

BHP Billiton Aluminium

Aluminium Briefing

14 May 2002



Introduction and Strategy

Mike Salamon
President

I. Agenda

Aluminium was a key business to Billiton and is relatively well-known to the London fraternity. We hope to bring you up to date today as to what it looks like now, what our dreams are, and to introduce the new team. I will start by covering what aluminium represents to BHP Billiton, our aluminium strategy and our perception of the competitive dynamics of the industry.

The bulk of the presentation will address our asset, marketing and financial performance. I will conclude with some thoughts about where we are headed and a review of where we stand in terms of the BHP Billiton strategic framework, announced by Brian Gilbertson a month or so ago.

II. BHP Aluminium Executives

1. Overview

As it is the first time we are presenting as the BHP Billiton Aluminium team, I thought it would be good to introduce the bulk of the aluminium executives. The team is generally reflective of the people at BHP Billiton. We are quite cosmopolitan, with five nationalities: English, Australian, Brazilian, South African and Hungarian. We have a mix of aluminium professionals and newcomers to aluminium. We also have ex-Billiton and ex-BHP, as we insisted that every team have a mix of personnel from both former organisations.

2. The New Team

a. Mike Salamon

I am the current President of Aluminium, ex-diamonds, gold, coal, ferro, alloys and nickel with De Beers, Anglo, Shell and Gencor. I am the former President of Minerals in BHP Billiton, former Executive Director of Billiton and have spent the last nine months planning and implementing the BHP Billiton integration.

b. Paul Everard

Paul Everard is the Deputy President of Aluminium. He has been with Billiton since it was under Shell and is our aluminium sage – if you want to know anything about aluminium, Paul is a pretty good place to start. He was also very key to the Worsley transaction.

c. Mahomed Seedat

Mahomed Seedat is the Chief Operating Officer of our Southern African smelters and was previously General Manager of our Hillside smelter.

d. Rod Kinkead-Weekes

Rod Kinkead-Weekes is our Marketing Director and was previously Managing Director Mining and Refining at Comalco.

e. Alex Vanselow

Alex Vanselow is our Chief Financial Officer and was previously in BHP Iron Ore in Australia and Venezuela.

f. Phil Galloway

Joining us in the audience is Phil Galloway, who heads up Business Development in BHP Billiton Aluminium and was formerly with BHP Petroleum, as well as being a former investment banker.

g. Ian Jacobson

We are also joined in the audience by Ian Jacobson, who has recently come from Comalco. Ian is VP Technical in BHP Billiton Aluminium and will be a key part of our effort to continue to drive costs down.

h. Apologies

We have apologies from Colin Agnew, the General Manager of Worsley, who has spent many years in Alcoa of Australia.

III. Aluminium in Context of BHP Billiton

1. Diversification

We have assets in all of the major areas of interest for the Group: Worsley in Australia; Hillside, Bayside and Mozal in Southern Africa; Alumar and Valesul in Brazil; and Paranam in Suriname.

There are two giants in the BHP Billiton business: carbon steel materials and the petroleum business, where we would expect in excess of \$1 billion of EBIT in a normalised year. There are then three businesses – aluminium, base metals and energy coal – which would be between \$500 million and approaching \$1 billion in a good year. Aluminium is a core business in the new Group, but not nearly as important as it was to Billiton. The greater balance sheet enables us to more rapidly and optimally harvest the opportunities embedded within the aluminium business.

2. Strategic Role of Aluminium

Aluminium is a strong, integrated, low-cost business within the portfolio with major long life assets at the bottom of the cost curve. It is cash generative with a lot of gearing capacity. It is a business with significant embedded growth options and balances the portfolio in terms of businesses dependent on the steel industry for their markets and petroleum. We also have a highly evolved third party marketing capability, both in alumina and metal, which provides a fair bit of the new marketing prototype within the BHP Billiton Group.

IV. Growth in Low Cost capacity

1. Aluminium

Although the history of Billiton under current management is relatively short, it is important to recognise that the history of Shell Billiton dates back to World War II. This is a business essentially forged through four key decisions. The first was the acquisition of Billiton from the Shell Group. The second and third decisions relate to the exploitation of stranded power in Southern Africa, which exists due to Eskom's overbuild of generating capacity during the 1980s and which has underpinned both Hillside and Mozal. The fourth key decision was the acquisition of 56% of Worsley, taking us up to 86%.

Those decisions have allowed for a very rapid and low-cost growth of a significant upstream aluminium business. The cost of capital has been covered for most periods, notwithstanding substantial greenfields investments. BHP Billiton's low-cost aluminium capacity has risen from virtually nothing to 1.3 million tonnes in a decade.

2. Alumina

With the expansion and further acquisition of Worsley, low-cost alumina capacity has increased from essentially nothing to four million tonnes per annum. The keys to growth have been those decisions and the project management capabilities which have allowed us to build quickly and effectively.

V. Strategy

1. Embedded Growth

The first key element of our strategy is to exercise the embedded growth opportunities in the business. Currently underway are Mozal II, Hillside III and the stretching of Worsley from 3.1 million tonnes to somewhat more. Still embedded within the business is the potential to further expand Worsley and a brownfields expansion at Alumar.

2. Alumina

Beyond that, new opportunities will have to principally be sought from outside the existing asset base. Our own assessment of the industry is that alumina is much more like a mining business; you get economic rent from good, well located bauxite resources, which you then turn into alumina through excellent refining. In essence, the potential is there for a low-cost player to do well throughout the cycle – further enhanced by the fact it is a well structured industry with relatively few major players.

3. Aluminium

Aluminium is a much more fragmented business. Consequently, it is a business where decision making is much more opportunistic. The key source of rent in the business is long-term, low-cost stranded power. Our portfolio has been very much built with that mentality; good bauxite, well located, and smelters built on low-cost power. We believe our portfolio is a very sound basis for future growth.

4. Aims

a. Low-Cost Player

We want to be the low-cost player in the industry. Our portfolio already does that in terms of alumina and we have the lowest cost metal portfolio amongst the majors. We also seek to secure the greatest rate of profitable growth in the industry. From a portfolio perspective within BHP Billiton Group, that is quite important. We are not constrained by market share within this industry. In Aluminium we have approximately 4%-5% market share and alumina around 8%, unlike some of our other businesses where we are already very major players.

b. Third Party Trading

We also seek to underpin the entry of new projects through a significant third party trading position. There are several important elements to this. For instance, we have no downstream consumption. For us, being able to place large quantities of materials effectively is important. As regards to that third party position, we are already number two in the alumina and metal third party markets. In alumina, the number one player is AWAC, the Alcoa controlled entity. In metal, it is Russian Aluminium.

