AUSTRALIAN MINING: THE LONG TERM OUTLOOK FOR INVESTMENT RETURNS IN THE 1990’s

by

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The last few years have been difficult ones for the Australian mining industry. In 1983/84, of the 130 major mining companies, just over half showed a loss. Prices of most major mineral commodities have been depressed in recent years. Although the economic recovery has been underway for two years in the United States and Japan, this has not so far had the positive impact on mineral markets that is traditional at this stage of the cycle. As a consequence, there is a tendency for some economic analysts to write off the minerals industry as a declining “smokestack” sector of the economy which is doomed to slow rates of economic growth and generally unsatisfactory financial returns for investors. This tendency is particularly marked in the advanced industrial countries.

A variant of this pessimism involves drawing attention to the increasing involvement of governments of less developed countries in the metals and minerals industry. The implication is that these industries are doomed to chronic surplus production and low prices because of uneconomic decision taking. The conclusion of such an analysis would presumably be that Australia, despite its relatively rich resource endowment, faces the prospect that its minerals industry will at best move sideways over the next decade, and specifically, does not have the potential to contribute more substantially to aggregate export earning.

In the light of recent experience, such pessimism might be understandable. However, it is far from being justified by a more careful analysis of prospects. The truth of the matter is that the prospects for the Australian minerals industry are mixed. Certainly some sectors face significant problems and constraints on their opportunities. But other sectors face a relatively bright future.

A first step in analysing this is to understand that certain mineral markets are regional in character, while others are international. Basically, this is a function of the value to weight relationship of the minerals concerned. Minerals such as coal, iron ore and bauxite have values of well under $50/tonne FOB basis. The most important factor in the exploitation of these minerals, therefore, is their location in relation to consuming markets. Transportation expenses are the major element in determining cost structure. The other minerals covered in this report, basically the hard rock mined minerals, alumina, and aluminium metal, have very much higher values in relation to weight. In these instances, it tends to be the mining, smelting and refining costs that are the determinants of competitiveness rather than location. In these industries, then, Australia competes in a world market on the basis of its geological and energy endowment.

In the iron ore and metallurgical coal industries, the prospects for Australia depend largely on the growth of the regional steel industry in the Pacific Basin. Although the prospects for the world steel industry can only be described as mediocre, the newly industrialising countries of East Asia and the Southeast Asian countries are clearly far and away the most dynamic and cost competitive producers of steel in the world today. Australia is well-placed to maintain a very large share of this growing market. However, Australia will be challenged by producers such as Brazil in iron ore and Canada in metallurgical coal.

For thermal coal, the outlook is a little better as this seems to be the most cost-effective way of meeting the growing electricity demands of the emerging economies of East and Southeast Asia. Here, however, Australia has to compete with South Africa’s cost structure.

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Thus, close attention to costs will be a key factor in determining Australian competitiveness. To a considerable extent, this is under the control of the Australian mining industry and the State and Federal governments. Increased labor productivity, the elimination of restrictive practices, control of the domestic inflation rate, and the maintenance of a competitive foreign exchange value to the Australian dollar are the key ingredients that will determine the prosperity or otherwise of this segment of the metals industry. Policies regarding the charges that are made for transportation services, port charges, and by utilities will also be important variables in this equation. For instance, it is questionable as to whether these can continue to be used as systematic means of raising governmental revenues as distinct from covering operating costs and providing a "normal" return on the investment.

If appropriate policy measures are in place, however, there is no reason why the Australian mining industry should not be be adequately competitive and prosperous in these minerals on a long-term basis.

As far as the hard rock mining industry is concerned, the challenge facing Australia needs to be analysed along two dimensions. One dimension is the question of the state of the world market for these minerals. Some of them clearly face structural problems that will tend to depress the markets even in times of strong world economic growth.

Structural factors include major adverse shifts in the demand outlook such as is taking place in the tin and uranium industries and may also include excess capacity resulting from overly ambitious past investment programs such as is characterising the alumina industry.

However, there are other segments of the metals industry where the problems are clearly not of a structural character and where the distress of the recent past can be attributed to the normal cyclical difficulties of adjusting supply to demand. Demand is sensitive to volatile elements in the economy and fluctuates 15-20 per cent from peak to trough. However, supply is relatively rigid, stemming from a highly capitalised continuous process type industry. Included in this category are aluminium metal, copper, and zinc, and to a lesser extent, lead.

The other dimension that needs to be analysed is where Australia sits in terms of international competitiveness. In many of these minerals, Australia clearly has highly competitive low-cost production. Some of the most outstanding examples include aluminium and uranium. There is also a highly competitive producer of copper, lead, and zinc under normal conditions. By contrast, some of its nickel and tin operations appear to be relatively high cost.

