IS B.H.P. STILL OVERPRICED?

Barely 12 months ago, B.H.P. was being keenly bought at much higher prices by local and overseas investors. Even Americans, generally convinced their own economy presented unequalled capitalistic opportunity, and wary of steel shares, jumped on the band wagon.

Since then, the growth stock has been re-thought all round the world and B.H.P. has received a lot of unsound criticism because of Debentures offered to the general public. Let us now have another look at this company in its unique, monopolistic position of producing and selling a commodity fundamental in modern civilization.

FUTURE OUTPUT.

In the year to May 31, 1962, B.H.P.'s output of steel was 4.0614 million tons. This output would have been absorbed in 3 main ways.

1. Variations in the stocks on hand of B.H.P. and/or its customers

11. Actual usage by the domestic market, less imports

111. Exports

In the case of (1) we do not have sufficient information to draw accurate conclusions. However, we do know the tonnages of imports and exports for the period July 1, 1961 to June 30, 1962. (Note: As B.H.P. balances on May 31, strictly speaking one should not compare B.H.P.'s figures with ones prepared on a July 1 - June 30 basis. In practice, any differences would almost certainly be of a very minor significance.) These were:

<table>
<thead>
<tr>
<th>Exports</th>
<th>235,000 tons</th>
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</thead>
<tbody>
<tr>
<td>Imports</td>
<td>176,100 tons</td>
</tr>
</tbody>
</table>

Disregarding movements in stocks, local usage equals production less exports plus imports. Solving this equation we derive the following for 1961/62:

Domestic usage = 4.002 million tons.

This is the base figure from which we attempt to project future output.

Any growth in output must be absorbed by

(1) Stockpiling by B.H.P. and/or its customers

(11) Domestic market. The B.H.P. Co. Ltd. in its 1960 publication to commemorate its 75th anniversary states:

"These next 10 years are expected to see consumption of steel rise by about 3.5 per cent per head each year. But the national population is also expected to rise - probably by about 2 per cent annually. It is likely that..."
the increase in the amount of steel, used in Australia in
the coming decade will be about 5.6 per cent each year."

Examination of the two components making up this growth
rate disclose:

The latest figures released (12 months to March 31,
1962) show annual population growth rates of:

<table>
<thead>
<tr>
<th>Component</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural increase</td>
<td>1.433%</td>
</tr>
<tr>
<td>Net permanent migration</td>
<td>0.533%</td>
</tr>
<tr>
<td></td>
<td><strong>1.966%</strong></td>
</tr>
</tbody>
</table>

It is fairly widely felt the net permanent migration figures
for this period were anything but unusually high. Therefore
this anticipated annual rise of two per cent seems fully achiev-
able. It would be anyones guess as to the feasibility of an-
annual growth of 3.5 per cent in per capita consumption. How-
ever B.H.P's guess would be at least as good as anyone elses,
and the company points out the years 1945-59 saw an annual per
capita increase of 4.9 per cent. I feel the figure must be
accepted, and could easily prove an under estimate. The early
years of the decade certainly indicate this, but on the other
hand B.H.P. expects free world capacity to far exceed demand by
the mid 1960's. The establishment of another local producer
would certainly upset B.H.P's figures. Overall, we seem to
have no intelligent alternative to accepting an annual growth
in demand of 5.6 per cent as being feasible.

Export, the third factor influencing production, is an unknown
quantity. Despite Government aid through taxation and the in-
creasing national importance of exports, B.H.P. itself is
distinctly cautious on the outlook.

To enable some estimate of future production figures for a four year period
ending May 31, 1966 and an eight year period ending May 31, 1970 it was assumed that:-

(a) B.H.P. will be able to maintain exports only at 75 per cent
of 1961/62 levels which is roughly that ruling for 1959/60/61.

(b) Imports remain constant at 1961/62 figures. In terms of tonnages,
imports and exports would then almost exactly cancel each other
out. Probably this is unduly pessimistic.

(c) Domestic consumption increases by 5.6 per cent compound annually,
the whole of the increase to be supplied by local production.

(d) Domestic consumption was 4.002 million tons for 1961/62.

(e) B.H.P. remains the only local producer.

Then, production for the year 1965/66 is 4.98 million tons and for the
year 1969/70 it is 6.19 million tons.

CAPITALISATION NECESSARY TO ACHIEVE PROJECTED OUTPUTS

Two aspects in this regard concern us:

(1) additional investment in plant and ancillary services
(11) the working capital position

It was estimated in 1957 by the International Labour Organisations that the
cost (at that date of course) of a modern integrated iron and steel industry was about
£A125 per annual ingot ton. This estimate appears fairly typical and errors of 10 per
cent or so have very little influence on the final outcome.
Foreseeable factors which could reduce this figure of £125 are:-

(1) Technological improvements such as the Linz-Donawitz process. It was stated in "The Economist," 21.5.1960, that installation costs of an L.D. shop are about 30 per cent to 35 per cent less than the conventional open hearth.

