



At Gladstone, on the north-east coast of Australia, Queensland Alumina Ltd operates one of largest alumina plants in the world. A few kilometres south of the alumina plant Comalco Ltd is building a major aluminum smelter.



The aluminium industry in Australia: a review

By Ann Hodgkinson

During the "resources boom" of 1980-81 all the leading aluminium companies announced expansion plans in Australia.

However, the deep recession in the capitalist world has forced them to revise or cancel many of these projects.

In this article Ann Hodgkinson analyses how the state and local governments have influenced the development of the aluminium industry.

She also looks at community attitudes and examines the role of local capital in Australian resource development policies.

Ann Hodgkinson is Lecturer in Economics at the Canberra College of Advanced Education, School of Administrative Studies.
Address: POB 1, Belconnen, ACT 2616, Australia.

Introduction

While many in the western world were already heading towards depression, Australia of 1980-81 was high on the euphoria of its "Resources Boom". This boom was enthusiastically promoted by the Fraser-conservative government, which had been swept to power in 1975 on the promise of restoring the economy from the ravishes of three years of socialism. The economy, however, had proven curiously unresponsive to their patented Friedman free market policies.

At its height, the boom consisted of over 33 G AUD¹ of planned private investment expenditure plus a reported additional 20.8 G AUD² of public infrastructure expenditure. The essence of the boom was energy as Australia became the focus of the industrial powers' attempts to find alternatives to OPEC priced oil. The largest part of the investment was in the expansion of coking and steaming coal mines in Queensland and New South Wales for export to Japan. However, the element which caught the public's and the politicians' imagination was the 5 G AUD of proposed aluminium smelting capacity plus associated refinery and power station developments.

Aluminium production is, by definition, a manufacturing industry. As such it promised much greater returns in terms of employment, export earnings, and political kudos than the mere mining and export of raw materials. As the consequence of the restructuring of the world economy following the OPEC oil crises, the logic of the Australian resources boom was free trade and free enterprise. It implied higher levels of primary exports and manufactured imports. It meant an economy more exposed to balance of payments and world trading conditions. The scale of financing and technology justified foreign investment and minimal government involvement in project decision. It thus fitted conservative political philosophy. Nevertheless, the opposition Labor Party, for the most part, also supported

the resources boom and particularly the aluminium industry. It saw in the large export earnings a source of funds to be used to stimulate the domestic economy and so increase employment³ while avoiding budgetary deficits.

It is thus no wonder that little hard research on the implications of the aluminium industry was undertaken by official agencies and that when, by mid 1982, with the boom overtaken by bust and the cancellation of all but two of the proposed smelters, most government reactions have been of bemused disbelief.⁴

THE ROLE OF GOVERNMENT IN ALUMINIUM DEVELOPMENTS

Federal

The Australian political system was constituted as a federation of six states in 1901. The federal government was originally given powers relating predominantly to defence, control of migration and the establishment of an internal common market (or free trade between the member states). Power over "Trade and commerce with other countries, and among the States" gave the federal government control over exports and through its power over currency the ability to regulate foreign exchange and thus the import and export of capital.⁵ The position of the federal government vis-a-vis the states was strengthened by its taxing powers which allow it to override state taxes and its monopoly of income tax since the Second World War.

Unlike most federal systems, in Australia, as with Canada, control over minerals has remained in the hands of the states.⁶ Jurisdiction over offshore resources was a strongly debated issue until federal control was affirmed in 1975. However, conservative federal governments have adopted the practice of appointing the states as "designated authorities" in this area.⁷

The federal government thus has the potential to influence resource policies through its power over offshore deposits,

exports, and, at least theoretically, in the distribution of taxation revenues among the states. The current federal government has chosen to follow a policy of "New Federalism" which involves both the rhetoric of small government and a return of powers to the states. It has thus chosen to play no role in the decision-making process surrounding the establishment of an international aluminium industry in Australia other than enthusiastic support for such developments as evidence of the success of its policies to improve the climate for private (and foreign) investment in the economy.

In the 1980 Liberal Party policy speech, Mr Fraser's analysis of the issue was limited to the following curiously incomprehensible statement:

"New aluminium smelters and mines are already being established, along with the associated new towns, railways, roads and port facilities.

The benefits of this will be felt nationwide.

We are not talking about development's sake.

We are talking about development because of what it means to people – and it means jobs, prosperity and security for Australian working men and women.

To achieve all this, we have had to trim our sails once or twice, for the world is a harsher place than anyone expected five years ago.

But responsible management means placing Australia first, not once or twice, but always."⁸

A number of government reports were produced on the potential of the aluminium industry. Many of these simply accepted the assumptions, projections and figures of the companies involved with little original comment. The most critical stances were taken by the Senate Standing Committee on National Resources and the Commonwealth Treasury.⁹ In these papers a number of problems asso-

ciated with the developments were raised, including the issues of whether Australia would get a 'fair' return from the resources and to whom these benefits would be distributed.

