# Motor Trades Association of Australia

Mr Gary Banks
Chairman
The National Access Regime Inquiry
Productivity Commission
PO Box 80
BELCONNEN ACT 2616

RECEIVED
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CHAIRMAN'S OFFICE

Dear Mr Banks

The Motor Trades Association of Australia (MTAA) is the peak national Association representing all those who sell, service and repair Australia's motor vehicles. The Association is a federation of the Motor Trades Associations and the Automobile Chambers of Commerce in each state and territory as well as the Service Station Association Ltd. The Association is an unlisted company having limited liability and its Members are:

*The Australian Automobile Dealers Association (AADA)*
*The Motor Trades Association of the ACT (MTA ACT)*
*The Motor Traders Association of NSW (MTA NSW)*
*The Motor Trades Association of the Northern Territory (MTA NT)*
*The Motor Trade Association of South Australia (MTA SA)*
*The Motor Trades Association of Queensland (MTA Q)*
*The Motor Trade Association of Western Australia (MTA WA)*
*The Service Station Association Limited (SSA Ltd)*
*The Victorian Automobile Chamber of Commerce (VACC) [incorporating the Tasmanian Automobile Chamber of Commerce]*

The Association's interest in this Inquiry arises on behalf of its service station operator members and because of the current lack of access, for the vast majority of service station operators, to oil company refineries and terminals.

MTAA notes in the Commission's Inquiry Issues Paper that one of the matters about which the Commission is seeking comment is the 'Objectives and Coverage' of the National Access Regime. More specifically the Commission is seeking comment on whether the list of activities currently excluded from Part IIIA of the *Trade Practices Act 1974* is appropriate and whether the distinction between access to services provided by a facility, and access to the facility is important.

They are the issues which MTAA would like to address in this brief submission. MTAA has proposed in other fora that there is a lack of transparency and competition at the wholesale level of the petroleum market. It has also argued that one way to overcome those deficiencies would be to introduce an effective access regime. Because of the tied nature of supply arrangements in the oil industry (which allows the oil majors to vertically integrate,

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essentially from exploration to retail, but in particular from refinery to retail) there is no access or contestability in the petroleum market. The need for access and contestability in markets was, we would argue, one of the basic concepts behind the introduction of the national competition policy reforms in 1995.

An essential element of those 1995 reforms was the principle of improving *"the quality of Australia's infrastructure through reform packages in the electricity, gas, water and road transport industries; and establishing third party 'access' arrangements for the services of nationally significant monopoly infrastructure such as gas pipelines, electricity grids and railway lines"*[1]. To date the Government and the oil majors have collectively resisted any suggestion from MTAA that the access principles which are so successfully (we are told) being applied to the newly privatised sectors of the economy, such as telecommunications, electricity and gas, should be applied to the petroleum industry.

The Government has said[2] that it has advice that Part IIIA is not applicable to terminals that have distribution facilities as Part IIIA applies to services and that terminals with distribution facilities are not services. [It should be noted however that in relation to gas reform *"COAG agreed in June 1996 to broaden the scope and extend the timeframe for the reforms. It decided that that national access framework should apply to distribution systems as well as transmission pipelines."*[3]]

We are led to believe that an undifferentiated chain of hydrocarbons and the infrastructure which sustains its production and distribution should be treated in exactly the <u>opposite</u> manner (by virtue of Government policies of 'deregulation', which would allow even greater vertical integration in the industry, through increased oil company control of the retail sector) to all our other utility goods simply because the capital that established that infrastructure is held by private companies.

As part of the Association's contribution to the 1999 Senate Rural and Regional Affairs Transport Legislation Committee's inquiry into the *Petroleum Retail Legislation Repeal Bill 1998*, MTAA commissioned a paper on deregulation in the petroleum retailing sector. That paper which was prepared by Dr T Dwyer and Mr T Larkin, discusses a number of matters relating to access, monopolies and barriers to entry in the petroleum market which may be of interest to the Commission. (Although the paper was commissioned by MTAA, the Association had no influence over the content or the views put forward by Dr Dwyer and Mr Larkin.) One of the conclusions reached by Dr Dwyer and Mr Larkin is as follows:

> *"Just as Parliaments have been mandating structural separation in the electricity industry so that generators cannot control the distribution networks and all generators can have access to the natural monopoly wires on the same basis, so there is an argument that structural separation of refining and distribution and refining [sic] should be mandated. ..... If competition policy does not allow vertical integration by generators taking control of the wires for electricity distribution, it may be asked why it is*

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1 National Competition Council, Annual Report 1998-1999; p8

2 McGauran, the Hon P, House of Representatives; 4 February 1997

3 National Competition Council, Compendium of National Competition Policy Agreements, 2nd Ed. June 1998; p67

*appropriate to allow analogous vertical integration in the petroleum industry."*[4]

Like electricity, gas and water, petrol is a utility good; its use is ubiquitous and would be regarded by the majority as being essential to our daily lives and economic progress. That of course is probably true of all utility goods, yet petroleum retailing, distribution and refining is to be treated quite differently from all of the other utility goods. Thus for the consumers of petroleum products the benefits of national competition reforms are to be denied to them and indeed current Government policies (which would effectively allow greater vertical integration in the petroleum industry) could very well result in a dis-benefit to consumers (through increased prices).

MTAA believes that it is inappropriate that petroleum and petroleum facilities are currently excluded from the access provisions under the Competition Policy Reforms. In an era when contestability and access are said to be providing significant benefits to our economy, it makes little economic sense that fuel is to be excluded. MTAA believes that if it is true, as the Government advisers suggest, that oil company terminals with distribution facilities are not services, then the legislative arrangements must be reviewed and amended so that they would provide for the introduction of effective and non-conditional access regimes in the petroleum industry.

I would be happy to discuss any of these matters with the Commission if required.

Yours sincerely

Michael Delaney

**MICHAEL DELANEY**
**Executive Director**

13 December 2000

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4 Dwyer, TM and Larkin JT; *'Petrol Retailing: Pro-Competitive Deregulation'*, Submission to the Senate Rural and Regional Affairs and Transport Legislation Committee, 12 February 1999; pp15-16

CONFIRMATION

**Motor Trades Association of Australia**

Senator Winston Crane
Chairman
Senate Rural and Regional Affairs and Transport Legislation Committee
Parliament House
CANBERRA ACT 2600

Dear Senator Crane

I write in relation to your Committee's inquiry into the provisions of the Petroleum Retail Legislation Repeal Bill 1998 and the submission presented to the Committee by Dr Terry Dwyer and Mr Terry Larkin.

My Association encouraged Messrs Dwyer and Larkin to present their views on petrol market reform to your Committee and in fact commissioned Messrs Dwyer and Larkin to prepare the paper that they submitted to you. I should make it clear however that having commissioned the paper MTAA had no editorial input nor did it seek to, in any way, influence the views put forward by Messrs Dwyer and Larkin.

Having said that may I respectfully encourage you to provide Messrs Dwyer and Larkin with an opportunity to appear before your Committee to speak to the views they have expressed in their submission.

Yours sincerely

Michael Delaney

**MICHAEL DELANEY**
**Executive Director**

4 March 1999

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12 February 1998

Secretary
Senate Rural and Regional Affairs and Transport Legislation Committee
Parliament House
CANBERRA ACT 2600

Dear Sir

I attach our submission to the Committee in relation to its inquiry into the Petroleum Retail Legislation Repeal Bill. We would, of course, be pleased to appear before the Committee to explain any matters in our submission.

Yours faithfully

T. Dwyer

Terry Dwyer
J T Larkin

# PETROL RETAILING: PRO-COMPETITIVE DEREGULATION

*Submission to the Senate Rural and Regional Affairs and Transport Legislation Committee*

T. M. Dwyer and J. T. Larkin[1]

## Introduction

In considering the question of whether to abolish restrictions on the major oil companies in relation to the ownership and management of retail petroleum marketing sites, it is first necessary to consider whether, in the absence of regulation, the industry would be competitive. In general terms, the instinct of economists is towards *laissez-faire*, especially where there are so many examples of failed regulation. However, the phrase *laisser-faire, laisser aller* comes from medieval French jousting tournaments and is best translated as "a fair field and no favour". We are therefore directed to consider the circumstances under which the game of competition is to be played. For example, *laissez-faire* does not justify a situation where the first person to seize a resource should be allowed to hold the community to ransom. Australian governments of all persuasions had little difficulty in the heyday of nineteenth century *laissez-faire* passing legislation to break the stranglehold of squatters on strategic watering holes, so that other farmers and graziers would not be locked out.

The *Petroleum Retail Marketing Franchise Act* (the Franchise Act) and the *Petroleum Retail Marketing Sites Act* (the Sites Act) were passed by the Federal Parliament to correct what were perceived as abuses in the petroleum retailing industry and to curb what were seen as potentially anti-competitive effects of vertical integration. Ending or limiting vertical integration was a prime object of the Acts and, in effect, mandatory franchising was chosen as the means to limit vertical integration. It is interesting to note that the Coalition government of the time did consider legislating for total divorcement of the oil majors from petrol retailing. However, in view of the opposition of two of the major oil companies to this approach, mandatory franchising was chosen as the less drastic means of freeing up the retail market.

Although one purpose of the Acts was clearly to protect small business petrol retailers from abuses of the market power by the oil majors, this is not a concern of this paper. It is too narrow to see the problem addressed by the Acts as merely a franchising problem which may be addressed by a general franchising code. To do so is to misconceive the larger part of the mischief against which the Acts were aimed. Mandatory franchising was clearly perceived as *the means* to solve the vertical integration problem. A franchising code does nothing to solve a vertical integration problem (if there is one) if the oil majors are free to dispense with franchisees altogether and operate all petroleum sites directly.

This paper focuses on whether the Sites and Franchise Acts have been successful in countering tendencies towards abuses of market power in petrol retailing and whether, if left unregulated,

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1 Dr Terry Dwyer is a Visiting Fellow at the National Centre for Development Studies, ANU and Mr J T Larkin is an economic consultant in Canberra.

abuses of the market power might be expected to emerge in the marketing of petroleum products.

In relation to whether the Sites and Franchise Acts have succeeded in effectively limiting vertical integration in the petroleum industry, the answer is probably no. The evidence recorded by the Australian Consumer and Competition Commission (1996) appears to indicate that franchising contracts give virtually as much power to the oil majors in relation to retail pricing policies as they would enjoy if they owned and operated their sites directly.

