CURRENT ISSUES BRIEF

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Report: Outlook 95 Conference (Minerals and Energy)
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Major Issues

The Australian dollar is forecast by the Australian Bureau of Agricultural and Resource Economics (ABARE) to fluctuate around US75c in the short term, then appreciate to US79c in 1996-97 and by the end of the decade ease to around US78c. Australia’s long term economic growth rate is forecast at around 3 per cent. A ‘cash rate’ rise by the Reserve Bank of Australia from 7.5 per cent to 10.5 per cent by mid-1996 is forecast by the ANZ bank.

Growth in the minerals sector will exceed farm growth, continuing the established trend. Mining and rural industries in conjunction can act to buffer regional areas against the cyclical market environments of both industries. Asia will be the single largest region consuming minerals and metals by 2000, so Australia is well positioned geographically. The benefits of this growth will not stay solely in the Asian region, hence Australia must maintain competitive advantages.

Minerals account for 25 per cent of the non-service sector of the Australian economy and are responsible for 47 per cent of exports. Several speakers stated that Government policy developments in recent years have reduced the attractiveness of Australia for investment. The effects of the Commonwealth Native Title Act 1993 are just being realised in the mining sector. During the past year overseas exploration by Australian companies has increased, while exploration in Australia is focused on mine leases (not exploration leases) where there is more certainty of title.

Trade measures are generally considered to be inefficient policy instruments for addressing environmental concerns and are likely to reduce the economic and environmental benefits of trade. The key problem with international environmental policies is that they are difficult to distinguish from trade barriers imposed for non-environmental reasons. Protectionist policies tend to creep into agreements under the guise of environmental protection.

Greenhouse gas emissions from OECD countries continue to decline proportionally, as developing nations industrialise. Controls on emissions in OECD countries will shift energy-intensive industries to developing countries, thus unilateral carbon taxation will not have mitigation benefits. For the short term, policy needs to focus on clean coal technology transfer and for the longer term a negotiated multilateral carbon tax needs to be considered.

Even a small unilateral carbon tax would impact upon Australia’s energy-intensive industries, e.g., by relocating long term investment. While the "no regrets" strategy for greenhouse gas emissions is unlikely to provide the same scope for reduction, poorly researched or implemented mitigation policies would have large economic
costs. The "no regrets" strategy is defined as the implementation of those measures which "have no net costs and may bring identifiable net benefits".

Australia's trade in base metals is forecast to grow from $2.6 billion in 1994-95 to $3.7 billion in 1998-99 (real 1994-95 dollars). Australia's global market share in lead and zinc production will continue to increase. The implementation of chemical risk reduction as set out in Chapter 19 of Agenda 21 (Rio Agreement) may impact upon the base metals industry.

Aluminium supply will continue to be affected by developments in the former Soviet Union, but global demand is forecast to grow by 4 per cent annually to 2000. Unilateral greenhouse gas mitigation measures by the Australian Government would impact upon the value-added aluminium metal industry.
Introduction

The Outlook 95 Conference was held by the Australian Bureau of Agricultural and Resource Economics (ABARE) at Canberra’s National Convention Centre from 7-9 February 1995. The conference was the twenty-fifth held by ABARE in that organisation’s fiftieth year. A total of 42 sessions were held, some concurrently, generally with three presenters per session plus chair. Their subjects ranged through the entire Australian resources and agricultural sector; this paper deals with the mineral and energy industries. Due to the current interest and speculation regarding Australia’s greenhouse gas commitments, specific detail is provided for those relevant sessions.

