



**Criteria for the Identification of
Government Monopoly
Business Activities**

December 1997

**CRITERIA FOR DECIDING WHETHER TO DECLARE
A GOVERNMENT BUSINESS ACTIVITY TO BE
A GOVERNMENT MONOPOLY BUSINESS ACTIVITY**

A government business activity should be declared a government monopoly business activity wherever its market power is such that competitive pressures do not effectively constrain its commercial behaviour.

The criteria to be addressed in determining this are:

- (a) the activity involves the provision or supply of a product or service;*
- (b) the product or service is provided or supplied to other than internal clients; and*
- (c) either:*
 - (i) there is an absence of vigorous rivalry in the market and there are barriers to entry into the market; or*
 - (ii) there is evidence that the government business activity is exercising substantial market power which may include that it is earning an excessive return, would be earning an excessive return were it not operating inefficiently or is cross subsidising.*

The attached paper elaborates on the criteria.

Executive Summary

The Queensland Competition Authority Act (the QCA Act) requires the Queensland Competition Authority (the QCA or the Authority) to develop criteria by 31 December, 1997 to assist the Premier and the Treasurer (the Ministers) in deciding whether to declare a government business activity to be a government monopoly business activity. The explanatory note for the QCA Act makes it clear that the term “monopoly” is intended to extend to “near monopolies” where a government agency conducting a business activity has substantial market power.

Once government business activities are declared to be government monopoly business activities, they may, but need not, be referred by the Ministers to the QCA for prices oversight. The test for identifying government monopoly business activities is based upon an assessment of whether these business activities have sufficient market power such that they are capable of persistently behaving in a manner different to that which would occur in a competitive market. In competitive markets, sellers increase their prices or reduce the quality of their products or services at their peril, as consumers are able to find alternatives relatively easily.

Where an incumbent possesses substantial market power, the rigours normally provided by competition to protect customers and to innovate are substantially weakened. This is likely to occur where:

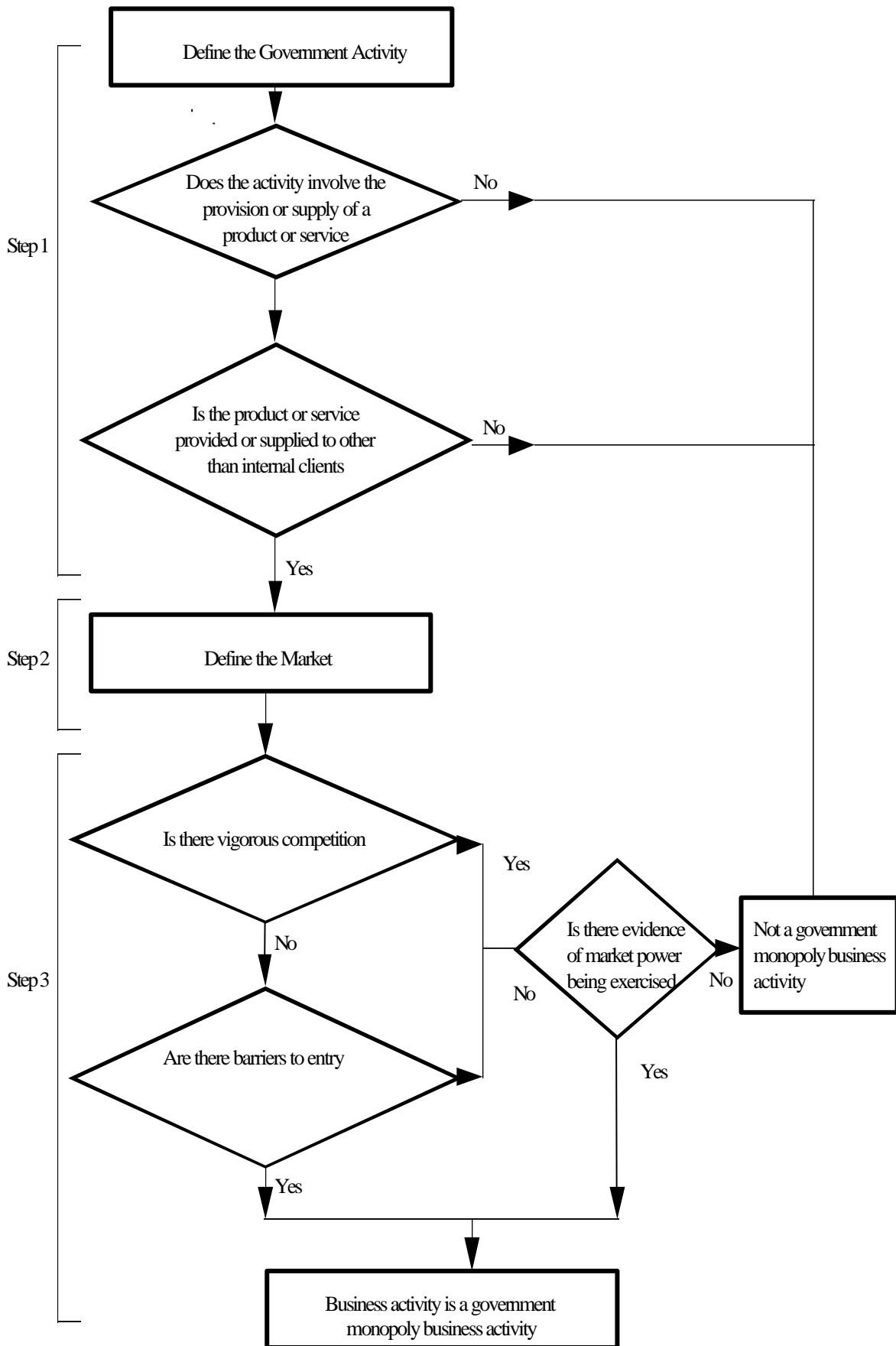
- a government business activity enjoys a substantial influence in a market;
- a government business activity can act to an appreciable degree independently of its competitors¹; or
- a government business activity’s competitors are unable or unwilling to effectively compete with it.

