether the resource will become profitable are required before a mineral resource can be upgraded to a mineral reserve.

A mineral resource is a concentration of minerals in the bedrock that is present in a form, quality and quantity that means there is a reasonable possibility of it becoming commercially extractable.

Mineral reserves are those parts of a measured or indicated mineral resource that can be mined and processed in accordance with the company's profitability requirements, taking into account factors such as waste rock dilution, ore losses, pillar offset and process recovery.

Mineral resources are divided into three categories, while mineral reserves are divided into two.

#### Inferred mineral resource

An inferred mineral resource is a mineral resource that has been identified through drilling, sampling and geoscientific interpretations, but where the information is so sparse that the geology and grade continuity of the deposit cannot be confirmed and where the basic technical data consists of reasonable assumptions. This means that continued investigations will not, with any degree of certainty, enable the entire inferred mineral resource, or parts of it, to be moved to a higher category.



The trend was positive also at Garpenberg following successful exploration work.

#### Indicated mineral resource

An indicated mineral resource is a mineral resource that has been identified through drilling and sampling with an information density that is too sparse to confirm continuity, but which, together with geoscientific interpretations, nevertheless provides a reasonable idea of the deposit's geology and grade continuity. Collectively, the information and interpretations are sufficient to enable technical and economic calculations to be performed to assess the project's profitability.

#### Measured mineral resource

A measured mineral resource is a mineral resource where the information obtained from drilling and sampling confirms the deposit's geology and/or grade continuity. The basic technical data is such that mining plans can be drawn up. These plans then form the basis for technical and economic analyses of the project's profitability in the next stage of the process.

#### Probable mineral reserve

A probable mineral reserve is those parts of a measured or, under certain circumstances, indicated mineral resource where miningengineering and profitability studies show that it is technically and economically feasible to mine and process the deposit in line with the company's profitability requirements.

#### Proven mineral reserve

A proven mineral reserve is those parts of a measured mineral resource where mining-engineering and profitability studies show that it is technically and economically feasible to mine and process the deposit in line with the company's profitability requirements.

#### **Basis for the calculations**

Boliden holds the required environmental permits and exploitation concessions for all of the mines currently in operation. The mineral resources are protected by exploitation concessions or exploration permits. Mineral resources and mineral reserves are reported separately in Boliden's compilation of its calculations, i.e. the mineral resources are presented in addition to the mineral reserves (see tables on pages 87–88).



Mineral resources increased slightly. The mineral reserve declined despite additions from the mineral resources, which, however, were unable to fully compensate for the extraction. The calculations are based on the following underlying factors:

#### Cut-off grades

The lowest grade to be mined is calculated separately for each deposit on the basis of its characteristics, that is to say the direct costs for mining, ore haulage, milling, concentrate haulage and administration. The costs are compared with the value of the product, taking into account the relevant payment terms for processing by the smelters.

#### Metal prices

The mineral reserves are the basis for the company's long-term planning and will be mined for many years to come. Planning prices, which are an expression of the anticipated average prices for metals and currencies over the forthcoming business cycle, are, therefore, primarily utilised in the calculations. Shorter term prices are, however, used in some exceptional cases, e.g. for Maurliden Östra where the ore will be mined out in 2013. Boliden's current planning prices are shown in the table below:

Planning prices	Prices/ Exchange rates	Change in comparison with 2011
Copper	6,300 USD/tonne	+800
Zinc	2,300 USD/tonne	+200
Lead	2,300 USD/tonne	+300
Gold	1,200 USD/tr.oz	+100
Silver	20 USD/tr.oz	0
Molybdenum	15 USD/lb	+3
Tellurium	280 USD/KG	0
USD/SEK	7.00	0
EUR/SEK	8.90	-0.10

#### Density

A formula based on head grades is utilised for large polymetallic ores, which make up the majority of Boliden's mineral resources and mineral reserves. The formula is verified using density measurements. In other cases, measurements are carried out for the different ores or rock types that affect the density.

### SEK m Metres 400 300 200 100 0 99 00 01 02 03 04 05 06 07 08 09 10 11 12

Metres drilled

#### Exploration costs and number of metres drilled

The year saw a continued increase in exploration activities with SEK 350 million invested and 227,640 metres drilled.

#### Waste rock dilution

Mining usually incurs some waste rock dilution that varies depending on the mining method used, the ore's geometry and other geological factors. Estimated waste rock dilution is taken into account in all mineral reserve calculations.

#### Ore losses

Depending on the mining method used, the ore's geometry and other technical factors, some ore may have to be left unextracted, known as pillar offset. Based on the information available when the calculations were made, all the mineral reserve calculations have taken these factors into account.

#### Minimum ore width

The minimum horizontal ore width is determined by the mining method and equipment used in the respective mines. This means that grades of ore zones narrower than the minimum ore width are recalculated using the average for the full width.

#### Regulations, codes and recommendations

Boliden's mineral reserves and mineral resources have been calculated and compiled in accordance with recommendations by the Swedish industry organisation for mining and metal companies, SveMin, which are also in accordance with the Australasian Institute of Mining and Metallurgy's JORC code. This is comparable with, and equivalent to, the "CIM Standards on Mineral Resources and Mineral Reserves, Definitions and Guidelines" adopted by CIM on 20th August 2000 and which constitute that part of the Ontario Securities Commission (OSC) rules and regulations, National Instrument 43–101, that regulate how mineral reserves and mineral resources should be reported.

The mineral resources and mineral reserves have been compiled under the supervision of Gunnar Agmalm, who is registered as a "Qualified Person" by SveMin. Gunnar Agmalm is a member of AUSIMM and has more than 25 years' experience in the mining and minerals industry.

Calculations for Tara have been carried out under the supervision of John Ashton, Chief Mine Geologist, Boliden Tara Mines Ltd. John Ashton is a "Qualified Person" and a member of the Institute of Materials, Minerals and Mining and of the Institute of Geologists Ireland, and has more than 25 years' experience of the mining and minerals industry.