Opening address

Senator Bob Collins, the Minister for Primary Industries and Energy, presented the opening address to the conference for the second consecutive year. The drought has impacted severely on the Australian economy and trading position, resulting in a 0.8 per cent reduction in economic growth and an estimated trade loss of $1.3 billion. The estimates approximate the benefits likely from the Uruguay round of the General Agreement on Tariffs and Trade (GATT) which Senator Collins described at the opening of the 1994 Outlook Conference. Senator Collins stated that the Government will not introduce a carbon tax in 1995, but other measures were being considered. The preferred strategy for greenhouse gas mitigation is continuation of the “no regrets” strategy, which refers to measures which have a neutral or positive impact on the economy. To date the track record of industry on implementation is good.

Australia’s commodity markets

An optimistic outlook for Australia’s commodity markets was provided by Dr Brian Fisher, the Executive Director of ABARE. Strong global demand is anticipated, given that in 1993 world economic growth was only 1.2 per cent while in 1994 it had risen to 3.4 per cent. The global growth rate is forecast to decline to a more sustainable rate in the longer term but demand will remain strong. For Australia, economic growth around 3 per cent is forecast, falling from the 1994/95 figure of 5.2 per cent. The Australian dollar will remain at around US75c in 1994-95, appreciate to US79c in 1996-97, then ease to around US78c by the end of the decade.

Growth in the minerals sector will exceed farm growth, thus continuing the established trend. A key challenge for Australia is the locking up of resources
which provides a dilemma for resource management. Adequate funding for higher levels of environmental control can only be achieved through development. Mining has clearly demonstrated that conservation measures are not excluded from operations. Western Mining Corporation (WMC) was cited as an example of this: The economic benefits of mining can readily advantage rural areas; for example, Olympic Dam has recruited workers from failed farms on the Eyre Peninsula. The development of mining in rural areas can go some way to smoothing the peaks and troughs in commodity cycles. Examples cited were Parkes and Cobar in New South Wales.

Assuming that the drought breaks, the outlook for Australian commodities over the next few years is the best for some time.

Comment on the Australian economy

A ‘cash rate’ rise by mid-1996 from the current 7.5 per cent to 10.5 per cent by the Reserve Bank of Australia was forecast by Graham Hodges, the Chief Economist of ANZ Bank. This tightening of policy will support moves by the Government to rein in the Commonwealth Budget deficit. The Australian dollar is likely to reach US80c by late 1995 and move to US83c in 1996 before weakening in 1997. Thus the ANZ is anticipating a stronger dollar than ABARE over the medium term. Australia’s recovery is in its fourth year and further economic growth is forecast to 1996. Australia’s trade imbalance should improve in 1995-96, mainly due to the breaking of the drought.

Minerals and energy overview

Gerhard Ott of the World Energy Council in London stated that local air pollution effects will receive more attention and action in developing countries than greenhouse mitigation efforts. Countries such as China and India are unlikely to sacrifice economic development to reduce carbon dioxide (CO₂) emissions. Only the governments of a few wealthy countries are seriously considering the need to reduce emissions of CO₂. Energy efficiency and renewable energy will only make a small contribution to energy supplies, thus atmospheric CO₂ will increase. The transfer of clean coal technology and other innovations to developing countries will provide the greatest benefits to all nations.

Charles Von Arentschildt, the Managing Director of Morgan Stanley in New York, compared the Organisation for Economic Cooperation and Development’s (OECD) average economic growth of 2.2 per cent with Asia’s 6.5 per cent. By the year 2000 Asia will be the single largest consuming region of minerals and
metals in the world. Australia is well positioned geographically to take advantage of this demand, but the markets will be characterised by high volatility. The benefits of growth will not stay solely in the region and Australian producers need to maintain the competitive advantages that have been built.

BHP's Executive General Manager, Corporate Planning and Administration, Jim Lewis, maintained that the minerals sector is critical to the Australian economy. Minerals account for 25 per cent of non-service Gross Domestic Product (GDP) or 6.2 per cent overall. Furthermore, the industry is responsible for 47 per cent of exports (1993-94). Many issues face the industry in Australia: increasing international competition, geographical and historical oddities, high levels of government interference and tariff protection for manufacturers. Traditionally, Australia has been viewed as a politically stable investment opportunity, but significant 'road blocks' to investment have emerged in recent years. Governments have changed rules for developments after the investment has been decided upon, thus altering the attractiveness of investment or preventing development entirely.

