

# *Petroleum Refining: Rationalization or Atrophy?*

by Jim Hoggett

## **Summary**

The Australian petroleum refining industry provides the fuel without which our economy and society could not function. It is an industry in trouble. It is fragmented and badly structured. It makes a totally inadequate return for its investors. In this weak state it operates in a completely open Australian market, competing with the best of the overseas refineries. These are often several times the size of the biggest Australian refineries. In addition they often enjoy more favourable tax regimes, have a growing excess capacity and generate surplus gasoline for sale in our region, including Australia.

This is a challenge we have to meet. There is no possibility that substitute fuels will make a dent in the demand for petroleum, let alone supplant it, at any time in the foreseeable future. The challenge is to create the conditions in which the industry can restructure so as to respond to the fierce and growing foreign competition. In this endeavour the main task is for the industry to optimise the use of existing and new investment. To do this requires the cooperation of government in Australia mainly by ceasing to obstruct its efficient operation. State governments have a plethora of inconsistent regulation on fuel standards, additives and pricing, which breaks down the small Australian market into even smaller units, the size of tiny overseas countries.

Competition law retards or prevents potential rationalisation which would allow the industry to reform into more competitive units. A sensible and cooperative effort by Commonwealth and State governments could clear away the regulatory mess. At the same time it could provide the competition authorities with clear guidance as to the public benefits to be derived from reform. The alternative is continued poor returns and functioning of the industry and slow inevitable decline.

## INTRODUCTION

If we were to set the rules of boxing so that Australian lightweights competed against heavyweights from overseas, we would think it irresponsible. But this is a reasonable metaphor for the current public policy applied to the Australian petroleum refining industry.

We have a fragmented and stunted petroleum-refining sector. It survives by abjuring profit and mortgaging its future. The question we face is how to change the rules to concentrate this lightweight team, which is taking a battering, into a few refinery heavyweights that will match the international competition in the years ahead.

## THE INDUSTRY NOW

### *Australia Is A Small Player*

Australian output of refined petroleum products roughly matches domestic demand. Both are very small in world terms.

The most recent international figures show that our total production in the third quarter of 2002 was 8.9 million tonnes, compared with OECD production of 486 million tonnes, including US production of 202 million tonnes. The relatively small size of our industry reflects our small local market and our inability to develop major export markets.

As for our region, Australia has about 4 per cent of current Asia-Pacific refinery capacity and accounts for less than 5 per cent of regional production.

**Table 1: Australian Refinery Capacity**

	Barrels per day
Caltex Lytton (QLD)	105,000
Caltex Kurnell (NSW)	120,000
BP Kwinana (WA)	138,000
BP Bulwer Island (Qld)	83,000
Mobil Altona (Vic)	135,000
Mobil Port Stanvac (SA)	78,000
Shell Geelong (Vic)	125,000
Shell Clyde (NSW)	86,000
<b>Total</b>	<b>870,000</b>

Source: Industry estimate.

Total Australian refinery capacity is shown in Table 1. Capacity has been virtually unchanged for the last five years. Our total capacity of 870,000 barrels per day (bpd) compares with the figures for China (5.3 million), Japan (4.7 million), South Korea (2.6 million), India (2.4 million) and Singapore (1.1 million).

Total Australian refinery inputs and production are as shown in Table 2.

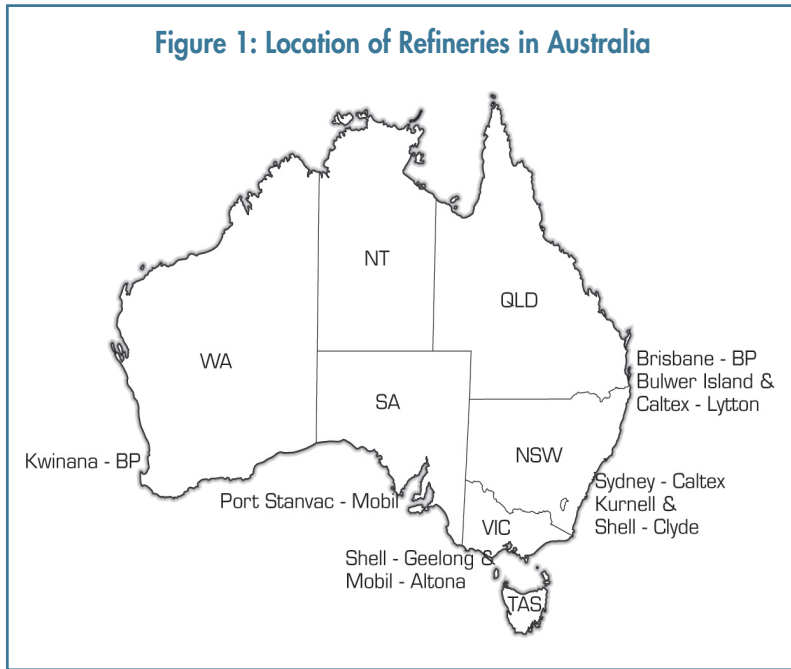
Some important facts emerge. First, there is a sharp decline in the indigenous contribution to refinery inputs. This is a trend that is likely to continue with the peaking of local crude production in the fields close to the refineries in the South East of Australia. Second, total output of products levelled off. Third, reduced gasoline production accounted for a large part of this shift. It is too early to say that we have reached a plateau, but the

**Table 2: Refinery Input and Production  
(Megalitres)**

Year	Input		Production						
	Total	Percentage Indigenous	LPG	Gasoline	Aviation Fuel	Diesel	Fuel Oil	Other	Total
1999-00	44,500	39.8	1,674	18,652	5,689	12,736	1,838	2,900	43,499
2000-01	44,708	38.3	1,794	17,886	5,963	13,212	1,951	2,672	43,490
2001-02	42,910	34.4	1,718	17,999	5,536	13,064	1,684	2,425	42,427

Source: Department of Industry, Tourism and Resources.

Figure 1: Location of Refineries in Australia



vehicle numbers were just over five million in 1971 and close to 13 million in 2002.

