# AUSTRALIA'S STEEL INDUSTRY TODAY AND TOMORROW

*An Address by*
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My address today is to cover the present state of, and future outlook for, the Australian Steel Industry. As you know, basic steelmaking and the activities grouped with it in BHP' Steel Division accounted in the 1978-79 financial year for some 60 per cent of group sales. 72 per cent of group employment, 46 per cent of cash flow and 17 per cent of net profit. Net profit here is the figure struck after our particular brand of inflation accounting (and before adjustment for the interests of minorities in part-owned subsidiaries). If we ignore the provision for escalating capital costs (our fixed asset valuation adjustment), then the steel division's contribution to the group's after-tax profit was about 39 per cent. These figures do not include the operations of John Lysaght (Australia) Ltd., the sheet steel maker, which became a subsidiary last December. The results of Commonwealth Steel Co. Ltd., maker of special steels, are consolidated but do not come within the steel division.

Large and significant as other divisions of the company are and will in all probability continue to be, there is no gainsaying the importance of steel in this overall group picture.

There could be other grounds for looking at steel, not only in its industry context but in an international setting and certainly as regards steel's competitive relationship with other materials.

The world background, as many of you will be aware, has involved significant industry development in the past ten years. This has taken place notwithstanding the pronounced industry recession which began midway through the seventies and is yet to end in some parts of the world. Some of the more important industry developments were not directed to increasing capacity and this type of innovation was to a large extent a direct consequence of hard times.

Output went up significantly, notwithstanding. Annual world raw steel production rose 30 per cent in the seventies – to 745 million tonnes last year. In the market economies the increase was 21 per cent (to 496 million tonnes), which understates the rise in output of finished steel, in the industrially advanced countries *particularly*, due to increasing adoption of continuous casting. Like some other technological innovations, this has had the effect of yielding a greater tonnage of products for a given input.

These growth percentages approximate, if they do not similarly understate, an expanded market for steel. However, it is clear that, in the western world as a whole, and over the decade as a whole, expansion of plant capacity proceeded faster. While additions to capacity tapered off sharply towards the end of the decade, nevertheless there is now significant under-utilisation of plant in certain countries, perhaps especially the EEC. Industry estimates suggest that in the United States, Japan and the EEC, which together account for three-quarters of steel produced in the market economies, plant in place could have turned out another 80 million tonnes of raw steel last year, over and above the 379 million tonnes produced in those countries.

The repercussions of this supply/demand imbalance have been many and varied. The most public and heated have been attempts to limit international trade in steel. As you know, this is still a lively issue, particularly in the United States where domestic steel production fell 9 per cent in the second half of last year (compared with July-December 1978) and producers believe imports have been disruptive.

I am not proposing to say anything more about that as such, but rather to emphasise the point that these same pressures have yielded a number of positive results in the past few years. One of these I have already alluded to in passing, namely a change in emphasis in industry research, development and investment. Previously it might have been true to say that steelmakers were tending to look for increased efficiency in (hoped for) economies of scale. However from 1974 the hunt has been on for ways and means of raising productivity that do not involve large additions to capacity.

There have been a number of successes, among which wider implementation of continuous casting technology has been only the most celebrated. Among other approaches to the problem, there has

been a massive application of computer technology to almost every facet of plant operations.

A second set of repercussions has been the spur given to both product improvement and product development. Improved metallurgical controls have led to better and more consistent product characteristics.

The market conditions have also driven steelmakers to step up the search for new products and a wider range of steel applications. The evidence is that steelmakers have risen to this challenge. In fact a survey commissioned by the International Iron and Steel Institute last year revealed that no less than 300 new steels and steel products had been introduced in the preceding two years, perhaps something of an eye-opener to a general public which is inclined to think of steel as a single if versatile material. It is of course a large and ever-expanding family of materials, each member of which has its own uses and cannot necessarily do the work of any other.

Many of these advances were in response to new market requirements, but in fact they covered virtually the whole field of steel uses. Before eliminating duplication, they included 129 new steels and 195 new products from 31 steelmakers. Not surprisingly, much of the effort was directed towards raising the strength/mass ratio, so that lighter steels can be used in numerous applications, and in combating the oxidisation phenomenon which is a disadvantage in various steel uses.

I shall perhaps mention one or two of the successes in a moment. The general point to be made here is that it has become quite permissible – in fact is realistic – to think of steel as an exciting new material. It combines exciting potential with past achievement as the basis and foundation of so much of the industrial development of the past two centuries.

At this stage perhaps we may turn our attention to Australia. As you will be aware, following a phase of sustained growth in the early seventies the market conditions confronting our steel industry roughly corresponded to the norm for industrially developed countries in 1975-78. Apparent domestic consumption in terms of crude steel equivalent *declined by no less than 38 per cent from 7.9 million tonnes in 1974* to under 5 million tonnes in 1977. This amounted to the longest and deepest industry recession since the thirties.

Since late-1978 however, our experience has been more like that of certain developing countries which for various reasons sailed through the industry recession largely unaffected – for example, South Korea, Taiwan and Brazil.