**Trade and environment**

Vivek Tulpule of ABARE's Minerals and Energy Group reviewed the issues associated with trade and environment. He stated that trade measures are inefficient policy instruments for addressing environmental concerns and are likely to reduce the economic and environmental benefits of trade. The implementation of policies directly targeting the source of environmental degradation is likely to be more efficient. The key problem with international environmental policies is that they are difficult to distinguish from trade barriers imposed for non-environmental reasons. The processes and production methods (PPM) associated with a particular commodity cannot be readily identified by the end product. Higher income levels tend to raise the environmental standards expected by the community. Simultaneously, technology and wealth are what make high environmental standards feasible.

Graeme Thomson of the Trade Negotiations and Organisations Division of the Department of Foreign Affairs and Trade noted that media attention on international environmental agreements is recent, but negotiations commenced at least twenty years ago. Whilst not widely recognised, there are positive linkages between trade liberalisation and the environment. Reinforcing comments by Vivek Tulpule, Graeme Thomson stated that there is a high propensity for protectionist philosophies to creep into policy under the guise of environmental protection. A review of multilateral environmental agreements or proposed agreements including the Basel Convention, OECD Cooperative Risk Reduction and the Draft Convention on Liability and Compensation for Damage in Connection with the
Carriage of Hazardous and Noxious Substances by Sea is included in Graeme Thomson’s paper.

**Base metals**

Mike Roarty of ABARE’s Minerals Economics Branch forecast continued growth and high prices for base metals in 1995-97. Base metal export earnings for Australia were forecast to grow from $2.6 billion in 1994-95 to $3.7 billion in 1998-99 (1994-95 dollars). While Australia produced 7 per cent of the world’s zinc in 1980, this had increased to 15 per cent in 1994. The lead and zinc market share for Australia will continue to increase and mined metal volumes from the former Soviet Union will decline. Issues associated with the base metals industry are the OECD Cooperative Risk Reduction strategy and the Basel Convention, which may have unanticipated consequences. Lead recycling schemes may be undermined if the demand for lead, and subsequently its price, falls due to bans on certain lead end uses being decided. This contradicts efforts to encourage recycling outlined in the proposals.

Colin Taylor of the Queensland Department of Minerals and Energy described the development of base metal resources in the Mount Isa - Carpentaria region. New projects in the area include: Century, Cannington, Osborne and Ernest Henry. Investment and development is occurring at the Mount Isa - Hilton, Selwyn - Mount Elliott and Gunpowder mines. Infrastructure is a limiting factor in the region; only one major power station exists and existing water storage is committed. Generally, new projects result in new infrastructure leading to subsequent benefits. The proposed gas pipeline into the area from south-western Queensland could facilitate the development of Western Mining Corporation’s phosphate deposits in the region.

David Hughes, Manager Environmental Affairs Mount Isa Mining (MIM), discussed international efforts at chemical risk reduction. Chapter 19 of Agenda 21 (the Rio Agreement 1992) outlines chemical risk reduction and gives the issue a high profile. Copper, lead and zinc (increasingly important Australian exports) are at the top of the list of fifty due to be assessed. Problems with the assessment process include: no financial cost benefit study or economic framework, a focus on toxicity not risk, and no account taken of the metals’ chemical form.

**Electricity**

Bruce Bowen of ABARE’s Domestic Energy Economics Section forecast ongoing growth in the private generation sector of the Australian electricity industry. The
growth through to 1998 is forecast at 10 per cent per annum, from 42 petajoules (PJ) in 1995 to 63 PJ in 1998. The existing small power stations and cogeneration units are industrial such as Alcoa in Western Australia, the BHP Steelworks and the Queensland sugar mills. Gas is likely to be the preferred fuel for this generation, along with coal bed methane. Problems with waste, pollutants and CO₂ emissions are minimised with gas fuels.