Clearly the most desirable situation for Australia is in minerals where Australia has a favourable competitive position and where there is grounds for believing that the industry's difficulties are temporary and will be resolved with the normal passage of the cycle.

**Coal:** Australia should increase significantly its share of the thermal coal market. This reflects the fact that Australia is competitively placed to service the rapid growth expected in these markets.

Australia should experience some increase in its metallurgical coal market share, again primarily due to its competitive advantage in serving the emerging steel industry of Southeast Asia. However, this improvement in market share will be much more modest than is the case with thermal coal. Thus by 1990 Australian exports of metallurgical coal should grow to 54 mn tonnes (from 39 mn tonnes in 1981), an increase of 38 per cent over the decade, while thermal coal exports are expected to grow to 37 million tonnes (from 10 million tonnes in 1981).

**Iron Ore:** Within the various trends for the worldwide iron ore industry, several features will affect the position of Australia. The volume of demand for iron ore in Japan, as indicated by the production of primary iron is not forecast to recover to the level of 1980 for the remainder of the decade and is expected to be close to the level of 1984. This is the prime customer for Australia (47.6 mn tonnes of the total Australian exports of 66.8 mn tonnes in 1982/83). Even this static market will be under intense pressure from competitors, particularly Brazil. Australian ore is also sold in substantial volumes to Europe (10.9 mn tonnes). The total European market for iron ore will be reduced over the rest of the 1980s, and this will be particularly concentrated in the traditional steel-producing countries such as Belgium, Germany, Italy, and U.K. where Australian sales are currently made. By contrast, areas in Eastern Europe, Spain, and Yugoslavia may show expansion. The other major outlet is the countries of the Far East (Korea, Taiwan, and China PR). These are all expected to be growing markets for iron ore in the 1980s and beyond.

There is also significant possibility for the development of new markets in areas which are developing steel production based on blast furnaces of DRI without domestic iron ore. Such developments are occurring in Asian countries such as Malaysia, Indonesia and
Pakistan, and in the Middle East as well as traditional steel producing countries such as Italy. At present, Australia does not have a significant position in the supply of pellets for DRI production and this could be a new product for the future.

The other major prospect is in sinter feed sales for the developing integrated steel industry of China. The forecasts of iron ore trade with the CPE countries indicate a substantial growth in sales to China, for which Australia is the natural source.

**Alumina:** Australia is the world’s leading supplier of alumina. There seems to be ample potential for expansion of the existing alumina projects to take care of the planned growth in demand for aluminium by domestic smelters and still maintain the current absolute volume of exports. It is unlikely exports of alumina will increase because the market for this commodity is currently distressed and likely to remain so. World alumina production capacity is simply structurally too large relative to smelter capacity.

**Aluminium:** It seems possible that Australian aluminium smelter capacity will substantially increase, perhaps reaching 1 million tonnes by 1990. This will give Australia close to a 6.5 per cent share of the world market compared with a 3% share at the beginning of the decade. Australia’s main competitors in the aluminium industry will be Canada, where very cheap hydroelectric energy will form the basis for a substantial expansion of smelting capacity, and Brazil where a combination of plentiful raw materials and low cost energy creates an economic environment that is parallel to Australia.

**Copper:** Australia has a relatively small share of the world copper market currently amounting to around 4 per cent. Two-thirds of Australia’s production comes from Mount Isa mines, a complex orebody in Queensland which also produces lead and zinc co-products. Because Mount Isa is a multi-metal mine, it is better able to weather the economic cycle, and it has in practice, operated on a fairly continuous basis. Other copper properties in Australia have had more mixed experiences and generally, the prices available since 1982 have not been attractive to these operators.

The main variable in Australia’s copper mining outlook through 1990 is the question as to whether the Roxby Downs copper/uranium project will be put into production. If the development of Roxby Downs is held up until a more sustained growth in copper demand and more remunerative prices are achieved Australia’s participation in the world copper industry will be the continuation of operations at Mount Isa, including some relatively minor planned expansions thereof and a variety of other smaller projects. This leaves Australia’s share of the market essentially unchanged up to 1990.

**Lead:** Australia is a major producer and exporter of lead currently accounting for 17-18 per cent of world supply. About one-third of the country’s lead is produced by the Mount Isa mine, and about half the output of the metal comes from the Broken Hill area. The Mount Isa mines is an extremely rich and relative low cost operation by world standards. The company is currently developing a trial mining project at is new Hilton mine which has a potential production of 180,000 tonnes per year of lead when it goes to full production, probably after 1990. The Broken Hill mines are also relatively low cost and have sufficient reserves to last for at least 20 years. There seems little doubt that Australia will at least maintain its share of the international lead market and probably increase it somewhat through 1990.