Some of the problems raised included the inflationary implications of a high demand for investment and infrastructure funds, the ability to collect an adequate level of taxation receipts, the high degree of foreign equity and control, shortages of skilled labour and consequent wage pressures, appropriate pricing of electricity, the provision of industrial and social infrastructure in remote locations, and the structural adjustment effects on existing manufacturing industries with a potential 'disemployment' of labour.¹⁰ Treasury solutions to these problems are twofold. They involved a freeing of capital and labour markets to allow efficient adjustments and ensuring new projects cover the full cost of their development including the opportunity cost of electricity and capital contributions to cover industrial and social infrastructure.¹¹

The foreign investment problem was less susceptible to traditional conservative economic policy. New bauxite mines come under specific foreign investment guidelines, requiring 50 per cent Australian equity and voting rights. Alumina and aluminium are manufacturing activities with no specific equity requirements. However, the need to "demonstrate significant Australian equity"¹² before obtaining approval has opened the way for a number of large Australian companies to become involved in the industry.

The problem of taxation receipts has proven equally intractable. Vertically-integrated aluminium producers have access to a number of concessions available to the mining sector as well as the potentiality to use devices as thin capitalization, transfer pricing, and cost-tolling to minimize Australian tax liabilities.¹³ Even without deliberate tax avoidance, the marketing policies of these companies are such that it can be expected that the long

term price and profit rates are likely to be low and there is unlikely to be scope for raising significant domestic tax revenues from the industry.¹⁴ It was reported in the Federal Parliament that during the financial period 1973–1979 Australia's main alumina–aluminium companies "earned a before tax consolidated profit of 1 G AUD but paid only 188 M AUD in company tax". This was observed as being well below the 46 per cent company tax rate.¹⁵

During the 1980 election campaign the opposition Labor Party supported the idea of imposing a resources tax on the profits of mining and related ventures. However, with the current recession in the world economy and subsequent mineral sector trading losses, interest in such forms of taxation has waned. The only forms of federal resource tax in Australia at the moment are a coal export levy (which is currently being scaled down) and a crude oil levy on domestic oil discovered before 1975 sold at import parity prices which absorbs a proportion of the 'windfall' profits accruing to producers.

State

Competition has traditionally been the keynote of relations between the Australian States. There has long been rivalry between the two populous, industrial States, Victoria and New South Wales, but now there is also the newer antagonism which the frontier States, Queensland and Western Australia, feel for the industrial states and even more for the federal capital, Canberra. The other two States, South Australia and Tasmania, and the vast, barren Northern Territory, still under federal jurisdiction, seek mainly to survive in whatever way becomes available.

Natural resources have been unevenly spread throughout the continent with the majority of the commercial deposits of export minerals – black coal, iron ore and bauxite – to be found in Western Australia and Queensland, although a substantial deposit of bauxite also exists on

Gove Peninsula in the Northern Territory. Consequently aluminium smelting, as the main footloose element of the resources boom, took on important competitive qualities within this rivalry. It offered the frontier states the opportunity to add manufacturing to their extractive base and so draw further ahead in the growth race. Alternatively, it offered the industrial states the chance to catch the break-aways and so maintain their dominance. This was particularly important to Victoria to which, unlike New South Wales which had substantial deposits of export coal, it offered the only chance of participating in the resources boom.

Lacking direction from the federal government, the states were free to pursue smelter proposals. The competition for smelters was mainly a reflection of the need for political survival by the existing state governments. Such survival was greatly assisted by being seen to attract development projects and consequently employment to the state as well as carving a notch for the state in the economic restructuring which was occurring around the resources boom. To host an export orientated aluminium smelter appeared to give the state a role in the international economy and so a long term future.¹⁶

The main, but by no means the only, inducement used to attract smelters was long term guarantees of large blocks of low priced electricity to be taken from the state power grid utilizing new capacity already planned by the relevant state authorities. As it was the need for a new source of energy which was bringing the international companies to Australia in the first place, such competition between the states was turning the country into a buyer's market when more competent negotiations could have auctioned such capacity to the highest bidder.¹⁷

Considerable controversy flared in the Australian community over the reported difference (actual tariffs to large users were usually secret) between the charge to the smelters and that to household

consumers of electricity. The arguments were most open in Victoria where the actual tariff to the Alcoa Portland smelter was known. A number of costings by well known economists were made which indicated the Alcoa tariff was below the cost of supply. The most publicized of these showed that Alcoa would receive an electricity subsidy of up to 84 M AUD per annum in real terms (compared with their electricity costs if charged on the basis of marginal cost pricing) while paying an annual electricity bill of 130 M AUD.¹⁸ In addition, the company received a 100 M AUD contribution to the transmission line from the state, waiving of the 5.5 per cent turnover tax on electricity sales for ten years, and 50 year rights on up to 880 MW of power at the smelter which effectively blocked entry of any other smelter to the state.¹⁹ In New South Wales similar public pressure forced a "recalculation" of smelter tariffs resulting in a reported 16 per cent increase in tariffs.²⁰

In the following months both the Alcoa, Portland and Alumax, New South Wales smelters were moth-balled or abandoned publically as a consequence of tariff rises to eliminate such subsidies. However, it is worth noting the Portland decision coincided with the market downturn and financial problems the company was having related to its new but empty Wage-rup alumina refinery in Western Australia. The company and the new Labor State Government are reported near agreement on a tariff formula which would involve neither a subsidy to or from the smelter.²¹ In New South Wales the Pechiney smelter which received the same tariff increase as the Alumax one is nearing completion on schedule. In Queensland, where smelters receive even cheaper electricity than New South Wales with no public opposition or price increases, one of the two proposed smelters was abandoned. It thus appears subsidized power is not a necessary requirement to attract smelters.