In particular, spatial predatory pricing competition to monopolize was still allowed by s 20 of *Petroleum Retail Marketing Franchise Act 1980*. Section 20 allows price discrimination to match a competitor of the franchisor or franchisee such as a new entrant or a company-owned site of a competitor. In our earlier paper (copy attached) on spatial competition, which was presented to the Industry Commission, we observed that what might appear to be vigorous competition could in fact represent predatory competition aimed at securing the position of incumbents. Spatial distribution networks lend themselves to predatory pricing practices because an incumbent need only cut prices to deter entry in the part of the network where a competitor is seeking entry.

*Is petroleum retailing a free market?*

As the Australian Consumer and Competition Commission (1996) has recognised, any argument for regulation of petroleum retailing or any other aspect of the petroleum industry must rest on the idea that there are inherent tendencies towards monopoly or oligopoly in the petroleum industry. The ACCC (1996, p 7) has observed that "past experience does not engender high confidence in either the successful development of imports or in the ability of importers remaining independent of the oil majors" but has expressed the hope that things might be different in future. The ACCC (1996, pp 28-29) also notes that since 1974 there have been 17 instances of litigation under the Trade Practices Act in relation to prohibited conduct within the petroleum industry.

To justify some sort of regulation, it needs to be shown that there are barriers to entry which may deter new entrants from providing consumers with the benefits of a vigorous competition. These barriers may be either natural or legislated or arise from the conduct of incumbents themselves. It should of course be acknowledged that in seeking to exploit or create barriers to entry, incumbent companies may be acting in a perfectly legal and rational manner. In particular, price wars need not be predatory in intent to secure deterrence of new entrants.

The real question is whether there are sources of monopolization which, if unchecked, will work to the community's disadvantage. Contrary to the assumptions of some economists, monopoly is as natural as competition. In one sense, every retailing site has a limited degree of natural monopoly: a shop on the one-side of town has a degree of natural protection from a shop on the other side. Public policy and the Competition Policy Act 1995 are however concerned with monopoly and possible abuse of market power where it is manifested more bluntly and where it can be seen to be based on control of natural monopolies which might be described as essential facilities.

The central concern of modern competition policy is not so much that there may be few sellers but that markets may not be contestable. If the markets are contestable in the sense that new entrants may freely enter and exit, then a few large firms will only dominate the market if they operate efficiently and pass on productivity gains to consumers. The key question to ask in looking at whether any industry is competitive is whether there are any barriers to entry. *Most competition cases have to do with market power, and barriers to entry are necessary for market power. In some cases market power is created through mergers or agreements between competitors not to compete. In others the focus is on the abuse of pre-existing market power through, for example, restrictive vertical arrangements and predatory pricing. ... there can never be market power when the entry is easy* World Bank and Organisation for Economic Co-operation and Development (1998 p 101)

*The term barriers generally refers to conditions or behaviours that restrict the mobility of capital in and out of markets in response to realizations of above- and below- normal profits.... In defining barriers to entry, the key question is: will supracompetitive prices in the relevant market attract entry that will bring prices back down to competitive levels? If the answer is no, we have an impediment to entry.* World Bank and Organisation for Economic Co-operation and Development (1998, p 102). One immediately observes that since petroleum marketing sites in Australia are not easily available as are also terminal and refinery sites, the Australian petroleum industry may be characterised by these sorts of barriers.

The concept of barriers to entry was developed in the work of Bain and Stigler. For the present purposes, the differences in their approaches does not affect the relevance of barriers to entry in looking at the Australian petroleum industry. *Both the Stigler and Bain definitions contribute to the antitrust treatment of barriers. With Bain, the focus is on what stops entry from eroding monopoly profits. Stigler's approach however, gives us a better idea where to look for barriers that will block entry – that is, to look for asymmetries between firms. So, for example, there should be no worries about economies of scale (as in Bain) deterring entry into the steel industry; rather, attention should be on the size of the sunk component of the initial investment. It is this amount, already in place for the incumbent but not yet for the entrant, that represents what the entrant puts at risk and what can ultimately deter entry. .... Stigler (1968)... saw barriers only in asymmetries between firms costs that had to be borne by entrants but not by firms already in the industry* World Bank and Organisation for Economic Co-operation and Development (1998, p 102).

In the case of a retail network of petrol stations acquired at low historic costs, the would-be entrant faces the problem of replicating a network at higher replacement costs. If he fails, he must sell his sites at a loss to the incumbents who are the only persons with a possible use for them or hope to have them rezoned for other uses (which may be very difficult). Given that the oil majors acquired their sites in prior years when both real estate costs and environmental regulations were lower, there is clearly an asymmetry between the oil majors who own existing retail distribution networks and would-be entrants, whether those entrants be single independents or even large would-be chains such as supermarkets.

The ACCC (1996, the 126) summarises the competition problems of the oil industry. "The industry at the refinery level is highly concentrated with the four declared companies accounting for almost all supplies. Concentration has continued to increase during the period of deregulation (for example, there were nine players in the early 1980s), and most recently with the Ampol/Caltex merger.

Adverse effects on competition caused by industry concentration can be overcome if imports provide competitive discipline. Unfortunately, attempts by non-majors to import refined product on an ongoing basis have not endured .... Barriers to imports are substantial, and have included a shortage of suitable terminal facilities, reluctance of independent wholesalers and retailers to accept ongoing imports and significant risks, including the risk of predatory behaviour by the oil majors. ...

Barriers to entry are often critical in determining competition. Entry by a fully integrated new player across the country, even another experienced large multinational, seems unlikely. No new entry at this level has occurred for over 30 years and a prospective entrant today faces tougher conditions, with slow sales growth and highly concentrated and integrated rivals. Entrants into refining face high sunk costs, a high minimum efficient scale relative to demand and severe environmental and other restrictions, although entry by mini-refineries may be feasible in areas where there are no existing refineries. Entry into distribution and into retailing is relatively open, but the latter is affected by the widespread direct and indirect control exercised by the oil companies and their unwillingness to make existing sites available, and by local government restrictions on new retail sites."

The World Bank and OECD (1998) in their comprehensive survey of competition policy principles list the following potential barriers to entry: -

- regulatory barriers to entry
- sunk costs and economies of scale
- absolute cost advantages
- network industries
- behavioural barriers, such as limit pricing, predatory pricing, excess capacity, vertical integration, exclusion and contractual ties.

We have used the World Bank and OECD classification of barriers to entry because it represents a useful summary of a mass of theoretical and empirical work and because the Treasury as the relevant policy department in charge of Australian competition policy tends to attach importance to the views of these bodies. The potential barriers to entry identified by the World Bank and OECD are generally recognised as such by economists. What is interesting is that they seem to be of particular relevance to the Australian petroleum retailing industry which seems to exhibits precisely many of these barriers to entry.

**Regulatory barriers**

*Regulations that influence the use of some inputs can also become barriers to entry. Sometimes this is explicitly intended, sometimes not. For example, zoning restrictions may prevent an entrant from using the best sites for its business. ....*

*Sometimes these restrictions are not equally applied to incumbents and entrants, as when incumbents avoid new, stricter regulations through some sort of grandfathering provision. The higher cost to new entrants protects incumbents from entry as long as they charge a price lower then the entrants' costs. ...*

*Environmental policy hurts entry if it favours established firms over new entrants. When tighter emission and effluent standards are adopted, it is not unusual for older plants to be grandfathered – or at least given a long time to comply. New plants, however, are typically expected to meet the higher standards from the beginning. This gives established firms an absolute cost advantage. They have scope to raise prices either through collusion or mergers without attracting entry.* World Bank and Organisation for Economic Co-operation and Development (1998, p 103-104)

This is clearly relevant to retail service station networks, terminals and refineries. Since these were originally developed zoning and environmental restrictions have been generally tightened. New entrants therefore find it more difficult to replicate the retailing sites enjoyed by incumbents. It is, for example, difficult to imagine a State government today giving consent to the establishment of an oil refinery at Kurnell in Botany Bay among the the sand dunes and the mangroves.

**Sunk costs and economies of scale**

*If an industry is characterised by substantial economies of scale (relative to the size of the market), there will be room for only a few efficient firms, and this has led many economists to predict uncompetitive outcomes in such industries. If the market is "contestable", however, this need not be the case: if there are no sunk costs or other barriers to entry, potential entry can be expected to discipline pricing behaviour (see Baumol, Panzer and Willig 1982). ... Seldom can all assets assembled for entry be resold at cost or leases cancelled costlessly. .... economies of scale should be regarded as an indicator of the possible presence of substantial sunk costs. ... The costs of buildings and other structures can have a significant sunk component if they are custom designed or if they have a special location.* World Bank and Organisation for Economic Co-operation and Development (1998, p 105)

Sunk costs are clearly relevant to the petroleum industry, at the refining, wholesale and retail distribution levels. Refineries, terminals and petrol stations are specific use assets subject to special restrictions on location and very much custom designed.

Sunk costs are really the cost of failed entry and are the loss on exit. *Most entry, however, is unlikely to be intended as the hit-and-run variety. In most cases entrants plan (or at least hope) to stay in the market. Sunk costs then matter because entry is risky. It might fail, leading to the loss of sunk investment. In this model sunk costs are more like a ticket to a* *lottery that pays off well if the entry is successful. Thus the absolute level of the sunk cost alone would be a poor measure of the height of the sunk cost barrier. What matters is the level of sunk costs relative to the prospective gains from successful entry and the probability that entry can be successful.* World Bank and Organisation for Economic Co-operation and Development (1998, p 107).

Thus the entry of supermarket chains such as Woolworths into petrol retailing involves a significant gamble on their part. Woolworths must acquire a strong enough network to be able to defeat local predatory pricing by the established majors which may be facilitated to some extent if the majors are able to terminate their franchisees and, perhaps, gain tighter control over local pricing decisions. On the other hand, if Woolworths has been able to enter a market cheaply by using its existing retail sites it will have a greater capacity to withstand any pricing battles. But for many would-be new entrants, there is the problem that the redundant petrol retailing sites which they may acquire were made redundant by the previous owners (generally the oil majors) precisely because they are the least well located and least profitable. Entry into network petrol retailing clearly requires a long pocket and there is no guarantee of success. One might guess that if the Sites and Franchise Acts are repealed, Woolworths and other aspiring entrants will face a determined strategic and targeted response from the oil majors seeking to defend their turf in areas of incursion. Such targeted responses may be financed by higher prices elsewhere in the production and distribution network and a later restoration to "normal" pricing.