As a good example of the importance of this, when we bought the additional 56% of Worsley, we went into a very tough set of market conditions and have been able to place that alumina material effectively at good market prices.

c. Financial Performance

We seek to be in the top three in financial performance in the aluminium industry. We have already achieved this in many periods, but we do fall behind Alcoa and Comalco in terms of return on capital, with their depreciated assets. This is clearly where applying principles of operating excellence to continue to drive our costs down, and seeking some more creative transactions in terms of future producing assets, will be crucial.

d. Bottom Line

We seek to be the best upstream aluminium business in the world, which differentiates us from Alcoa and even BHP Billiton, who both aspire to be the best company in the world.

VI. Value Drivers

1. Outstanding Assets

In aluminium, we do have outstanding assets particularly in Worsley and key smelters at Hillside and Mozal. Our job is to ensure we do not rest on our laurels. We need to ensure we keep driving the performance of those assets ever higher.

2. Growth

We are delivering our share of growth through the capital efficient brownfield expansions we are currently undertaking. We do have an outstanding track record of project delivery.

3. Customer-Centric Marketing

Our setup in The Hague is the prototype of a one-book business in terms of alumina and metal, and is a significant player in the third party sector.

4. Innovation

This business has been built on innovative thinking and we would seek to continue that type of progress. We do already have some innovative ideas on the drawing board.

VII. Global Cash

1. 2003 Alumina Refining Costs

Worsley is the best in the industry and there is more to come - from further creep in existing capacity, the potential for further growth in capacity and operating excellence. Paranam is also in a good position. The cost curve for alumina is relatively steep, much steeper than in aluminium. As a consequence, if you are located at the bottom of that curve you can expect to extract good margins and good rent throughout the cycle.

Our business is the lowest cost system in the world. It is also in both hemispheres, so we are able to optimise logistics, and is roughly the same size as Alcan and one-quarter the size of Alcoa.

2. 2003 Aluminium Smelting Costs

Mozal and Hillside are the industry benchmarks in terms of smelting costs. The other smelters in the portfolio are reasonable, but all do have significant improvement plans to drive them further down the cost curve. Our system is one of the lowest cost; roughly half the size of Alcan and one-third the size of Alcoa. Importantly, there is no downstream consumption in our portfolio.

VIII. Growth Options

We are committed to delivering embedded growth options, on time and on schedule. We cannot rest on our laurels in terms of continuous improvement on the existing asset base; it is easy to think you are the best and suddenly have the industry pass you. Beyond those embedded options and continuous improvement, we are looking at new greenfield opportunities in terms of smelters. The key is low-cost stranded power and well located bauxite.

This industry is restructuring and we have our eyes open to how that restructuring is taking place. There are two key points. First, our merged balance sheet underpins our ability to participate in restructuring much more effectively. Secondly, this portfolio is now relatively substantial, mature and low cost, so there is room for more creative things – especially with a focus on return on capital. The goal is to be the best upstream aluminium business in the world.

Industry Environment

Paul Everard

Deputy President

I. Aluminium Industry

1. Dimensions

a. Demand

Mike has set out our strategy and put it in the context of the new BHP Billiton, and I would like to start by putting it in an industry context – to give you a binocular vision. In terms of dimensions and characteristics, this is an industry where overall consumption is 33 million tonnes per year, of which 25 million tonnes is primary. Recycling is about 25% of the total consumption.

b. Capitalisation

In terms of industry capitalisation, the industry is worth about \$150 billion, of which half is upstream – the bit we are interested in.

2. Characteristics

a. *Maturity*

The industry is mature, growing roughly inline with GDP, with recycling slightly above and primary slightly below GDP. It was a growth industry until the late 1970s, growing at a rate twice that of GDP, so the industry has matured in the past two decades.

b. *Widespread Applications*

Widespread applications are a good indication of economic activity in the economy, with transportation, packaging, construction, electrical transmission and miscellaneous.

c. *Capital Intensity*

The upstream industry is characterised by significant capital intensity, particularly in alumina but also significant in smelting, which has led to growth in scale. In the 1960s there were greenfield alumina plants of 260,000 tonnes starting off. Now people are talking about 1.5 million tonnes.

d. *Economic Bauxite*

In the upstream, mining part of the business, bauxite is very widely spread around the world – particularly in the tropical regions – but economic bauxite is very scarce. It is a source of competitive advantage and a barrier to entry.

e. *Power Intensity*

The key source of competitive advantage in metal is power and seeking stranded power in order to capitalise on the competitive benefit.

f. *Integration*

Historically, the industry has been integrated: upstream to get security of supply, and downstream to open up new markets, as it was growing faster than GDP. That has changed and is changing significantly with de-integration. One colleague has suggested that there is no longer any inherent logic in having integrated companies – it was more a historical legacy – and perhaps we will see the upstream and downstream becoming more separate over the next two decades.

g. *Upstream Entry and Exit Barriers*

In the upstream, there are both high entry barriers and high exit barriers. This is partly for environmental reasons and partly because many are joint ventures, rather than owned by a single company, due to the scale required or political exposure.

h. *Metal Price Volatility*

Structure, supply/demand and maturity have led to increasing volatility in metal pricing.

II. Key Issues

1. Demand

a. Automotive

You have read a lot about automotive application holding the future of the industry and a new growth motor in the way that packaging and the can has been historically. The key dynamic is the competition with steel. Whilst we think that automotive applications for aluminium will continue to grow, we do not think it will not be a bonanza in terms of doubling the growth rate of aluminium. We are perhaps less optimistic about that as a growth market than some of our competitors. According to the economics we have run, if aluminium was to compete with steel, it would have to reduce its price significantly from current levels.

b. China

In the last 10 years, China has been growing inline with GDP at 14% per annum. The growth engine has been construction, rather than automotive or packaging. We think it will continue to grow inline with GDP, at 7-8% over the next decade. There is a growing alumina deficit, which Rod will focus on in his Marketing presentation, and very rapid growth in smelting.

As the grids link up and power becomes more fluid throughout the economy, the competitive advantage of isolated power in China will reduce. Unless you get a large economic downturn, we think the threat of large exports of Chinese metal on to the international market is low. In our base case, we do not foresee a situation like that of Russian metal flooding on to the market in the mid-1990s.