Figure 1 gives a simplified description of the framework within which the Authority recommends government monopoly business activities be identified. Basically, a three step process is envisaged:

- step 1 - determines whether the activity is a government business activity;
- step 2 - defines the markets in which the government business activity operates;
- step 3 - assesses the intensity of competition in those markets that may be relevant to the enquiry.

¹ The term “competitor” refers to actual or potential competitors.

Figure 1: Simplified framework for identifying government monopoly business activities



Step 1 - Determining whether the activity is a government business activity ?

The first step in the process is to properly define the activity which is to be the subject of the analysis with a view to determining whether it is a government business activity. There are two requirements to be addressed in this context. The first requirement is that the activity must involve the provision or supply of a product or service. The second requirement is that the product or service be provided or supplied to other than internal clients (where internal clients are clients within the relevant government agency).

A government agency may undertake several distinct business activities. Consequently, precisely defining the product or service that is the subject of the analysis is essential to correctly identify the business activity and to define the relevant market, which is the next step in the process.

Step 2 - Market definition

A market is an area of close competition or rivalry. Defining a market involves drawing a line in the chain of substitutes for a product or service which potentially compete with it. In defining and analysing a market, it is important to consider the purpose of the investigation which, in the case of identifying government monopoly business activities, is to assess the extent of competitive pressure exerted on a government business activity.

The analysis will need to address the product market (alternative products or services that can be used instead of those provided by the government business activity), the geographic market (the geographical region from which alternative sources of supply may be found), the relevant functional level of the market under consideration and the period of time allowed for an effective competitor to enter the market.

Once the relevant market has been defined, the intensity of the competitive pressures can be assessed and other relevant factors, such as the extent of barriers to entry, can be considered.

Step 3 - Assessing the level of competition in the market

The principal factors which assist in determining if a government business activity is not effectively constrained by competitive pressures in a market are:

- the absence of vigorous competition in the market together with barriers to entry for new entrants into the industry (or to the expansion of existing rivals); and
- even if there is vigorous competition, evidence of the exercise of substantial market power by the government business activity (eg by way of excessive pricing, inefficient operations or cross-subsidisation).

If the analysis of a government business activity indicates either of these factors, then the government business activity should be declared a government monopoly business activity.

1. Introduction

The Queensland Competition Authority Act (the QCA Act) requires the Queensland Competition Authority (the QCA or the Authority) to develop criteria by 31 December, 1997 to assist the Premier and the Treasurer (the Ministers) in deciding whether to declare a government business activity to be a government monopoly business activity.

The explanatory note for the QCA Act makes it clear that the use of the term “monopoly” in “government monopoly business activity” is not intended to limit the term to a situation where there is only a single supplier in a particular market. Indeed, it is intended to extend to “near monopolies” where a government agency conducting a business activity has substantial market power.