**Absolute cost advantages**

*... if incumbent firms have some absolute cost advantage over entrants, and entrants are aware of this, entry is problematic. ...One real absolute advantage comes from superior access to key natural resources, such as a rich mine* ***or a prime retail location.*** *... All absolute cost advantages give incumbent firms scope to raise prices above competitive levels before they attract entry.* World Bank and Organisation for Economic Co-operation and Development (1998, p 105)

It is clear that oil majors with existing retail networks acquired at lower historic costs may well enjoy absolute cost advantages compared to new entrants. In rationalizing their sites the oil majors will presumably be able to retain their crown jewels while disposing of redundant sites for alternative (non petrol retailing) real estate uses, knowing that once taken out of use as a petrol retailing site (eg for a block of units), that site is unlikely to be ever available to a future competitor.

**Network industries**

*Network industries are those in which firms that are frequently competitors share some critical common facility. .... Network industries pose special challenges for competition policy for at least two reasons. First, their efficient operation frequently requires some cooperation among competitors to manage and develop the common facility. The challenge here is to find a way to allow them to co-operate when it is efficient, without losing the gains from vigorous competition.*

*Second, network industries can be difficult to enter. If a potential entrant is denied entry, its only option is to build a network. The problem is that networks tend to be more valuable the more members they have, and any new network will suffer significant disadvantages. Adding network extremities to what are likely significant economies of scale, including large sunk costs, creates a substantial barrier to entry.* World Bank and Organisation for Economic Co-operation and Development (1998, p 109)

These observations are pertinent to the oil industry where there are refinery sharing and joint terminalling agreements and where distribution networks of terminals cannot be easily duplicated. If terminal distribution networks were duplicated, inefficiencies would be observed similar to those which forced the policy of co-location on telecommunications companies building multiple mobile phone towers. Just as it was recognised to be a waste of social resources for multiple mobile phone towers to be erected, a policy of complete deregulation of a network industry such as fuel distribution might lead to wasteful competition.

The ACCC (1996, p 21, 25-6) in reporting on the refinery exchange agreements and the *de facto* status of refineries and terminals as common access facilities for the oil majors is really providing an argument for considering the refineries as network industries which should be declared as essential facilities subject to an access regime under the Trade Practices Act. This view was indeed taken by the National Party of Australia (New South Wales Branch) which considered refinery exchange agreements a barrier to entry; "it is a barrier to [entry] which necessarily stifles independent operators coming in. It is a very much a closed shop." (ACCC, 1996, p 22). A like view was taken by Dr Hyde, a consultant to the ACCC, who also concluded that "denying access to [refinery exchange] agreements can only serve to make entry into the market more difficult." Dr Hyde observed that "The exchange and borrow and loan agreements between the oil majors are perhaps the most compelling evidence of a lack of competition .... .it must be asked why importers of foreign product can successfully import into Australian markets despite the cost savings the oil majors obtain from the exchange agreements (which eliminate transport costs that would otherwise be incurred by the majors in shipping product from their refinery to other domestic markets)." (ACCC, 1996, pp 23, 31)

The ACCC (1996, p 27) in effect went some way to recognising the force of such arguments when, in agreeing to the Caltex/Ampol merger, it required that terminals, distributorships and depots be sold to independents, that petrol be supplied to independents and that independents be guaranteed direct access to Ampol/Caltex terminal facilities throughout Australia. It should also be noted that the ACCC (1996, p 31) considered that more detailed assessment of horizontal arrangements between the oil majors "should be an integral part of any move to deregulation."

**The effects of behavioural barriers**

*Central to the potential entrant's calculation of expected profits from entry will be the response it expects entry to elicit from incumbents. If they accommodate entry by contracting sales, it will be easier than if they start a predatory price war to drive the rival out. Incumbents typically want the entrant to believe (rightly or wrongly) that entry will be met with an aggressive response. There are actions that incumbents can take that might send this* *message, some more credible than others.* World Bank and Organisation for Economic Co-operation and Development (1998, p 109)

***Limit pricing.***

*Limit pricing is the practice by an incumbent firm of pricing so low that, given the economies of scale in a market, there would be no room for an entrant if it believed the incumbent would maintain its pre-entry level of output after entry. Under this assumption the incumbent could protect itself from entry by even a more efficient rival by choosing a low enough price. With economies of scale, this limit price will still exceed the incumbent's average cost, leaving it with profits. ..*

*Limit-pricing theories have become more respectable recently thanks to two important theoretical developments. The first recognises that potential entrants seldom have perfect information about the incumbents they will face if they enter (see Milgrom and Roberts 1982). ... Note again that there must be some other barrier, such as sunk costs, for this to work; otherwise, there is no cost to entering even if the firm must subsequently withdraw. ... [Limit pricing theories] only highlight the fact that something else, sunk costs or restrictive contracts, for example, are the real source of the barriers to entry.*-World Bank and Organisation for Economic Co-operation and Development (1998, pp 109-110)

This theoretical work about the importance to an incumbent of establishing a reputation for toughness does seem relevant to the observed behaviour of the Australian oil industry. As the report of the Australian Consumer and Competition Commission illustrates, the oil majors have generally not been slow to show a willingness to respond to competition from imports. However, as with predatory pricing, the real question is what enables an incumbent to adopt such strategies and remain profitable and solvent. The answer appears to lie in absolute cost advantages.

**Predatory pricing**

Predatory pricing has been the subject of some controversy. The "diehard" Chicago school of antitrust would deny that it can ever be profitable and is irrational. The would-be entrant can sit and wait as the incumbent bleeds himself and then re-enter. Thus *predatory pricing is unlikely to be successful if attempts to recoup losses from a price war are frustrated by the entry of new firms (or even reentry of the victim)* World Bank and Organisation for Economic Co-operation and Development (1998, p 101)

However, it is not very easy for competitors to enter and leave the petrol retailing industry without losing sunk costs. Moreover, as we explained in our previous paper on spatial competition (copy attached), an incumbent does not have to compete against an entrant over his whole network - only where entry is being attempted.

*If the potential entrant believes that entry will be met with a predatory response, it may choose not to enter. The incumbent's problem is making the entrant believe this when it would usually not be a credible threat. Predatory pricing (setting prices so low that they* *could be profitable only if they induce exit followed by substantially higher prices thereafter) is a costly and sometimes risky way to compete. It is not clear who will win the price war the incumbent, large firm charging below-cost prices on large volumes of units, or the small entrant who may sit on the sidelines, selling little and watching the predator lose money. Arguments like these, advanced by McGee (1958) and other members of the Chicago School of antitrust, have persuaded many that firms will not generally adopt predatory tactics and that it would therefore be irrational for entrants to expect such an aggressive response. More recent theoretical work, however, has provided important examples of environments in which predatory pricing might be rational and, therefore, something the entrant should worry about.*

*If the incumbent has deep pockets while the entrant is financially constrained, it can be profitable for the incumbent to adopt a predatory response to entry and for the potential entrant (knowing this) to refuse to enter. The capital market imperfection that leaves the entrant financially constrained could be based on information problems. If you cannot convince a potential lender that you have a terrific product, the lender might be reluctant to finance a price war. And many lending arrangements provide for the calling in of loans if a borrower's financial performance is below expectations. Knowing this, an entrant with current activities in other markets supported by borrowed capital might put those at risk by entry into an expensive price war upon entry. Aware of this weakness, the incumbent might choose predatory pricing.*

*A firm that operates in multiple markets may introduce predatory pricing against a new entrant in one market, even if it can never fully recoup price-war losses with higher prices after the entrant retreats. The benefit comes from building a reputation for toughness that might deter entry in other markets in which the incumbent operates. Important to this theory is that information is not perfect. There is something about the incumbent that the entrant does not know. It could be that the entrant thinks it unlikely that the incumbent will not be fully rational and value market dominance over profits. It could also be that the incumbent has such low costs that prices that look predatory are profit maximising (and profitable) for the incumbent after entry.*

*The aggressiveness of the incumbent's response to entry, whether predatory or not, will depend in part on its ability to target price reductions only to those customers it is most likely to lose to the entrant. It is less costly to defeat an entry attempt if a firm need only cut prices to a few price sensitive customers while maintaining higher prices to others. If that is possible, the ability to target price reductions will enhance the credibility of incumbent threats to meet entry with an aggressive response.*

*As a result of this more recent work, it would seem that firms will sometimes be willing to adopt predatory strategies, and it is reasonable for entrants to fear this kind of response.*
World Bank and Organisation for Economic Co-operation and Development (1998, pp 110-111)

These observations appear to confirm the arguments of our previous paper on the possibility of local predatory pricing over a spatial network. They are also consistent with the observed response of oil majors in providing selective price cuts in areas where new competition is introduced. For example, the ACCC notes that (1996, p 45) "Historically, imports by independents have been generally opportunistic and have been met with various pricing reactions and strategies by the oil majors."

The market reality of predatory pricing (and fear of predatory pricing or exclusion strategies) is underlined by the comments reported by the ACCC (1996, p 49) when it noted that "many independent wholesalers and retailers are reluctant to make a long-term commitment to potential importers. Typical of their response was the following statement:

> I would not source from import sources unless it was secure. I could not afford to. And you know, it is quite obvious, say that I terminated contracts with an oil company and go to imports ... .suddenly there is a problem with importing ... and I have seen what happens, that ultimately they get bought up to take them out of the market for various reasons. Unless there was some security of that supply, no, I would not (buy imported product). *[Confidential transcript]*"

The ACCC (1996, p 6) was really pointing to spatial predatory pricing when it asked "What effect does the oil majors' practice of providing differential price discounts, rebates or price support to certain distributors and retailers have on prices and competition?" It answered its own question when it noted (1996, p 50) that "Australia's population distribution presents particular difficulties for the potential viability of importers. Australia's main centres of population are few, with large distances between them. Consequently, an importer landing product in Sydney, for example, may face severe price discounting and it may not be financially feasible to road transport or ship the product to another major centre, such as Melbourne or Brisbane." As recent economic theory predicts, successful predatory pricing may be undertaken where it is possible to subsidise price cutting in one market from another market not under threat. This is consistent with the observation reported by the ACCC (1996, p 90) that "Other participants argued that the oil majors created retail price differentials by choosing not to compete in country areas and by using profits earned in low competition areas to subsidise low prices in high competition areas."