New South Wales and Victoria, where the smelter sites are near existing small

towns, have been prepared to provide the upgraded industrial infrastructure required by the large scale plants. This frequently involves the provision of wharf facilities, transmission lines, rail sidings, access roads, sewerage, water and gas facilities, and the relocation of existing public facilities such as local airports. In addition public funds are used to provide co-ordinating committees to design these facilities to meet the smelters' requirements and on occasion police support against environmental and Aboriginal protests against the destruction of their respective sacred sites. In Queensland, by contrast, the smelters are required to finance much of this infrastructure themselves.

Victoria in particular felt itself somewhat more disadvantaged in this interstate competition as its brown coal resources were of lower quality than the black coal resources of Queensland and New South Wales. It thus offset its higher electricity charges with taxation concessions in the form of decentralization incentives. The smelters thus benefit from payroll grants for plant and personnel, as well as the electricity tax rebate.²² Thus that State is unlikely to receive any taxation revenue from the project for at least ten years while committing a large percentage of state funds to provide power station capacity and infrastructure to meet the project's requirements.

Smelters in other states also receive a range of state taxation concessions. New South Wales offers a similar range of decentralization incentives. While Queensland has been relatively successful in using its rail freight charges as a surrogate form of resource rent tax on older coal export mines, smelters would qualify as 'pioneer' industries and thus receive a range of incentives.²³

An expected source of state revenue from the industry would be royalty receipts from bauxite mining. State royalties are quite low being of the range 0.50 -1 AUD per tonne in Queensland and 0.46 AUD per tonne in Western Australia, where in fact the rate was increased at

the instigation of the company Alcoa. These rates were observed by the Treasury as being very much lower than those prevailing overseas.²⁴

Australian state governments of all political persuasions have been more inclined to use their resources powers as a means of promoting export growth than as a means of producing a national development and conservation policy. The reality has been far from the academic guidelines proposed by the Federal Treasury. There is little sign, however, of any national co-ordination occurring to overcome this competition from which the only beneficiary has been the transnational companies, domestic and foreign, involved with the industry.

Local

Once a state government is successful in attracting a smelter, the decision as to where the industry is to be located is left primarily to the corporation in question. Preferred sites need large areas of land to allow an adequate buffer zone for fluoride emissions, access to a port with adequate spare capacity to allow specialized conveyor or loading equipment, and proximity to power supplies for security reasons. Such sites are usually outside established, congested, industrial centres and the majority of corporations choose sites in peripheral regions, frequently fishing ports or farming service centres, with only a limited range of small scale, unspecialized urban services.

Local governments in these areas suddenly find themselves facing carefully planned publicity campaigns promoting the benefits the projects will bring to the community. They lack the experience and the expertise to properly evaluate the effects a projected doubling of the population and influx of large numbers of itinerant construction workers will have on the demand for housing and community and recreational facilities in the area. Social problems such as vandalism, drunkenness and conflicts with the original resi-

dents are likely to result. Gladstone, Queensland, the first of the recent resources boom towns, is an example of the problems inadequate preparation can produce.²⁵

Queensland now requires the corporations to make a contribution to cover the capital cost of new social infrastructure near projects. New South Wales and Victoria have not yet moved in this direction. Their large commitments to industrial infrastructure mean they have few resources available for urban development. The local government's tax base is eroded by the local rate concessions offered as part of the decentralization incentives. In some cases, as in Portland,²⁶ they have been able to get the companies to provide 'up front' payments against future rate liabilities, although it is difficult to judge whether such payments will be adequate to provide all required facilities. Anti-planning attitudes accompanying the free market philosophy mean local governments are receiving little assistance in meeting these problems.

The most complex effects on the local community relate to labour force changes. There can be expected to be an upsurge in positions for skilled tradesmen and adult males in the construction phase reducing to a more limited number of skilled and semi-skilled operatives once production commences. Most of the unemployed in the area are unlikely to possess the required skills and an in-migration of workers can be expected, with only limited improvements in opportunities for local unskilled, female and juvenile residents. As the migrant workers are likely to be accompanied by their own dependants and others chasing the spectre of growth, an actual worsening of the local unemployment situation might occur.²⁷ Resource development regions in Australia already exhibit a dual characteristic with vacancies for skilled workers existing beside high unemployment rates for female and junior workers. Labour shortages are also likely to push up wage rates affecting the viability of small industries in the area.²⁸

These types of local problems associated with smelter developments are the most readily comprehended by the local community and a number of community action groups were formed in the affected regions. They have had a certain amount of success in forcing both local and state governments to realize at least some of the social needs in such areas. Nevertheless the isolation of such areas, both from each other and from the decision-making centres, has placed them at considerable disadvantages when confronting both the magnitude and the novelty of such developments.