2. Supply

a. Power

Bonneville and the Pacific Northwest exercised everyone's imaginations over the last 18 months, and we see it as a once-off. We do not see power shortages generated by that kind of development in the future having the significant impact on supply/demand the way Bonneville did.

b. Smelting Technology

Pechiney have announced they will commit to an AP 50 by the end of the year and are expecting significant operational and capital cost savings. We have two AP 30 smelters, so we will follow that with interest. There is not as much attention on Alcoa's inert anode as there was 12-18 months ago. Nevertheless, it is a development which could have a significant impact on the economics of the industry and is something we are following closely. Alcoa is also expanding in Norway with conventional technology, so we think the economic threat of the inert anode is more likely to be in the second decade of this century rather than immediate.

c. Recycling

Recycling will become increasingly important. In the second decade, with technological improvements, we would expect recycling to be able to substitute primary markets, which it is unable to do at the moment. With its energy saving and greenhouse gas environmental attraction, it will continue to be a focus of attention.

d. Environment

With the Rio+10 summit in Johannesburg in August and carbon dioxide trading starting in the UK, the environment will be an important factor as we look at the economics, particularly of smelting. I have just come from an International Aluminium Institute (IAI) AGM in Sao Paulo, where the aluminium industry's statement was that if you use one extra tonne of aluminium in a car, you will save 20 tonnes of carbon dioxide, as it is benign from a greenhouse gas point of view. On an integrated basis, to produce one tonne of primary aluminium takes approximately 10 tonnes of carbon dioxide, depending on the source of power and so on – that is the weighted average.

3. Industry Structure

We see no reason why the upstream and downstream should remain together. This change will be driven by opportunity and competitive advantage.

III. Value Chain

Looking more closely at the value chain, we find bauxite and alumina attractive for three reasons: the steepness of the cash cost curve compared to metal, the access to bauxite, and the relatively concentrated industry structure. Metal is much more fragmented, with terminal market pricing so you are effectively a price taker. As we get clearing functions in OECD-type countries, we may see a relatively high price of power and very low stranded power of the type Mike has signalled in places like Southern Africa, South America and elsewhere, leading to a two-tier cash cost curve.

In the downstream, inter-material competition – not only steel but also new materials such as composites – and very strong automotive and packaging buyers, means that we do not see downstream as part of our strategy. Our competence is essentially upstream in digging dirt and driving costs down.

Brazil

Paul Everard

I. Aluminium Assets in Brazil

1. MRN

We have a mature portfolio in Brazil, as these investments were made in the 1970s and early 1980s. MRN started up in 1979, has a capacity of 11 million tonnes and is expanding. Our take is just under two million tonnes and our share is slightly less than 15%.

2. Alumar

The Alumar refinery and smelter are on one site. It is a joint venture with Alcoa and started up in 1984. We have just under 500,000 tonnes of alumina and 175,000 tonnes of metal.

3. Valesul

Valesul is a joint venture with CVRD which started up in 1982 in the south of the country, close to markets just outside Rio.

II. Operating Performance

These assets have effectively been in operation for 20 years, which is reflected in their mature operating performance. Productive capacity has slowly increased, the number of employees has been reduced and cash costs in real terms have decreased by 1.5% per annum; partly due to genuine increases in productivity and partly due to increases in volume.

III. Developments

1. Actual

a. MRN Bauxite Mine

MRN will be the largest bauxite mine in the world next year, operating at 16 million tonnes. Capital expenditure will be \$160 million, of which our share is just under \$30 million.

b. Valesul Smelter

We are switching the Valesul smelter on to more than 50% hydropower, which will give us both cost and operating benefits. Machadinho has a design capacity of just over 1,000 megawatts (MW) and is coming onstream at the moment to feed into Valesul.

2. Potential

The Alumar refinery, which is currently operating at 1.3 million tonnes, could expand up to 3 million tonnes or more. We are monitoring this on an ongoing basis.

IV. Key Issue – Power for Alumar Smelter

1. Pressures

Our contract was a 20-year contract and runs until 2004. There is a supply/demand pressure in Brazil, as demonstrated by the cuts in smelting and elsewhere last year. In conjunction with Alcoa, CVRD and others, we are seeking to invest in three hydro plants around Sao Luis which would completely underpin our share of Alumar. The economics are attractive on a full cost basis and it would make Alumar particularly robust on a cash cost basis.

2. Hydro Plants

a. Santa Isabel

We won the auction for Santa Isabel and are going through the preliminary environmental clearances. It will give us 500 MW firm power, with a design capacity of just over 1,000, and we get 20% of that.

b. Estreito

Estreito is coming up for bidding in July and we are preparing for that now.

c. Serra Quebrada

Serra Quebrada will probably come up after the election in October.

Suriname

Paul Everard

I. Alumina Industry in Suriname

We started mining bauxite in Suriname before the Second World War. We moved into alumina in a joint venture with Alcoa in the mid-1960s, originally a tailing deal which was converted into an equity deal in the 1980s. We have approximately 850,000 tonnes of alumina in the largest refinery in South America, slightly larger than Bauxilum in Venezuela.

II. Continuous Improvement

We have made significant improvements over the past decade, through growth in capacity and increased manpower productivity. Cash costs have been decreasing quite dramatically and production has been increasing.

III. Key Issue – Bauxite Continuity

We have sufficient reserves to go on for another 10 years or so. Alcoa have undeveloped reserves in the east of Suriname, relatively close to the smelter, which would extend the life of the refinery. There are significant deposits in West Suriname, which neither of us have title to at the moment.

In addition, the original reason we invested in MRN and Trombetas in 1973 was ultimately to underpin the refinery in Suriname. We are also looking at importing Trombetas bauxite; clearly there will be a ranking and we will proceed with the best of those options over the next decade.

Australia

Paul Everard

I. Southwest Western Australia

Worsley in Western Australia is one of the jewels in our crown. It is located about 200 km South of Perth, just inland from Bunbury, the port from which the alumina is exported. The bauxite is transported from the mine through a 50 km cable belt. The expansion has been underpinned by gas, but the original Worsley was underpinned by coal from Collie.

II. Western Australia Refinery Production

Western Australia is the Saudi Arabia of the alumina world. It started up with Kwinana at roughly the same time as the Alcoa refinery in Suriname. In the early 1970s they moved on to Pinjarra, which is now producing at over 3 million tonnes, and committed to Wagerup at roughly the same time as Worsley – the two started up in the same year.

The huge growth was driven by the fundamentally more attractive economics than you will find practically anywhere else in the world. In addition, when the bauxite producers in the Caribbean and Africa got together in the 1970s to emulate OPEC and imposed levies, that differentially drove growth into Australia for political security, as well as economics.

III. Worsley Performance

1. Capacity

Worsley has stabilised at the design capacity of 3.1 million tonnes and is presently operating slightly above that level. It can be de-bottlenecked and crept up to 3.5 to 3.7 million, which we are actively working on at the moment. At its present capacity there is sufficient bauxite to underpin it for 40 years or so, but there are also resources there yet to be unexplored.