Despite this growth, over the last two decades the number of major oil companies operating in Australia has shrunk from nine to four. Esso, Amoco, Ampol, Total and HC Sleigh have all left the field. In each case, low returns and the potential for rationalization of production were factors. Although the number of players has more than halved, the number of refineries has reduced by only two, from ten to eight.

recent production trend looks more than a blip and possibly represents the beginning of a slower growth era.

Total regional refining capacity and production continues to grow despite declines in some countries. In the five years to 2000, regional output grew by 22 per cent. In the next few years, Chinese capacity is forecast to increase by more than the total existing Australian capacity and there will be large increments in Taiwan. Middle East refinery capacity is also forecast to grow strongly.

Any decisions we make on the future of the industry will not influence our international environment. Decisions will be made for and by ourselves.

### ***The Structure of Our Refining Sector Is Out of Date***

The dispersed geographical distribution of our refining sector reflects its historical development, with each State capital city supporting one or more refineries. The location of Australian refineries is as shown on Figure 1.

The industry has restructured radically in one sense by expanding production to accommodate steadily growing domestic demand for fuel as the total population and vehicle ownership have increased. Motor

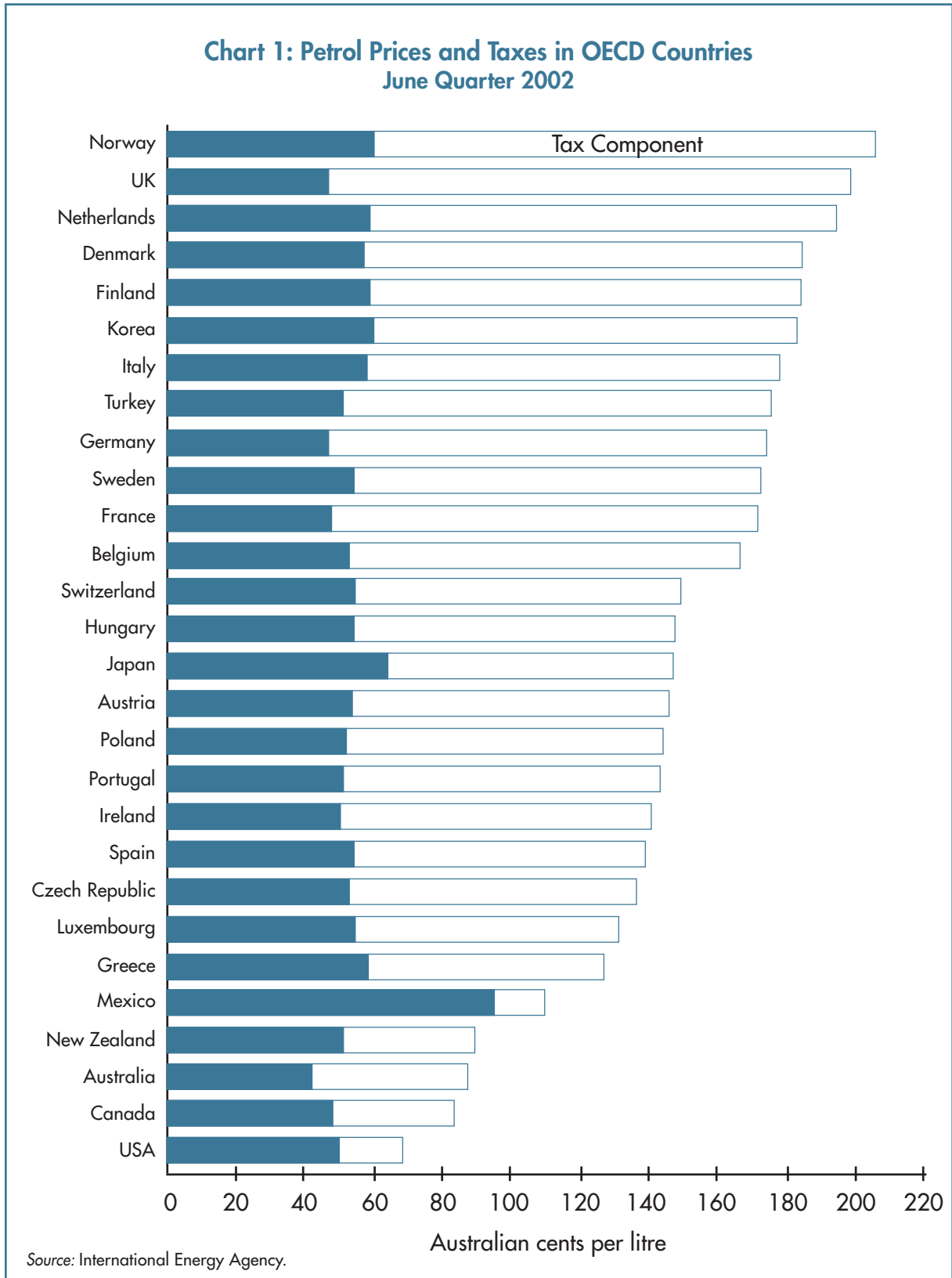
We suffer disadvantages of scale. The average capacity of Australian refineries is around 100,000 bpd and none is much larger than the average. New refineries in the region, particularly those engaged in export, are generally significantly larger. Singapore's largest has 375,000 bpd, South Korea, 819,000, Taiwan 524,000 and Thailand 277,000.

The refinery capacity utilization figure for Australia is generally estimated to be around 85 per cent. This does not necessarily suggest very substantial overcapacity, even allowing for slower growth in demand. The pattern of relatively small scattered refineries, however, is no longer optimal in a free market with large overseas players and continuing pressure to invest in cleaner fuels.

### ***Refining Costs Are Relatively Low***

Despite its sub-optimal structure and odious comparisons with overseas operations, the Australian refining industry is not grossly inefficient, rather the reverse. Nor did it sit on its hands as the competition became more intense.

Production efficiency has improved. One indicator is the 9 per cent reduction in employee numbers over the four years to 2001. Another is the value added per employee, which stood at \$293,000 per



employee in 2000–01. This places the industry in the top five performers in the Australian manufacturing sector.