In this regard it is interesting that the ACCC (1996, pp 38-39) observes that "The move to multi-site franchising has caused considerable disquiet amongst the existing franchisees, who see this as another means of extending oil major power over margins and a threat to their existence. .... While no price effects have been observed from the presence of multi-site franchises, this arrangement may allow in the future more location-specific retail price discounting, especially in targeting independent operators, and could enhance the oil majors' control over retail prices."

However, the ACCC (1996, p 20) appears to ignore the possibility of selective spatial predatory pricing when it later makes comments such as "While barriers to entry into refining are relatively high, those into distribution and retailing are lower" and that " there are other factors (relatively low barriers to entry at the retail level and the likely increase in importance of independents and imports in the future) which suggests an increasingly competitive environment."

Given the possibility (and apparent practice) of predatory or quasi-predatory pricing, it is remarkable that the ACCC (1996, p 44) could report that "Concerns about the implications for competition of industry vertical arrangements would be largely eliminated if the Commission's concerns about the horizontal arrangements between the oil majors could be overcome and if there were more effective competition from imports." Such a view seems remarkably at variance with the Commission's apparent endorsement of the concept of structural separation in relation to telecommunications networks and its willingness to declare other forms of infrastructure as essential facilities. It is also inconsistent with the Commission's observation that "Access to an ongoing retailer customer base is a considerable problem for potential importers." (ACCC, 1996, p 57) and the observation of Dr Hyde, a consultant to the ACCC that "Ensuring effective competition in the (petroleum products) industry requires a presence (or at least the potential presence) of independents at each of the refining/importing, distribution and retail levels. New wholesale suppliers cannot be expected to enter the market to compete with the majors unless they have access to retail outlets. Likewise, independent retailers add little to competition if they must rely on supply from the majors and the majors are colluding. A key to ensuring long-term competition is that the potential for entry is maintained in the long run." (ACCC, 1996, p 71).

It is worth noting at this point that predatory pricing is extremely hard to define legislatively and even harder to observe. In practice, legislative restrictions against predatory pricing appear generally ineffective, see, for example, House of Representatives Standing Committee on Industry, Science and Technology (1997, pp 131-132). In particular, the Franchise Act prohibits price discrimination between like-branded franchisees, except where price differences can be justified by cost differences or the need to meet competition. Thus price cutting is permitted to head off a new entrants in any given locality and the entrant would bear the onus of establishing that it was predatory in the legal sense under the Trade Practices Act.

The difficulty of establishing predatory pricing in the legal sense is illustrated by the Marina case, where the oil majors cut prices in response to imports. "While Marina made allegations to the TPC [Trade Practices Commission] of predatory pricing, it is difficult to distinguish predatory pricing from vigorous competition. It was reasonable to assume that prices were above avoidable costs and in a competitive market increased supply will be reflected in lower prices, and where demand is inelastic the price reduction will be greater. Such a difficulty appears to be a reason for the Marina case not proceeding to prosecution." (ACCC, 1996, pp 51-52). As we noted in our previous paper where competition not only takes place over space but across time, those first in time may have lower costs than later entrants and therefore be immune from charges of predatory pricing when they undercut the new entrant because they can point to lower historic costs.

As some economic theorists predict, "It may be rational for importers to avoid triggering ongoing price competition with the oil majors. This diminishes the social benefit from such entry. The oil majors' response to Gull's imports could indicate that they were prepared to accommodate the new importer in these circumstances". A muted response to imports may also have been exhibited in the Vanguard case where the importer was reported as saying "our local industry takes the concept of discounting to new masochistic levels ... How can the industry ever see a respectable return on investments when it continually sets price levels below cost and well below the levels where competition should be taking place." (ACCC, 1996, pp

53-54). Such responses are consistent with modern economic theory predictions of the response by new entrants to credible threats of predatory pricing by incumbents.

While policy and legislative responses to predatory pricing may be difficult to formulate, it is now well established in the literature that "First and foremost, the strategic approach has been effective in debunking the comfortable proposition that predatory conduct is more costly to the predator then to the prey and, hence, is irrational and not likely to occur", see Ordover and Saloner (1989, p 590)

**Excess capacity**

*One way to make credible claims that a firm will maintain high levels of output after entry is to carry excess capacity that can be operated at low marginal costs .... The kinds of markets in which entrants can generally expect the strongest ... response to entry are of ... homogeneous product markets with substantial post-entry excess capacity and relatively inelastic demands.* World Bank and Organisation for Economic Co-operation and Development (1998, p. 111)

The oil industry is one in which refineries produce a homogeneous product (which the majors may share through pooling agreements) and sell into a market with relatively inelastic demand. The carrying of excess refining capacity may be a rational approach for incumbent firms to discourage entry, apart from the difficulty of more stringent environmental legislation in restricting the construction of new refineries.

**Foreclosure and exclusion**

*If the entrant needs inputs available only from a supplier vertically related (by contract or integration) to one of its competitors, it might fear that it will not be able to buy these supplies. Such exclusionary behaviour might violate competition rules, but let's examine the role it can play in deterring entry.*

*Recent theoretical work has demonstrated that some rational firms will refuse access or exclude competitors, even when they could sell to them at a high price. In other cases the input will be provided, but at prices so high that entry is unlikely to be successful.*

*For this to be a serious problem, the incumbent needs to have a virtual monopoly on the supply of the input. This is not much of problem in well-developed market economies. Where it does arise, however, is in many partially regulated network industries.* World Bank and Organisation for Economic Co-operation and Development (1998, p 113)

Where there is a monopoly of refining capacity shared between oil majors, this problem might be seen as possibly arising. The problem is similar to that posed by Telstra for Optus. Optus needs access to Telstra's network in order to be able to provide its long-distance services for domestic customers. The new competition policy as introduced into the Trade Practices Act requires Telstra to provide Optus with access. But the crucial question has been the interconnect fee for Optus' use of Telstra's infrastructure.

It may well turn out that a policy of total deregulation through repeal of the *Sites Act* and the *Franchising Act* would lead to monopolizing practices. These in turn would inexorably lead to an equivalent application of the Trade Practices Act to refineries and distribution terminals so that these natural monopoly infrastructure assets are declared facilities under that Act and reasonable access and pricing regimes have to be put in place to ensure a competitive industry in the downstream distribution of petroleum products. The ACCC (1996, p 6) recognised the importance of distribution terminals and depots when it asked the questions "Are their restrictions on distributors or service station operators having direct access to terminals/depots? If so, what is the impact on competition?" That importance is underlined by the comments that "Importing in Western Australia has been successful because there have been independent seaboard storage facilities available. This has not been the case in the eastern states .... The unavailability of storage was a major reason for the Commission accepting an undertaking from Ampol to sell terminal facilities in Adelaide, Brisbane, Melbourne, Newcastle, Rockhampton and Sydney when it merged with Caltex in 1995."

## Contracts as barriers to entry

*As with vertical integration, some vertical contractual relations could disadvantage new entrants. In many cases the creation of a barrier to entry might not have been the specific intent behind the use of the contracts. .... [Nonetheless] exclusive dealing contracts that require a customer to get all of its supply from a single seller, however, can effectively lock up a market. To block entry, exclusive dealing contracts will typically have to be relatively long-term and cover a large chunk of the market. Otherwise, the entrant can build its market using unsigned customers and those able to extricate themselves from contracts.* World Bank and Organisation for Economic Co-operation and Development (1998, p. 113)

As the Australian petroleum industry has evolved, one might see franchise agreements as achieving similar results to vertical integration from the point of view of the oil majors. Franchising agreements generally give the oil majors a considerable degree of control over the pricing policies of franchisees through the rebates or price support which may be made available to franchisees. The ability of franchisees to switch to other oil companies is generally limited as in most cases the sites are owned or head-leased by the supplying oil company. As noted by the ACCC (1996, p. 37) "A franchise agreement includes conditions that restrict supply to one brand, which gives franchisees little effective control over supply. .... According to Mr Opas, QC:

> Clause 5 of attachment S (of a franchise agreement) shows that the franchisee has no independence such as a free agent might have. By clause 5 (2) (b) the franchisee may not sell on its own behalf any Shell motor fuels and by clause 5 (2) (e) it must sell the fuel at the price Shell requires."

From the point of view of stopping vertical integration the *Sites Act* and the *Franchise Act* may therefore be seen as a failure since franchising may allow a very similar outcome to outright vertical integration.

The strength of contractual implementation of vertical integration is illustrated by the ACCC (1996, p 15) where it reports that "More recently partnership and 50% or 100% equity relationships have become increasingly common as the (oil) companies attempt to regain control and understanding of the country market. The current environment is one where the oil companies continue to pressure distributors to follow a particular course of action in accordance with their own strategies and goals. Distributors have little, if any, control over their own margins, profitability and competitive actions in the marketplace."

The ACCC (1996, p. 34, 43) concluded " It is doubtful whether the Sites Act constrains oil major involvement in the retail sector as this can be achieved through other vertical arrangements. The oil majors have used franchising and 100 per cent ties to achieve the control at the retail level which the Sites Act sought to prevent. As noted by Dr Hyde:

> The numerous vertical restraints observed in the industry can best be viewed as a means to subvert legislation restricting vertical integration. ... There is little reason to believe that legislation to eliminate vertical restraints will be any more successful than the legislation to restrict vertical integration. ..."

The ACCC goes on to conclude that "The Sites Act has been bypassed using vertical arrangements to gain control of downstream activity. These exclusive ties eliminate any countervailing power which the franchisees might otherwise have had. As a consequence each oil major and its branded marketing chain can be considered as one entity when assessing the level of competition in the industry."

From this point of view, one can see an argument for abolition of both Acts to eliminate the excess costs involved for oil companies in maintaining complex franchising systems. If participants in a market can achieve their objectives and get around regulation by spending money on different legal arrangements, there is an argument for the proposition that the relevant regulation should be repealed. However, there is an opposite argument: that the Sites and Franchise Acts were not strong enough and that either total divorcement or structural separation or some form of essential facilities declaration is required to break down barriers to competition in the industry.

**How to deregulate?**

If the Sites and Franchise Acts are failures from the point of view of both petrol retailers and the oil majors (though for different reasons), there is clearly a case for repeal. But it does not follow that nothing should be done or that nothing should be put in their place.