2. Stability

Worsley did a very good job of moving away from a union organised workforce towards a staff contract workforce, which gives it a dimension of stability and productivity compared with previous periods.

3. Liquor Burner

There is an issue at Worsley with a liquor burner, which purges the liquor stream of organics that poison the liquor and reduces productivity. The liquor burner has an odour, which has led to complaints from those living around the refinery and from the workforce. In our particular case, we do not have communities around the refinery; it is in a state forest and there were only two homesteads affected by this odour. We are very fortunate compared to Alcoa, which has a village around their refinery.

We have done a lot of work and experimentation around our liquor burner. Our bauxite is geologically derived differently from Alcoa's, so our problems and issues are slightly different. The liquor burner is closed at the moment, while we analyse the results. We hope to develop a technical solution in the next 12-18 months to completely eliminate that problem.

If my colleague Colin Agnew was here, he would explain to you how the nose can detect two parts per billion of odour - below the level of instrumentation detection! Consequently, it is a problem which you ultimately have to test subjectively.

IV. Cash Operating Costs

Over a 10-year period, there has been a trend of 2% reduction per year in unit cash costs – in A\$ – which we expect to continue through the planning period.

Southern Africa

Mahomed Seedat

Chief Operating Officer, Southern Africa Smelters

I. Southern African Smelters

I have the pleasure of talking about three operations in Southern Africa – some of the other jewels in the BHP Billiton crown. I will talk about Hillside, Bayside and Mozal. The distance between Richards Bay and Maputo is approximately 350 km, which presents some significant opportunities in terms of synergies. We are using the BHP Billiton Way of Operating Excellence to vigorously explore those synergies and convert them to cost reductions.

II. Synergies

Once the expansion projects are completed, between Hillside and Mozal we will have about 1,300 of the AP 30 cells, of which there are 3,000 in the world. That concentration of AP 30 cells clearly presents opportunities in terms of cost reductions, warehousing and so on.

III. Primary Aluminium Smelter Capacities

Hillside is amongst the largest smelters in the world, next to Krosnolosk and Brask in Russia – fairly old smelters established in the 1940s. Mozal is in the middle of the range and Bayside is somewhat smaller.

IV. Bayside Improvement Plans

1. Vision

Bayside was acquired in the early 1990s and, as a very old smelter, required a lot of capital to revive. It was non-integrated in terms of marketing strategy and linking that back to the cost of products being produced, resulting in low net premiums. The smelter employed close to 3,000 people. Bayside undertook the Bayside Renewal Process in the mid-1990s, followed by the Close the Gap project executed in the late 1990s.

It is in a much better health today. It is in the middle of the cost curve and has much better systems, structures and people. Net premiums have improved and it now employs just over 1,000 people. The vision for Bayside is to take that further: to get into the lower one-third of the cost curve and to vastly improve the human capacity by training and employing people to replace the

older generation. By investing further in capital, Bayside will be improving the quality of the value-added products it currently produces. We hope that with all of these efficiencies, we will be able to reduce the number of people employed at Bayside down to about 900.

2. LME Cash Breakeven

There is a benefit from the Rand weakening against the dollar, but we believe we have achieved significant cost improvements through the efficiencies I have outlined.

V. Hillside Aluminium

1. Overview

Hillside was established in the mid-1990s and the first metal was produced in 1995. All of the first generation cells have now been changed out and replaced with AP 30S technology, similar to what Mozal is using, and this has resulted in production capacity of Hillside increasing to 532,000 tonnes. Its new nameplate capacity is 532,000 tonnes against an original design capacity of 466,000 tonnes.

The LME cash breakeven is currently hovering around \$725 per tonne. In February, we received approval from the board to commence with the expansion. The expansion commenced in April 2002 and is expected to cost approximately \$450 million. This will increase capacity by 132,000 tonnes, about 25% of Hillside's current capacity, which will have a very positive effect on LME cash breakeven once it is in full production.

2. LME Cash Breakeven

The increase in LME cash breakeven from 1999 until June next year is primarily caused by the change out of all 576 cells in the space of about two years. That programme is nearly complete and we have returned to a steady state. The focus of Bob and his team is now to get the performance of Hillside back down to world class levels.

3. Expansion

We started the expansion on first April and some early work has been done. The expansion is currently running ahead of schedule, with cumulative expansion completed at about 1.8% against a target of 0.9%. Initial indications are that this project is running very well.

VI. Mozal

1. Capital Costs

Mozal has been a fantastic success. Established in the second poorest country in the world, it is currently achieving world class performance. The first metal was produced 18 months ago. Specific capital costs were just under \$4,000 per tonne, compared to Alumar with their smelter built in Canada at the same time which had a capital cost of around \$5,300 per tonne. It has performed significantly better than another AP 30S smelter built at the same time. It was designed

for a capacity of 250,000 tonnes per annum, but is currently producing in excess of 260,000 tonnes per annum.

2. LME Breakeven

LME cash breakeven is around \$740 per tonne. The project was one of the first projects approved by the new BHP Billiton organisation in July last year. It commenced immediately at an approved total cost of \$859 million and this project is also running very well. The project will take Mozal's capacity very close to that of Hillside – around 534,000 tonnes – and the LME cash breakeven will improve significantly, down to about \$575 per tonne. It is currently doing very well at approximately \$600 per tonne.

3. Expansion

The construction programme is running very well and is currently ahead of schedule, according to the latest figures, but we still have some way to go. We still have another rainy season ahead though, but all expectations are that we will execute this project on budget and within the schedule.

VII. AP 30 Smelter Comparisons

If you compare the performance of all of the AP 30 and AP 30S smelters in the world in terms of amperage, current efficiency and energy consumption, Mozal is clearly leading the pack. It is running very well, and when you consider this is being done in one of the least sophisticated countries in the world, it truly is a remarkable achievement.

VIII. Growth

Within 10 years, we will have grown the production capacity in Southern Africa from 180,000 tonnes to nearly 1.4 million tonnes by the end of 2004.

Marketing

Rod Kinkead-Weekes

Marketing Director

I. A Key Component

I will start with a mention of our organisation, as Marketing has been identified by Brian Gilbertson as a key value driver as part of BHP Billiton's strategic framework. In pursuit of that, a lot of effort has been spent since the merger in creating a new marketing organisation based in two hubs: Singapore and The Hague.