COMMUNITY ATTITUDES

Labour Relations

At first the industrial labour movement was, as was its political arm, the Australian Labor Party, supportive of the expansions in the aluminium industry. This was because, as a manufacturing industry, it was considered a source of jobs.

In fact the number of direct new jobs in the industry will not be high. If all the planned smelters and extensions had gone ahead, new jobs created would have been in the vicinity of 11 000.²⁹ The recent rash of announced cancellations has brought this down to 7 000.³⁰ The Type II (total direct, indirect and induced employment) multiplier was estimated to be of the magnitude of 3.8 for the Australian economy,³¹ although a high propensity to import may reduce this figure for future projects.

The skills breakdown of direct smelter employment for the Comalco plant at Gladstone where the first stage was recently completed is given in the following table. As can be seen, between 13–20 per cent of the new jobs will be created for managerial level staff, 20–25 per cent for tradesmen, and between 40–60 per cent for semi-skilled or unskilled operatives.

Union support for the industry has waned as controversy over issues related to the so called 'Gregory Thesis' arose. This thesis, developed by a well-respected

academic economist,³² put forward the idea that rapid growth of export earnings from the mineral sector would result in disadvantageous conditions for existing rural industries and for import-competing manufacturing industry. This restructuring could result in large losses of employment in the latter sectors, one of the main employers of union labour. A more radical criticism along similar lines was developed in a widely distributed and influential booklet³³ produced by the AMWSU (Amalgamated Metal Workers and Shipwrights Union) one of the more 'political' of the Australian unions. As such the growth in unemployment in Australia, in the minds of many unionists, is now linked to the actions of transnational corporations; while the aluminium industry may be considered less guilty than mining in this, it is included within the general criticisms.

Information on working conditions within the industry is scarce. Conditions appear to vary between plants depending on both the age of the potlines and the companies involved. Criticisms have been

made of working and health conditions at the older Alcan Kurri-Kurri and Comalco Bell Bay smelters relating to excessive fluoride emissions. Both companies have recently made improvements.³⁴ On the other hand, workers appear to be satisfied with the conditions at Alcoa's Point Henry smelter (opened in 1963) where company medical centres and officers are supplied.

In general industrial relations within the Australian aluminium industry have been good. This reflects both the high productivity which allows higher wage levels and the policy on the part of some companies to cultivate good relations with the unions. The main unions in the industry are the AMWSU, which represents most of the tradesmen, and the more dominant Federated Ironworkers Union, a traditional union representing the process workers. In 1980, the metal workers union launched a selective campaign for a 35 hour week, and in July of that year, Alcoa's alumina refineries became a target.³⁵ Although agreement between the parties was initially achieved, the Federal

Government intervened against the campaign and a lengthy dispute ensued which was estimated to have cost the company 20 M AUD in profits.³⁶

Union officials in the regions affected by smelter developments have become more willing to support protest actions by other groups. Support was shown for Aboriginal protesters at Portland³⁷ and at Gladstone, at a public meeting, workers threatened to refuse to undertake additional construction in the area until facilities in the town were improved.³⁸

Aboriginal People

White economic expansion has pushed most of the Aboriginal people still living a vestige of their traditional life style to the extremities of the continent. The largest populations are to be found in the north and west of the country living on 'reserves' to which they are attempting to obtain 'land rights' as an economic and spiritual base for a revival of their culture. This has brought them into conflict with the mining industry and bauxite deposits have played a central role in these disputes.

Most of the existing bauxite leases are on Aboriginal land. The disputes have been most severe in Queensland where the State Government has refused to acknowledge Aboriginal rights to reserve lands. The rich 5 780 km² Weipa lease taken by Comalco in 1957 and the further 1 000 km² taken by Alcan in 1965 was originally a large Aboriginal reserve now reduced to 308 acres.³⁹ Although Comalco claims to employ 100 Aboriginals out of a total wage workforce of 900,⁴⁰ there have been numerous complaints about white attitudes to Aboriginals in the area.

Further to the south is the Aurukun reserve where Billiton (Shell) and Pechiney were given mining rights to 1 905 km² in 1975.⁴¹ This time the Aboriginals were not so easily handled and they defended their land with legal action, armed resistance, and appeals to the recently granted

Table 1

Proposed smelter workforce (Estimated staff and wages personnel)*

Potline stages	1	1,5	2	2,5	3	3,5	4
Professional, technical and supervisory staff	130	155	170	185	200	210	220
Clerical and service staff	90	105	120	130	140	150	160
Total staff	220	260	290	315	340	360	380
Qualified tradesmen	165	210	250	290	320	350	380
Process workers (Comalco trained)	285	400	540	595	740	790	940
Total wages	450	610	790	885	1 060	1 140	1 320
Total plant manning	670	870	1 080	1 200	1 400	1 500	1 700

Source:

Comalco Limited, *Environment Impact Study Report*, Sept 1978, p 20.

Note:

Based on production capacity of 90 kt metal product per year per potline.

Commonwealth power to make laws for Aboriginals anywhere in Australia. When finally a Commonwealth Bill was passed in 1978, the Queensland Government converted all reserves into local government areas. Resistance continued leading to the sacking of the elected local government council and the appointment of an administrator.⁴² Mining of the reserve has not yet commenced.