**Zinc:** The adequacy of reserves in the Broken Hill area and the potential for further development in the Mount Isa region, combined with a number of smaller projects, should allow Australian zinc production to increase in line with growing world requirements through to 1990.

However, in contrast to the lead industry where Australia’s market share will probably increase somewhat, it will tend to diminish a little in the zinc industry. The reason for this is that at this stage a number of new or expanded properties in North America appear to be more competitive in this industry, most noticeably the massive Red Dog deposit in Alaska which may be developed by Cominco later in the decade.

**Nickel:** Australia has a substantial share of the world nickel market. This was 22 per cent in 1982. However, that was unrepresentatively high because of the extremely deep cuts made in Canadian production. Currently Australia’s share of the world nickel markets is about 17.4 per cent.

There is unlikely to be any major new nickel developments in Australia in the medium term. Firstly because the world nickel market simply does not require additional capacity. Secondly, neither the Agnew nor the Greenvale operations are developing the kinds of positive cash flow that would encourage further expansion of these operations or the further development of additional nickel output by the companies involved. Finally, Western Mining appears to have a number of other substantially more attractive
development opportunities open to it, including the Roxby Downs copper/uranium project and its coal and precious metals opportunities. Thus Australian nickel production will probably remain flat at best in the region 80,000-90,000 tonnes per annum up to 1990 representing a slight decline in market share.

Tin: Australia is the world’s fifth leading tin producing nation after the three Southeast Asian countries and Bolivia. However, this may shortly be challenged by Brazil. Australia has approximately a 6 per cent share of the world market. The bulk of Australia’s tin production comes from the Renison and Cleveland mines in Tasmania and the Ardlethan mine in New South Wales. Australian producers are probably in the middle of the cost range of world producers, somewhat higher than the Southeast Asian countries, but significantly more competitive than Bolivia.

As far as the future is concerned, the outlook for the Australian tin industry will essentially be conditioned by International Tin Council policies. The export quota system essentially freezes market share so that little changes can be expected over the long run, assuming that the ITC mechanism remains in place.

Uranium: The future of Australian participation in the world uranium industry is a function not only of the uranium industry itself, but also of the policy of the government towards uranium mining. Australia has a large number of potential projects.

Indeed Australia is estimated to contain about 20 per cent of the Western World’s reserves of uranium. However, current government policy permits continued operation of existing mines and tentative approval has also been given to the Roxby Downs project. However, the other potential orebodies in Australia have an uncertain outlook or remain on hold.

Thus the ability of Australia to produce significantly increased quantities of uranium in the 1990s is largely dependent on the Roxby Downs project. While there is no doubt that this project is, from the production cost point of view, extremely attractive and can be more than adequately viable even at today’s depressed copper and uranium prices, the scale of capital commitment required to undertake the project is immense. Thus it may have to wait for more sustained growth prospects in the copper and uranium markets.

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BOOK REVIEW

ECONOMIC TIMES
ECONOMIC ANALYSIS OF AUSTRALIAN NEWS
by
Philip Maxwell and David K. Round

Economic Times has been pitched at students of economics seeking relief from the weight of economic theory in many tertiary economic courses. The book is comprised of newspaper and magazine extracts grouped roughly in order of conventional textbook presentation. Each section also includes probing contemporary questions and a very brief overview of the subject area.

The authors have provided a valuable snapshot of the Australian economy in the first term of Hawke Government. Major economic issues and the media’s interpretation of possible solutions are well documented.

The book is easy to read by virtue of its layout and its ‘short story’ composition. However, it will inevitably date quickly, which will detract from its major attribute—relevance to real world issues.

Without in any way wishing to criticise the quality of

media comment in Australia, by its nature its focus is short and depth of analysis shallow, reflecting the demands of daily presentation. Furthermore, the unique position of the press in influencing policymakers, by way of its impact on the electorate, will necessarily be reflected in its comments.

For these reasons, the book is likely to be disappointing as a learning tool. Its use among younger students of economics is unlikely to make grasping important economic principles any easier. The extracts each contain a range of different principles which will be difficult to comprehend without having first achieved a significant understanding of economics.

This book is of passing interest to practising economists and of possible use by students of applied economics. However, it cannot be recommended for compulsory reading.

R.E. Steele

This book is published by Allen & Unwin, Sydney. Price $8.95 PB.