From an aluminium point of view, our marketing effort has been based in The Hague for some time - going back to the Shell legacy in the alumina case. We have both our aluminium marketing and our alumina marketing people centred there. That is by no means all of our people, as we also operate from regional offices around the world, located in South America, South Africa, Japan, China, the USA and so forth.

The fundamental idea is to harness the very considerable power and global reach of the BHP Billiton Group and to operate common systems. The combination of these should add to the effort of the overall marketing group, in the sense that revenue enhancement is the ultimate goal. From our point of view, this system is working very well and will work a lot better in the coming months as we come to grips with the considerable effort which has been made in implementing new systems.

II. BHP Billiton Aluminium

1. Operations

From the Southern African smelters, we currently have a total of about 820,000 tonnes to place on the market. In addition, we have slightly more than 200,000 tonnes from Brazil. If you include our traded tonnage, this gives us a total book in excess of 1.5 million tonnes of primary metal, which probably makes us the second largest metal player in the world – given we have no downstream operations. The additional traded tonnage includes the volumes we buy and sell, as well as the volumes we sell on behalf of our partners.

2. Marketing Strategy

a. Diversification

The strategy is to diversify our markets in such a way as to maximise premiums. The ability to take advantage of premium differentials around the world, while not upsetting long-standing customers, is perhaps more an art than a science.

b. Build on Physical Base

Our intention is to build on the very strong physical base we currently have, in terms of increasing our own equity volumes that will come from Hillside III and Mozal II, which between them will add 260,000 tonnes of metal to the existing portfolio.

c. More Active Trading

Another part of our strategy is to be more active in our trading activities, which have always been and will remain very conservative.

d. Risk Management

There is an absolute need for us to understand, manage, control and price the inherent risks in trading activities. We are making a substantial investment to improve our systems to ensure we maintain control at all times.

e. *Maximise Value from BHP Billiton Group*

Maximising the value we get from being a part of BHP Billiton underlies our entire effort.

3. Primary Aluminium – Sales Destinations

If you look back at the prior six months, we sold around 40%-45% to Europe. In the ensuing six months, that fell to about 25%. Over the next 18 months, it changed to where we were producing around 70%, and has since fallen back. This illustrates the fact that, as a result of the way we are structured, organised and deal with our customers, we have the ability to transfer metal around the world to take advantage of where we see the best premiums to enhance revenue.

III. BHP Billiton Alumina

1. Operations

Our share of Worsley is currently 2.7 million tonnes, a lot of which is exported to our own Southern African system. In addition, we have some 850,000 tonnes out of Suriname and some out of the non-domestic share from Alumar in Brazil.

In round figures, we have a system demand – from our own smelters – of about two million tonnes. We produce around four million tonnes, which says that from our equity production we place around two million tonnes in the market. In addition to that, we buy and sell tonnes. Our total book today exceeds five million and, as in metal, we are a major player in the third party traded aluminium market.

2. Marketing Strategy

a. *Satisfy Internal Demand*

We need to supply our own internal growth requirements. Mozal II and Hillside III between them will require around 800,000 tonnes of alumina per year, which is well within our capacity.

b. *Positioned for Growth*

At the same time, we would like to position ourselves in the marketplace for further growth in our production portfolio. Part of that means we need to build on our capabilities to supply growing markets in Russia and China.

c. *Provided Innovative Solutions*

As part of our marketing effort, we are making significant efforts to be more creative, to do things somewhat differently and to provide the innovative customer solutions we believe will have the effect of substantially enhancing our revenue.

d. *Risk Management*

As with metal, understanding the nature of the risks and the pricing of the options is part of our management systems and control. In alumina, we probably have more historical experience than in metal, going back to the 30 years we were in the aluminium market before the BHP Billiton days.

When we found ourselves significantly long in alumina as a result of the increase in our equity in Worsley, we did so at a time when the market had taken a dive. However, we were able to place that tonnage in the market without disrupting the market – our guys did a terrific job in doing that.

3. Low-Cost Supplier

If you assume incremental expansions from our existing assets, you could expect an increase of volumes into the traded market of around two million tonnes over time. A higher case scenario would depend on taking new equity initiatives to increase our production capacity in order to be able to satisfy that market.

IV. Chinese Alumina Imports

China is currently one of the big issues in the industry and in the traded aluminium business. The issue is around the future of aluminium production capacity in China – it is currently increasing very, very rapidly – and what will that mean for imported alumina.

Relative to the levels of imports in 1990, we have seen a very rapid increase. The issue is where we will go from here. In a low case, Chinese imports could exceed five million tonnes per year by 2010. Equally, given what is going on you could see Chinese imports could potentially increase to 10 million tonnes per year by 2010.

In order for that to happen, we would require increases in alumina production capacity around the world. At current prices, that is probably not going to happen because we are currently below the inducement price for new capacity to meet that and other growth.

V. Market Update

1. Aluminium

We do see improving demand in Europe, Korea, Taiwan and the US, but the jury is still out as to whether this represents restocking from very low stock levels in customers' plants or whether this really presages the end of the downturn. There are some positive signals around; we have seen premiums in all markets increase to a degree and hold. For example, we have seen the OECD G-7 leading indicators go up again in March, which is now five months in a row.

The problem is that if demand picks up, so does production, which means that prices will continue to be somewhat depressed. LME stocks have increased, but it is worth noting that total reported stocks are generally lower than in past recessions. We have also seen the beginnings of some smelter restarts in the Pacific Northwest, adding to the overall supply situation. We believe that the Pacific Northwest will remain a swing supplier in the future, as a lot of their production capacity has been and will be replaced in a global sense by the production capacity coming online very rapidly in China.

2. Alumina

What is bad for aluminium is of course good for alumina, in the sense that the increase in metal production leads to an increased need for alumina. With that, we have seen a modest recovery in spot prices, which reflects both the ongoing Chinese demand and some buying for the Pacific Northwest.

VI. Conclusion

Where will it go from here? Your guess is as good as mine. However, we are hopeful that we have been bumping along the bottom and we are beginning to see the beginnings of an upturn.

Finance

Alex Vanselow

Chief Financial Officer, BHP Billiton

I. Introduction

Some of the information I will share will be new and some will be familiar from the published half-year results. The combination will give a good indication of how the strategy, operational performance and marketing are reflected in our results.

II. Net Operating Assets

At 31 December 2001, our net operating assets totalled \$4.7 billion, heavily weighted towards Worsley, Mozal and Hillside, reflecting their vast growth as indicated in our strategy.

III. Capital Expenditure

The growth in acquisitions in recent years includes about \$2.7 billion between Worsley, Mozal and the expansion of Hillside. We also have close to \$900 million in progress with the expansion of both Mozal and Hillside. In the near future, we have identified close to \$600 million in potential investments.