In the Northern Territory, Nabalco's lease on the Gove Peninsula was the centre of a land rights dispute in 1971 which eventually led to the 1974 Land Rights legislation, rejected by Queensland. Amax and associated companies have unmined bauxite leases in Western Australia on land claimed by Aboriginals.⁴³

The local Aboriginal community objected to the proposed Alcoa smelter at Portland because of potential damage to sacred and archaeological sites. After rejection of their legal attempts to restrain the company, a number of Aboriginal people moved into a camp established on the site as part of the four month long protest.⁴⁴ Attempts to move the camp led to the arrest of 17 Aboriginals, including a 14 year old girl.⁴⁵ In 1982, a Supreme Court judge ordered Alcoa to preserve five sites in order to protect Aboriginal relics.⁴⁶ By this time, considerable damage had already occurred to archaeological sites and construction was soon to be halted by the downturn in the world market for aluminium.

Community Action

The formation of community action groups in regions affected by smelter developments has frequently had an environmentalist basis, although concern about the social disruptions accompanying rapid developments has also been prevalent.

The first concerted community action took place in the Hunter Valley region of New South Wales where at the height of the euphoria it was proposed to contain 4 world scale aluminium smelters, 41 coal

mines, 7 power stations with a total installed capacity of 9 700 MW and 11 extensive water storage dams in an area of less than 4 000 km².⁴⁷ A united front of concerned groups was formed consisting of such diverse interests as resident groups, environmentalists, unionists, vigneron and farmers.

They have been able to mount a concerted campaign of publicity and political pressure. As such they have had some influence on the New South Wales state Labor government policies, including the revision of electricity tariffs for smelters in the area, and recent suggestions to have companies make a contribution to the provision of social facilities in towns affected by their projects.

In Portland, there were signs of co-ordination appearing among the Community Action group, environmentalists, Aboriginals and unionists when construction was halted, although here the actions were more state-wide than purely local. In the Latrobe Valley in eastern Victoria, the site or proposed coal mining and power station expansions related to the Portland smelter and oil-from-coal conversion plants, a united front similar to that in the Hunter Valley was formed with some apparent early success in achieving a more carefully planned development of facilities in that region.

As mentioned above, the development of Gladstone has been notorious for the lack of attention paid to issues such as environmental quality, housing, public transport, social and community facilities, and local government finance.⁴⁸ Strong public action has achieved some improvements although most benefit will probably be felt in newer 'boom' areas taking action to prevent repetition of the same mistakes. Local government representatives from Portland and the Latrobe Valley in Victoria have all returned from visits to Gladstone resolved to take a firmer approach to developments in their own areas.⁴⁹

Despite considerable activity, success

in obtaining changes to the environmental standards applying to smelters has been limited. In Portland the arrest of five protesters did not prevent the destruction of unique heath land⁵⁰ and although the fluoride emission standard was reduced from 1.38 to 0.97 kg/t of aluminium, this is still above that applying in New South Wales (0.73)⁵¹ and achievements in the USA (0.5)⁵². However, the main environmental concern relates to cumulative effects of rapid smelter, power station and coal mine developments in confined regions. Australian environmental legislation takes a project by project approach, making it difficult to pursue such issues.

DOMESTIC CAPITALISM

Local Equity

As outlined in my earlier paper,⁵³ the framework within which the Australian aluminium industry functions has been established by the large transnational corporations which control the world industry. In most of the new developments, one of the 'six sisters' has been the managing partner. The scale of the proposed new developments frequently encouraged the formation of consortia and within these other sources of capital have been able to enter the industry.

Two other foreign transnationals have shown interest in the Australian industry. *Amax*, a large American mining concern, at one stage planned a smelter at Lochinvar through its aluminium subsidiary Alu-max. The withdrawal of its Japanese partner, controversy over electricity prices, and success in achieving a new power allocation in the United States resulted in its withdrawal from this project which was eventually cancelled when the Australian interest could not find new partners. *Shell*, the large international oil company, through its subsidiary Billiton, has a 30 per cent interest in the Alwest project, with a refinery nearing completion and poor market prospects and a 40 per cent share in the Aurukun lease which is un-

mined and still facing severe Aboriginal opposition.

Of interest has been the first signs of direct investment by Japan in the Australian economy, where the aluminium industry has been an early target. With heavy electricity price increases in Japan making smelting no longer economical in that country, there has been an incentive for Japanese firms to become directly involved in their supply sources. Japanese foreign investment has been occurring in South-East Asia, the Far East and Latin America.

The Japanese have been more tentative in investing in Australia, however recent years have seen direct Japanese investment in tourist facilities, coal mining, and the aluminium industry. The latter has involved a 42.5 per cent interest in the Alwest mining and refinery development and a 50 per cent interest in the first stage of the Comalco Gladstone smelter. These investments have taken the form of a consortium of a number of Japanese companies each with a small proportion of total investment. *Mitsui*, through its association in Alumax, has taken a more aggressive stance with interests in bauxite leases in Western Australia and the proposed Lochinvar smelter. Japanese companies have also shown great interest in oil-from-coal proposals, especially in Victoria.