There has been \$2.4 billion of new investment over the five years to 2001. The

new investment, however, would not all have added to productivity. Much of it would be to satisfy new fuel standards. The industry estimates that 28 per cent of its new investment in the five years to 2001 could be

classified as environmental.

The cost competitiveness of Australian products is indicated by relative retail prices (see Chart 1). This Chart shows that we have the cheapest ex-tax price of petrol in the OECD.

The cost/price performance is not all due to production efficiency, although this is undoubtedly a factor in the ability of the industry to maintain its position.

More detailed performance comparisons with the rest of the Asia–Pacific, where our main competition is found, are more relevant. These suggest that while Australian refineries do not have the extremes of performance that occur across the region, nevertheless, we lag the average efficiency. This includes factors such as capacity utilization, energy intensity of production, labour productivity and operational availability. Perhaps, more importantly, the best performers in the region are superior to our best.

Given the open Australian market, ex-refinery prices are virtually set by the major exporters in the Asia–Pacific region who are also operating on very narrow margins. The proportionately heavy demand for diesel in South-East Asia tends to generate a persistent surplus of gasoline. This surplus is available for export to Australia at discounted prices. It is virtually a by-product. The high public profile of retail petrol prices also exerts restraint.

All these factors have been instrumental in keeping pressure on costs. The sum of them has not been sufficient to yield a satisfactory profit margin.

### ***But Its Financial Performance Is Poor***

Gross annual revenues for the whole industry, including marketing, were \$32 billion in calendar year 2001, little changed on the previous year. Marketing and production costs for the industry, excluding one-off factors, however, increased by 11 per cent—well above current inflation rates. Over the four years to 2001, the fixed asset base of the industry declined by almost 6 per cent to \$12

billion, even after \$2.4 billion of new investment in the period.

For the five years to 2001, the return on assets for refining and marketing averaged 3.8 per cent and was negative in the last two years. The return on shareholders' funds was little better.

In the calendar year 2001, the refining sector lost \$472 million—a significant turnaround from the previous year. Even allowing for stock gains, the sector just broke even. The indications are that 2002 may have been a better year for the industry, but that the return on assets remains well below the cost of capital.

Shell has asserted that the refining and marketing margins that it achieves in Australia are lower than in any other country in which it operates. Comparisons of profitability within the Asia–Pacific region support this statement for the industry as a whole.

### ***Although No-one Is Leaving the Game***

If there has been such sustained under-performance, why has no-one pulled out of the industry? There are perhaps four main reasons.

First, the industry has engaged in continual productivity improvement. Successive company programmes kept pressure on costs and operational efficiency, allowing them to keep within range of prices.

Second, everyone hopes that someone else will blink first. The existence of huge sunk costs and significant possible gains may mean that the waiting could pay off. This is not the same as the gambler who faces zero-sum or certain long-term loss—there is the potential to hit a sustained winning streak if one or more players leave the table.

Third, the costs of leaving the table, the exit costs, are very high because of the nature of the product and the long occupancy of most sites. The player doesn't just lose his stake, but pays a substantial penalty to leave.

Fourth, even while profitability is low, the industry has generally been marginally cash-positive. So, each player can sit it out without going into death throes, even though they are

all making a very poor return on capital.

These add up to a big ‘first mover disadvantage’. There is some incentive to stay and a powerful disincentive to leave. The ongoing situation is not in the public interest but it is internally self-sustaining.

*To conclude, we observe an industry that is making the best of the conditions in which it operates. Its structure is historically determined and inappropriate but rigid. It is ill-adapted to the future it faces.*

## THE FUTURE OPERATING ENVIRONMENT

The future the industry faces will be different from what now exists but probably less changed than some would expect or prefer.

### **Petroleum Is and Will Remain Our Most Important Energy Source**

Petroleum products are 52 per cent of Australia’s final consumption of energy (see Chart 2). Nor is this likely to change in the next decade or so. In 2019–20, the projection is for it to supply 50 per cent (see Chart 3). Projections that far out in time are unreliable, but they indicate the absence of any major, foreseeable influences that will change the existing pattern dramatically.

Liquid petroleum fuels provide more than 95 per cent of Australia’s transport needs and there are no forecasts of dramatic change here. Industry forecasts indicate a slow growth in demand—perhaps 1 to 2 per cent annually in volume, mainly driven by gasoline and diesel.

Are these reasonable scenarios? Are there factors external to the industry that could dramatically change the out-

look? Can we reduce our demands for energy and/or for petroleum?

The three answers are ‘yes’, ‘maybe’ and ‘no’ for the foreseeable future.

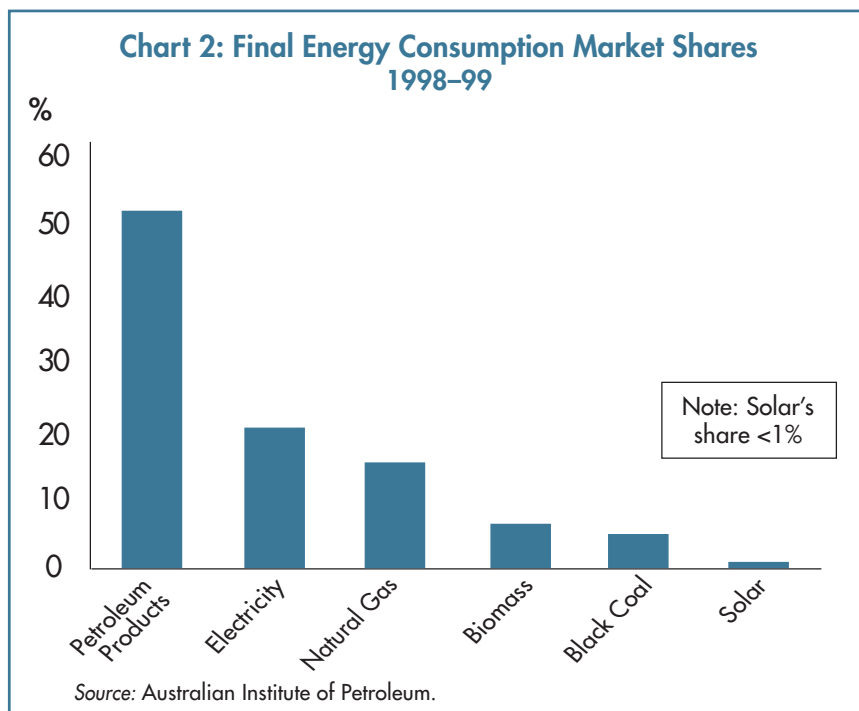
It is possible for us to be more fuel-efficient. There have been major advances in fuel economy and these will no doubt continue, although possibly at a slower rate. But more than counterbalancing this are two great socioeconomic developments of the post-war period—the inexorable growth in demand for personal mobility and a parallel desire for traded goods from distant parts.