IV. EBIT

EBIT for the half-year were \$192 million, again dominated by the three major assets. However, it is important to notice that all assets have contributed positively to EBIT – during a period where prices were heavily depressed and there were operating issues in South America with power rationing.

Comparing half-year 2001 EBIT with half-year 2000, new volume made a large contribution – a combination of the Worsley acquisition and Mozal start up, partly reduced by the power rationing in Brazil – equivalent to \$140 million. The other big contributor to differences is the much lower LME price, which represented a 12% fall in LME.

V. Cash Costs

1. Alumina

Alumina cash costs include sustaining capital. Bauxite and Caustic Soda are the two major components of our cost structure, which again links to the importance of access to economic bauxite. We have one of the lowest cost portfolios in the industry. There is very little, if any, LME linked impact on costs and a very strong component is US\$ based.

2. Aluminium

Alumina and power represent close to 60% of the cost structure in aluminium. This emphasises the importance of access to stranded power and indirectly to economic bauxite. Our portfolio is well positioned in the first quartile.

VI. Real Cash Cost

1. Alumina

During this presentation, we have mentioned the importance of cost reductions several times. Normalised to 1999 exchange rates, we have seen a decline in the real cash cost in alumina of 2.3% for the period 2001-05. The cost reduction programmes at Worsley contribute strongly to this, as do the benefits of the global sourcing and the operating excellence developed with the merger.

2. Aluminium

There is a similar picture for aluminium. Normalising for LME impact, we have seen a 3.2% per annum expected decline in real cash cost, including sustaining capital. This includes contribution from Mozal and Hillside mix, and a significant contribution from the synergies between the three Southern African smelters. Global sourcing and operating excellence also play a significant role in bringing those costs down.

VII. EBIT Aluminium Price Sensitivity

Under a model condition, with prices similar to current levels, a \$1 movement in aluminium price leads to a \$1 million EBIT impact. Our breakeven point is approximately \$873 for LME price.

VIII. EBIT Exchange Rate Sensitivity

1. A\$/US\$

A variation of \$0.05 in the A\$/US\$ rate generates an EBIT impact of approximately \$20 million.

2. Rand/US\$

We also have significant exposure in the Rand; a one Rand variation generates a \$10 million to \$11 million EBIT impact. This is mostly caused by domestic cost exposures in the Southern African smelters: Hillside, Bayside and to a certain extent Mozal, partly compensated by some domestic sales in their regions.

IX. Value Drivers

- A reduction of 2% in costs in the planning period – we are very well positioned to deliver that target.
- Improve EBIT and increase free cash flow – we are also very well positioned to deliver that.
- Deliver a minimum of \$1.5 billion in value adding projects by 2006 – we are now currently managing \$900 million of investments and have identified the potential for another \$600 million.
- The 2006 forecast EBIT returns range between 12% and 18%. In 2006, part of the \$600 million which has been identified will just be starting to generate contributions to our EBIT.

Our Vision

Mike Salamon

Our goal is to be the best upstream aluminium business in the world, to the robustness and in financial returns. This is underpinned by an outstanding set of assets with which we are not resting on our laurels ; we will continue to get better and better. We have a diverse, interested and dynamic management team which is focused on the right targets.

We have significant growth potential within this business. As a former Billiton guy, I can say that potential is indeed liberated by the merged balance sheet. We have outstanding embedded options, which we are harvesting but there is still more to come. We have a track record of making big decisions well and delivering mega-projects well.

We have a marketing system which facilitates bringing on those big projects and we are focused to deliver to shareholders in all key parameters.

Questions and Answers

Q1.

In a recent strategy presentation, Brian upped the return on capital targets to 15%. Can you give us an idea of the current return on capital for the aluminium business? Based on your reading of the industry, is 15% a reasonable long-term return on capital target?

Alex Vanselow

Return on capital is currently about 11%, bearing in mind that a lot of the projects are still not producing – such as the Mozal and Hillside expansions. The 15% Brian referred to is the combined Group expected return. As we discussed, our return is heavily sensitive to price and our portfolio is very young relative to some of our competitors. In contributing at those levels, we would be contributing to the Group 15% return.

Mike Salamon

If you take the long-run parameters – exchange rate, price and what we expect to build projects for – the indications are that 15% is realistic.

Q2.

How much alumina trading is undertaken on long-term contracts? How can you add value in marketing if a lot of it is sold on long-term contracts?

Rod Kinkead-Weekes

If you are talking about the industry generally, a lot of it is sold on long-term contracts. Our portfolio probably does not mirror the average in that we are probably less contracted long term than some of our competitors. That can either be a good thing or a bad thing, depending on the market. As I mentioned, we did find ourselves quite long in a very difficult market and we were able to place that tonnage very well. That gives us a lot of confidence that we have the ability to organise our alumina contract portfolio in such a way that we think will give us the best return in the long term – but also enable us to reserve an amount which would enable us to place tonnage in the spot market and take advantage of what can often be very significant price increases.

Mike Salamon

There are probably a few sources of potential value which we could exploit: 1) pricing mechanisms, 2) logistics, and 3) quality parameters, where different aspects of the specification mean different things to different smelters. When one has a fairly well spread portfolio, augmented by the traded material, one can play tunes on that.

Q3.

Looking through the recent results, you do not appear to have made any money on marketing. Can you explain how that comes about with the trading operations?

Alex Vanselow

We have made money! The published trading is not speculative trading; it is defensive trading. That result is a net result of quite a lot of money made on the metal business and some made in the alumina business. It also includes restructuring, marketing and other corporate charges. There is a net of US\$1 million, but the components are much more significant than that.

Mike Salamon

It is pretty conservative; we are not driving a highly speculative business. It does underpin the strategy, and that is why we have entered into it; it is not a trading activity purely for the sake of trading.

Rod Kinkead-Weekes

Some of our traded business is to support our physical business. For example, Mozal has a fairly slow pipeline, as Maputo is not one of the largest commercial ports in the world. In order to satisfy a physical customer, we may go out and buy material from elsewhere in order to supply that customer and then sell back to the market.

Q4.

What sort of customer solutions will you be considering in your strategic plan, without going downstream? Is there any social obligation to get involved with the recycling of motor cars?

Mike Salamon

The recycling obligation rests with manufacturers. However, we are looking at the impact of recycled metal in a variety of the businesses in the portfolio and whether it makes sense to get involved as a major producer of primary metal. In steel, the percentages are already much more significant than the ones Paul mentioned for aluminium.