The QCA Act refers to government monopoly business activities in Part 3 of that Act which deals with prices oversight. Once government business activities are declared to be government monopoly business activities, they may be referred to the QCA for prices oversight.

However, while satisfying the government monopoly business activity test is a necessary prerequisite, it is itself not sufficient to render that business activity a prices oversight candidate. This is because a government monopoly business activity (even after it has been declared as such pursuant to the criteria) must still be referred by the Ministers to the Authority for prices oversight.²

This paper is confined to a discussion of the criteria for identifying government monopoly business activities. The criteria are based upon an assessment of whether these business activities have a degree of market power such that the organisation’s commercial behaviour is not effectively constrained by competitive pressures.

In developing these criteria, the Authority was conscious that the explanatory note to the QCA Act emphasised that government monopoly business activities are those with substantial market power. Accordingly, the issue arises as to the appropriate threshold of market power to warrant declaration as a government monopoly business activity.

²

There are two ways in which government business activities may be referred to the Authority for prices oversight. The first way is for a government business activity to be declared a government monopoly business activity by regulation in which case it will immediately become subject to prices oversight. Alternatively, the Ministers may declare a government business activity to be a government monopoly business activity and then refer it to the Authority for prices oversight. This second approach may be in response to a request from the Authority.

2. Market power

Market power arises where an incumbent is capable of persistently behaving in a manner different to that which would occur in a competitive market (including markets where potential competition is an effective fetter). In competitive markets, sellers increase their prices or reduce the quality of their products at their peril, as consumers are able to find alternatives relatively easily. Where an incumbent possesses substantial market power, the rigours provided by competition to:

- price and produce efficiently;
- satisfy customers with quality relative to price; and
- innovate,

are substantially weakened.

Sources of market power

A government business activity's market power may arise from its superior performance or innovation, or from other factors, such as:

- a legislated monopoly, where legislation precludes a competitive activity in relation to the supply of a product or service;
- a natural monopoly, where the least costly means of meeting demand is through production by a single entity; and
- poorly contestable markets, where competition does not operate effectively in markets despite the absence of a legislated or natural monopoly.

In general, it is desirable to address concerns over market power by regulatory and structural reform to enhance competition. Regulatory reform involves removing regulatory restrictions on competition. Structural reform entails separating natural monopoly and potentially contestable elements of a business and may be accompanied by other reforms, such as creating rights of third party access to natural monopolies to encourage the evolution of competitive markets where feasible.

The pursuit of regulatory and structural reform is generally preferred because forcing market participants to respond to the incentives provided by competitive pressures rather than the incentives created by regulatory arrangements (such as price oversight) promotes superior outcomes for the economy as it avoids resource allocation being determined by the subjective judgements of regulators.

However, even where regulatory or structural reform is undertaken, entrenched market positions enjoyed by incumbents often provide them with a substantial advantage relative to new entrants. These "first mover" advantages may mean that a government monopoly business activity retains much of its market power despite regulatory or structural reform, at least for a prolonged period. Consequently, the introduction of regulatory or structural reform of itself may not cause a government business activity to

cease to be properly categorised as a government monopoly business activity.

Market power threshold for government monopoly business activities

The extent of an entity's market power is a question of degree and reflects the extent to which competitors constrain its conduct. The question arises as to the appropriate market power threshold for a government business activity's market power to characterise it as a government monopoly business activity.

If it is to be classified as a government monopoly business activity, a government business activity's commercial behaviour should not be effectively constrained by competitive pressures (exerted by either actual or potential competitors). This is likely to occur where:

- a government business activity enjoys a substantial influence in a market;
- a government business activity can act to an appreciable degree independently of its competitors; or
- a government business activity's competitors are unable or unwilling to effectively compete with it.

A government business activity may be taken to have a substantial influence on a market if its commercial behaviour is not subject to the disciplines competitive markets normally impose. It may also be able to use that influence to its advantage in shaping the market as it evolves over time, especially if it controls access to an essential input (eg as Queensland Rail controls access to its rail network).³ However, absolute control of the market is not necessary for a substantial influence to be established.

A government business activity with a substantial influence on a market may choose to (or may have already chosen to) "give less and charge more" without suffering at the hands of its actual or potential competitors. Accordingly, a government business activity with a substantial influence on a market may have the capacity to influence the competitive conduct of its rivals which in turn enables it to act, to an appreciable degree, independently of its competitors. This may occur, for example because rivals choose simply to "follow the lead" of the government business activity instead of competing with it.