The causes of this are sufficiently powerful and enduring for us to conclude that, although growth in energy consumption may slow in Australia, we will not be *reducing* our consumption to any significant degree in the foreseeable future.

The significance of this is that there will be a permanent role for a substantial Australian refining sector.

### **Substitutes Will Make Little Difference**

Alternative energy sources, whether domestic or overseas-produced, will not be credible substitutes for petroleum.



First, there will be no shortage of cheap oil. The spectre of declining world oil reserves has been comprehensively exorcised. OPEC production capacity grew by 1 million bpd in 2001 alone and world crude production capacity is forecast to grow by as much as 1.5 million bpd pa for the next five years. There is also potential for a massive further increase in world production if the price warrants it. Furthermore, any significant sustained rise in the price of oil could bring in huge reserves of lower grade deposits, a burst of new exploration and, with a lag, a strong fuel-economy response. This indicates a continuing downward pressure on the price of both crude oil and refined products and the relative unattractiveness of alternatives.

Second, the substitutes for petroleum are not promising. Gas looks the most promising of the substitutes. It offers an opportunity for some transport fuel substitution. But very substantial new investment is needed just to avoid looming shortages, let alone allow for large-scale substitution.

Gas-to-liquids is another of the more promising of the technologies. Its commercial prospects are clouded by gas/oil price relativities and the premium that consumers are prepared to pay for this alternative (which

is generally not much).

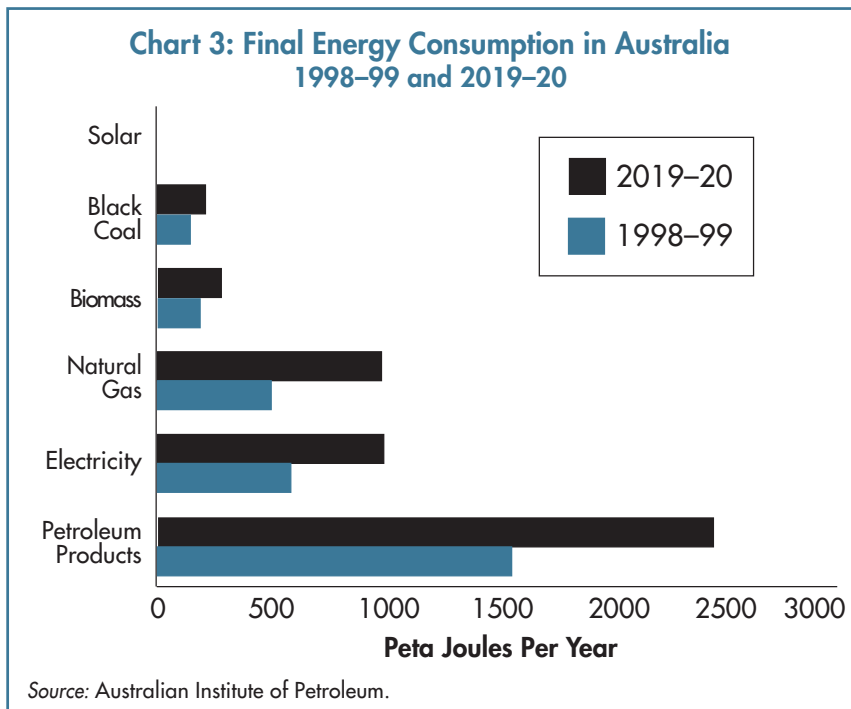
Most other substitutes are much more expensive (and hence require substantial subsidies), are more adapted to stationary than transport uses or need significant further technology breakthroughs and development to become viable. The solar car is still a long way off. Electric vehicles have a long history but in very limited applications. Solar domestic water heating has become an alternative but it is still subsidized, it has not made major inroads and it mainly substitutes for electrical, that is, coal-powered, energy.

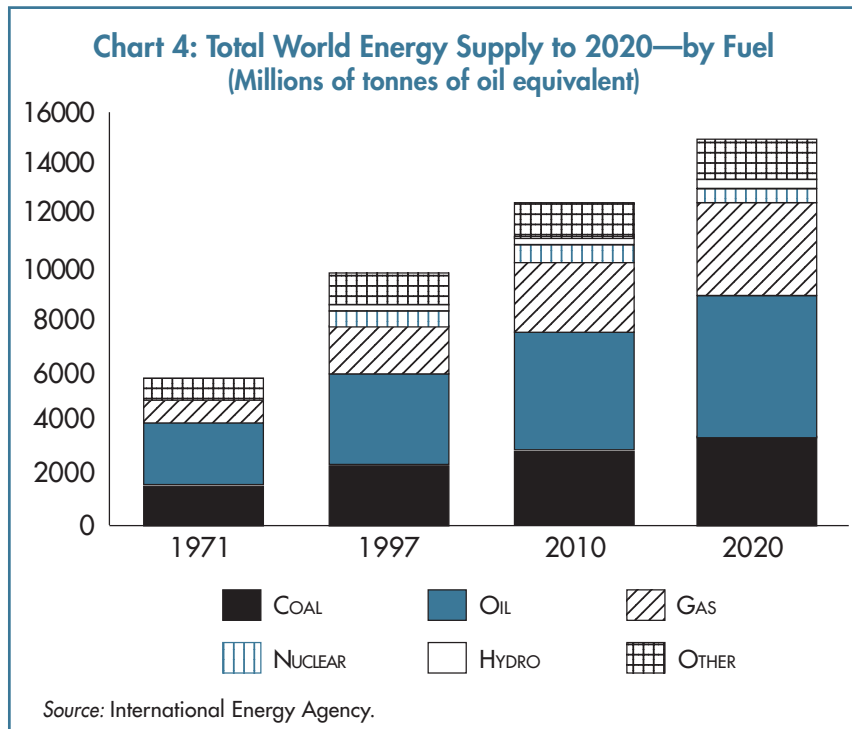
Biofuels owe their existence to their exemption from the tax regime applied to petrol and have made little impact. The penetration of biofuels is only really significant in countries such as Brazil where their use is mandated.