The short term answer for aluminium is that we have looked at it quite extensively and have not been able to come up with a commercial case that we believe would measure up to the logic of our business and the financial parameters of our projects..

In the medium to longer term, we will keep recycling very much on our radar screen. Indeed, given we have a portfolio of metals in the Group, we are looking at that all of the time.

Q5.

What sort of creative solutions are you looking at with customers, if not recycling?

Mike Salamon

The solutions are around the three areas I mentioned: 1) pricing and risk management, 2) logistics in terms of ocean freight and other, and 3) quality, in terms of metal and alumina.

Rod Kinhead-Weekes

Broadly speaking, we are looking at bundling products and services to provide customers with a greater value proposition, than simply selling them a tonne of alumina or metal. The structure of the carbon steel CSG is to provide the steel industry with both coking coal, manganese and iron ore. We see certain opportunities in the aluminium industry to do things we have not done before, but I do not want to be too specific at the moment.

Mike Salamon

The differentials of iron in the metal are very important. The same applies in terms of alumina content, reactive silica and other aspects of the different aluminas. Geography is also a factor.

Q6.

Your projects are admittedly long-term, long life and low-cost, but is there a risk this will be a sub-GDP growth area in five or six years? At the bottom end of your return projection, it is not meeting its weighted average cost of capital unless we see at least GDP growth for the next 5-10 years.

Mike Salamon

We think it is GDP growth. Our view is that it will grow at GDP and hence projects will have a hope of meeting WACC. We do believe we are at a fairly low point in the price cycle. . What you said is not our perception and we do not see that as a risk.

Q7.

I thought you said that primary was slightly sub-GDP, so if you are not implementing the recycling side, by implication that growth rate is slowing.

Mike Salamon

I think you are into finesses of fractions. We think it is essentially a GDP business.

Q8.

What are your long-term pricing and exchange rate assumptions? Secondly, could you elaborate on your long-term outlook for the Chinese market? Do you see the massive amounts of exports we have seen recently continuing this year?

Alex Vanselow

Unfortunately, we are not allowed to say anything about the long-term pricing or exchange rates.

Mike Salamon

In terms of trend prices, we are not too dissimilar to the views expressed by the commodity analysts. We do not have anything to put out, and I believe I go to jail if I do.

Rod Kinkead-Weekes

In China, we are anticipating very significant increases in aluminium production capacity. Last year, China produced just under 3.5 million tonnes of aluminium. This year, it could very well produce more than 4.5 million tonnes of aluminium. There is a terrific amount of smelter development underway in China.

Chinese alumina capacity is unlikely to keep pace with that development, so we can see the Chinese alumina market continuing to grow to feed that increased domestic production. The risk is on GDP growth in China, with the production capacity for metal already installed. Frankly, my experience is that the Chinese tend to surprise on the upside, so it is not wise to ignore what is happening in China at the moment. The growth and development in this business in China is quite phenomenal.

Q9.

If you were to suffer a production failure at Worsley, from where would you source your alumina for your South Africa and Mozambique operations?

Rod Kinkead-Weekes

The alumina market is susceptible to production failures. A good example of that was when Kaiser's Gramercy plant blew up a couple of years ago and took just over one million tonnes out of the market. The spot price went from around \$180 per tonne to \$400 per tonne almost overnight. It was a feature of that occurrence that the rest of the alumina-producing world went to Kaiser's assistance. They were able to overcome that problem over time, albeit with some difficulty.

If Worsley exploded, we would have similar problems. It is a very large refinery and a very important part of the world's supply, but if Worsley or any of the other major refineries in the world blew up, there would be a problem in sourcing alumina at anything other than distressed prices.

Mike Salamon

We put in a lot of effort to ensure these things do not happen.

Rod Kinkead-Weekes

Hillside, for example, does not run totally on Worsley. We have a potline at Hillside that runs on other material.

Q10.

Would you source alumina from your other refineries or would you go into the spot market?

Rod Kinkead-Weekes

We would do everything we could to jack up production from our refineries, but we would have to go out and buy from elsewhere.

Mike Salamon

The market is now around 56 million tonnes, so there is quite a significant spot market but the impact would be significant on price.

Paul Everard

Realistically, the decision would be driven by a dimension of opportunism as well as planning. If alumina went to \$400 per tonne, you would probably be driven to look at the margin you were getting on the metal. That would dictate whether you took the alumina or let the capacity of your metal decline somewhat. There is not a general answer to your question; the answer would depend on the prevailing specifics at the time and the way the numbers work out.

Rod Kinkead-Weekes

There is also some shut alumina capacity around the world. It is very high cost, but if spot prices justified it you could expect the owners of that capacity to bring it on as quickly as possible.

Q11.

What impact has the closure of the liquor burner had on costs? If it were to stay closed, would that have any impact on the expansion plans?

On alumina sales, given the growth you have identified in Chinese imports of alumina, do you see your portion of sales under spot rather than long-term contract increasing over time?

Paul Everard

There would be an impact on costs, but it would be relatively negligible in material terms. I do not think it would materially alter the position of Worsley on the cost curve.

Mike Salamon

The numbers we have given include the assumption of no liquor burner. It has virtually no impact on the expansion decision. The base case they are working on at the refinery is that they will find a solution and believe they are not too far from it. Colin would say that this is not a scientific problem; it is a social issue in Western Australia. There has been a lot of media attention and one has to go through solving the social issue before we can switch it on. It is not as efficient without the liquor burner.

Paul Everard

We had a million tonne plant, which we expanded up to two million tonnes before the current expansion. The plant ran for 20 years without the liquor burner.

Rod Kinkead-Weekes

On the quantum of spot sales, it depends very much on circumstances at the time. At the moment, it is significant that a lot of Chinese buyers are seeking to take advantage of what they clearly perceive as a relatively low point in the market and would like to go long term at current prices. We would resist that because we see that market improving over time. The overall aim is to have a sensible mix of long-term, medium-term and short-to-spot contracts. The precise percentages of each will change over time according to how we perceive the market going forward.

Mike Salamon

There is a natural balance; if you have a high price, the sellers want to turn that into a long-term relationship. If you have a low price, the buyers want to turn that into a long-term relationship. It is no different to any other market.

Q12.

Given you have a power contract due to change in 2004, can you give us any insights as to what that means in terms of future costs? Secondly, with respect to the expansion opportunities, is there a possibility of expansion at Worsley beyond the 3.5 million tonnes?

Mike Salamon

The expansion at Alumar relates to the refinery; we are not thinking about any smelter expansion. The situation in Brazil is no longer one of stranded power. One of my colleagues would say almost the reverse. In Worsley, there is a possibility of expansion beyond the 3.5 million tonnes.