David Minicucci, the Project Manager for Sithe Energies Australia, believes that the key challenge for private power generation in Australia is the control of markets by the former bureaucracies. The transition to a free market for electricity is occurring but some controls from the prior environment remain. State Budgets depend upon dividends from electricity, which acts as a disincentive for better control of nitrous oxides and sulphur dioxide emissions to meet world’s best practice.

The privatisation of the Victorian electricity industry is substantially complete according to Geoff Swier of the Electricity Supply Industry Reform Unit of the Victorian Treasury. The key benefits of reform are the shift of risk away from taxpayers and consumers to equity investors, along with providing a competitive advantage for Victoria. Further privatisation will only be undertaken if there is a clear public benefit. Protection of customers and the community will be through the Office of the Registrar General.

Brian Benjamin of Macquarie Corporate Finance reinforced Geoff Swier’s view that the shift of risk away from taxpayers and consumers to equity investors is a benefit of privatisation. The privatised structure and disaggregated industry will place risk with the equity investors. Energy conservation is well served by the structural changes as cross subsidies will be removed.

Aluminium and alumina

Terry Sheales of ABARE’s Mineral Economics Branch reflected upon the greatly changed market circumstances for aluminium in the past twelve months. The price for aluminium metal in February 1994 was 50c/lb, while in February 1995 it was 90c/lb. Aluminium demand and supply will remain in flux, mainly due to developments in the former Soviet Union (Commonwealth of Independent States or CIS). CIS domestic consumption is expected to recover around the end of the decade and the flow of metal in western markets seems likely to ease from recent high rates. For Australia, strong increases in alumina exports are anticipated, with some increases in metal exports. The total value of aluminium and alumina exports from Australia is forecast at $7 billion in 2000, in 1995 dollars. Greenhouse gas mitigation measures will be a key factor for Australia, mainly due to the country’s
dependence upon fossil fuels. Unilateral action by the Australian Government would impact strongly upon long term investment in the aluminium industry.

Ian Edwards, the Managing Director of Alcan, stated that growth in aluminium consumption exceeds other metals over time. Global demand is forecast to increase by 4 per cent annually to 2000. Australia must remain competitive in order to continue to attract investment.

The alumina industry is not widely studied according to consultant James King of London. Two tonnes of alumina go to make one tonne of aluminium, changing in value from $120 a tonne to $2,000 a tonne. Long term annual growth in supply of 2 per cent is forecast for alumina. Alumina prices generally lag behind those of aluminium, thus a price spike is anticipated in the near future. Australia’s position as an alumina supplier is likely to strengthen regardless of government action on greenhouse gases.

**Nickel**

Dave Meek of ABARE’s Mineral Economics Branch examined nickel prices, which in the last year have risen from $6,000 per tonne to $10,000 per tonne. Nickel prices are forecast by ABARE to peak in 1997, then eventually weaken to around $6,000 per tonne. The main use for nickel is in stainless steel production.

Markku Toivanen of the Outokumpu Company in Finland provided an analysis of the Russian nickel industry. Russia provides around one-third of the world’s nickel production with 80 per cent from Norilsk. The CIS exported a large surplus of nickel to western markets in 1991 to 1994, forcing down prices for the metal. Production capacity for nickel has subsequently diminished in the CIS and this surplus has ended. Domestic demand for the metal in the CIS is anticipated to increase before 2000, leading to production shortfalls in the long term.