If one accepts that there are inherent tendencies towards abuse of market power in an industry, *laissez-faire* may not be appropriate. It is necessary to set up a regime which will reduce barriers to entry and promote *lasting* competition. Deregulation which results in a competitive race to entrench a monopoly is not really optimal - it leads to wasteful competition followed by pressure for merger. A notable example was the race between Telstra and Optus to spend money dual cabling some suburbs while others received no pay-TV service whatsoever. This illustrates the point that legislative measures which promote freedom of entry (real competition) and which prevent wasteful competition may actually be in the interests of the competing monopolizers. Even big companies fear a fight to the death when no one can be sure of who the remaining survivor will be.

An alternative solution to the perceived problem of monopolizing vertical integration would be to take the view that the Franchise and Sites Acts did not go far enough and that total divorcement should be mandated along the lines applied by some American states. It is interesting to observe that at the time the Sites and Franchise Acts were adopted, the then government did consider mandating total divorcement and that in fact several of the affected oil companies were prepared to accept total divorcement (see the second reading speech on the Sites Bill in the Senate by Attorney-General, the Hon Peter Durack, Q C, where he stated that "Three of the major oil companies which operate in Australia have indicated that they would support total 'divorcement' - a complete ban on major oil companies engaging in direct retailing - as a solution to the problem of the industry, whilst two others have proposed some reduction in the number of theirs and other companies' direct operated sites.").

While this may be surprising, there is a possible explanation for the reported willingness of some major oil companies to contemplate accepting complete divorcement enforced by legislation. Spatial competition through controlling a network of retail sites is expensive. If no one is allowed to do it (including the oil majors, Woolworths or anyone else), then all may be spared the costs of excessive investment, just as forcing co-location of mobile phone towers saves Telstra, Optus and Vodaphone triple costs.[2] But if *one* company is allowed to do it then *all* the others *must* do so as well, whether they like it or not. They cannot afford not to - refinery output must be sold and no refiner could take the risk that his output could have no market and his refining assets rendered valueless. This helps to explain the paradox of wasteful over-investment since World War II in petrol retailing networks which have then had to be rationalized. As John D Rockefeller recognized, competition can be wasteful and rationalization by a monopolist can eliminate this wasteful competition. Unfortunately for consumers there is no guarantee that any cost efficiencies secured by a rationalizing monopolist will be passed on to the industries or households needing petrol.

Just as Parliaments have been mandating structural separation in the electricity industry so that generators cannot control the distribution networks and all generators can have access to the natural monopoly wires on the same basis, so there is an argument that structural separation of refining and distribution and refining should be mandated. It is interesting that "originally, retailers traded a range of brands from the sites they owned. This facilitated brand substitution (hence demand fluctuation) by the consumer at a particular site, according to price differences

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2 Probably the most famous example of legislative intervention to prohibit socially wasteful competition is the 19th Century legislation against child labour. Few, if any, individual manufacturers could afford to dispense with the practice but it was both in society's interests and those of manufacturers as a whole that the working population not be stunted and ill-educated due to premature over-work.

between brands. Refiners responded by vertically integrating and tying retail sites with contractual arrangements for exclusive supply and resale of their product." (ACCC, 1996, p 32). If competition policy does not allow vertical integration by generators taking control of the wires for electricity distribution, it may be asked why it is appropriate to allow analogous vertical integration in the petroleum industry.

It may be that structural separation would be partly in the interests of refiners themselves by relieving them of the necessity to over-invest in duplicated distribution networks. The size of wasteful over-investment and the misallocation of resources which can be generated by attempts to secure spatial distribution networks may be illustrated not only by the 50 year cycle of investment and withdrawal by oil companies but by the duplicated cable TV networks established by Optus and Telstra. The ACCC (1996, pp 16 and 17) reports that "In 1970, there were some 20,000 retail sites in Australia, at least partly the result of the oil majors' strategy of 'a site on every corner'. Subsequent rationalisation has reduced this number to around 9,000. However, industry participants suggested to the Commission that this number will reduce further to about 5000 – 6000 over the next few years" and that the "exclusive brand strategy encouraged the proliferation of sites and, arguably, an unsustainable investment in land and buildings." Figures such as these suggest that the costs, in terms of wasteful over-investment, of a *laissez-faire* attitude to attempts to secure spatial monopoly are large for both the community and the participants themselves.

It may be observed that it might be seen as quite paradoxical for the Parliament to adopt a policy of total repeal of regulation in relation to petroleum retailing chains at the very time the Parliament is proceeding to investigate monopolization in retail grocery chains. The problems of spatial monopoly are not confined to the oil industry, nor are problems of perceived predatory pricing. As the House of Representatives Standing Committee on Industry, Science and Technology (1997) observed, predatory pricing is a practice which may occur in different areas of retailing and further thought might be given to a broader response, especially since that Committee founded difficulty in formulating an appropriate redrafting of section 46 of the Trade Practices Act which is intended to curb predatory pricing.

There is no scope here to examine all the arguments for or against total divorcement or other proposed solutions to competition problems in petrol retailing but this, together with other alternatives such as declaring terminals or refineries as essential facilities[3], does represent an alternative policy response to total deregulation as proposed through repeal of the Sites and Franchise Acts. At the very least, economic theory and history suggest some caution about a policy of pure deregulation in an industry where the playing field might be seen as less than level and barriers to entry might be seen as preventing the operation of the underlying concept of *laissez-faire, laissez aller*.

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[3] Nor have we discussed other possibilities such as the use of the taxation power (which was avowedly used to break up large estates for closer settlement through land taxation). Both Federal and State land taxes were used to promote land use competition as well as to raise revenue.

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# MONOPOLY AND THE DISTRIBUTION OF PETROLEUM PRODUCTS

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# MONOPOLY AND THE DISTRIBUTION OF PETROLEUM PRODUCTS

## Introduction

The purpose of this paper is to explore reasons why the market for the distribution of petroleum products may not behave in a textbook manner. Oil, like water or electricity, is an essential commodity for modern life. Without it production and distribution would grind to a halt. If, like water, electricity or natural gas, petrol could only be distributed to business or consumers through a system of mains or pipes there is no doubt that it would be generally accepted that the distribution of petrol constituted a natural monopoly. In that case, there is little doubt that the Industry Commission would be exploring the concept of structural separation of the refining and distribution aspects of the industry similar to proposals which have been made for structural separation of the generation and distribution of electricity. On the face of it, it does seem strange that where oil flows through pipelines its distribution is a natural monopoly but where petrol is carted from depot to depot to service station its distribution is often regarded as a perfectly competitive industry.

## Why Regulate at All?

It is accepted that if perfect competition were the situation for distribution of petroleum products there would be no need for any Government regulation. Indeed, if perfect competition were the norm in economic life, legislation such as the *Trade Practices Act* would be entirely unnecessary. Indeed, it is a curious paradox that legislation such as the *Trade Practices Act* exists to enhance commercial freedom by proscribing the freedom commercial enterprises to do as they please on a freely contractual basis. The existence of the *Trade Practices Act* is, in itself, an admission that throughout the economy perfect competition is the exception rather than the rule. To that extent it is admitted that 'market failure' is the norm rather than the exception. If it were otherwise, it would hardly to have been necessary for Parliament to have spent so much labour outlawing such things as abuses of market power through predatory pricing or attempts to monopolise industries.

In this connection it may be noted that many jurisdictions have grappled with what have been seen as monopolistic tendencies in oil distribution. The United States Supreme Court in *Standard Oil of California and Standard Stations, Inc v United States* (book 93 (137) no 293, 1948) struck down exclusive supply contracts between Standard and independent dealers as being in contravention of section 1 of the Sherman Act and section 3 of the Clayton Act. The Court declared that "tying agreements serve hardly any purpose beyond the suppression of competition."[1]

Queensland through *The Motor Spirits Distribution Act of 1957* (6 Eliz II No 10) sought to prevent the further growth of tied sole brand service stations on the grounds that this represented attempted monopolization. New Zealand had previously passed similar legislation in 1953. A Western Australian Royal Commission expressed doubts over the efficiency of tied house petrol retailing not long before the issue was debated in Queensland.[2] Opinions on the efficacy of such legislation may differ but at least one Australian economist, the late Colin Clark, expressed the view that the Queensland Act "appears to have been fully justified", being "a measure modelled on some of the provisions of the United States anti-trust legislation, forbidding the oil companies to establish exclusive ownership over petrol-selling stations, which were required [by the Act] to sell a variety of brands."[3]

## History of Monopoly Theory

Competition and the monopoly lie the core of micro economic theory and welfare economics. The happy coincidence that the result of competitive conduct, sale of product at a price equal to marginal cost, produces a welfare optimum accounts for the long fascination of perfect competition for economists. But what is perfect competition? For many years, perfect competition was regarded as a situation where each producer had no control over the price at which he sold; he was a price taker not a price maker. It was suggested that there would be perfect competition when there were so many producers in the market that each faced, from his own point of view, a horizontal demand curve - he could sell as much as he produced at the going price. In this mathematical approach to the definition of perfect competition, which originated with Cournot, emphasis was laid on the number of producers in the market and the slope the demand curve. It was also assumed that the product being sold was essentially homogenous.

Under the mathematical definition of monopoly, it was not hard to see that most of the world could never be described as perfectly competitive. Many things which the ordinary businessman would regard as competitive, such as product differentiation, were regarded by the mathematical definition of perfect competition as being monopolistic. Dissatisfaction arose with the idea that a market could only be described as perfectly competitive if there were virtually an infinite number of sellers in that market. Hence, in the 1930s, the theory of monopolistic competition developed. This theory attempted to take into account product differentiation and to develop a theory of competition that was not so removed from the real world. But, in doing so, it raised conundrums of its own. It still appeared correct to say that if there were only one seller in a market that market was monopolised. For example, a brilliant composer, or brain surgeon who had a unique talent would be described as a monopolist, even though anyone else was welcome to emulate the performance. Dissatisfaction with competition theory led to attempts to develop a more policy oriented approach to competition theory. There thus arose concepts of 'workable competition' where it was suggested that what mattered for competition policy was not the number of sellers in the market but the degree of concentration in the industry and the ability of others to enter.