Alex Vanselow

In Brazil, if nothing is done, we would expect a significant increase in the price of power. With the activities that are taking place, we can expect to stay at the current level, if not a bit lower.

Q13.

You made reference to the Pechiney AP 50 technology, and it is possible that such a smelter could be built in South Africa. Is BHP Billiton looking at investing in such a smelter or just watching to see how it develops?

Mike Salamon

The simple answer is: no comment. It is difficult for us to speak about the specifics of what we are looking at, but we are watching with interest.

Q14.

There were earlier mentions of possible takeovers. Are you interested in Corus's aluminium assets? On takeover targets, could you give us an idea of the sizes you are looking at, either in terms of volume of output or financial value? What geographical areas would you be interested in?

Mike Salamon

We will not be speaking to an audience of hundreds about acquisitions or M&As. The only point I can make is that we are avowed upstream producers. You can look at the parameters we have spoken about in this presentation. We are looking for good assets, but I did make the point that this portfolio now has a solid foundation of very good assets so perhaps we can become a bit more creative with a focus on return on capital. It is very difficult for me to say any more than that.

Q15.

You spoke about looking outside your existing asset business. Where would you be looking after Worsley?

Mike Salamon

You need to look at the parameters we mentioned as to what we think are important and draw your own conclusions. It is not appropriate for us to talk about potential business development areas to an audience of hundreds.

Q16.

You mentioned you have capex going into Southern Africa of \$900 million, with a potential of a further \$600 million in the pipeline. What projects could they be going towards?

Mike Salamon

They relate in part to possible things that might come along in terms of our embedded options. We are also making provision for ideas which are just more than a glint in the eye of Phil and his colleagues. It is making provision for what we think may happen, as opposed to being very specific.

Michael Wang

Could Worsley be on the radar screen?

Mike Salamon

We will spend some money on Worsley, but the professionals would say that to stretch the figure from 3.1 million to 3.5 million or 3.7 million is probably in the horizon of the figures Alex put up. It is not very capital intensive; it is stretching what we have. The question from Johannesburg about beyond the 3.1 million would be a more significant project and likely outside that timing horizon. We would like to pin down that stretch before we take another jump.

Q17.

The figures you put up for Mozal I, down \$600 per tonne, is based on the very attractive power contract you had there. When does that contract run out? On Mozal II, you seem to be about two months ahead of schedule at 20% of the project. Are you going to be able to complete Mozal II in around 21 months, as you did Mozal I, rather than the estimated 27 months?

Mahomed Seedat

We do not want to bank that just yet. We have had one previous rainy season that created a lot of difficulty onsite. Hopefully, we will not have the same type of season this time. We would like to get through that before we get overconfident about achieving a remarkably better schedule.

Our power contracts at Hillside and Mozal are 25-year contracts. Mozal has been operating for just over 18 months, so there is a long way to go with that contract. At Hillside, we still have about 19 years to go.

Mike Salamon

I believe the point to make on Mozal's power contract is that there is a step function. The first step is six or seven years from the start of the contract.

Q18.

The rainy season is more relevant at the start of construction when you have a lot of mud exposure. You are beyond that now, so it should not affect you that much.

Mahomed Seedat

In a previous significant rainy season, there was flooding which affected the logistics of getting materials in and out of Mozal and so on. It can have a much wider impact than just onsite.

Mike Salamon

The people overseeing the project are getting a pretty good feeling about achieving budget and schedule.

Q19.

You talked about the potential growth into China and that at current capacity around the world this could not be met, but at current pricing it would be unlikely anybody would be putting the capacity in. What sort of pricing would be needed to justify that capital expansion?

Rod Kinhead-Weekes

It has become a convention in the pricing of alumina to attach the price to that of metal. Over the past few years, 12.5% has roughly been the number used. If that convention continues, it depends very much on your view of the metal price. The current metal price is at 12.5% and the alumina price is around \$150-\$160 per tonne. At that level, a great deal of the world's alumina capacity is not covering its cash cost; something has to change.

On the other hand, if your metal price is at \$1,700, then 12.5% is something over \$200 and in those circumstances, you are getting into the area of encouraging new capacity. There is some pretty obvious capacity that can be increased, at the bottom of the cost curve. By the same token, a lot of the world's capacity is not at the bottom of the cost curve, so once those expansions have occurred you are into much higher cost expansions or into greenfields. Traditionally, the economics for a

greenfields refinery have simply not been there. Rio Tinto are the only company in the world building a greenfield refinery at the moment and they obviously take a view on the economics and prices which enables them to do that. There has not been a new greenfield refinery of any significance built anywhere in the world for 20 years.

Paul Everard

You had a batch of refineries committed to in the late 1970s and coming onstream in the first half of the 1980s. Beyond that, there are three refineries: Nalco in India, Alunorte in Brazil and Nikolayev in Russia. Those are the only three outside that early 1980s period to have subsequently added to capacity.

Mike Salamon

A lot of these reserves are in the tropics and some are in increasingly awkward areas in terms of infrastructure. The situation that Rio might have faced, where the infrastructure was there, is not the one they would face in West Africa and so on.

Q20.

Of Europe, Korea, Taiwan and the US, which do you see leading the economic recovery and which aluminium consumers are leading that recovery? What problems do you foresee with that recovery? There has been a lot of talk about the recovery not being as robust as previously thought; what are your views on that?

Rod Kinhead-Weekes

Your guess is as good as mine. We have seen premiums go up practically everywhere and hold. The issue is whether they will continue to hold. In terms of demand, Japan is weaker than anywhere else at the moment. For example, we have a 50% share in a metals distribution business in the US, and the reports in terms of aluminium are that premiums have increased and price increases have stuck.

It remains to be seen whether this is just restocking – significantly better from our point of view than destocking – and how long it will take for consumers to buy forward. In March and April, we have seen reasonably strong physical demand, stronger than in the last quarter of last year, and the issue is whether this translates into customers having the confidence to buy forward on longer timeframes.

The jury is still out, so I am not predicting anything other than we have seen certain signs in the marketplace which could indicate the beginnings of an upturn. That said, the financial markets are going somewhat the other way.

Q21.

On Valesul, did you say it could be expanded up to three million tonnes per year?

Mike Salamon

When you are talking millions of tonnes, it will be the alumina. It was Alumar which Paul said could go to three-plus million tonnes.

Paul Everard

Alumar was originally designed to have six lines of 500,000 tonnes. It still has one line operating at 1.3 million tonnes, so with two or three lines, it could certainly go to three-plus million tonnes.

Mike Salamon

Thank you all for coming today.

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