(11) Strictly speaking, in the case under consideration, a given increase in production does not mean a proportionate increase in capital investment. This is apparent in the case of administrative facilities and ancillary services.

Naturally there are factors tending to operate the other way such as inflation and the ever present problem of unforeseen costs.

I have adopted the figure of £125. per annual ingot ton.

The Working Capital Position

A normal business organisation would be expected to require additional working capital when output expands. B.H.P., in this context, is far from normal. Applying the usual definition of working capital, B.H.P. actually had a negative figure for the five years ended May 31, 1959. (Assuming the positions disclosed by the respective balance sheets truly reflected the position obtaining throughout the whole year.)

Balance sheets as at May 31, 1960, 1961 and 1962 showed an excess of current assets over current liabilities. This situation arose for two main reasons:

(1) A leap in the item "Government Stocks and Bonds."
These figures as at May 31, were:

|-------|-------|--------|--------|--------|--------|--------|

(11) An apparent increase in "Stocks and Stores on Hand."
Putting a constant value on the output of steel, the percentage of the item "Stocks and Stores on Hand" (which incidentally would include items other than stocks of steel) to the value of output, shows remarkable constancy except for the 1962 year.

If we used £40. per ton as the value of output the percentages are:

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<tbody>
<tr>
<td>%</td>
<td>26.7%</td>
<td>27.8%</td>
<td>28.0%</td>
<td>25.1%</td>
<td>28.0%</td>
<td>33.2%</td>
</tr>
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</table>

The apparent "excess" in 1962 of say 6.2 per cent amounts to about £10 million.

Therefore, I am of the opinion that the working capital as at May 31 1962 is abnormally high at £44.819 million, doubtless when B.H.P. was able to carry on business successfully for many years on (technically) no working capital.

For these reasons I assume there will be no increase in working capital from 1962 figures - if anything, a reduction appears likely.
To summarise the position to date, we have estimated production by the following dates as follows:

<table>
<thead>
<tr>
<th>Year to 31.5.1966</th>
<th>4.98 million tons</th>
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</thead>
<tbody>
<tr>
<td>Year to 31.5.1970</td>
<td>6.19 &quot; &quot;</td>
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</table>

Owing to the major nature of plant for steel works, the expenditure would have to be made well in advance of the achievement of actual production. It has been assumed in the interests of conservatism the requisite expenditure leads production by 12 months.

Thus the output increase of 0.92 million tons to be achieved by 31.5.66 has been paid for at the rate of £A125 per ingot ton by 31.5.65. This means an outlay of £A115 million by this latter date - this infers working capital is still the same figure as that at 31.5.62.

It also means an outlay of a total of £A266 million by 31.5.1969.

As maintenance of constant growth rates through the period is assumed (meaning constant increases in cash required) the cash requirements by May 1966, and May 1970 are £150 million and £309 million respectively.

**SOURCES OF FINANCE FOR ADDITIONAL FUNDS REQUIRED**

Additional funds required come from the three following sources:

1. Cash generated and retained in the business
2. Outside borrowings
3. Equity capital

**CASH GENERATION AND RETENTION**

To calculate this it is necessary to make some estimate as to

1. Future profits
2. Depreciation
3. Dividend policy

**Future Profits:** I feel that there are good reasons on the grounds of political and union relationships for maintaining a relationship between profits as reported, and output. However, B.H.P. also derives income from:

(a) Shares in other companies
(b) Government bonds

Such income does not logically vary with output, so it should be excluded. If it is excluded, the applicable tax should also be excluded. Because of Section 46 (b) of the Income Tax Act, dividends are not taxable.

I have made the arbitrary assumption that the reported yearly investment income was:

(a) Bond income, as to 5 per cent on the balance sheet figure for Government bonds at balance sheet date (taxable)
(b) The balance is dividend income (tax free under Section 46 (b).
This basis gives the following dissection of investment income:

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</thead>
<tbody>
<tr>
<td><strong>Interest (£m)</strong></td>
<td>0.1</td>
<td>0.61</td>
<td>0.71</td>
<td>1.91</td>
<td>1.33</td>
<td>1.81</td>
</tr>
<tr>
<td><strong>Dividends (£m)</strong></td>
<td>0.91</td>
<td>0.54</td>
<td>0.72</td>
<td>0.40</td>
<td>1.42</td>
<td>0.58</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0.92</td>
<td>1.15</td>
<td>1.43</td>
<td>2.31</td>
<td>2.75</td>
<td>2.39</td>
</tr>
</tbody>
</table>