Following the work of Bain, economists began to focus less on how many players there were in the market but more on whether those players were subject to the discipline of potential entrants and, if not, what were the barriers to entry. Austrian economists such as Hayek and Kirzner focussed attention in particular on the competition as a process, rather than an equilibrium result. As Kirzner (pp 89-90) puts it "to the laymen, the term competition undoubtedly conveys the notion of men vigorously *competing* with another, each striving to deliver a performance that outdistances his rivals. The essence of the idea is the awareness of what one's rivals are doing and the conscious effort to do something different and better. As has been explained again and again, the term competition in economic theory is used in just the *opposite* sense '[competition], in the broad sense in which businessmen understand it, largely consists in destroying competition in the narrow, economist's sense'. *Perfect* competition denotes for the price theorist the situation in which every market participant does exactly what everyone else is doing, in which it is utterly pointless to try to achieve something in any way better than what is already being done by others, and in which, in fact, it is not necessary to keep one's eyes open to what the others are doing at all. It is the state 'of placid acceptance of the market's verdict concerning price' . . . Only fairly recently has it come to be recognised that the terminology of the laymen corresponds to an aspect of the market process which urgently demands theoretical attention in its own right, and that the terminology of the economist has in fact yielded a *dis*service to economic theory by deflecting attention from that aspect. By reserving the term competition for its special meaning in neoclassical theory, economists were for a long time led to ignore the need to analyse the role of the competitive process.

Kirzner goes on to note that "for Adam Smith competition was not a 'situation' but an active process and that the notion of competition as a situation free of competitive activity in the laymen's sense originated only later from Cournot's interest in the *effects* of competition (as distinct from the process itself). But it was the development of the Cournot notion of competition - perhaps because economists shared Stigler's judgement of it as 'enormously more precise and elegant than Smith's' that came to dominate the profession."

Kirzner goes on to point out that when one is considering a failure in competition from the point of view of process one is not interested in the economist's usual meaning of any absence of perfect elasticity in the demand curves facing sellers (p 96). He argues "for us to speak clearly of a lack of competitiveness in a market process, we must be able to point to something which *prevents* market participants from competing. What is it that might succeed in rendering particular market participants secure from being competed with - that might make it possible for them to continue to offer inferior opportunities to the market, immune from the pressure of having at least to match the more attractive offers which other participants might be making available? What is it, in other words, which might halt the competitive process? Clearly this formulation of the question points to its answer. Competition, in the process sense, is at least potentially present so long as there exist no arbitrary *impediments to entry.*"

The identification of market failure with barriers to entry is a crucial insight. It is that insight which is apparently at the root of recommendations such as those made by the Hilmer Competition Inquiry for closer scrutiny of occupational licensing restrictions. As Milton Friedman long ago observed, government action may well be a major source of monopoly. As Kirzner puts it "there can be no doubt that the necessary and sufficient condition for competition to exist without obstacle is complete freedom of entry into all kinds of market activity . . . In the absence of government restrictions on given activities the only possible source of blockage of entry into a particular activity must arise from restricted access to the resources needed for that activity. Without oranges, one cannot produce orange juice. All imaginable obstacles to entry can be reduced, in basic terms, to restricted access to resources."

Many discussions of barriers to entry tend to focus on things such as brand loyalty to existing producers, goodwill accruing to existing producers and so forth. For example, the Treasury (1993, p 5) states "The degree of contestability, and therefore the potential for anti-competitive behaviour by market incumbents, is primarily determined by the ease of entry into and exit from that market. Barriers to entry and exit include economies of scale (where small new production units cannot produce as cheaply as larger units), strong brand identity or protection by patents, etc, and regulatory barriers to entry or exit." But it may be argued that as Kirzner puts it "with all resources equally accessible to all present and prospective producers, no barriers to entry can be imagined." (p 99 n 19)

The corollary of the "barrier to entry" approach to competition is that monopoly must be defined in terms of restricted access to the resources needed. "Monopoly, then, in the market free of Government obstacles to entry, means for us the position of a producer whose exclusive control over necessary inputs blocks competitive entry into the production of his products. Monopoly thus does *not* refer to the position of a producer who, without any control over resources, happens to be the only producer of a particular product." (Kirzner, p 103).

By tracing through the concept of barrier to entry through to exclusive control of vital resources one is able to observe that "what the monopolist is able to secure for himself (beyond any possible purely entrepreneurial profits which his alertness may discover) is a *monopoly rent* on the uniquely owned resource from which he derives his monopoly position . . . Monopoly rents can, after all, be captured not only by monopolist producers but also by monopolist owners of resources selling their resources to the entrepreneur/producers." (Kirzner, p 109)

It thus follows that competition in the businessman's sense can naturally lead to monopoly if, it is understood, that "a monopoly position may be won by alert entrepreneurial (and hence competitive) action." (Kirzner, p 131). For example, an alert entrepreneur may buy up a particular resource which was originally distributed among many resource owners and use the subsequent position to establish a monopoly.

The barrier to entry concept of competition and monopoly inevitably drives one to look at legislative measures which enable some producers superior access to non-reproducible natural resources.[4] These legislative measures may be by way of land grants, zoning restrictions, or by the conferral of a monopoly in the provision of reticulation systems.

Some barriers to entry by legislation may be regarded as entirely artificial e.g. the restriction of licences for taxi cabs. Others may be regarded as natural e.g. grants of land, and mining leases. It is in the nature of things that the State cannot grant to different people the simultaneous right to use the same natural resource at the same time. But the one who gets a property right in the superior resource may well be able to act thereafter as a monopolist, even though in the beginning he was only one of several competitors seeking to secure that favoured resource.

## How Space and Time Operate as Barriers to Entry

Much economic theory abstracts from space and time. Much of the discussion on competition on monopoly rarely mentions either. Yet space and time are crucial to an understanding of how a monopoly position may be built up. If it is understood that the ultimate barrier to entry must be the lack of access to non-reproducible natural resources necessary for the production of a product, what prevents access by anyone on equal terms with established producers? The answer appears to be space and time.

No product is made available in a non-spatial world. A litre of petrol sold on the North Shore of Sydney is a different product to a litre of petrol sold on the south side of Sydney. The only way to compete completely with another retailer of petrol is to be able to open up next door. To the extent that one is not able to duplicate the location *of every outlet of a competitor one lacks access to the natural resource (land) necessary for full competition.* Space is the barrier to entry.

The other barrier to entry is time. Because the price of marketing sites is not constant and over time generally increases with the growth of population the first person in the market may gradually develop an inbuilt cost advantage. If time did not exist, every person wishing to sell petrol would be looking to secure sites in the same land market. But the reality is that competitors enter the market at different times. An incumbent which has assembled a portfolio of marketing sites over several decades has a considerable cost advantage over newcomers.

The early bird catches the worm - and, having captured it, can grow fatter and stronger to seize the next one. Equality of opportunity in the race to secure marketing sites may become less equal over time as one or other market participant ends up with superior sites in perpetuity.

**Predation**

One of the most favoured methods of establishing a monopoly is to engage in predatory pricing. However, on the face of it, predatory pricing is not rational. A would-be monopolist who attempts to give away his product at less than cost is likely to sustain losses. The purpose of monopoly is to gain profits, not losses. A business which engages in predatory pricing is hoping that the damage it sustains will be less than the damage inflicted on aspiring competitors. It hopes to drive them out of the business altogether. It then hopes it will be left to enjoy monopoly profits. However, this does not explain why a monopolist who engages in predatory pricing is not subjected to repeated attacks by would-be competitors every time he puts his prices back up. Why would he not face the perpetual need to engage in predatory pricing to protect his monopoly position? Why would he not therefore fail ever to enjoy any of the profits of a monopoly but indeed suffer losses and go out of business himself? The point which needs to be recognised is that predatory pricing is not possible without an in-built cost advantage.[5]

As Posner (1976, pp 184-186) observes "suppose that the Standard Oil trust reduces its price in one market below cost, hoping to drive out its competitors there and later raise its price to a monopoly level. Presumably it expects its eventual monopoly profits, discounted to present value, to exceed the losses from selling below cost now. This assessment assumes, however, that the average purchaser in this market will sustain a net loss by paying a lower price to Standard instead of a higher price to a competitor of Standard; the lower price he pays now will be more than offset by the higher price he will pay later when Standard, with his help, has obtained a monopoly. The purchaser would be better off continuing to patronise Standard's nominally higher priced competitor.

"This analysis does not, however, completely negate the possibility of effective predatory pricing. The purchaser may not be sufficiently informed and far sighted to realise the cost to him of taking advantage of the temporarily lower price, or he may decide to act as a 'free rider' taking advantage of the lower price in the hope that the refusal of other purchasers to do so will cause the predator's campaign to fail. The second possibility is especially great when there are many purchasers."

Posner notes that economists have questioned whether predatory pricing is rational, because it ought to be cheaper to acquire rather than undersell a competitor. However he notes that mergers may be illegal but predatory pricing, while also illegal, is more difficult to detect. Predatory pricing may therefore be a cheaper method of monopolisation than acquisition. He goes on to observe that "to impose costs on a competitor by imposing the same or greater costs on oneself does not seem a very promising method of excluding a competitor. If, however, a firm operates in a number of markets and faces actual or potential competitors, each of whom is limited to one of its markets, it may find it worthwhile to expend considerable resources on crushing a single competitor in order to develop a reputation (for willingness to use predatory pricing) that may enable the firm to exclude other potential competitors without any additional below cost selling. Stated otherwise, the costs incurred by the firm in using predatory pricing in one market may generate greater deterrence benefits in other markets. Knowing that the dominant firm might act in this way, a competitor may be reluctant to enter any market in which the firm operates and if he is already in such a market he may refrain from price competition or agree to sell out to the dominant firm at a low price.[6] If this analysis is correct, the threat of predatory pricing could have been effectively employed by the Standard Oil Trust because it operated in more markets than many of its actual and potential competitors. ... My conclusion is that predatory pricing cannot be dismissed as inevitably an irrational practice. This conclusion does not assume that the predator has superior access to the capital market and is therefore able to finance a campaign of below cost selling more cheaply than a small competitor or a new entrant could."

Each petrol station operates in a local market. If a large oil company possesses a chain of petrol stations, like the Standard Oil Company which operated in many markets, it can take on a competitor entering at any particular point without having to undercut its prices throughout all of those local markets.

Another point commonly overlooked is that predation need not mean predatory pricing in the sense of actually cutting prices. In the Parliamentary debate on the Queensland legislation of 1956, it was alleged that predation had occurred by a major oil company withdrawing its pump from a multiple brand independent station and setting up a sole brand station next door. Even without cutting price, the loss of volume could inflict much greater damage on the independent retailer compared to the relative impact on the company's total profit of any start up losses on the new company site. Obviously, this sort of "competition" is virtually impossible to stigmatize under trade practices legislation, which can hardly tell producers they must charge above the market or operate at a profit everywhere.[7] Yet the effect of such "competition" may be (as was apparently intended) to "encourage" other independent retailers to sign standard form franchise agreements which eliminated the retailing of other brands.