Exploration costs

### Mineral reserves on 31st December 2012

31st December 201	2									
		Quantity,	ktonnes				2012			
		2012	2011	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	Mo (g/t)	Te (g/t)
The Boliden Area Polymetallic mineralisations										
Kristineberg	Proven Probable	1,000 3,600	1,020 3,800	1.3 0.5	24 42	1.4 0.4	1.8 7.1	0.1 0.4		
Renström	Proven Probable	140 2,840	140 2,180	3.0 2.1	137 121	0.6 0.9	7.5 5.6	1.5 1.1		
Maurliden	Proven Probable	1,300	1,300	1.3	51	0.2	3.6	0.4		
Maurliden Östra	Proven Probable	190	520	0.5	14	1.0	0.2			
Total	Proven	2,430	2,460	1.4	45	0.7	3.1	0.3		
Polymetallic mineralisations	Probable	6,680	6,500	1.2	74	0.6	6.2	0.7		
Gold mineralisations										
Kankberg	Proven	1,054	500	2.7	10					161
	Probable	2,530	2,600	4.3	16					184
Aitik	Proven	476,000	486,000	0.14	1.5	0.24			26	
	Probable	226,000	224,000	0.15	1.7	0.26			30	
Garpenberg	Proven Probable	15,400 10,200	17,400 6,200	0.3 0.3	117 151	0.06 0.05	5.5 4.6	2.2 1.9		
Tara	Proven Probable	2,300 11,700	3,300 12,400				7.5 7.1	1.8 1.7		

Figures may be rounded up or down.

### Mineral resources on 31st December 2012

31st December 2012	2									
		Quantity,	ktonnes				2012			
		2012	2011	Au (g/t)	Ag (g/t)	Cu (%)	<b>Zn (%)</b>	Pb (%)	Mo (g/t)	Te (g/t)
The Boliden Area										
Polymetallic mineralisations										
Kristineberg	Measured	50	50	0.7	45	1.3	4.2	0.2		
	Indicated	3,760	3,760	0.7	31	0.7	5.0	0.3		
	Inferred	5,530	2,600	0.6	37	0.7	3.0	0.2		
Petiknäs N	Measured	310	310	8.1	73	1.8	3.1	0.3		
	Indicated	1,200	1,200	2.7	52	0.6	1.8	0.3		
	Inferred	720	720	3.3	33	0.5	1.2	0.2		
Renström	Measured		10							
	Indicated	1,450	2,170	1.8	89	0.4	4.6	0.8		
	Inferred	3,960	3,960	2.3	141	0.3	7.2	1.5		
Maurliden	Measured	1,050	1,050	1.3	40	0.4	3.3	0.2		
	Indicated	360	360	0.9	45	0.7	2.9	0.2		
	Inferred									
Maurliden Ostra	Measured									
	Indicated Inferred	360	360	0.4	11	0.4	0.2			
Total	Measured	1,400	1,400	2.8	47	0.7	3.3	0.2		
Polymetallic		7 400	7 000	4.0	40	0.0	4.0	0.4		
mineralisations	Indikerad	7,100	7,900	1.3	46	U.6	4.0	0.4		
	Interred	10,200	7,300	1.4	//	U.6	4.5	U.7		
Guldmineraliseringar										
Kankberg	Measured	140	38	11.3	12					171
	Indicated	180	200	5.2	16					207
	Inferred	342	140	6.0	15					175
Älgträsk	Measured									
0	Indicated	2,930	2,930	2.6	З					
	Inferred	1,270	1,270	1.8	З					
Total	Measured	140		11.3	12					
Gold mineralisations	Indicated	3,100	3,100	2.8	4					
	Inferred	1,600	1,400	2.7	5					
Aitik	Measured	960,000	704,000	0.10	0.9	0.18			23	
	Indicated	1,393,000	966,000	0.10	0.9	0.17			23	
	Inferred	404,000	94,000	0.10	0.6	0.14			19	
Garpenberg	Measured	5,100	2,900	0.4	82	0.06	3.2	1.5		
	Indicated	18,500	14,300	0.3	152	0.05	3.9	1.7		
	Inferred	20,900	23,800	0.6	125	0.07	3.9	2.0		
	Macourod	E00	200				E C			
lara	ivieasured	500	300				0.0	2.2		
	Indicated	5,300	4,200				0.1	2.2		
	merreu	3,600	0,000				0.0	1.0		
Laver	Measured									
	Indicated									
	Inferred	690,000		O.1	2.8	0.2			35	
Rockliden	Measured									
	Indicated	1.040		0.1	101	2.0	4.4	0.9		
	Inferred	3,530		0.1	71	1.9	4.2	0.7		

Figures may be rounded up or down.