The following calculations are an attempt to calculate profit from operations:

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</thead>
<tbody>
<tr>
<td><strong>Less dividend income (£ millions)</strong></td>
<td>0.91</td>
<td>0.54</td>
<td>0.72</td>
<td>0.40</td>
<td>1.42</td>
<td>0.58</td>
</tr>
<tr>
<td><strong>Less: Bond income, less tax @ 8/- in £</strong></td>
<td>0.10</td>
<td>0.37</td>
<td>0.43</td>
<td>1.15</td>
<td>0.80</td>
<td>1.09</td>
</tr>
</tbody>
</table>

Output (million tons) | 2.770 | 3.029 | 3.193 | 3.507 | 3.736 | 4.061 |
Taxed profit per ton £ | 2.20  | 2.63  | 2.75  | 3.40  | 3.46  | 3.18  |

Over this period, the following annual (compound) growth rates emerge:

- **Output**: 7.9%
- **Taxed operating profit**: 7.6%

If the four years to May 31, 1961 are taken, the percentages are:

- **Output**: 7.7%
- **Taxed operating profit**: 12.0%

In the chairman's address on the 1961/62 figures we find the following:

"... production was increased by some nine per cent. This increase, however, was not accompanied by a commensurate rise in profits, and the reasons for this call for some comment."

In other words, the chairman suggests it is abnormal not to find some correlation in these factors.

In the four years ended May 31, 1961 operating profit per ton was compounding annually at 12.0 per cent, some 56 per cent faster than output at 7.7 per cent. The relationship between these percentages is to be expected in line with elementary economic thought - the unknown variable being the actual arithmetical answer. Can we fairly hope for a growth of future (operating) profits at a rate some 56 per cent greater than the 5.6 per cent annual output growth anticipated? If we do, this in effect says there will be no more economic periods such as 1961/62 in the decade, and this may not be realistic particularly with the possible impact to Australia of the European common market.

In an endeavour to avoid any possibility of overestimating let us assume operating profits will only compound 33 per cent faster than output - say 7.5 per cent per annum.
Earlier we decided that working capital will stay in the area of the May 1962 figure. That implies that holdings of bonds treated by B.H.P. as current assets, likewise will remain more or less constant. Overall, dividend income has been of a very minor nature, and a miscalculation of 100 per cent here will not prove serious overall. It is thus assumed investment income remains at 1961/62 levels.

Working from the 1961/62 figure of profit from operations, which is certainly an unduly depressed one, and a constant investment income as a base figure, the total taxed profits for the two periods project as:

(1) Four years ended May 31, 1966 - £68.74 million
(11) Eight years ended May 31, 1970 - £158.38 million

**Depreciation:** The percentages of depreciation plus provision for increased cost of plant replacement to machinery, plant, works buildings and equipment (valued at cost or valuation, less asset revaluation reserves) at the date of balance sheet have been as under:

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<tbody>
<tr>
<td></td>
<td>17.42</td>
<td>16.32</td>
<td>15.30</td>
<td>10.48</td>
<td>9.75</td>
</tr>
</tbody>
</table>

It seems most unlikely that this percentage will continue to fall further and it seems conservative to assume provisions for depreciation and increasing cost of replacing fixed assets will stabilise around 10 per cent of cost of relevant assets. It appears this approach must overprovide, as it writes off 80 per cent of present book costs by May 1970. Quite possibly this (net) figure is not available at May 1962 to be written off.

Future annual provisions are calculated by adding the figure for the year to May 31, 1962, £24.378 million plus 10 per cent of the estimated annual plant additions. Lacking information to the contrary it has been assumed the outlay on plant will be spent annually (leading production by 12 months) in instalments compounding at 5.6 per cent annually. Total depreciation for the four years ended May 31, 1966 would then be £109.70 million, and for the eight years ended May 31, 1970 £222.37.

We are now in a position where we can estimate cash generated, by adding profits and depreciation. By deducting dividends, we are left with cash retained before capital expenditure.

B.H.P.'s future dividend policy is currently the subject of much conjecture. To calculate cash retained, and it must be stressed only in this context, let us assume that B.H.P. proceeds to adopt previously unheard of generosity and distributes 2/3 of profits as dividends:

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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>41.5%</td>
<td>41.0%</td>
<td>43.1%</td>
<td>39.9%</td>
<td>40.0%</td>
<td>45.5%</td>
</tr>
</tbody>
</table>

Then:

<table>
<thead>
<tr>
<th>Four years to May 31, 1966</th>
<th>Eight years to May 31, 1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit</td>
<td>£ Millions</td>
</tr>
<tr>
<td>68.74</td>
<td>158.38</td>
</tr>
<tr>
<td>Depreciation</td>
<td>109.70</td>
</tr>
<tr>
<td></td>
<td>178.44</td>
</tr>
<tr>
<td>Less: Dividends</td>
<td>45.82</td>
</tr>
<tr>
<td>Cash generated and retained</td>
<td>132.62</td>
</tr>
</tbody>
</table>
A lot of ill advised criticism has been directed at B.H.P. in respect of its recent debenture raisings.