Australia has a significant number of nickel projects which are being evaluated for production, according to Keith Hulley of Western Mining Corporation. Gavin Becker of Dominion-Mining forecast increased nickel production for Australia from these projects dependent upon technology developments. The extraction of nickel from low grade lateritic deposits will become increasingly important. Application of the gold extraction technique, Activox®, to nickel processing will provide the key to this development.
Climate change

Dr Brian Fisher discussed the results of economic impact studies of greenhouse gas mitigation policies. The analysis utilised the international trade model, MEGABARE. Greenhouse gas emissions from non-OECD nations will grow far more rapidly than those in the OECD, which already has only a small proportion of total emissions. Australia's emissions growth was above the average for the OECD, mainly due to population growth. Controls on emissions in the OECD will merely move energy-intensive industries to developing countries utilising less efficient energy production technology. Technology transfer can reduce greenhouse gas emissions at a relatively low marginal cost and improve living standards in developing countries. For the short term, policy should be technology transfer, while long term policy can focus on tradeable emissions and a negotiated multilateral carbon tax.

The science of climate change was discussed by Dr Graeme Pearman of the CSIRO Division of Atmospheric Research in Victoria. Australia's recently published greenhouse gas inventory has scientific uncertainties, mainly in the land clearing and forestry areas, but it provides a valuable benchmark. Models for climate change scenarios are continually improving with new methodology, computer developments and the nesting of regional models and data onto global scenarios. There has been convergence in the capacity of global climate models to represent the current climate system.

Kathryn Tayles, the General Manager of External Affairs for CRA Limited, stated that it was hard to believe that the Government was seriously considering a unilateral carbon tax which would damage Australia's export industries. Australia's key industries are energy-intensive and this impacts upon the nation's greenhouse gas emissions. The material benefits of these industries and emissions are realised overseas, through exports. Once this part of the equation is calculated into Australia's greenhouse gas inventory, a more realistic picture will emerge. The policies already adopted by the Federal Government will halve the growth of greenhouse gas emissions by 2000. Even a small unilateral tax on carbon would provide a large disincentive for investment. Moreover, industry is concerned that the level of the tax will be ratcheted up once introduced. The March 1995 Conference of the Parties meeting to the Framework Convention on Climate Change in Berlin is likely to strengthen greenhouse gas mitigation measures for developed countries.
Energy efficiency and the environment

David Crossley, the Manager of Demand Planning for Pacific Power, and the chair for the Energy Efficiency and the Environment Session, stated that the greatest greenhouse gas emission reduction can be obtained by government cooperation with industry. Energy efficiency can be a powerful tool in achieving reductions.

Andrew Dickson of ABARE’s Climate Change Economics Section used ABARE’s MENSA model of the Australian energy system to analyse greenhouse gas mitigation policies. While the continuation of the no regrets strategy is unlikely to provide the same scope for emissions reductions, the rushed or poorly thought out implementation of other policies could have immense costs. A 1990 stabilisation target would require a reduction in 37 million tonnes of greenhouse gas emissions by 2000. Examples of two policies which could be used to achieve this end were modelled through MENSA. The least cost case led to Australia losing $8.2 billion in GDP, electricity prices rising by 30 per cent and petrol prices increasing by 9 cents a litre. The second case applied the specific strategy case of scrapping old cars, a suggestion under the no regrets framework due to local air pollution benefits. From the model, the same 37 million tonnes of emission reduction would lower GDP by about $42.3 billion.

Native title and the mining sector

Robert Champion de Crespigny, the Executive Chairman of Normandy Poseidon Limited, reviewed the Commonwealth Native Title Act 1993 which has been in effect for just over one year. He argued that the implications of the Act are just beginning to be realised in the mining sector and that the disparity of community views, the acrimony and the confusion over precedence of legislation remains. De Crespigny concluded that exploration in Australia has become less competitive internationally and is centred on existing mine leases, where there is more certainty of title. Overseas exploration by Australian companies has increased by 32 per cent since the Act. However, de Crespigny believes that the problems with the Act are not insurmountable and will be resolved.

Justice Robert French, the President of the Native Title Tribunal, stated that industry needs to become proactive in native title issues. Currently, industry is only willing take a reactive, pragmatic course.