Although much publicized, alternatives constitute a very small and slow-growing presence. In the OECD, renewables increased their share only from 2.1 to 3.4 per cent of primary energy supply between 1973 and 2000—despite two major oil crises in that period. Nuclear power increased from 1.3 to 11 per cent. It is worth noting that although the petroleum *share* declined over the same period, *in absolute terms* it still grew almost twice as fast as renewables.

Chart 4 shows the global picture from 1971 to 2020. It illustrates the continuing dominance of coal, petroleum and gas. Currently, alternative fuels supply no more than 1 per cent of the market for petroleum products in Australia. Attempts to enforce significant further substitution would be at heavy economic and financial cost to the community in return for uncertain gains.

On any level playing field, petrol wins hands down.





This is treated at greater length here than is justified by the promise of alternative fuels because there is always a vocal group of activists who can see the promised land of biofuels, gas, solar, wind and wave power, where all the problems of petroleum and other carbon fuels will be solved by doing away with the need for them. This eco-smokescreen can encourage policy makers not to tackle those problems in the vain hope that they will magically disappear.

### ***The Export Potential for Refined Products Is Limited***

The pattern of Australia's trade in refined products is partly geographically determined.

Northern Australia imports the bulk of its product requirements from Singapore, which is a shorter transport haul than from the Australian refineries. Therefore, this is not entirely a pattern of generalized import penetration.

The geographical offset is in the pattern of exports, where the major refineries supply Pacific destinations. Exports of products are not insignificant. In 2001–2002, they were twice the volume of imports, although this was unusually high. The principal destinations

were New Zealand and the Pacific Islands, with China and Singapore also major customers. Actual Australian export volumes have tended to be steady over recent years at around 7,000 megalitres, but one quarter of this is LPG sold mainly to Japan and China.

New export potential for petroleum products seems likely to be niche and minimal.

China and India used to be major importers of product until two years ago and are now major exporters, particularly of gasoline. Refinery capacity

is planned to continue to grow strongly in the region even though there is already significant excess.

An estimate of capacity utilization average for the Asia–Pacific region in recent years is shown in Table 3. Although the absolute figures for Australia appear high, the important point is the decline in utilization in major exporters such as Singapore, Taiwan and Thailand. Increasing our output significantly in the face of greater overcapacity in the region looks a very difficult task. Also, several of the biggest and fastest growing players, China, India and Taiwan have regulated markets so it will not be a question of open competition in those markets but more one of individual marketing deals.

The demand outlook remains weak. Singapore margins are very narrow—below 2 per cent. Historically, Asian margins were the best, followed by Europe and the US. In recent years Asia has changed places with the US and now has the worst margins.

Any company contemplating investment in export capacity in Australia would consider our locational disadvantage, on the edge of the Asia–Pacific region, which implies high sea transport costs both for products and for the increasing proportion of feedstock we will

be obliged to import in the years ahead. This is compounded by the general investment disincentives discussed below.

Furthermore, it is expected that product specifications in Asia, the US and Europe will converge in the coming years, leading to globalized product markets and the elimination of niche opportunities based on fuel specifications. No-one in their right mind would consider setting up a new export-dedicated refinery in Australia to exploit niches.

Overall, it's a tough environment in which to export, the outlook is not for major export surplus, nor are we geared up for it without massive investment, which the industry is most unlikely to attract.

**So the Incentive to Invest Is not Strong**

While there are strong pressures for the industry to restructure, there is little incentive to invest for this purpose. Investments in the Australian industry have to

compete with many alternatives across the globe and we are a small market.

Lack of sufficient return is the single biggest deterrent to investment in the industry at present. There are other investment deterrents. Surveying the prospects in Australia from a distant boardroom, the global executive would see:

- *There is no prospect of strong growth in demand to offset the substantial risks that are associated with the large blocks of new investment that typify the industry.*
- *The corporate taxation regime is now less favourable than hitherto after the substitution of effective-life for accelerated depreciation. The competing Singapore option offers a three-year write off. The reduced corporate tax rates are not an incentive where returns are low.*
- *The regulatory cost burden is growing. This applies to all Australian industry but is potent in overseas comparisons. Tighter fuel standards, environmental restrictions, intervention in prices and industrial law are some of the factors.*

**Table 3: Asia-Pacific Refinery Utilization (Percentages)**

	1998	1999	2000	2001
Australia	107	102	93	94
China <sup>1</sup>	64	66	75	75
India	106	91	89	95
Indonesia	91	89	93	90
Japan	85	84	85	85
Malaysia	83	87	83	84
Pakistan	103	94	86	95
Philippines	86	85	80	84
Singapore	85	80	72	69
S. Korea	88	94	95	92
Taiwan	85	91	85	81
Thailand	93	86	84	82
<b>Asia-Pacific<sup>2</sup></b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>85</b>

1 Based on all refineries  
2 Only the countries listed here

Source: FACTS Inc.

- *There is increased sovereign risk stemming from inconsistent regulations.* This arises from the existence of eight parliaments, which enact inconsistent laws. Current examples are the higher fuel standards applied in Western Australia, the separate South Australian fuel standards, the use of methyl-tertiary-butyl-ether (MTBE) in fuel in NSW and Victoria (banned in Queensland and WA) and the interference in prices in WA and Victoria. The already small fuel market is further fragmented by regulation.
- *The sovereign risk also arises from uncertainty in the regulatory process.* There are unpredictable changes of direction (the deferral of the diesel sulphur excise differential [DSED]) and uncertainty in the face of conflicting interests (will the Government act on ethanol content—will the ATO further attenuate effective life?).