Even when the debenture instalment due in October 1962 is paid, the proprietorship ratio of B.H.P. is still in the vicinity of 69 per cent. Yet many other prominent companies operate with proprietorship ratios of 40 per cent and below.

In the case of B.H.P. this ratio in recent years has been:

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>55.7%</td>
</tr>
<tr>
<td>1958</td>
<td>53.9%</td>
</tr>
<tr>
<td>1959</td>
<td>52.1%</td>
</tr>
<tr>
<td>1960</td>
<td>52.3%</td>
</tr>
<tr>
<td>1961</td>
<td>72.0%</td>
</tr>
<tr>
<td>1962</td>
<td>69.8%</td>
</tr>
<tr>
<td>1963</td>
<td>67.2%</td>
</tr>
</tbody>
</table>

The 1961 and 1962 figures were inflated by revaluation of assets. To make comparison possible, if the revaluation were excluded, 1961 and 1962 percentages become 61.1 per cent and 60.3 per cent.

Clause 5 (c) of the Trust Deed executed by the company on the occasion of the recent debenture raising gives B.H.P. the right to drop the proprietorship ratio to a figure very close to 50%. Shareholders' funds at May 31, 1962 were £239.6 million, and if the anticipated profit and dividend figures become actual, and there are no cash or bonus issues, shareholders' funds by May 31, 1970 will be £292.4 million, plus any revaluation of assets B.H.P. may have seen fit to make.

On the foregoing figures, B.H.P. needs only £17.38 million by May 31, 1966 and £33.83 million by May 31, 1970, over and above cash generated and retained to finance its expansion.

A drop in the proprietorship ratio to 50 per cent by outside borrowings would give B.H.P. a further £153 million by May 31, 1966, or a further £183 million by May 31, 1970.

Whilst on this subject, consider the beautiful logic of the chairman's words in his 1962 address:

"Ultimately we depend, not only on the company's ability to sell abroad, but also on the ability of our Australian customers to maintain their markets against competitors using foreign steel. We are continuing to devote a good deal of attention and capital to the reduction of costs through improved technology and productivity. But, as mentioned earlier, not all our costs are amenable to control. Therefore we must pay particular attention to those costs which we can control including the cost of servicing the capital required for developmental purposes."

Later in the same address he said:

"The board does not presently have any plans to make further debenture issues, but will continue to have regard to proper balance in the financial structure of the company."

Bearing in mind the present proprietorship ratio, high by the company's own standards, together with these words from the chairman, surely the writing is on the wall.

CONCLUSION:

To increase confidence in the validity of conclusions I have deliberately made the decision, where there has been a choice, which could show that B.H.P. will need to raise equity capital by 1970.
Even given such encouragement that picture does not emerge. Logically, therefore, one can only conclude that B.H.P. will not need to make cash issues in the 1960's. Of course this is not to say that it won't, but if it does the motivating factor will not be shortage of cash. A much more satisfactory solution for all concerned would be bonus issues and/or increased dividends, and fixed interest borrowings.

An estimate of profits for any company for a year eight years hence may have very little validity, but possibly considerably more interest.

Consider the attached graph. If production compounds annually at 5.6 per cent we arrive at point "Oy." Past experience (projections to points "Px" and "Ox") indicates that if "Oy" is factual, operating profit per ton is around point "Py". As pointed out earlier, this 5.6 per cent looks very conservative and probably the best we can quite reasonably expect would be output projected to point "Ox" and operating profit to point "Px".

Therefore, a taxed profit figure of £8 per ton looks feasible for the year ended May 31, 1970. Output at worst looks like being 6.2 million tons, at best 7.3 million tons. This gives us a zone of taxed operating profits from £49.6 million to £58.4 million. Adding £1.7 for taxed investment profit, our zone becomes £51.3 to £60.1 million.

If the "market" rates B.H.P. in mid 1970 at 15 times earnings, this means a present share, is worth between £6.17.0, and £9.2.0. If the price earning ratio is 20 the range is £8.0.0, to £10.13.0.

These four values represent the following annual compound growth rates from present price of 52½d:-

12.7%, 16.8%, 14.9%, 19.1%.

Possibly the market may be prepared to rate B.H.P. on a higher price earnings ratio - the cult of the growth stock may have its followers again by then.

As to whether the compound capital growth percentages are satisfactory is one for the individual to decide against the background of his personal investment programme.