Advertising of a company's brand name attempts to build on spatial differentiation by creating a perception of product differentiation. The stronger the perception that goodwill attaches to the brand as well as, or instead of, the site, the easier it is for an oil company to induce people to bid for the right to operate as franchisees. The more willing franchisees a company can find, the greater the capital it can raise to fund further site acquisitions or redevelopment. Each site that can be franchised releases more capital, without prejudicing the company's control of its spatial network of distribution outlets.

Time is also significant. If a large oil company has acquired its chain of marketing sites over many years at historic costs well below current market value, it has an inbuilt cost advantage. To satisfy its bankers it only has to return a profit on its *historic* cost, not on the current market value of its sites. What we may observe is a chain of local spatial monopolies acquired over time at lower costs than are available to potential new entrants.

Not only do new entrants have to contend with the general trend for land prices to rise over time against them, but they also tend to face far greater zoning, local government and environmental restrictions than were applicable decades ago when the major petrol distribution networks were first established. It is in this way that space and time can represent barriers to competition. If we describe the difference between the historic cost of the site and its current market value as the capitalised value of the rent surplus, predatory pricing can be seen to involve a foregoing of that rent surplus in one location. And even if that location was purchased recently at the current market value and there is no rent surplus, price cutting at this site can be cross-subsidised out of latent rent surpluses at other marketing sites.

The process of subsidising losses at some sites out of surpluses from other sites is akin to the practice commonly adopted by government trading enterprises of cross-subsidising some consumers (eg. households) at the expense of other customers (eg. businesses). The rent surplus can be used as a local fighting fund while the rest of the network can price on the basis of returning a current market yield on the current market price of those sites.[8] When we think of predatory pricing being financed through the acquisition of rent surpluses we start to understand the approach of Adam Smith and John Stuart Mill in talking about competition in a monopolised product. In modern economics this sort of behaviour may be categorised as rent seeking behaviour - an attempt to secure long-term market advantage.

It is worth noting that section 46 of the *Trade Practices Act* does not define predatory pricing so as to catch any competitor exploiting an inbuilt cost advantage in this way. Indeed it is hard to see how it could. But its practical significance may be large. For example, for many years Tooth & Co. controlled a large section of the beer trade in Sydney through tied houses which were owned by the company and leased to licensees. Carlton and United Breweries were able to defeat an attempt by the English brewer, Courage, to enter the Melbourne market by systematically undercutting in areas where Courage attempted to open an outlet.

An objection may be made to this theory of predatory pricing. It assumes that a company is willing to accept sub-market returns on the *current* market value of its site assets in order to maintain market position. The objector may argue that this is akin to the theories of sales maximization over profit maximization. He may also observe that corporate raiders punished firms which failed to maximize their return on the current value of assets by taking them over and selling off their assets. Why would not pressures from the stock market prevent a firm from failing to make the most of its assets by engaging in predatory pricing?

Several points may be made in reply. First, it is a question of degree. Extravagant predatory pricing may well engender such a risk of takeover unless the shareholders are close-knit and agree with the long-term profit maximization behind a predatory pricing strategy. In some closely held companies they may well do so. Second, a company does not need to engage in gross losses to deter a new competitor from entry. Predatory pricing may be required only in sensitive territory, not over the whole market. The discounting required may not be great to scare away a potential new entrant, with all his normal "one off" costs of entry (eg prospectuses, stamp duty, brokers' fees etc). The more serious competitors are those already in the market, and these may have a tacit mutual interest in not pushing predatory pricing to extremes. Predatory pricing between two or more almost equally matched rivals is unlikely to be rational from the point of view of any of them, but all have an interest in excluding new entrants. Third, takeovers are not instantaneous for large companies. If a company comes under pressure to improve its results, it may have time to suspend any price discounting and to push for greater returns on its assets. By tuning up its reported profits, it may make it too costly for a corporate raider to proceed. Forth, a corporate raider runs a risk, too. He will generally not know what the real current market value of a company's assets are. He may pay too much and go broke, just as Mr Bond paid too much for the Channel 9 television licence. Finally, the company may not be listed or owned on the local stock exchange. No major international company engaging in predatory pricing in a minor market such as Australia will feel that a low return on its small Australian assets will be enough to trigger a takeover play in New York.

Hence it seems unlikely that stock market discipline will necessarily preclude predatory pricing, especially if investors are rational and willing to support an "optimal" degree of undercutting to entrench long-term sales and profitability.

It may be that mistakes can be made in determining the "optimal" level of predatory pricing. The major Australian banks sought to compete aggressively against the new foreign banks by bidding heavily for the corporate loan market in the 1980s. They relied on the strength of their retail branch networks (which no foreign bank even thought to attempt to match) to fund their margin shaving in the corporate lending area. (In this case, predatory pricing took the form of inadequate risk premiums on many corporate loans.) Some foreign banks were driven out of the market, as were some fringe Australian financial institutions. But the costs were heavy, and some foreign banks were big enough to stand the initial losses and smart enough not to go for market share at the expense of profitability.

The credit war waged by the major Australian banks in defending their "franchises" turned out to be more costly than expected. Westpac and ANZ, in particular, suffered considerably. Indeed, if it were not for statutory restrictions on bank shareholdings, one would have expected the 1980s round of predatory pricing to have led to reduced competition through further bank mergers.

A similar phenomenon appears to have occurred with the entry of Compass into the domestic aviation market. The lesson appears to be that predatory pricing is a useful weapon against new entrants but can become very costly for incumbents if they are forced to start undercutting each other as well. Paradoxically, new entrants may trigger further long run monopolization of the market through predatory pricing. The net result can be reduced competition in the long run. Something along these lines appears to have occurred in the US aviation industry over the several years since airline deregulation.

**Vertical Integration**

Both the Industry Commission and the Trade Practices Commission as well as the Treasury have suggested that where there is a natural monopoly in distribution it should be separated from the creation of the product distributed through the distribution system. The distribution system ought to be run on a common carrier basis with access available to all. Thus, for example, no one proposes that the roads be privatised and sold over to a company which would then have the power to exclude competitors. In particular, in the electricity industry the Trade Practices Commission, the Industry Commission and the Treasury have all suggested that the transmission grid (which is a natural monopoly) should be separated from the generation activities of State Electricity Commissions. The idea is that the grid, like the highways, would be open to all on payment of a reasonable fee for the construction of the grid and different companies would be free to compete in the generating market.

If we transpose this example by way of analogy to the distribution of petroleum products, we see an element of monopoly in distribution, because of the interlocking of local spatial monopolies. Just as the squatters were able to command large tracts of land by picking out the waterholes, so any company able to secure strategic marketing sites is able to establish a fair degree of local monopoly. Although in theory petroleum marketing sites could be replicated and are not as naturally fixed as water holes in arid country, the fact is that zoning restrictions and the ability to undercut later entrants, means that a fair degree of spatial monopoly can be maintained.

The analogy with the supply of electricity and the recommendations made in regard to that industry would be that refiners should be divested from distribution, just as the electricity grid should be separated from generation.

It may, of course, be argued that a distribution grid for electricity is a natural monopoly of a different kind to the sort of market power which may be established through a network of service stations. On the other hand, it could equally be argued that the difference is one of degree rather than one of kind. The classical definition of a natural monopoly is that it is a facility which would be uneconomic for a competitor to duplicate. Usually this is because of decreasing costs. If one considers a network of retail marketing sites for petroleum products, it would be very difficult for any new entrant to replicate such a network at anything like the cost incurred historically by the incumbents. Thus one can admit that a distribution network for petroleum products is less a natural monopoly than a transmission grid while still maintaining it has large monopolistic tendencies.

When one looks further along the chain of production and distribution, however, a difference emerges between electricity and petroleum. There are fewer competitive barriers to building a generating station than there are to establishing access to oil reserves. The major oil companies, through their long association with the main producing countries, have the advantage of vertical integration. By combining superior access to raw material with inbuilt cost advantages in an established distribution network the scene is set for oligopolistic competition. Just as John D Rockefeller saw the control of distribution and the establishment of reliable sources of supply as parallel parts of the general business plan, so modern oil companies seek vertical integration and the potential benefits it gives. The major benefit of forward vertical integration is control of the selling environment. Vertical integration into retailing can ensure that a company has an outlet for its products in periods of low overall demand. This may translate into a higher rate of return on investment than for unintegrated firms.[9] Where a market is mature, the advantage of an established network of outlets may be particularly valuable as the incumbents with the better networks may end up with the market rationalizing itself in their favour without any need to take monopolizing action. For example, some smaller companies such as Amoco have quit the Australian oil industry in the last 20 years.

Among the benefits of vertical integration are an ability to shift profits to the most favourable tax jurisdiction. This may be an advantage which is not so easily enjoyed by an independent distributor with no upstream sources of supply. In theory, a vertically integrated oil company can take its profits either at the well head or at the final point of resale sale.

## Leap-frogging Spatial Monopoly

Competition, like war, means being in the right place at the right time. It means being the "firstest with the mostest". Because competition in the distribution of petroleum products is to a large extent oligopolistic competition with occasional forays by independents at the margin, one does not see an obvious rigid monopoly. One does indeed see competition, such as localised price wars.

Some would regard such price discounting episodes as evidence of vigorous competition. But it is equally possible to see localised price wars as an attempt to preserve spatial monopoly. Because populations are not fixed forever in any location, because new roads are being built and new business opportunities are opening up, any incumbent oil distributor has to be alert to secure new sites at the best possible price. For example, the development of a four lane highway which by-passes towns will create potentially valuable marketing sites on the main highway and depreciate the rental value of sites in the by-passed towns. An incumbent oil company may therefore consider abandoning some territory in the town by closing some stations there in order to secure a high volume outlet on the main highway.