The capacity to act, to an appreciable degree, independently of rivals may be demonstrated by evidence that a government business activity has in the past been able to alter its relationship with its customers to its advantage without adversely affecting its market share. There are many dimensions to the supplier-customer relationship.

³ Subject to the State based third party access regime contained in part 5 of the QCA Act.

Perhaps the most obvious aspect of the relationship is the price a customer must pay for a product or service. The capacity of a government business activity to increase the price that customers are required to pay where that increase is not related to some general change in its costs, and then to maintain its price at a premium above that which reflects efficient costs, indicates a capacity to act independently of rivals.

Other dimensions to this relationship include the capacity to reduce service quality, or impose onerous terms and conditions, such as requiring the customer to purchase other products or accept take or pay conditions. Of course, in some instances, these conditions may be reasonable, such as where contracts underpin a substantial investment which will be sunk once it is made. The nature of the contractual terms must therefore be considered in the context of the commercial relationship between the parties. The responsiveness of customers to a change imposed by the government business activity will assist in ascertaining the government business activity's degree of independence from its competitors.

Competitors may be unable or unwilling to compete with the government business activity. They may be unable to compete because they lack the capacity to do so sustainably without jeopardising their long term future or because they rely upon a government business activity for an essential input that is not available on commercial terms. Alternatively, they may be unwilling to effectively compete because they perceive doing so is incompatible with the pursuit of their commercial objectives.

This will particularly be the case where the government business activity is in a strong position to "punish" competitors. One way in which a government business activity can punish competitors is to heavily discount its product or service in particular markets or otherwise act to inflict economic harm on an "excessively aggressive" competitor and then subsequently raise prices above a competitive level. In such a situation, would-be competitors may carefully calculate their strategy so as not to attract the government business activity's attention. In such an environment, competitive rivalry in the market may be severely constrained.

The meaning of competitors in this context is not limited to actual competitors (ie those actually involved in the same market as the government business activity), but extends also to potential competitors (ie those most likely to be capable of successfully entering the market). However, actual competitors, with a current presence and operational capacity in the market, will normally be a far more effective constraint on the conduct of government business activities than potential competitors.

Matters to be taken into account in assessing the effectiveness of competitive pressure

In assessing the effectiveness of competitive pressure as a constraint on a government business activity, the following factors are relevant:

- the extent to which vigorous rivalry exists and the extent of barriers to entry; and
- whether there is any evidence of the government business activity exercising substantial market power, which may include, for example, pricing excessively.

3. Process for identifying government monopoly business activities

In ascertaining whether or not competitive pressure is exerted upon a government business activity, it is necessary to thoroughly investigate the relevant industry. Basically, a three step process is envisaged:

- step 1 - determines whether the activity is a government business activity;
- step 2 - defines the markets in which the government business activity operates;
- step 3 - assesses the intensity of competition in those markets that may be relevant to the enquiry.

Step 1 - What are government business activities?

The first step in the process is to properly define the product or service which is to be the subject of the analysis. This will also enable the government business activity to be defined.

The QCA Act defines a government business activity as the trading in products or services by a government agency. Government agencies are defined widely to include all government owned corporations, other government companies, departments (or parts of departments) and other state instrumentalities.

Government business activities are the business activities (ie a trading in products or services) of government agencies. Consequently, government business activities extend beyond corporatised entities to include government departments (or business units within departments), statutory authorities (including statutory marketing authorities), and other bodies which trade products or services.

Government agencies whose role relates solely to regulatory or policy functions will not be considered as business activities as they do not provide or supply products or services.

In addition, it is unlikely the term "government business activity" is intended to extend to those undertakings which provide or supply products or services exclusively to internal clients (ie. clients within the relevant government agency) such as internally provided corporate service functions (since the activity is not a trading activity).

It is important to recognise that a government agency may undertake several distinct business activities. For example, each major traffic category of a railway operator is likely to constitute a separate business activity. Accordingly, coal, minerals and grain traffics could be separate business activities.

Moreover, even within a traffic class, there may be more than one business activity, if for example, there are distinct markets served by that class of traffic. For example, a rail operator may have less market power for the transport of a particular commodity in the domestic market than in the export market. In such a case, the two markets served may be considered as separate business activities.

Consequently, it is critical to precisely define the product or service that is the subject of the analysis. This is essential in order to correctly define the relevant market, which is the next step in the process.

Step 2 - Market definition

Market definition is a critical step in the process of identifying market power. Adopting too narrow a market definition will tend to exaggerate the degree of market power ascribed to a government business activity. Conversely, defining a market too widely could effectively "hide" a position of market power.