The economic downturn has seen a fairly rapid withdrawal of Japanese commitments to Australian resource projects, especially where the interest has been held by a single company rather than a consortium. It is interesting to note that Japanese investors have been less inclined to take on the managing partner role than other foreign investors.

Australian equity has been taken out by firms which already have a heavy stake in resource developments in the country. These are usually large — by domestic standards — transnational companies such as *CRA (Conzinc Riotinto of Australia)*

which owns a majority share in Comalco, *CSR (Colonial Sugar Refining)* which has interests in the Tomago smelter and the Nabalco mining and refinery operations, and *BHP (Broken Hill Proprietary)* which has an interest in the Alwest development and was involved in the Lochinvar smelter; often in association with smaller mining and financial companies. Alcoa's main Australian partner has been *WMC (Western Mining Corporation)* which has rapidly become one of the main development companies in the country.

The downturn in the world market has had various effects on the companies. Those involved in projects caught with substantial committed investments in a shrinking market, have been the most affected. This includes those associated with the Alcoa and Alwest projects. Others despite recording significant profit-drops have continued with expansion plans. *CSR* has expanded its holding in Nabalco, and through that company is involved in the construction of a smelter at Dunedin in New Zealand. *CRA* has followed an aggressively expansionist policy with a proposed 100 M AUD purchase of a 50 per cent interest in the Japanese Showa Denko Aluminium Company, with which it has had a long association, thus ensuring a niche for its Gladstone output in a contracting market.⁵⁴ It then followed this with a 246.6 M AUD purchase of 50 per cent of Kaiser Aluminium's holding in Comalco, giving a total of 67 per cent equity. The remainder of Kaiser's holding was purchased by the *AMP Society*, an Australian finance and insurance company which is heavily investing in resource development. This move has reportedly increased Australian public shareholding in Comalco to 17 per cent.⁵⁵

Thus the downturn in the world market has resulted in the expected increasing concentration of capital in the aluminium industry. Nevertheless this concentration has not been at the expense of any particular national equity group. With the downturn, there has been a significant withdrawal of Japanese investment from

the industry as well as the end of Kaiser Aluminium's long association with Comalco. The other 'six sisters' with the exception of Pechiney have had only limited success in achieving their expansion plans with Reynolds and Alcoa most severely caught by the downturn. The more laggard Alcan and Aluisse (see below) along with Alumax have been able to withdraw from expansion plans before substantial investments were made and thus have presumably been less affected.

Australian companies such as *CSR*, *AMP* and *CRA* have on the other hand expanded in the recession at the expense of both foreign and smaller local companies with a subsequent improvement in Australian equity in the industry, at least in the short term. *BHP*, Australia's largest company, and *WMC* however have been caught by the downturn. Survival so far appears to be related to experience in the industry plus success in the race to get new smelters established before the market downturn occurred. The recession still shows no signs of abating, so it will probably also require the financial strength to await the upturn.