All the factors listed above enter into the risk/reward calculation. When the rewards are minimal, the risks take on an extra dimension.

The last factor in the list is particularly worrying as it suggests a systemic failure of government process. This is often a feature of governments that have been in office for an extended period. Sound and thorough consultative processes and announced policy are supervened by last-minute lobbying.

This seems to be what happened with the DSED. Meanwhile, millions of dollars had been spent on the basis of the announced policy. The proposed change was stalled with substantial costs to anyone who relied on the Government's promise.

The result is not only an increase in current sovereign risk. It treats the industry partners with contempt. It also undermines future processes. With moves towards cleaner fuels, the wise strategy now would be for refiners to wait until regulation is enacted before investing. This way they can be sure of the change. The unfortunate corollary would be sharp, destabilizing price-spikes.

The market for petroleum products in Australia will remain competitive. Competition among oil producers and refiners alone would ensure this. Also, it is clear that free trade in products will continue, so the

persistent refinery capacity overhang in our region will also overhang our market, keeping sustained pressure on margins.

The prospect for the refining sector is a slow-growing domestic market and no blue-sky opportunities in the export markets. This is not an environment in which the required investment will take place.

## WHERE TO FROM HERE?

With restructuring, the industry will not expand much. Without restructuring, the industry is likely to slowly contract, necessitating increased importation of products.

The clean fuels regulations, which are gradually emerging from national jurisdictions and converging internationally, could well be the catalyst for change in Australia. They will require heavy new investment with uncertain returns.

### **What Industry Structure Do We Need?**

The short answer is: we cannot know in detail. The best structure has to be worked out in the light of relative efficiencies, market developments and broad policy.

Refineries are expensive to construct or to alter, so we are to some extent stuck with past decisions on refinery location and scale of production. But the industry has demonstrated a capacity for both incremental and more radical changes in structure, given the right conditions.

We are also 'stuck' with some important elements of policy which will partly determine the structure. The open door to imports forces the industry to remain efficient and ultimately will force it to consolidate.

There are differing opinions on what the structure should be.

In the *Downstream Petroleum Industry Framework 2002*, the Department of Industry, Tourism and Resources set out key tenets to guide the future framework:

- A preference for market-based solutions.
- A strong, efficient, environmentally responsible industry supplying most of the nation's needs for products.

- Regulation only for market failure or national interest objectives.
- Regulation to be transparent and consistent.
- Reform and regulation to maximize long-term community benefit.

This industry vision has some prescriptive elements, although the Government has made it clear that it will not nominate an optimal number of refineries or a pattern of production. This is in the context of the present reality, where the Australian Competition and Consumer Commission (ACCC) can determine the actual number of refineries in a negative fashion by forbidding mergers.

The *Industry Framework* is a mixture of economic and strategic objectives. The references to market-based solutions and efficiency are economic criteria. The reference to supplying the majority of Australia's needs is strategic and potentially in conflict.

One could infer from the key tenets that government has a vision for the industry but that it will not be 'dirigiste' in effecting that vision. At its most simplistic, the vision is little more than a wishlist with no new policy to back it up. It is certainly not a preferred industry structure. The current review of the industry by the Prime Minister's Energy Task Force may produce a more definitive policy and result in some pressure on the industry to ensure that the refiners take action to restructure within the framework of the vision.

The *Australian Institute of Petroleum* has argued for an industry policy for the refining sector to give all stakeholders some guidance and increased certainty about the future direction of the industry.

The *general public* would probably opt for a structure that guaranteed lower, more stable automotive fuel prices. Unfortunately, they cannot have both in the short term. A better industry structure would deliver lower average prices than continuation of the current structure. A reduction of volatility would not, however, be guaranteed. It is ironic that the intense political attention to this industry stems from a pricing characteristic which government interference has made worse.

One might argue that *the investors* in the industry are the ones entitled and best suited to determine its future. In the extreme, they will do it anyway—either by persisting or walking away. At the very least, they ought to be able to redeploy their capital within the industry if they so wish. Generally speaking, they will seek to maximize their returns and thus promote the most efficient use of the nation's resources.

At the *public interest* level, the value of government guidance is questionable. Even if it were possible to confer increased certainty from the government level (which history teaches us to doubt) is this legitimate when the implicit outcome is to preserve the current level of activity and protect the current industry participants? Attempts to achieve particular industry structures often lead to the preservation of inefficient, protected species.

For example, we might be better off as a nation importing more of our refined product needs from efficient refineries overseas and reallocating our resources to activities we do better here. After all, self-sufficiency in refined products is limited without self-sufficiency in crude oil, which we expect to decline dramatically.

Australian refineries are not inefficient. They no doubt compare well with many overseas refineries, especially where such refineries are in a protected market. But they are not as efficient as they could be. And, anyway, that is not the point. Our market is open, so the competition we face is the best of the overseas, often with more favourable tax and subsidy regimes. We want our refineries to be able to match them as viable entities.

This is not simply a question of closing the smallest refineries. The Port Stanvac refinery in South Australia has a specialized lubricants capacity. The Clyde refinery in Sydney has recently been upgraded to meet higher diesel fuel standards. Also, any closure involves a very large investment in cleanup on which there is no commercial return.

A better approach might well be to allow refining companies to concentrate on what

they do best. Thus, in Brisbane, the Bulwer refinery might focus on diesel production where it has invested to meet higher diesel fuel standards, and the Lytton refinery on petrol. The Altona and Geelong refineries could co-operate so that they were not both investing to meet cleaner fuel standards in all fuels. Refinery alliances are not unprecedented. Caltex and Shell have co-operated in this way in Thailand.