This highlights the very important role of market definition in providing insight into the likelihood of an incumbent's ability to charge more or offer less. Indeed, the processes of market definition and assessing market power are intertwined - it is only for analytical convenience that they are considered separately.

What is a Market?

A market for a product or a service includes all products or services which are in close competition or rivalry with that product or service. However, some suppliers face little or no competition for the products and services they sell. Indeed, a single product or service may constitute its own market.

Defining a market involves drawing a line through the chain of substitutes for a product or service which potentially compete with it. Although there is no single universal or definitive test that can be applied, one approach is to look for a marked gap in the chain of substitution possibilities. Alternatively, one may consider the range of suppliers who are likely to respond to a significant price increase (or to a change in some other variable in the customer supplier relationship, such as quality or availability) within a reasonable period and the extent of that response in terms of the likely volume of transactions.

In determining the magnitude of the price increase, one approach is to consider a 5% increase (which is broadly that currently adopted by the Australian Competition and Consumer Commission). However, the critical issue is not the size of the price increase per se, but the relationship between price and profitability. For example, a small percentage increase in price will generally have a much larger relative effect on a retailer's profit than that for a manufacturer.

In addition, care must be taken in applying this test as it can lead to the perverse result where markets with prices currently above competitive levels appear to be more competitive than otherwise identical markets already experiencing competitive pricing. This is because a 5% price increase in an already competitive market may not attract any new entrants, yet induce new competitors into an otherwise uncompetitive market. This could lead to the conclusion that a market is competitive when in fact substantial market power had already been exerted.

In defining and analysing a market, it is important to consider the purpose of the investigation. In the case of identifying government monopoly business activities, the purpose will be to assess the extent of competitive pressure exerted upon a government business activity. Pricing at levels above those which could be obtained in competitive markets by government monopoly business activities has the capacity to undermine the international competitiveness of the Queensland economy, hinder the efficient development of this State's resources and cause adverse equity effects.⁴

Accordingly, the market should be defined from the perspective of the government business activity under consideration by analysing the competitive pressures exerted upon it with a view to ascertaining the extent to which it is constrained by those pressures.

The analysis will need to address the following dimensions of market definition:

- the product market (ie alternative products or services or substitutes which can be used instead of the incumbent's products or services);
- the geographic market (the geographical region from which alternative sources of supply may be found);
- the relevant functional level of the market under consideration; and
- the period of time allowed for an effective competitor to enter the market.

In practice, it is often found that market definition involves a particular dimension of the market being contentious and consequently, in such a case, the analysis may need to focus especially on that issue. For example, if there are no close substitutes for a product, attention may focus on the geographic dimension of the market.

Products comprising a Market

The product market comprises products or services which are substitutes of the product or service in question⁵. For example, electricity and gas may be substitutes for one another in markets if a modest increase in the price of electricity causes consumers to readily purchase gas instead (although this may not be the case for consumers who can only switch energy source after undertaking expensive alterations to their plant and equipment).

⁴ From an economic perspective, the process of raising prices and forcing users to poor alternatives or going without creates distortions in resource allocation because resources are directed away from their highest value use. For example, if a monopolist were able to charge very high prices for electricity that were well above the cost of supply, energy users could, over time, consume alternative fuels such as gas or oil, even though the cost of producing these alternatives was higher than the cost of supplying electricity. In addition, monopolists often devote considerable resources to protecting their position in a market, by investing in a way which discourages new entrants.

⁵ An example of a product is forest products, such as plantation logs, and a rail transport service is an example of a service.

Alternatively, substitutes may exist where producers are able to switch production in response to a price change. For example, an increase in charges at one port for containers may encourage other ports to increase their capacity to handle containers in response.

The degree of substitution depends upon the current prices for the two products. A monopoly may increase its prices to the point where it faces some competition from other products. Indeed, it will often be in a government monopoly business activity's commercial interest to raise its price to just below the point where customers are forced to consider what should be poor substitutes or do without altogether.

Consequently, a government business activity may have substantial market power despite it appearing to face competition. This situation can arise because the government business activity may have exercised its market power to the point where prices have risen sufficiently to induce competitors into the market. This is discussed in more detail in step 3 below.