Our experience has not corresponded exactly with any of these countries, partly because they tended to be building up their industries from relatively small bases. While it lasts, this is a special situation. However, there is what might be termed a secondary development situation common to most of these countries, by which is meant they are expanding economies and the domestic steel industries consequently have the prospect of supplying expanding local markets.

It seems to me that in this respect our steel industry has recently had more in common with steelmakers in the developing nations than with those in the industrially developed world. Indeed if we look on the bright side and predicate continued expansion of our markets, then almost inevitably those additional market opportunities will tend to have *"development country"* characteristics. That is to say, much of the demand for steel would be domestic; and much of it would be for the country's capital development, in which I include not only publicly-owned infrastructure, such as power stations, but basic private sector development, for example establishment of new industries.

I think you will see the point I wish to make, namely, that Australia's steel industry may be said to have come into the eighties not too badly placed. Certainly, whether or not we now face a healthy development prospect – which time alone will tell – there is no doubt at all that the period of recession was put to good effect, leaving the industry in better shape than ever before.

A few of the achievements of the seventies may be mentioned here:–

- In steelmaking there was steady progress in the switch over from open hearth to basic oxygen technology. In 1968-69, 44 per cent of Australian steel was made by the BOS method; ten years later the percentage was up to 76 per cent.
- In ironmaking, substantial fuel efficiencies were achieved in fuel oil consumption in the blast furnaces – a successful effort which owed much to the sharp oil price increases from 1973 onwards.. Fuel oil consumption was reduced from the equivalent of 46.8 tonnes per thousand tonnes of iron in 1970 to 26.2 tonnes in 1979.

  In addition, while much of this saving was achieved by substituting coke for fuel oil, there was also a reduction in specific consumption of coke over the decade.

- Research and development in the product field led to the marketing of new high-strength steels which enable Australian motor car manufacturers to meet customer preference for lighter vehicles.

- Another conspicuous success, this one achieved by JLA, has been in the development of coated steels, notably zincalume.

All of this allows the Australian steel industry, technically speaking, to contemplate the future with a good deal of confidence. And this I suppose brings me to the burning question of whether, or rather to what extent, it will be possible to justify further investment for that future.

There is general agreement, I think, that Australia has, or should have, a comparative advantage in steelmaking, even if this is not as clear-cut as would appear at first sight. The fact that excellent iron ore resources are a long way from coal and consumer markets, means that transport costs have a chance to eat into the natural advantage – which of course they do. Next, while coking coal is plentiful enough, the fact is that countries which import their supplies do enjoy greater flexibility in being able to blend coals to suit blast furnace requirements.

Then, steel uses a lot of both labour and capital. As to labour, BHP's Steel Division has a complement of more than 44,000 men and women, including more than 1,000 engineers, about 9,500 tradesmen and – at any one time – some 4,500 apprentices and part-time trainees. The industry is itself a major training ground of industrial skills and the BHP Group has, as recently announced, greatly increased its intake of young people this year. Even so, there is no room for complacency about skilled labour availability, particularly if substantial industry expansion is being contemplated.

Lastly, but by no means least, there is the question whether capital can and should be mobilised to expand the steel industry – and if so, on what scale. As you know, this question answers itself to some extent, in that you already have the evidence of large sums being spent at the Australian steelworks year by year. We are on record as being in the process of spending some $200 million this financial year alone – and the figure has been above $100 million for a number of years now.

However, this type of expenditure is aimed at improving productivity and increasing the physical and earnings yield of the existing assets, with some increases in capacity.

There are naturally those who wonder about prospects of new blast furnaces and/or steelworks. The short answer to them is that there can be no investment of that sort or scale except in anticipation of adequate financial returns from the proposed capital equipment over its working life.

Partly this ultimate return will depend on such factors as the cost of capital and taxation provisions, for example the rate at which capital expenditure can be written off. As you will be aware, BHP has been taking every opportunity to state the case for flexible depreciation arrangements, like those available to steelmakers in many parts of the world.

Important as this is, it cannot be allowed to detract from the significance of the price at which steel can be sold. Here I should like if possible to explode the myth – and all that flows from it – that for one reason or another BHP is reconciled to receiving less than a commercial price for steel. This is far from being the position. Certainly there have been times when we have operated under constraints external to the markets, but I can and do assure you that BHP is anxious to bring its prices up to yield a reasonable return just as soon as our markets will bear it.

However, domestic steel consumption is still below the peak demands of a few years ago. Apparent domestic consumption was 6.5 million tonnes (crude steel equivalent) in calendar 1979, with prospects of improving to 7 million tonnes this year, compared with the level of 7.9 million tonnes reached in 1974. As a matter of interest we are still exporting about 25% of our iron and steel products.

Although demand for iron and steel products has continued to be strong, any consideration of future business and investment conditions in Australia must have regard to the overseas outlook.

Nevertheless, BHP is continuing to invest very substantially in the steel industry to maintain and improve our competitive position.

The importance of steel to the Australian economy is now greater than ever, and I have wanted to convey the basic assumption that steel can and will be produced commercially in competition with rival claims on capital and management attention. It is on that explicit assumption, too, that I should like to conclude by saying that BHP sees this as an opportunity, and intends to meet what it sees as a market still offering development potential.