When considering the best structure for the industry, what it should be contemplating is a fairly defensive long-term strategy of:

- Improving what it already does;
- Containing costs rigorously;
- Investing in efficient technologies;
- Increasing the scale of production *within* the existing market parameters to fully exploit the geographical protection it has; and
- Taking full advantage of the sunk costs inherent in existing refineries.

To do this it requires a supportive framework.

What is apparent is that it is unreasonable to simultaneously open our markets to international competition, Balkanise the industry and restrain it from putting together the best structure to compete.

The fact is that the detail of the decisions can only be made by the industry, relatively free of government direction of investment or divestment decisions. The series of detailed decisions will then, as always, determine the overall structure of the industry.

### ***The Context Is A Consistent Energy Policy***

Reform of the refining sector has to be conducted in the context of an efficient energy sector. This, in turn, means consistent energy policies.

This paper will not attempt to deal with policies for the sector as a whole, but it is worth noting that no other sector has been subject to such conflicting policy objectives and instruments as energy. There is total confusion as to what the various governments and agencies want of the sector and what they

see as its future. Energy policy is therefore piecemeal and the handmaiden to other policies—social, regional, environmental and consumerist.

### ***The Government Is Here to Help***

Government intervention specifically aimed at the petroleum industry is extensive and detailed at every step—from the moment the crude oil comes out of the ground to the point where it is emitted as exhaust from the tailpipe of a car.

The public interest is purportedly served in a number of ways by such interventions.

There is an obvious public interest in specifying standards for the production, transport and storage of petroleum given its volatility and potential flammability. Related matters such as the cleanliness of fuels have gradually supplemented these health and safety standards.

A further refinement of such standards, which places heavy cost burdens on the industry currently, is environmental improvement. For example, the massive shift to unleaded petrol, which has taken place over the last 15 years, is now taken for granted, although it represented a very significant structural adjustment. By 31 March 2002, 69 per cent of the total motor vehicle fleet of 12.8 million vehicles were manufactured to use unleaded petrol compared with 51 per cent in 1997 and 27 per cent in 1991. The current move to lower sulphur levels in diesel will cost the industry well in excess of \$100 million.

Then there is the last resort of failed economic policymakers—price control—which, except in WA and Victoria, has thankfully disappeared from this sector after many wasted years.

The relevance of the regulatory burden is that it is often a drag on operational efficiency. It also can act as a barrier to entry and to exit, limiting the flexibility of the response to changing prices and supply and demand conditions.

### ***And Competition Regulation Can Impede More Efficient Structure***

Competition regulation sounds like an oxymoron, but the intent is to foster competition by preventing or regulating market imperfections.

For the structure of the refining sector the crucial powers of the ACCC are those which regulate mergers and acquisitions (Section 50 of the *Trade Practices Act*) and those which permit authorization of mergers that might otherwise breach the Act (Section 88 of the *TPA*).

The relevant provision of Section 50 prohibits mergers or asset acquisitions:

that would have the effect, or be likely to have the effect, of substantially lessening competition in a market.

It is potentially an extremely restrictive provision. The ACCC is comfortable with this. Moreover, the ACCC interpretation of what is 'substantially lessening' and what is a 'market' embraces conduct that might be seen as trivial and markets that appear quite small.

The ACCC has had an abiding and intense interest in the petroleum industry, which is thought to represent a special competition policy risk. The level of concentration, with just four major domestic competitors, is high. This, combined with consistent media attention, has provided justification for the ACCC to restrict rationalization under Section 50.

The ACCC leans heavily on the 'perfect competition' model involving numerous buyers and sellers and reliable price information. It is reluctant to allow sellers to cooperate in anything, particularly where they are few in number and where their cooperation might lead to the adjustment of one or more of them out of the market. Unfortunately, such adjustment will often take place anyway, with the bloody death of one or more competitors.

The ACCC's concerns are exaggerated. But they are complemented by a persistent public misperception about petrol prices. A large section of the public believes that the industry

makes massive profits out of the wide retail price swings. In fact, it barely breaks even. This perception that price swings equals profits has been so exploited for political advantage and media excitement that it is now almost impossible for the truth to emerge. The appointment of a shadow federal minister with responsibility for petroleum prices is just the latest manifestation of the enduring fairytale.

The industry regularly beats itself up for not convincing the public of the reality of petrol pricing and profit, but sadly there are currently far too many groups with an interest in the falsehood for the truth to prevail.

The future intensity of competition in this industry, if it is allowed to restructure, should not be in doubt. Any rationalization would in all likelihood still leave strong domestic competition in each major product category, with the industry operating perhaps at fewer sites but more efficiently. In addition, there would be numerous potential importers and many independent retailers.

Concentration of ownership is a furphy. The High Court has recently ruled in the *Boral* case that the market reality is more important than the perception of anti-competitiveness. It noted that financial strength did not equate to market power and that meeting a competitor's prices would not be predatory action. This decision could have been designed for the refining sector where the competitive reality of the market is regularly misrepresented, where the few local producers are treated as dominant despite never being able to exploit their position and where their pricing is regarded as predatory even though it yields little profit.

This is a market with few local producers but it is contestable. Sustained high margins would be unlikely to occur given domestic competition, but if they did, they would be rapidly eroded by imports of product.

Proposed mergers have been permitted in the past. Generally speaking, vertical mergers such as the Ampol/Solo merger have been less problematical than horizontal ones such as the Ampol/Caltex merger. In any case, the process is slow and permission is generally only

granted with severe conditions on divestiture. There seems to have been no evaluation of the impact of the ACCC on the structure, competition and prices in the industry. There are strong arguments for allowing greater flexibility.

### **Authorization Could Be the Key**

If Section 50 is an impassable barrier, the authorization provisions of the *Trade Practices Act* ought to be the way to greater efficiency. The tests under these provisions require a public benefit which outweighs the competition detriment. The ACCC lists fostering business efficiency, industry rationalization and import competitiveness as important public benefits. These must outweigh the detriments for authorization to be granted.

There is a strong *prima facie* case that rationalization of this industry could satisfy these tests. It would allow greater scale of production, economies in distribution and closure of the least efficient production units. But the satisfaction of the tests comes through a negative, slow and difficult process.