The past behaviour of buyers and suppliers of possible substitutes (for example, in the past, what price movement has been required before buyers and suppliers have altered their behaviour) can assist in ascertaining market boundaries. In reviewing this past behaviour, it will also be relevant to assess the relative price levels and price movements of the product compared to potential substitutes. Where the prices of the product and substitutes closely follow one another, it may be evidence they are good substitutes. Other factors which may be relevant include buyer and supplier attitudes and technological change.⁶

Customer inertia occurs because of switching costs. Switching costs include all of the costs involved in a customer switching to an alternative supplier. The existence of switching costs means that customers may be reluctant to change supplier if they perceive the cost of doing so outweighs the benefit (even if this is not the case).

Switching costs and customer inertia may be critical in market definition. For example, it may be expensive for customers to switch from gas hot water heating to electricity or vice versa. Similarly, the cost of establishing production and distribution systems for a product which is closely substitutable with the relevant products will be critical in defining the extent of the market. If these costs prevent entry, then possible substitutes will in fact be poor substitutes.

⁶ There appears to have been a greater preparedness by Australian courts to take account of factors other than substitution possibilities, such as "commercial realities", when defining markets. Commercial realities provides greater recognition of matters such as dynamic factors, potential competition, industry viewpoints and public attitudes. Again, however, one must also be wary of the prospect of monopoly pricing inducing new competitors which would not be attracted into a market if it were not for the high prices charged by the government business activity. In such a case, despite the apparent competition, the government business activity could have substantial market power. In addition, care must be taken because price movements may be correlated for other reasons, such as reliance upon a common input or because of collusion across markets. One must always analyse the underlying circumstances.

Geographical region

The geographic region of a market is determined by assessing whether an increase in price in one location substantially affects either the sources of supply for that region or price in another region (where both regions are affected by the same market conditions).

Accordingly, defining the geographic market involves a similar process to that taken in defining the product market. The geographic dimension of the market is defined by the economic feasibility of sourcing alternative products from elsewhere, including imports from overseas (although many of the products and services provided by government monopoly business activities are unlikely to be subject to import competition).

Factors which may impinge upon the geographic dimension of the market include:

- transportation costs for alternative sources of supply - for example, the cost of transmitting electricity increases with distance due to greater transmission losses; and
- constraints on suppliers selling to the government business activity's customers - for example, once the capacity of electricity transmission wires is approached, the line becomes constrained causing transmission losses to increase dramatically.

Just as is the case with product markets, the cost of extending or switching production and distribution systems to supply the customers of the government business activity and the cost, or inconvenience, for customers in switching to alternative sources of supply, will be factors affecting market definition.

For example, ports many hundreds of kilometres apart compete for the traffic to be provided by new projects, but once a port user is committed and establishes the necessary infrastructure for a particular port, then it may be very expensive to change to another port. Similarly, a price rise for water in one region is unlikely to entice other water boards to compete because of the need to establish infrastructure.

Functional level

In defining a market, it is also important to remember there can be several distinct phases to the production process (eg manufacturing is distinct from wholesaling, which is distinct again from retailing). Manufacturers do not generally "compete" with wholesalers or retailers, and therefore do not form part of the same market.

For example, DPI Forestry sells unprocessed plantation logs to saw mills. However, this constitutes a different functional market to that made up by processed timber itself, which represents a separate step in the production chain. The furniture market comprises a separate functional market again.

It is important that focusing on one functional level does not obscure the analysis of an entity's market power, which may arise through vertical integration with other functional levels. For example, an analysis of market power in above rail services may overlook the fact that the railway operator's market power arises from its control over rail tracks. Accordingly, when defining the functional market for a business activity, one should be aware of the impact of vertical integration with other functions which may have greater significance for market power.

Time

The time dimension refers to the period over which substitution possibilities ought to be considered for the purpose of defining the market. The scope of the market will expand with the period of time allowed for a market definition.

Potential competition is not as effective a constraint as actual competition. Consequently, if a potential competitor requires new investment to enter a market, then it will not normally be included in the relevant market definition for a government business activity. This is principally because these potential competitors are not in a strong position to exert competitive pressure upon an entrenched government business activity.

For example, if a two year delay is involved in sourcing rolling stock to enable a rail provider to compete with Queensland Rail, then that potential competitor may exert competitive pressure for a new mine due to open in two year's time. However, that potential competitor is unlikely to be in a position to effectively exert competitive pressure for QR's existing traffic. Consequently, in general, it is proposed that only imminent developments should be taken into account for market definition for assessing whether government business activities should be classified as government monopoly business activities (although the approach will vary depending upon the circumstances of each case).

Once the relevant market has been defined, the intensity of the competitive pressures can be assessed and other relevant factors, such as the extent of barriers to entry, can be considered.