# Five-year overview – the Group

	2008	2009	2010	2011	2012
Consolidated income and result (SEK m)					
Revenues	30,987	27,635	36,716	40,323	40,001
Operating profit before depreciation	2,426	5,186	7,445	6,674	6,287
Operating profit	1,004	3,623	5,643	4,748	4,071
Operating profit excluding revaluation					
of process inventory	1,793	2,350	4,830	5,008	3,941
Profit after financial items	723	3,377	5,331	4,560	3,892
Taxes	212	-876	-1,374	-1,171	-618
Net profit	935	2,501	3,957	3,389	3,274
Income and profit per Business Area (SEK m)					
Revenues – Mines	5,178	6,509	9,580	10,279	9,509
Revenues – Smelters	31,256	26,765	34,390	38,471	38,753
Revenues – Other and eliminations	-5,447	-5,639	-7,254	-8,427	-8,261
Operating profit – Mines	734	2,159	4,113	3,913	2,908
Operating profit – Smelters	372	1,724	1,946	790	1,201
Operating profit – Other and eliminations	-102	-260	-416	45	-38
Consolidated cash flow (SEK m)					
Cash flow from operating activities	5,470	3,974	6,197	4,021	5,518
Cash flow from investment activities	-4,633	-4,922	-2,995	-4,024	-4,129
Free cash flow <sup>1)</sup>	837	-948	3,202	-3	1,389
Cash flow from financial activities	-514	571	-3,199	-464	-730
Cash flow for the year	323	-377	3	-467	659
Consolidated financial position (SEK m)					
Balance Sheet total	30,252	33,258	35,128	37,615	40,035
Capital employed	24,733	26,229	27,151	30,473	31,421
Return on capital employed, %	5	14	21	17	13
Shareholders' equity	16,131	16,257	18,846	21,032	22,949
Return on shareholders' equity, %	7	16	23	17	15
Equity/assets ratio, %	53	49	54	56	57
Net debt	6,305	7,402	4,584	6,063	5,673
Net debt/equity ratio, %	39	46	24	29	25
Data per share (SEK)					
Earnings for the period					
Before dilution	3.42	9.14	14.47	12.39	11.96
After dilution	3.42	9.14	14.47	12.39	11.96
Cash flow from operating activities					
Before dilution	20.00	14.53	22.66	14.70	20.17
After dilution	20.00	14.53	22.66	14.70	20.17
Shareholders' equity					
Before dilution	58.98	59.44	68.90	76.90	83.85
After dilution	58.98	59.44	68.90	76.90	83.85
Dividend <sup>2)</sup>	1.00	3.00	5.00	4.00	4.00
Share price, 31/12	17.80	92.10	136.70	100.50	122.10
Highest price paid	86.00	95.30	137.70	143.50	125.60
Lowest price paid	14.60	16.10	79.50	65.35	87.80
P/E ratio <sup>3)</sup>	5.20	10.07	9.45	8.11	10.21
Change in share price during the year, $\%$	-78	417	48	-26	21
Dividend yield, <sup>4</sup> %	5.6	3.3	3.7	4.0	3.3
Total yield, <sup>5)</sup> %	-73	423	52	-23	25
Number of shares					
Number of shares, 31/12	273,511,169	273,511,169	273,511,169	273,511,169	273,511,169
Average number of shares	273,511,169	273,511,169	273,511,169	273,511,169	273,511,169
No. own shares held, 31/12					

1) Refers to cash flow before financial activities.

<sup>2)</sup> Proposed dividend.

 $^{\rm 4)}$  Proposed dividend per share for the year in SEK divided by the share price at the end of the year.

 $^{\rm (3)}$  Share price at the end of the year divided by the earnings per share for the period before dilution.

<sup>5)</sup> Change in share price during the year plus dividend paid divided by the share price at the beginning of the year.

# Five-year overview – Mines

	2008	2009	2010	2011	2012
ΔΙΤΙΚ					
Milled ore ktonnes	17 813	18 791	27 596	31 541	34.321
Head grades	17,010	10,701	27,000	01,011	0 1,02 1
Cu (%)	0.30	0.27	0.27	0.24	0.22
Au (a/tonne)	0.14	0.13	0.16	0.14	0.11
Aq (q/tonne)	2.81	1.99	2.07	2.15	2.50
Concentrate production					
Cu, tonnes	173,624	170,808	262,551	267,488	270,078
Concentrate grade	·		· · · · · · · · · · · · · · · · · · ·		
Cu (%)	27.2	26.9	25.58	25.00	24.85
Metal production					
Cu, tonnes	47,225	46,019	67,168	66,876	67,108
Au, kg	1,218	1,348	2,208	2,447	1,959
Au, tr. oz.	37,883	41,927	68,675	78,657	62,996
Ag, kg	32,087	24,701	36,468	45,040	51,698
Ag, '000 tr. oz.	998	768	1,134	1,448	1,662
Financial performance					
Revenues (SEK m)	1,949	1,997	3,996	4,549	4,170
Operating profit before depreciation (SEK m)	1,049	1,134	2,442	2,583	2,268
Operating profit (SEK m)	876	949	2,008	2,046	1,692
Investments (SEK m)	2,994	3,674	1,210	730	824
Cash cost USc/lb. Cu (Normal costing C1)	124	86	105	120	123
Proven and probable mineral reserves					
Ktonnes	633,000	747,000	733,000	710,000	702,000
Cu (%)	0.27	0.25	0.25	0.25	0.25
Au (g/t)	0.2	O.1	O.1	0.1	0.1
THE BOLIDEN AREA					
Milled ore, ktonnes	1,355	1,192	1,375	1,677	1,862
of which, slag					
Head grades					
Zn (%)	4.0	3.7	3.7	2.9	2.2
Cu (%)	1.0	1.0	0.8	1.0	0.8
Pb (%)	0.4	0.5	0.4	0.3	0.2
Au (g/tonne)	1.5	2.0	1.6	1.2	1.3
Ag (g/tonne)	61	65	55	41	35
Concentrate production					
Zn, tonnes	70,327	57,565	73,983	68,622	55,644
Cu, tonnes	32,441	28,481	31,430	59,668	46,551
Pb, tonnes	4,547	4,056	4,242	3,264	3,161
Precious metals, tonnes	289	399	529	568	541
Gold doré bullion, kg	171	280	-	-	1,619
Concentrate grade					
Zn (%)	54.7	54.7	54.7	55.7	54.6
Cu (%)	29.0	28.4	26.4	23.3	25.5
Pb (%)	41./	42.7	41.5	41.7	44.5
Metal production	00 470	04 404	40.450	00.04.4	
Zn, tonnes	38,479	31,491	40,458	38,214	30,389
Cu, tonnes	9,413	8,090	8,291	13,910	11,869
PD, tonnes	1,890	1,731	1,700	1,300	1,408
Au, kg	1,141	1,308	1,280	989	1,434
Ay, ky	30,469 47 671	40,770	39,907	31,701 45.240	46,102
Ay, ky	47,071	40,100	1 640	43,310	41,405
Ay, 000 troz	1,402	1,435	1,042	1,437	1,331
	1 013	1 109	1 //8	1 587	1 552
Operating profit before depreciation (SEK m)	טוט,ו פפפ	405	588	650 650	55/
Onerating profit (SEK m)	115	202	/1.21	520	360
Investments (SFK m)	237	264	907 208	565	603
Cash cost USc/lb, Zn (Normal costing C1)	29			_58	_54
Proven and probable mineral reserves		5	.0		
Polymetallic ores, ktonnes	7.350	6.950	8.220	8.980	9.110
Zn (%)	43	4 3	53	5.2	5.4
Cu (%)	0.8	0.8	0.6	0.6	0.6
Gold ores, ktonnes		1,610	2,780	3,100	3,584
Au (g/t)		4.9	4.1	3.6	3.8
Te (g/t)			186	165	177

