Petroleum Refining: Rationalization or Atrophy?

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DESPITE the obsessive public attention to prices at the petrol pump, the petroleum-refining sector rarely registers on the media radar screen. This is unfortunate as the sector fuels most movement of people and goods in our economy and society. And it is in trouble.

It is fragmented, stunted and survives by abjuring profit and mortgaging its future. Without radical reshaping, it is likely to wither, leaving us exposed to the vagaries of the international refined-products market.

FEATURES OF THE AUSTRALIAN REFINING SECTOR

The first thing to note is that, by international standards, Australia is a relatively small player. The most recent international figures show that our total output of refined products in the third quarter of 2002 was 8.9 million tonnes. This compared with OECD production of 486 million tonnes, including US production of 202 million tonnes. Total Australian refinery capacity of 870,000 thousand barrels per day (bpd) compares with the figures for China (5.3 million), South Korea (2.6 million) and Singapore (1.1 million). Total regional refining capacity and production continues to grow as Australia's stagnates. In the five years to 2000, regional output grew by 22 per cent.

Second, the structure of the industry is weak. The dispersed geographical distribution of our refining sector reflects its historical development, with each State capital city supporting one or more refineries. Over the last two decades, the number of major oil companies operating in Australia has shrunk from nine to four. Although the number of players has more than halved, the number of refineries has reduced by only two, from ten to eight. The average capacity of Australian refineries is around 100,000 bpd. New refineries in the region are generally significantly larger. Singapore's largest has a capacity of 375,000 bpd.

Given the open Australian market, our ex-refinery prices are virtually set by the major exporters in the region who are also operating on tight margins. Moreover, the proportionately heavy demand for diesel in SE Asia tends to generate a persistent surplus of gasoline which is available for export to Australia at discounted prices.

The pattern of relatively small scattered refineries is no longer optimal in an open market in which we are a price-taker.

Third, despite its sub-optimal structure, the Australian refining industry is not grossly inefficient. One indicator is the value added per employee, which is in the top five performers in the Australian manufacturing sector.

The cost competitiveness of Australian products is indicated by the fact that we have the cheapest ex-tax price of petrol in the OECD. Performance comparisons with the rest of the Asia–Pacific, however, suggest that we lag the average efficiency in the region. And the best performers in the region are superior to our best.

Finally, the financial performance of the industry is poor: gross annual revenues for the whole industry, including marketing, were $32 billion in calendar year 2001. 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 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. 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.

This is clearly unsustainable and it raises the question: Why is no-one leaving the game?

There are, perhaps, four main reasons.

- First, the industry has engaged in continual productivity improvement, allowing it to keep within range of ruling prices.
- Second, each refiner hopes that someone else will blink first, so that the waiting will pay off.
- 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.
- Fourth, even while profitability is low, the industry has generally been marginally cash positive.

These add up to a big 'first mover disadvantage'.

FUTURE TRENDS

Clearly, petroleum will remain our most important energy source. Petroleum products constitute 52 per cent of Australia's final consumption of energy. Liquid petroleum fuels provide more than 95 per cent of Australia's transport needs. There are no major, foreseeable influences that will affect this pattern dramatically. There have been major advances in fuel economy and these will no doubt continue. But more than counterbalancing this is the inexorable growth in demand for personal mobility and for goods from distant parts. Although growth in energy consumption may slow down in Australia, we will not be reducing our consumption to any significant degree.

Our export role will also be limited. Australian export volumes have tended to be steady over recent years and future new export potential for petroleum products seems likely to be minimal. China and India have recently become major exporters, particularly of gasoline. Refinery capacity is planned to continue to grow strongly in the region, even though there is already significant excess. The decline in capacity utilization in major exporters such as Singapore will make exporting difficult. Furthermore, it is expected that product specifications in Asia, the US and Europe will converge in the coming years, thereby eliminating niche export opportunities.

The choice we face is what to do about our essentially import-competing industry.

INCENTIVES 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 refining industry have to compete with many alternatives across the globe.

Lack of sufficient return is the single biggest deterrent to investment in the industry at present. But there are others:

- *There is no prospect of strong growth in demand* to offset the substantial risks associated with large new investments.
- *The persistent refinery capacity overhang in our region* will keep sustained pressure on our margins.
- *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 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.

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- *There is increased sovereign risk stemming from inconsistent regulations*. We have eight parliaments, which enact inconsistent laws. A current example is the higher fuel standards applied in Western Australia.
- *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?)

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

WHAT INDUSTRY STRUCTURE DO WE NEED?

The short answer is: we cannot know in detail.

In the *Downstream Petroleum Industry Framework 2002*, the Department of Industry, Tourism and Resources set out a broad vision:

- 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 vision has some prescriptive elements, but the Government has made it clear that it will not nominate an optimal number of refineries or a pattern of production.

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.

In fairness, *the investors* in the industry are the ones entitled and best fitted to determine its future. In the extreme, they will do it anyway by persisting or walking away. Generally speaking, they will seek to maximize their returns and thus promote the most efficient use of resources.

Australian refineries are not inefficient, but that is not the point. Our market is open, so the competition we face is the best of the overseas performers, often with more favourable tax and subsidy regimes.

Nor is this simply a question of closing the smallest refineries. A better approach might well be to allow refining companies to concentrate on what they do best—perhaps through refinery alliances. Caltex and Shell have co-operated in this way in Thailand.

The fact is that the detail of the decisions can only be made by the industry, relatively free of government direction. The series of detailed decisions entailed will determine the overall structure of the industry.

COMPETITION REGULATION CAN IMPEDE RESTRUCTURING

The relevant provision of Section 50 of the *Trade Practices Act* (TPA) pro s hibits 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 both potentially and in practice an extremely restrictive provision. The Australian Consumer and Competition Commission (ACCC) has expressed concern at concentration in the sector in applying the provision.

The ACCC's concerns seem exaggerated in the light of history. But they are complemented by a persistent public misapprehension that large petrol price swings equal profiteering. This perception has been so exploited for political advantage and media excitement that it is now almost impossible for the truth to emerge.

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, perhaps with fewer, more efficient production units.

The market is also contestable. There would be numerous potential importers and many independent retailers. High margins would be rapidly eroded by competition. As recently ruled in the Boral case, market reality is more conclusive than a perception of anti-competitiveness.

Proposed mergers have been permitted in the past, but the process is slow and permission is generally only granted with severe conditions. Nonetheless, there is a strong case for allowing restructuring within the terms of the merger provisions.

AUTHORIZATION COULD BE THE KEY

If Section 50 of the *TPA* is an impassable barrier, then the authorization provisions of the Act could 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.

There is a strong prima facie case that rationalization of the 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 authorization process is slow, and the onus for demonstrating the public benefits rests on the applicant. Slow process can amount to effective rejection.

POLICY OPTIONS AND RECOMMENDATIONS

If government cannot *help* the industry to adjust, it should *allow* it to adjust by supporting sensible change. This would involve both improving the operating environment through regulatory reform 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.

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The ball would then be in the industry's court to bring forward new proposals if a new policy environment could be created. 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.

We therefore recommend that:

- The Commonwealth Government provide explicit indication 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 and agree not to issue any new inconsistent regulation.
- More specifically, the States 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 regulations mandating the use of alternative fuels.

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. The task is not impossible, but it will require the active support of government at all levels. For the time being, there is an expressed willingness at the Commonwealth level but no real solutions.

If nothing is done, 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.

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