Without going into whether the ACCC interpretations are reasonable, they are nonetheless applied and, in practice, it is extremely difficult to challenge them.

Likewise, the authorization process can prove to be a blind alley. To be authorized the proposed conduct must demonstrate sufficient public benefits. The onus for demonstrating the benefits lies with the applicant. Again the process depends crucially on the ACCC's consideration of the merits of the case and slow process can amount to rejection.

Any merger of the few companies that operate refineries in Australia or any re-organization involving closure and/or joint operation of refineries or other facilities will immediately be subject to these processes. The processes are slow and there are strong arguments for allowing greater flexibility here too.

### **Policy Options**

If government cannot *help* the industry to adjust, it should *allow* the industry to adjust. It should put in place policies that support sensible change. This would involve both improving the operating environment through deregulation and altering the balance of competition regulation so that the industry could restructure voluntarily. The Commonwealth Government has already indicated a willingness to support both but has not yet delivered.

The ACCC has always regarded mergers or cooperation in this industry with distrust.

Any change to the Act to ease the provisions would be unlikely to succeed, given the stated attitudes of the Opposition and Democrats in the Senate. Short of this, the option seems to be a more flexible use of the authorization provisions in Division 1 of Part VII of the Act. This would allow mergers and/or asset acquisitions that would comprise restructuring.

Under the authorization criteria relating to efficiency, rationalization and competitiveness, it would be possible to make a substantive case for restructure of the refining sector.

Joint operations that did not reduce production capacity might be seen as preserving sufficient competitive presence. The continuing growth of imports and the presence of strong competition at the retail level would also be factors to be taken into account.

There is also an opportunity for governments generally to clean up the mass of energy tax/subsidy distortions which have accumulated over the years.

The ball would then be in the industry's court to bring forward new proposals if a new policy environment could be created. This should not mean divestiture undertakings that artificially create new protected operations.

This could all happen within a very broad strategic framework, agreed with the industry, whereby Australia continued to be sure of sufficient refining capacity to meet a severe

international fuel shortage. That might not mean retention of the existing level of refining capacity, but some minimum that ensured the continued functioning of the economy in an extended emergency.

### **Practical Steps**

This *Backgrounder* recommends that:

- The Commonwealth government should provide explicit indications to the ACCC of the public benefits it sees from the rationalization of the refining sector. In particular, joint ventures should be contemplated.
- The ACCC give sufficient weight to the public interest benefits of restructuring to allow rationalization of production facilities.
- All governments reduce distorting fuel subsidies and taxes that favour particular sectors or fuels.
- The State governments act immediately to harmonize their regulation of the industry. This should happen as soon as practicable and not at some distant date after one or more elections.
- Each State should agree not to issue any new regulation inconsistent with other States.
- More specifically, that they should have a single set of fuel standards with which refiners can reasonably comply, withdraw from all forms of price regulation, and refrain from thwarting or distorting the rationalization process.

- Governments generally not introduce new regulation mandating use of alternative fuels.

It would also help if the Government were to scrutinize more critically the claims of consumers, farmers, environmentalists, truckies, etc., within the Framework. This would provide a more consistent view of the public interest and mitigate the potential for last-minute 'raids' on impending regulation.

## CONCLUSION

The choice for the industry appears to be between accelerated rationalization and atrophy. The process of change is something which the industry must plan and effect. It cannot do this, however, without the active support of governments in Australia and the tacit support of the regulatory agencies.

The task is not impossible but it will require the States, in particular, to sink their differences and their special agendas and allow adjustment to take place. It will also require greater open-mindedness at the ACCC. For the time being, there is an expressed willingness at the Commonwealth level but no real solutions. At the State level, all is still in disarray.

If nothing is done, atrophy is certain. The refiners will continue to stumble along in a regulatory fog and will invest only when obliged to do so by changing fuel standards. They will become increasingly vulnerable to low-priced imports and eventual closure.

---

## REFERENCES

*Asia Pacific Databook 2. Refinery Configuration and Construction*, FACTS/EWCI.

*Australia Country Profile*, The Petroleum Finance Company—Downstream Monitoring Service, June 2002.

*Australian Petroleum Statistics*, DITR, monthly (various issues).

*Australia's Downstream Industry*, Energy Alert No. 23, July 2000, FACTS INC.

*Downstream Oil Industry Financial Survey*

1997—2001, Ernst and Young on behalf of the Australian Institute of Petroleum.

*Downstream Petroleum Industry Framework 2002*, Department of Industry, Tourism and Resources, November 2002.

*Downstream Petroleum Products Action Agenda 1999*, Industry/Government Working Group, February 1999.

*Energy Insights*, The Australian Oil Industry, April 2002, FACTS INC.

*Energy News*, Department of Industry, Tourism and Resources, March and June 2002.

'Global and Asian Oil Market Outlook', July/August 2002, presentation by FACTS INC.

*Household Expenditure Survey 1998-99*, ABS Cat. 6535.0.

*Manufacturing Industry 2000-01*, ABS Cat. 8221.0.

*Motor Vehicle Census 1997-2002*, ABS Cat. 9309.0.

*Petroleum Refining and Marketing in Australia—Changes Ahead*, Department of the

Parliamentary Library. Current Issues Brief 11, 2002.

*Trade Practices Act 1974*.

Ian Blackburne, Paper delivered to Engineers Australia Outlook Conference, February 2000.

Fereidun Fesharaki, Presentation to Asia Oil and Gas Conference, June 2002.

International Energy Agency, various statistical publications.

Ian McKenzie, 'Petrol, Perception and Politics', ABARE Outlook Conference, March 2002.

---

## ABOUT THE AUTHOR

Jim Hoggett is a Senior Fellow with the Institute of Public Affairs. Before he joined the IPA he worked extensively in the Australian public and private sectors. He spent 16 years in the Commonwealth Treasury, advising on matters such as international finance, industry policy and foreign investment and serving a term on the Australian delegation to OECD. He was subsequently Economic Adviser to the Business Council of Australia. He worked in senior management positions in Pioneer International, Australis Media and Star City Casino.