	2008	2009	2010	2011	2012
GARPENBERG					
Milled ore ktonnes	1.365	1 394	1 443	1 456	1 484
Head grades	1,000	1,004	1,440	1,400	1,404
Zn [%]	6.9	7.3	6.6	6.2	5.6
Cu (%)	O.1	O.1	O.1	0.1	0.1
Pb (%)	2.6	2.8	2.5	2.4	2.1
Au (g/tonne)	0.3	0.2	0.3	0.3	0.3
Ag (g/tonne)	130	139	133	133	129
Concentrate production					
Zn, tonnes	157,962	167,369	160,185	147,501	136,395
Cu, tonnes	2,853	2,697	2,834	2,199	2,180
Pb, tonnes	41,311	44,012	40,717	39,105	35,219
Concentrate grade					
Zn (%)	53.1	53.8	53.7	55.0	54.8
Cu (%)	20.4	18.3	18.3	19.1	17.7
Pb (%)	69.0	71.3	72.0	72.5	70.7
Metal production					
Zn, tonnes	83,938	90,079	86,022	81,068	74,793
Cu, tonnes	581	493	517	419	386
Pb, tonnes	28,514	31,371	29,310	28,330	24,884
Au, kg	243	214	234	246	250
Au, tr. oz.	7,558	6,656	7,278	7,895	8,051
Ag, kg	130,287	139,141	140,138	140,121	135,015
Ag, '000 tr. oz.	4,052	4,328	4,359	4,505	4,341
Financial performance					
Revenues	1,163	1,490	1,902	2,155	1,876
Operating profit before depreciation (SEK m)	598	945	1,293	1,506	1,262
Operating profit (SEK m)	466	793	1,124	1,314	1,033
Investments (SEK m)	344	157	281	660	1,459
Cash cost USc/lb. Zn (Normal costing C1)	19	3	-16	-56	-44
Proven and probable mineral reserves			05 400		05 000
Ktonnes	26,000	25,800	25,100	23,600	25,600
	D. I	D.4	D.3	D. I	5.1
Ag (g/ t)	134	142	140	144	131
TARA					
Milled ore, ktonnes	2,411	2,508	2,593	2,486	2,502
Head grades					
Zn (%)	7.8	7.9	7.0	7.0	7.0
Pb (%)	1.5	1.5	1.4	1.4	1.4
Concentrate production	040 700	044.000	045 055	007 440	005 470
Zn, tonnes	319,762	344,328	315,855	307,410	305,170
Pb, tonnes	39,944	41,020	34,459	33,679	40,807
Zp (9/)	547	52.0	52 O	50.0	54.4
211 (70) Ph (%)	56.7	57.5	53.7	58.8	55.2
Metal production	50.7	07.0	30.7	50.0	33.E
	175 006	185 558	167 334	163 935	166 021
Ph tonnes	22 631	23 567	18 515	19 787	22,517
Aa, ka	22,001	20,007	10,010	10,707	1.673
Ag, '000 tr. oz.					54
Financial performance					
Revenues (SEK m)	1,357	1,671	1,831	1,757	1,726
Operating profit before depreciation (SEK m)	154	303	619	503	395
Operating profit (SEK m)	-40	76	383	268	73
Investments (SEK m)	305	338	285	372	268
Cash cost USc/lb. Zn (Normal costing C1)	79	64	69	72	69
Proven and probable mineral reserves					
Ktonnes	17,100	17,000	16,000	15,700	14,000
Zn (%)	7.4	7.2	7.1	7.1	7.1
Чр (%)	1.8	1.8	1.8	1.8	1.7