Step 3 - Assessing the level of competition in the market

The principal factors which assist in determining if a government business activity is not effectively constrained by competitive pressures in a market are:

- the absence of vigorous competition in the market together with barriers to entry for new entrants into the industry (or to the expansion of existing rivals); and
- even if there is vigorous competition, evidence of the exercise of substantial market power by the government business activity (eg by way of excessive pricing, inefficient operations or cross-subsidisation).

If a government business activity's market environment indicates either of these conditions are met, then it is unlikely that competitive pressures effectively constrain the government business activity's pricing.

Lack of vigorous competition with barriers to entry

This element considers two factors, a lack of vigorous rivalry and the existence of barriers to entry. A government business activity will be a government monopoly business activity if there is a lack of vigorous competition in the market accompanied by the presence of barriers to entry.

Evidence of vigorous Competition

Market share may appear an intuitive indicator of the effectiveness of competitive pressures in a market. A government business activity's market share represents the proportion of market demand it fills (in terms of capacity or the value or volume of sales).

Generally, a government business activity must have a significant market share for it to be not effectively constrained by competitive pressure. Leaving aside the underlying reasons why a particular market structure may have evolved (which are considered below), the principal reason why a large market share is accepted as demonstrating a lack of vigorous rivalry is due to the practical inability in the short term for small competitors to increase their market share sufficiently in response to the government business activity increasing its prices. Consider, for example, a government business activity with a 90% market share - assuming demand remains at current levels, competitors must be able to effectively double their market share from 10% to 20% in order to reduce the government business activity's market share by 10%.

However, there is no agreement amongst competition agencies around the world on what thresholds are relevant. This is due to many reasons, including:

- a market share provides no information on the underlying market characteristics. For example, in the electricity generation market, electricity generators with relatively low market share can influence prices, especially at peak times because of the nature of the market (which requires supply and demand to be continuously and instantaneously balanced); and
- a government business activity's market share does not indicate how it was achieved. For example, an entity's market share may be attributable to its relatively low prices, rather than its market power. Moreover, a government business activity with a low market share may have set prices so high that competitors offering inferior substitutes are induced into the market.

Accordingly, whilst a substantial market share will be relevant in characterising a government business activity as a government monopoly business activity, a minimum threshold requirement should not be applied. Instead, the focus of the analysis should be on the more significant issue concerning the intensity of the competitive pressure within the market and the consequences of the incumbent charging more or giving less.

For example, volatile market shares (assuming there is no trend towards increasing the market share of the most significant supplier) can suggest a competitive market, even if one of the participants has a relatively high market share. This is because the changing market shares themselves can demonstrate that competitive pressures are operating within the market.

Whilst circumstances will vary, the existence of at least one vigorous competitor is critical to establishing the existence of a competitive market. A vigorous rival is one who actually exerts effective competitive pressures on a government business activity. The presence of a vigorous rival substantially reduces the likelihood of a government business activity being characterised as a government monopoly business activity (unless rivals have been induced into the market by the government business activity's monopoly pricing).

In this context, at least one vigorous rival's presence in the market place must be sufficiently substantial to ensure it is not only capable of exerting, but in fact exerts, effective competitive pressures upon the government business activity. Generally, a vigorous rival must have the capacity to substantially increase its output within a reasonably short period of time in order to ensure the incumbent cannot successfully "charge more or give less" and preferably be an entity with significant financial backing.⁷

A complication can arise where a potential vigorous rival of a government business activity is itself a government business activity. This situation arises for example in electricity generation and in the provision of certain port facilities in central Queensland. In such an environment, the degree of independence demonstrated by the government business activities and the extent of competition between them will be relevant in establishing whether they provide an effective competitive constraint for one another.

Another related means by which competitive pressures may be imposed is through import competition, where it is feasible. This is because it is possible to rapidly expand imports in response to a government business activity's higher prices, especially where the import competition already has an established presence in local markets. However, import competition will not generally be feasible in markets involving government monopoly business activities.

Vigorous rivalry is unlikely to exist where a government business activity, through its position in the market, has the capacity to "punish" aggressive competitors, by, for example, deeply discounting products in particular markets that adversely affect particular competitors and subsequently raising its prices above a competitive level. This tactic can be used to ensure competitors do not encroach upon a government business activity's market leadership. The capacity for an incumbent to engage in this type of conduct is facilitated where price discrimination is possible or where barriers to entry enable government business activities to retain their market power.