This is where the company franchise system may be helpful. By leasing its existing sites to ostensibly independent businesses, the major oil companies are able to extract large lease premiums from their franchisees as independent businesses. To that extent they reduce the amount of capital they have tied up in their marketing sites while invariably retaining the option to dispose of the site should they wish. In effect, an oil company can secure a spatial monopoly to a large extent by using other people's money, namely the up front lease premiums paid by its franchisees. There is, for example, nothing illegal about an oil company selling a franchise for an established service station at a very high premium, thereby reducing the capital it has tied up in the site, and then proceeding to secure permission from the authorities for a much larger volume petrol station down the road. It can use the lump sum paid by the franchisee for goodwill for the existing site to depreciate that goodwill, by attracting custom to the new site. Having opened a much larger self-serve volume site, it can then, after a decent interval, allow the loss making franchisee to retire from a losing trade. When the franchisee indicates a disposition to quit the old site, or even before, the company can exercise its legal right to dispose of the old site for an alternative use such as office redevelopment. Rather than seeing competition in the classical economists' sense, what one sees is dynamic competition aimed at finding or enhancing monopolistic advantage. Localised price wars are a method of undercutting and discouraging not only competitors but also one's own redundant franchisees on occasion.

**Implications for Policy**

Because the *Trade Practices Act* cannot control predatory activity except where it is extremely obvious, there is a case for closer examination of potential changes to market regulation so as to secure a more genuinely competitive outcome in the market for distribution of petroleum products.

Some American States have taken the view that the only way to protect the long run interests of the consumer and independent distributors is to prohibit the major oil companies from operating marketing sites altogether. Maryland introduced divorcement legislation in 1979. In 1983, at least fourteen States - Florida, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Missouri, New York, Oklahoma, Pennsylvania, South Dakota and Texas, were considering divorcement legislation. At the national level the *Small Business Motor Fuel Marketer Preservation Act* (S. 40) was also being promoted.[10] In Australasia, as noted above, Queensland and New Zealand legislated against sole brand marketing while some critical comments have been made by Commissions of Inquiry in Western Australia and elsewhere. On the analysis outlined above, action to prevent the possibility of predation and concentration may not be as unreasonable a legislative response as it might seem from the text book viewpoint of perfect competition. Whether such legislative action should take the form of divorcement legislation and how far divorcement should proceed is, of course, a further question.[11]

Certainly, in the context of a market which is characterised by persistent attempts to create leap-frogging spatial monopolies, a policy of full-scale deregulation may not be appropriate. Full-scale deregulation may simply mean that rationalisation occurs through predatory pricing towards fewer players in the market. The stronger the networks of major oil companies the more easily they are able to finance local price wars to eliminate independent distributors.

Indeed, a new entrant may trigger a price war that the incumbents would not have dared start (because none could be sure who would be left holding the field and the initiator would be charged with attempting to monopolize the market). The net result might be that not only does the new entrant fail (like Compass) but one of more of the major incumbents might be so weakened that it withdraws, is taken over or liquidated. Outright deregulation of a non-competitive market may end up as a recipe for further monopolization.

There are significant analogies in the position of oil companies today and the position occupied by breweries before they were forced to divest themselves of tied houses in order to promote competition. If it was felt necessary in those cases (and in the USA with studios and cinemas) to prevent producers controlling distribution networks, some reconsideration of policy on oil company ownership or control of petrol retailing sites may not be inappropriate.

It is necessary for any inquiry into marketing of petroleum products to examine carefully the effects of spatial and temporal monopoly on competition. It is also necessary to question the vertical integration of much of the industry in the light of previous examples and current examples where it is perceived that competition would best be served by splitting production and distribution activities.

It is also necessary to question suggestions that the major oil companies are not operating in a monopolistic market, because of low profitability levels. Low profitability may well reflect the impact of localised predatory pricing aimed at securing monopoly. Low published profitability may also reflect revaluation of sites purchased at much lower historic costs. A company may well be returning 30 or 40 per cent per annum on the historic cost of a site bought 10 years or 15 years ago, but only showing 4 or 5 per cent on the current market value of that site. The real profitability of an enterprise has to take into account not only operating profits but also the realised and unrealised capital gains on assets it may be generating. For example, an oil company may well make valuable profits on disposing of redundant sites to alternative uses such as office redevelopment.

Full scale deregulation may not in the end be a recipe for better long run competition. In the United States it was originally hoped the deregulation of the airlines would result in more long run competition. This hope has not entirely been fulfilled. There has been evidence of a degree of concentration re-emerging as some new entrants fall by the wayside against established companies and the established companies fight among themselves. The collapse of Compass Airlines in Australia through a price war it could not win shows the relevance of inbuilt cost advantages for incumbents in any analysis of market structure.

## ENDNOTES

1. quoted in Hunter (1969, p 248)

2. The debate on the Queensland Act may be found at Hansard for the Legislative Assembly 28-29 March 1957 pp 1580-1719 and 2 April 1957 pp 1720-1789. In debate it was argued that the purpose of sole brand tied petrol stations was to allow the three major companies to take market share away from smaller Australian companies such as Ampol. It was also argued that sole brand "tied house" petrol retailing led to over-capitalization and a waste of resources which had to be recouped from the consumer. It was alleged that independent re-sellers, who refused to go sole brand, were driven out of business by major companies opening up sites nearby. Interestingly, the Government was criticized for attempting to proscribe tied house petrol retailing while allowing the breweries to maintain tied hotels. Since that time, the opposite result has obtained under Federal trade practices legislation - tied hotels have been proscribed but tied petrol stations remain.

3. Clark (1958, p 245)

4. It is interesting to note that the Trade Practices Commission submission to the Cooney Committee argued for the insertion of a new section in the *Trade Practices Act* directed at conduct having the purpose *or effect* of lessening competition. The section could embrace conduct which lessens competition such as "the pre-emption of access by competitors to scarce facilities or resources", Cooney Report (1991, pp 83-84).

5. The Hilmer Committee (1993 p 63) argued that "predatory pricing is a risky strategy, given that the losses from cutting prices are certain but the gains are dependent upon the uncertain ability to successfully drive competitors out and keep them out of the market." This rather optimistic view fails to address the roles of space, time and uncertain knowledge in giving in-built cost advantages to incumbents which can be used to create barriers to competition by new entrants or to drive out weaker competitors in a shrinking market subject to rationalization.

6. Klevorick (1993, p 163) observes that recent theoretical micro-economic work has offered three types of models of predation. Predation may be rational and occur in equilibrium if -

   - "the dominant firm's financial resources are greater than any potential competitor's and enable it to outlast any rival. Asymmetric information ... [may explain] differential access to financing by the predator and the target"

   - "in the presence of asymmetric information about a firm's predilection to prey, an incumbent could use predation to build a reputation for toughness and thereby discourage potential entrants from entering other markets - whether different in time or location - in which they would have to face the dominant firm head-on."

- "when information about costs and market demand conditions is not symmetric, a predator can use a low price to signal to a rival that those cost or demand conditions make exit (or nonentry) a more attractive option than remaining in the market and continuing to face the dominant firm."

Klevorick observes that the emergence of these models, based on information asymmetry, have "effectively undermined the view that, because of its costs to the would-be predator, predation is irrational and hence not likely to occur."

7. Klevorick (1993, p 166) observes that the US Courts have retreated from finding predation, as opposed to vigorous competition, and have recently tended to accept, uncritically, some earlier theoretical literature (eg Bork, 1978 pp 144-160) which argued predation was irrational and unlikely to succeed.

In Australia, Corones (1990 p 179-180) observes "predatory purpose is often difficult to detect. A new entrant may, for example, feel that a price reduction by an established competitor is predatory, yet it may be no more than a reasonable response to meet new competition. Cost advantages may explain low prices and the Explanatory Memorandum [to the *Trade Practices Act*] expressly provides 'a corporation which is able to price its goods very competitively by reason, for example, of economies of scale or the acquisition of new efficient production facilities, would not be inhibited from doing so'" by the *Trade Practices Act*, even if it possesses a substantial degree of market power. Corones (1990, p 176) also notes the difficulty of applying s 46 (misuse of market power) due to the inherent difficulty of distinguishing predatory and "genuine" competitive conduct. He cites the judgment of Mason CJ and Wilson J in the *Queensland Wire Industries Case* "Competition by its very nature is deliberate and ruthless. Competitors jockey for sales, the more effective competitors injuring the less effective by taking sales away. Competitors almost always try to 'injure' each other in this way. This competition has never been a tort and these injuries are the inevitable consequence of the competition s 46 is designed to foster." Similarly, the Cooney Report (1991, p 81) quotes Wilcox J in *Eastern Express Pty Ltd v General Newspapers Pty Ltd* - "the outward decision to engage in predatory pricing is a lowering of prices, an action which, on its face, is pro-competitive. The factor which turns mere price-cutting into predatory pricing is the purpose for which it is undertaken. That will often be difficult to prove."

8. The Trade Practices Commission (1980, pp 12, 14, 17-18) argued that unlawful price discrimination was not the problem in the retail market. Rather, companies charged sub-market rents to assist their lessees to compete against each other. Price discrimination did arise when companies met competition in areas where there were local price wars between sites selling different brands, but this was not unlawful. The type of market behaviour described by the Commission is consistent with the theory of strategic predation outlined in this paper.

Other examples of spatial predation may be found. For example, Hunter (1969 p

343) quotes the British Monopolies Commission as condemning the British Oxygen Company for undertaking spatial predatory pricing - "It is in our view contrary to the public interest that a monopoly such as B.O.C. should take advantage of its position to eliminate competitors by making local and selective reductions in prices instead of extending to all consumers the benefits of any price reductions which may be possible."

9. See Kerin et al (1990, pp 245-248)

10. See Barron and Umbeck (1983, p 29)

11. Barron and Umbeck (1983) argue that divorcement legislation in Maryland which forced company-operated stations to close led to greater costs to consumers who were forced to buy from higher-priced franchisee or independent stations. They base this conclusion on a regression analysis which *assumed* lower prices for company-operated stations were not due to predation. Predation was ruled out because studies had shown (1) that company-operated stations were profitable and (2) that monopoly profits were not available from refining to subsidize predatory pricing.

    This methodology may be questioned. First, predation may occur through draining away market share without cutting prices. Second, predatory pricing does not require operating at a loss, merely accepting a lower rate of return on the current value of assets. One can therefore be profitable in historic cost terms while effectively squeezing out competition. Third, monopoly profits to subsidize predation need not come from refining. They could come from other sites in the retail network or from upstream well-head profits (which may have offshore tax-sheltering possibilities denied to onshore franchisees). Finally, the Maryland divorcement legislation only prohibited company-*operated* stations - it did not require full divestment of all economic interests in retail franchising. Further research seems to be required for a definitive economic analysis of the issue.

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