# Five-year overview – Smelters

	2008	2009	2010	2011	2012
RÖNNSKÄR					
Smelting material					
Copper, tonnes					
Copper concentrate	611,202	564,749	544,242	651,052	623,676
Secondary raw materials	172,950	154,099	155,024	175,064	220,689
of which, electronics	,		36.896	63.798	108,223
Copper, total	784,152	718.848	699,266	826,116	844.365
Lead, tonnes	,				
Lead concentrate	17 893	13 861	16 294	11 401	27.077
Secondary raw materials	4 541	7 050	6 281	5 131	2.325
Lead, total	22,434	20,912	22,575	16.532	29,402
Production	,				
Cathode conner tonnes	227 774	205 759	190 497	219 316	214.050
Lead toppes	14 235	13 013	17 013	11 429	18,970
Zing clinker tonnes	40 803	38 535	36,950	35 857	36,282
Gold ka	13 425	13,282	12 450		12 532
Silver ka	429 637	481 223	385 684	415 066	447 759
Sulphuric acid toppes	556 863	514 736	501,873	570,869	553,005
	53 030	35,857	/2 876	12 129	35 718
Palladium concentrate ko	3 453	2 982	2 474	2 466	2 522
Financial nerformance	0,400	L,OOL	L,-/-	L,400	2,022
Operating profit before depreciation SEK m	637	338	1/1	715	832
Operating profit SEK m	305	83	197	/10	539
Investments SEK m	100	100		470	/191
	132	133	270	1,074	401
BERGSÖE					
Production, tonnes					
Lead alloys	42,577	38,561	42,166	41,009	42,558
Financial performance					
Operating profit before depreciation (SEK m)	142	106	99	95	52
Operating profit (SEK m)	127	91	82	75	34
Investments (SEK m)	12	12	14	24	10
HARJAVALTA					
Smelting material, tonnes					
Copper concentrate	529,466	399,653	433,511	456,350	516,027
Secondary raw materials	6,796	10,917	22,331	14,275	16,379
Copper, total	536,262	410,570	455,842	470,625	532,406
Nickel concentrate	273,352	211,231	261,931	259,259	247,709
Production, tonnes					
Cathode copper	121,819	96,596	112,687	116,455	124,527
Gold, kg	2,064	1,747	1,770	2,248	3,642
Silver, kg	58,648	58,341	64,596	73,081	128,200
Sulphuric acid, tonnes	659,095	500,842	573,096	599,596	639,279
Liquid sulphur dioxide, tonnes	36,934	33,003	26,682	35,355	37,003
Palladium concentrate, kg	214	265	718	836	539
Financial performance					
Operating profit before depreciation, SEK m	212	203	318	373	479
Operating profit before depreciation excl. PIR <sup>1]</sup>	339	62	318	373	479
Operating profit, SEK m	64	24	154	222	324
Operating profit excl. PIR <sup>1)</sup>	191	-117	154	222	324
Investments, SEK m	225	148	122	229	215

1) Process Inventory Revaluation

The operating profit per smelter excludes the revaluation of process inventory, with the exception of Harjavalta in the 2008-2009 period.

	2008	2009	2010	2011	2012
KOKKOLA					
Smelting material, tonnes					
Zinc concentrate	576,239	571,003	587,330	600,228	589,261
Production, tonnes					
Zinc	297,722	295,049	307,144	307,352	314,742
Sulphuric acid	33	6	199,484	301,945	313,221
Financial performance					
Operating profit before depreciation, SEK m	632	558	685	417	432
Operating profit, SEK m	469	362	505	246	261
Investments, SEK m	162	99	248	237	210
ODDA					
Smelting material, tonnes					
Zinc concentrate (incl. zinc clinker)	269,820	245,263	276,811	282,959	279,489
Production, tonnes					
Zinc	145,469	138,973	148,862	153,200	152,647
Aluminium fluoride	34,611	33,161	21,951	34,812	35,708
Sulphuric acid	112,946	107,758	122,549	124,662	128,171
Financial performance					
Operating profit before depreciation, SEK m	360	161	184	123	161
Operating profit, SEK m	210	6	39	-25	8
Investments, SEK m	146	22	75	44	61

# Sustainability-related key ratios

	2008	2009	2010	2011	2012
Employees					
Number of Group employees, total <sup>1]</sup> , average number	4,608	4,379	4,412	4,597	4,795
Number of female employees, average number	650	598	669	736	813
Share of women on the Board/ in Group management, %	25/29	27/17	27/0	27/0	27/17
Accidents per one million hours worked, frequency	9.1	5.5	8.2	4.9	6.6
Sick leave, %	4.7	4.2	4.0	3.7	3.6
Energy consumption					
Total energy consumption, GJ	15,257,000	14,664,000	16,147,000	15,579,000	16,140,000
Water withdrawal, total, m <sup>3</sup>	133,970,000	134,790,000	140,280,000	153,030,000	160,020,000
Emissions & Discharges					
Direct emissions of greenhouse gases (incl. added sources since 2007), tonnes	450,000	486,000	510,000	499,000	574,000
Indirect emissions of greenhouse gases, electricity purchased, tonnes	357,000	356,000	398,000	408,000	416,000
Indirect emissions of greenhouse gases, heating and steam purchased, tonnes	_	5,000	6,000	17,000	18,000
Emissions of carbon dioxide, total, tonnes	807,000	848,000	913,000	924,000	1,008,000
Emissions of metals to air, tonnes	23	21	23	23	20
Emissions of sulphur dioxide to air, tonnes	8,260	6,930	6,850	7,410	8,140
Discharges of metals to water, tonnes	29	14	18	14	13
Discharges of nitrogen to water, tonnes	283	225	199	205	253

1) Refers to full-time employees

### Boliden sustainability reporting – GRI Index

Boliden's 2012 sustainability reporting is composed of two units: one that describes our social, environmental and economic responsibility as part of the Annual Report 2012 and one that reports our impact and results according to the GRI-reporting framework, presented in the GRI Appendix. The information presented in the Annual Report discloses how Boliden works with and performs regarding a set of sustainability challenges that we have identified as prioritised. The GRI Appendix reports the Group's progress in greater detail and is structured according to the GRI guidelines. Boliden declares that we report in accordance with level B of GRI's three-level system, graded from C to A. The sustainability information presented in the two units has not been submitted to third party audit.

#### **GRI** content index

Following is a content index for disclosure of strategy, organisational profile, report parameters, management approach and performance indicators and sector supplement indicators (MM) specified by the GRI guidelines and which are reported by Boliden. It also includes references to Boliden's environmental, social and economic goals and results. Statements of status are provided in the respective performance indicator reporting text.