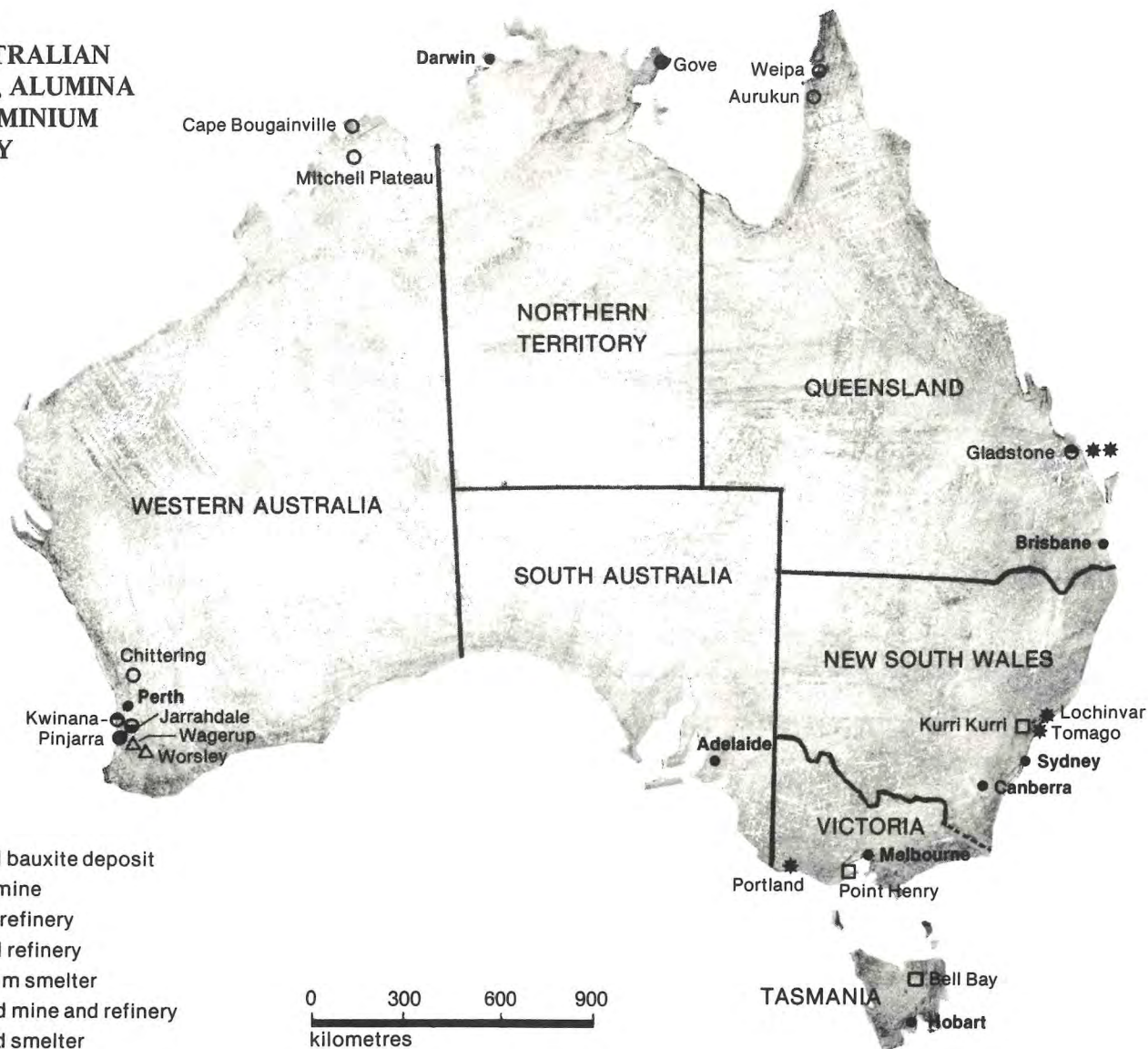
The New Zealand Connection

Just as Australia has served as a willing host for the expansionary ambitions of the leading aluminium companies, so New Zealand has been the centre of expansions by Australia's own transnationals.

In 1971, Comalco, in partnership with two Japanese smelter companies, established a smelter at Tiwai Point, near Invercargill, in the very south of the country based on hydro-electric power. Debate over this project was a prelude to the recent Australian controversies-government courting of smelters, controversy over bulk power prices, and general euphoria about the benefits of economic development and export expansion while ignoring the social and environmental consequences likely to follow.⁵⁶

In 1980 the controversy was repeated when the New Zealand government ac-

THE AUSTRALIAN BAUXITE, ALUMINA AND ALUMINIUM INDUSTRY



cepted a proposal for a hydro-based smelter at Dunedin by a partnership of a New Zealand Group (Fletcher Holdings) and Nabalco Aluminium.⁵⁷ Nabalco is an Australian group comprised of 60 per cent Gove Alumina (majority share held by CSR) and 40 per cent Alusuisse. This group was earlier refused a power allocation in Australia. Comalco was one of the unsuccessful contenders for this site but has expanded its Bluff smelter⁵⁸ while, through CRA, taking over an additional 25 per cent equity from one of the Japanese partners, Showa Denko.

Both smelters will use hydro-electricity, import alumina from Australia, and sell their output on the world market. The withdrawal of Alusuisse from the Dunedin smelter means the future of that project is currently unclear.

Conclusion

From the foregoing it would appear that Australian policy towards the aluminium

industry is based on a naive belief in the inevitable benefits to follow from foreign investment and export growth. The implications that such an approach has in terms of a restructuring of the economy have been glossed over politically or left to market mechanisms by the theoreticians. This restructuring is likely to occur both industrially and geographically with significant consequences for employment and the provision of infrastructure.

Nevertheless, at another level, the industry has been the subject of deep interest and analysis by a variety of individuals from academic, union, community groups and environmentalist backgrounds. There is thus a significant body of information available throughout the country. Groups affected in various ways by the developments have been able to interchange experiences with the result that a few, but significant, changes have been achieved to official policies. If nothing else, the controversies over the electricity tariffs will

have demonstrated to governments that they are dealing with an aware electorate at least on issues affecting them personally.

At present the pressure for rapid development of the industry has been relieved by the recession in the world market. It remains to be seen whether a resumption in developments in the future will bring with it more hard-headed and sophisticated policies towards resource developments by the various levels of government or a return to the euphoria of the earlier stages on which Ralph Nader provided the following assessment:

"Australia is like a third-rate, underdeveloped country negotiating with the multinationals. Unless Australia's leaders show more confidence, you will develop indeed into an underdeveloped Third World Country."⁵⁹

Notes:

- ¹ Department of Industry and Commerce, *Major Manufacturing and Mining Investment Projects Survey*, December 1980.
- ² *Australian Financial Review*, 1982-04-13.
- ³ *Australian Financial Review*, 1982-04-14.
- ⁴ The Department of Industry and Commerce June 1982 survey was still putting the value of such investments at 32 G AUD.
- ⁵ G Stevenson, *Mineral Resources and Australian Federalism*, Research Monograph No 17, ANU (Canberra) 1976, p 14.
- ⁶ *Ibid*, p 13.
- ⁷ *Ibid*, pp 37-43.
- ⁸ *The Australian*, October 1, 1980. As quoted in A Hodgkinson and I Gibson, *The Aluminium Industry and Structural Change in Australia*, paper presented to The Three Nations Conference and Workshop on Development and Underdevelopment in Canada, Australia and New Zealand, University of Canterbury, Christchurch, N Z, November 1980.
- ⁹ Senate Standing Committee on National Resources, *The Development of the Bauxite, Alumina and Aluminium Industries*, AGPS (Canberra), 1981 and Treasury Economic Paper No 8, *Resource Development: Maximising Opportunities*, AGPS (Canberra) 1981.
- ¹⁰ Treasury Economic Paper No 8, *Supra*, pp 1-4.
- ¹¹ *Ibid*.
- ¹² *Ibid*, p 3.
- ¹³ *Ibid*, pp 15-18. See also G Crough.
- ¹⁴ For a discussion of these issues see A Hodgkinson, "Structural Change in the World Aluminium Industry and the Implications for Australia", *Raw Materials Report*, Vol 2 No 1.
- ¹⁵ Brian Howe, Member for Batman as reported in *The National Times*, January 9 to 15, 1983, p 38.
- ¹⁶ I Gibson and A Hodgkinson, "Resource Development and Regional Policy", *Australian Quarterly*, Vol 52, No 4, 1980, pp 444-446.
- ¹⁷ H McQueen, *Gone Tomorrow, Australia in the 80s*, Angus and Robertson (Sydney), 1982, p 52.
- ¹⁸ Dr P Swan, *The Age*, 1981-02-10 and "Pricing of Electricity to Alcoa at Portland, Victoria", monograph, Department of Economics, ANU, January 1981.
- ¹⁹ *The Age*, 1980-08-18 and 1980-09-06.
- ²⁰ *Australian Financial Review*, 1981-02-04.
- ²¹ *Ibid*, 1983-01-07.
- ²² A Hodgkinson and I Gibson, *op cit*, p 22.
- ²³ *The National Times*, 1981-02-01/17, "Queensland discovers how to milk the miners", p 3.
- ²⁴ Treasury Economic Papers No 8, *op cit*, p 22.
- ²⁵ *The National Times*, 1980-11-09/15, "In Search of the Boom".
- ²⁶ *The Warrnanbool Standard*, 1980-08-01
- ²⁷ I Gibson and A Hodgkinson, *op cit*, p 436.
- ²⁸ R Carter, "Resource-Related Development and Regional Labour Markets: The Effects of the Alcoa Aluminium Smelter on Portland", (University of Melbourne, Centre for Urban and Regional Studies), paper presented to 1982 ANZAAS Congress, Sydney.
- ²⁹ A Hodgkinson and I Gibson, *op cit*, p 6.
- ³⁰ A Hodgkinson, *op cit*.
- ³¹ T D Mandeville and R C Jensen, *Economic Impact of Industrial Developments at Gladstone*, Summary, 1979.
- ³² R G Gregory, "Some Implications of the Growth of the Mineral Sector", *The Australian Journal of Agricultural Economics*, Vol 20, No 2, August 1976.
- ³³ AMWSU, *Australia Up-Rooted*, Gordon & Goth (Sydney) 1977.
- ³⁴ *Australian Financial Review*, 1980-03-05 and *The Age*, 1980-02-03.
- ³⁵ *The Age*, 1980-07-22.
- ³⁶ *Australian Financial Review*, 1980-10-17.
- ³⁷ *The Age*, 1980-12-11.
- ³⁸ Report by Mr S Armstrong to Latrobe Valley Trades and Labour Council, 1981.
- ³⁹ H McQueen, "Gone Tomorrow? The Aluminium Cycle", *Arena*, No 55, 1980, p 68.
- ⁴⁰ Comalco Ltd, Submission to the Senate Standing Committee on Natural Resources, March 1981, p 75.
- ⁴¹ H McQueen, *op cit*, p 69.
- ⁴² *Ibid*, pp 69-71.
- ⁴³ *Ibid*, pp 68-69.
- ⁴⁴ *Transnational Brief*, No 4, April 1981, p 9.
- ⁴⁵ *The Age*, 1980-12-11.
- ⁴⁶ *The Age*, 1982-02-25.
- ⁴⁷ D Phillips and D Ross (eds), *Who Asked Us?* (Newcastle Ecology Centre) August 1980, pp 3-24.
- ⁴⁸ *The National Times*, 1980-11-09/15, "In Search of the Boom".
- ⁴⁹ *The Warrnanbool Standard*, 1980-08-01.
- ⁵⁰ *The Portland Observer*, 1980-12-12.
- ⁵¹ *The Age*, 1981-08-03.
- ⁵² *The Age*, 1981-11-17.
- ⁵³ A Hodgkinson, *op cit*.
- ⁵⁴ *Australian Financial Review*, 1982-04-16.
- ⁵⁵ *Australian Financial Review*, 1982-10-15.
- ⁵⁶ NZIER Report, *Manapouri-Bluff Project*, Chapter 5.
- ⁵⁷ *The Age*, 1980-06-12.
- ⁵⁸ *Australian Financial Review*, 1980-07-28.
- ⁵⁹ *The Age*, 1980-07-23.