GRI Apx = GRI Result Appendix 2012 AR = Annual report 2012

Profile disclosure		Reference
Strategy and analysis		
1.1	CEO statement	AR 6-7
1.2	Key impacts, risks, and opportunities	AR 6–9, 12–15, 30–31, 56–61, 68, GRI Apx
Organisational profile		
2.1	Name of the organisation	AR 64, GRI Apx
2.2	Primary brands, products, services	AR 4–5, 8, 34–35, GRI Apx
2.3	Operational structure of the organisation	AR 34–35, 42–43, 50–51
2.4	Location of organisation's head office	AR 129
2.5	Number and names of countries where the organisation operates	AR 4, 18–19, 40, 42–43, 50–51, 129
2.6	Nature of ownership and legal form	AR 32–33
2.7	Market served	AR 4–5, 18–19, 37, 40, 42–43, 50–51, 129
2.8	Scale of reporting organisation	AR 8–9, 14–15, 27–29, 89
2.9	Significant changes during the reporting period regarding size, structure, or ownership	No significant changes
2.10	Awards received in the reporting period	AR 3, 55
Report parameters		
3.1	Reporting period	GRI Apx
3.2	Date of most recent previous report	GRI Apx
3.3	Reporting cycle	GRI Apx
3.4	Contact point for questions regarding the report or its contents	AR 129, GRI Apx
3.5	Process for defining report content	GRI Apx
3.6	Boundary of the report	GRI Apx
3.7	Specific limitations on the scope or boundary of the report	GRI Apx
3.8	Basis on reporting on entities that can significantly affect compara- bility from period to period, and/or between organisations	GRI Apx
3.9	Data measurement techniques and the bases of calculation	GRI Apx
3.10	Explanation of the effect of any re-statements of information provided in earlier reports	GRI Apx
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	GRI Apx
3.12	Table identifying the location of the Standard Disclosures in the report	GRI Apx
3.13	Policy and current practice with regard to seeking external assur- ance for the report.	AR 124

Profile disclosure		Reference
Governance and CSR management		
4.1	Governance structure of the organisation	AR 30–31, 64–69, GRI Apx
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	AR 65, 68, 70-72
4.3	Number of members of the highest governance body that are independent and/or nonexecutive members	AR 65, 70-72
4.4	Mechanism for shareholders and employees to provide recommendations or direction to the highest governance body	AR 64, GRI Apx
4.5	Linkage between compensation and the organisation's performance	AR 29, 64, 67, 89–90, GRI Apx
4.6	Process in place for the highest governance body to ensure conflicts of interest are avoided	AR 64–69
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body	AR 66-67
4.8	Internally developed statements of mission or values, codes of conduct and other principles	AR 2, 8, 12–13, 53, 61–63, 68, GRI Apx
4.9	Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental, and social performance	AR 67-68
4.10	Process for evaluating the highest governance body's own performance	AR 64-67
4.11–13	Commitments to external initiatives	AR 3, 7, 53, 57–58, 61, 64, 68, GRI Apx
4.14	Stakeholder engagement	AR 61, GRI Apx
4.15	Basis for identification and selection of stakeholders with whom to engage	AR 8, 61, 68, GRI Apx
4.16	Approaches to stakeholder engagement	AR 61, 64, GRI Apx
4.17	Key topics and concerns that have been raised through stakeholder engagement	GRI Apx

Indicator

Environmental performance (EN) Reference

	Goals and results	AR 8–9, 12–15, 56–60, 123, GRI Apx
EN1	Materials used by weight	GRI Apx
EN2	Recycling and materials used that are waste	AR 59–60, GRI Apx
EN3-7	Energy use and energy efficiency	AR 56–57, 60, 123, GRI Apx
EN8-10	Water use	AR 56–58, GRI Apx
EN11–14	Biodiversity	AR 58–59, GRI Apx
VM1	Amount of land disturbed or rehabilitated.	AR 58–59, GRI Apx
MM2	Number and percentage of total sites identified as requiring biodiversity management plans and the number (percentage) of those sites with plans in place	AR 58-59. GRI Apx
EN16–18	Greenhouse gas emissions	AR 13–15, 56–58, 123, GRI Apx
EN20	Other significant air emissions	AR 13–15, 56–57, 123, GRI Apx
EN21	Water discharge	AR 56, 58, 123, GRI Apx
EN22	Waste types and disposal methods	AR 60, GRI Apx
SMIN	Total amounts of overburden, rock, tailings, and sludges and their associated risks	AR 60, GRI Apx
EN23	Significant spills	AR 56, GRI Apx
EN28	Significant fines	GRI Apx
EN29	Significant environmental impacts from transport and travel	GRI Apx
EN30	Environmental protection expenditures and investments	GRI Apx
ENE-10 EN11-14 MM1 MM2 EN16-18 EN20 EN21 EN22 MM3 EN23 EN28 EN29 EN29 EN30	Vvater use Biodiversity Amount of land disturbed or rehabilitated. Number and percentage of total sites identified as requiring biodiversity management plans and the number (percentage) of those sites with plans in place Greenhouse gas emissions Other significant air emissions Water discharge Waste types and disposal methods Total amounts of overburden, rock, tailings, and sludges and their associated risks Significant spills Significant fines Significant environmental impacts from transport and travel Environmental protection expenditures and investments	AR 56–58, GRI Apx AR 58–59, GRI Apx AR 58–59, GRI Apx AR 13–15, 56–58, 123, GRI Apx AR 13–15, 56–57, 123, GRI Apx AR 56, 58, 123, GRI Apx AR 60, GRI Apx AR 60, GRI Apx AR 60, GRI Apx GRI Apx GRI Apx GRI Apx GRI Apx

Social performance

	Goals and results	AR 8–9, 13–15, 53–55, 61, 68, 123, GRI Apx
Labour practices and decent work (LA)		
LA1	Workforce	AR 55, 89, 123, GRI Apx
LA2	Employee turnover	GRI Apx
LA3	Benefits	GRI Apx
LA4	Collective bargaining agreements	GRI Apx
LA5	Notice regarding operational changes	GRI Apx
LA6	Representation in health and safety committees	GRI Apx

Indicator		Reference
MM4	Number of strikes and lock-outs exceeding one week's duration	
	by country	GRI Apx
LA7	Injuries and occupational diseases	AR 9, 13–15, 53–55, GRI Apx
LA8	Assistance regarding serious diseases	GRI Apx
LA9	Health and safety topics covered in formal agreements with trade unions	GRI Apx
LA10-LA11	Training, skills management and lifelong learning	, AR 53–55, GRI Apx
LA12	Performance and career development reviews	GRI Apx
LA13	Composition of employees and governance bodies	AR 55, 70–72, 89, 123, GRI Apx
LA14	Equality in remuneration	GRI Apx
Human rights (HR)		
HR1-3	Investment and procurement practices	AR 61, GRI Apx
HR4	Incidents of discriminations and actions taken	GRI Apx
HR5	Freedom of association and collective bargaining	GRI Apx
MM5	Number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements	GRI Apx
HR6-7	Child labour, forced and compulsory labour	GRI Apx
Society (SO)		· · · · · · · · · · · · · · · · · · ·
SO1	Local community engagement	AR 8, GRI Apx
MM6	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.	GRI Apx
MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes.	GRI Apx
MM8	Number of company operating sites where artisanal and small-scale mining takes place on, or adjacent to, the site; the associated risks and the actions taken	GRI Apx
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	GBI Anx
MM10	Number and percentage of operations with closure plans	AR 58. GRI Apx
SO3	Training in anti-corruption policies and procedures	AR 68, GRI Apx
S04	Incidents of corruption	GRI Apx
S05	Public policy development and lobbying	GRI Apx
S07–8	Anti-competitive behaviour and compliance	GRI Apx
Product responsibility (PR)		· · ·
MM11	Programs and progress relating to materials stewardship	AR 56–61, GRI Apx
PR1	Customer health and safety	GRI Apx
PR3	Product and service labelling	GRI Apx
PR5	Practices related to customer satisfaction	GRI Apx
Economic performance (EC)		
	Goals and results	AR 8–9, 14–15, 27–29, GRI Apx
EC1	Economic value generated and distributed	GRI Apx
EC2	Climate change implications, risks and opportunities	AR 30, 56–60, GRI Apx
EC3	Benefit plan coverage	AR 89–90, 99–100, GRI Apx
EC4	Significant financial support received from government	GRI Apx
EC5	Entry and minimum wage	GRI Apx
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	GRI Apx
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts	AR 8, GRI Apx

### Definitions

**Average number of employees** The average number of employees during the year converted to full-time positions.

**Balance Sheet total** The sum of the assets side or liabilities side of the Balance Sheet.

**Capital employed** The Balance Sheet total less interest-bearing investments, tax receivables and non-interest-bearing provisions and liabilities.

**Cash flow per share** The cash flow for the period divided by the average number of outstanding shares.

**Dividend yield** Dividend per share as a percentage of the share price.

**Earnings per share** Net result for the period divided by the average number of outstanding shares.

**Equity/assets ratio** Shareholders' equity as a percentage of the Balance Sheet total.

**Equity per share** Shareholders' equity divided by the number of outstanding shares.

**Free cash flow** Cash flow from operating activities including cash flow from investment activities.

**Interest coverage ratio** Result after net financial items plus financial costs divided by financial costs.

**Net debt** Interest-bearing current and long-term liabilities (including pension liabilities) less financial assets (including liquid assets).

**Net debt/equity ratio** The net of interest-bearing provisions and liabilities less financial assets including liquid assets divided by shareholders' equity.

**Operating profit (EBIT)** Revenues less all costs attributable to the operations but excluding net financial items and taxes.

**Operating profit (EBIT)** excluding revaluation of process inventory Revenues minus all costs attributable to the operations but excluding the effects of the revaluation of process inventory and excluding net financial items and taxes.

P/E ratio Share price divided by earnings per share.

**Return on capital employed** Operating profit divided by the average capital employed. The average capital employed for each year consists of an average of the closing capital employed in the last 13 months. Measured before tax.

**Return on shareholders' equity** Profit for the year as a percentage of average shareholders' equity in the last 13 months. Measured after tax.

**Total return** Sum of the share's performance during the year plus dividend paid divided by the share price at the beginning of the year.

#### Abbreviations

#### Lb. = pound = 0.4536 kg

Troy ounce = 31.104 gram

USD = US dollars

USc = US cents

SEK = Swedish kronor

NOK = Norwegian kroner

EUR = euro

Ag = silver

Au = gold Cu = copper

Pb = lead

Zn = zink

### Industry-specific concepts and definitions

**Alloy** Substance with metallic properties which is composed of two or more chemical elements, at least one of which is a metal.

**Base metals** The most common metals, for example, zinc, copper, lead, nickel and aluminium.

**Cash cost** Common measurement used to show the costs affecting a mine's cash flow, converted into US dollars (average rate for the measurement period). Used to compare the mine's cost position in relation to other mines. See page 108.

**Complex ore** Ore that contains several metals, for example zinc, copper, lead, gold and silver.

**Concentrator** A plant in which ore is processed mechanically and/or chemically to extract and produce a concentrate of the valuable minerals.

**Copper cathode** An end product from copper smelters in the form of 99.99 per cent pure copper plates.

**Feed** The smelter's raw material consumption, i.e. the amount of metal concentrate or secondary material processed and refined.

**Field exploration** Exploration in new areas. Associated with higher costs than with minesite exploration.

**Free metals** The percentage of metal concentrates bought in that an individual smelter can process over and above the payable metal content. This percentage generates income without incurring a raw material cost.

**Galvanising** An electrochemical process whereby a metal is coated with a thin layer of another metal, such as zinc. Galvanising is commonly used to protect against corrosion (rust).

**ISO** International Organization for Standardization. Standards include environmental management (ISO 14001) and quality (ISO 9001), etc.

Kaldo furnace Rotating and tippable furnace for the smelting and process treatment of copper, lead and precious metals, etc., including the recycling of metals from electronic scrap. The plastic present in the scrap is used to smelt the metals, thereby reducing the process' energy requirement.

**LBMA** London Bullion Market Association. International market responsible for the daily pricing of precious metals.

LME London Metal Exchange. International market where non-ferrous metals are bought and sold. Trading on the LME is used as the basis for the daily pricing of metals worldwide. The LME also maintains warehouse stocks of the metals traded.

Metal concentrate Also known as dressed ore or mined concentrate. Metal concentrate is the result of concentration processes that separate out the financially valuable minerals present in ore from those with no financial value.

**Metal content** The quantities of, for example, zinc, copper, lead, gold and silver contained in concentrates. Zinc concentrates generally contain approximately 50 per cent zinc metal while copper concentrates generally contain approximately 30 per cent copper metal. The lead content of mined concentrate is usually around 65 per cent.

**Metal premium** The price agreed in advance, over and above the LME price, and paid by customers for specifically adapted metal that is supplied to them.

**Mineralisation** A concentration of minerals in the bedrock.

**Mineral reserves** Those parts of a mineral resource that can be mined and processed in accordance with the company's profitability requirements and taking into account factors such as waste rock dilution and the percentage of metal in an ore that can be extracted in the concentration process. Mineral reserves are divided into two categories: probable mineral reserves and proven mineral reserves.

**Mineral resource** A concentration of minerals in the bedrock that may become commercially extractable. Mineral resources are divided into three categories: assumed mineral resources, inferred mineral resources and measured mineral resources.

**Mine-site exploration** Exploration in the vicinity of existing mines. New deposits located close to existing mines mean a shorter time from discovery to production because the infrastructure is already in place.

**Open pit** A method of mining mineral deposits located near the surface. The waste rock is stripped and the ore mined directly at the surface.

**Ore** Economic term for minerals, rock types or other bedrock components that can be profitably mined to extract metals or other valuable substances.

**Ore grade** The average quantities of valuable metals in a tonne of ore, expressed in grams per tonne for precious metals and as a percentage for other metals.

**Payable metal content** The percentage of the metal content of the concentrate for which the smelters pay when purchasing concentrate.

**Precious metals** Metals that are less commonly present in the earth's crust than base metals and which are regarded, to a greater extent, as a type of investment asset by financial sector players. The most common precious metals are gold, silver, platinum and palladium.

Price escalators (PP) Also known as pricesharing clauses. The clauses in the agreements for zinc smelting charges that distribute changes in metal prices between mines and smelters. There have been no price escalator clauses in copper treatment and refining charge agreements for many years now.

**Recovery** The percentage portion of the quantity of a given metal in an ore extracted during the concentration process.

**Secondary materials** Various types of recycling materials from which metals can be recovered, for example electronic and metal scrap, metal ashes, slag, dust and scrap lead batteries.

**Smelter** A plant in which metal raw materials, metal concentrates or secondary materials are processed to separate metals from impurities by means of high-temperature reactions.

#### Treatment and refining charges

**(TC/RC)** The remuneration received by a smelter for processing smelting material (concentrates and secondary materials) and extracting metals. Copper smelters' processes can be broken down into a treatment phase and a refining phase, while zinc smelters' processes only involve a treatment phase, and hence zinc smelters' remuneration only comprises a treatment charge (TC).

**Underground mine** Mine where the ore is mined using underground tunnels. The mining methods used in Boliden's underground mines include the cut-and-fill method and sublevel stoping.

**Waste rock** Economic term for rock which, unlike ore, contains no valuable material.

**Zinc ingot** An end product from zinc smelters with detailed specifications with regard to degree of purity, weight and size.

### 2013 Annual General Meeting

Boliden's Annual General Meeting will be held on Friday, 3rd May 2013 in Stockholm.

#### Participation

Shareholders wishing to participate in the Annual General Meeting must both be registered in the shareholders' register kept by Euroclear Sweden AB on Friday, 26th April 2013 (for details of the re-registration process for nominee shareholders, please see below) and have notified the company of their intention to participate, either via Boliden's website, www.boliden.com, by calling the company on +46 8 32 94 29, or by writing to the company at the following address: Boliden AB, Legal Affairs, P.O. Box 44, SE-101 20 Stockholm, Sweden. All such notifications must be received by the company no later than Friday, 26th April 2013.

Shareholders' notifications of their intention to attend the Annual General Meeting shall include the shareholder's name, Civic ID no. or corporate ID no., address and telephone number, and the number of assistants who will accompany them. The information provided will be computerised and used exclusively in connection with the Annual General Meeting.

#### **Nominee shareholders**

In order to be entitled to participate in the Annual General Meeting, nominee shareholders must, no later than Friday, 26th April 2013, have their shares temporarily re-registered in their own names with Euroclear Sweden AB. All such requests for registration in the shareholders' own name must be submitted to the relevant trustee well ahead of this date.

#### **Complete invitation to attend**

A complete invitation to attend the Annual General Meeting, as well as financial and other information, may be accessed via Boliden's website at www.boliden.com. Printed financial information may also be ordered via the Boliden website or from Boliden AB, P.O. Box 44, SE-101 20 Stockholm, Sweden.

#### **Financial information**

3rd May Interim Report, January–March 2013

17th July Interim Report, January–June 2013

22nd October Interim Report, January–September 2013

12th February 2014 Year-end Report, January–December 2012

#### Questions

Any questions concerning Boliden's financial information can be submitted to: Boliden's Investor Relations Tel. +46 8 610 15 00 or email: investorrelations@boliden.com

### **Boliden's locations**

#### Group

Boliden Group Box 44,101 20 Stockholm Visiting address: Klarabergsviadukten 90 Tel. +46 8,610 15 00 Fax +46 8 31 55 45 Fax +46 8 30 95 36 (Koncernstab Juridik)

#### Boliden Mines

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#### Boliden Garpenberg

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#### **Boliden** Tara

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