The absence of vigorous competitive rivalry in the market raises the issue of the existence of barriers to entry.

⁷

The existence of a highly concentrated market structure may give rise to concerns about collusion (or tacit collusion) between the market participants. The experience of competition policy has been that it is easier for a smaller number of firms to collude and behave as a single monopoly than for a larger number of firms. However, the appropriate response to collusive activity is to take action under the *Trade Practices Act, 1974* rather than attempt to undertake price oversight (unless such collusive behaviour is determined to be in the public interest by the Australian Competition and Consumer Commission).

Barriers to entry

Any person (be it a government business activity or a private firm) able to charge excessive prices will generate large profits in the short term. However, in general, these high profits will attract new entrants into the market and ultimately lead to increased competition and innovation. The existence of barriers to entry can frustrate this process by discouraging the new investment that market forces would normally be expected to entice.

Any factor which discourages new entry into an industry, so that government business activities are not constrained to act competitively, can be accepted as a barrier to entry. Barriers to entry may be regulatory, structural, or strategic (ie created by an incumbent specifically in order to discourage entry). Thus any feature of an industry or a market which puts a potential entrant at a long run competitive disadvantage relative to incumbents, thereby preventing market forces from eroding an incumbent's market power, will be a barrier to entry.⁸

Barriers to entry can include:

- sunk costs, which are perhaps the best known structural barrier to entry. Sunk costs are the costs necessarily incurred in becoming a viable competitor that cannot be recovered if entry fails. In assessing the significance of sunk costs, it is not just the amount that is sunk that is important, but also the length of time expected to be required before these costs are recovered. Examples of sunk costs include the construction costs for a gas pipeline (since virtually all of these costs will be lost by investors if entry is unsuccessful), staff training and advertising and promotional costs associated with establishing a recognised presence in the market;
- legal or regulatory barriers, such as licensing requirements or legislated monopolies (eg tying arrangements). An example of a regulatory restriction on competition is the limitations on carrying coal by road transport;
- access to scarce resources (including know-how and intellectual property);
- cost advantages enjoyed by incumbent firms (not related to the incumbent's superior productive efficiency directly attributable to the incumbent's performance);
- informational advantages enjoyed by incumbents - for example, where the market structure is such that a government business activity immediately becomes aware of any existing customer changing supplier, it enables the government business activity to subsequently target that customer; - for example, QR will become aware of any customer seeking to use another rail provider instead of QR;
- the nature of relationships in the market - for example, the existence of long term contracts (or vertical integration) in an industry can represent a major barrier to entry for a potential entrant due to these contracts (or the market structure) effectively rendering a proportion of the market

⁸ Barriers to entry may also arise from superior performance by a government business activity.

non-contestable;

- brand loyalty and customer inertia. Whilst a degree of buyer loyalty exists for any product, in certain instances, the need to gain market acceptance of a new product can significantly delay successful entry and therefore constitute a barrier to entry. Inertia can arise for many reasons, including fear and uncertainty of change, lock-ins (eg where the customer will remain dependent on the government business activity for some of its services), information and changeover costs, the nature of customers' decision making processes and any other marketing advantages possessed by an incumbent;
- insufficient demand - for example, where the minimum efficient scale of an enterprise in the industry (ie the minimum size necessary for an entrant to compete with incumbents in the industry) is large relative to current demand, with limited opportunities for trade, the number of efficient firms in a market will be small. In such instances, the presence of an incumbent may preclude entry by prospective efficient entrants because the market simply may not be big enough to support them. This is likely to be the case where there are economies of scale or scope associated with production technology, or where there is already excess capacity in the industry;
- where a government business activity controls an "essential facility" or a natural monopoly⁹ such as rail track for the transportation of coal. For example, control over rail infrastructure potentially provides a substantial advantage to the owner as it could use its control to stifle competitive activity in the provision of above-rail services (eg scheduling maintenance to interrupt its competitor's traffic)¹⁰;
- where a government business activity can undertake strategic behaviour to discourage competitive conduct or entry. There are many forms of strategic behaviour which are designed to discourage competitive conduct or entry, including exacerbating customer inertia (described above), investing in excess capacity or otherwise generating uncertainty for any prospective entrant about the prices that are likely to prevail in the market after entry.

When assessing the impact of barriers to entry for a prospective competitor, it is important to consider the interaction of the barriers taken together, as they affect the best qualified competitor (ie the competitor most likely to successfully enter, or increase its share in, the market). In this regard, actual competitors are more likely to effectively constrain a government business activity than potential competitors.

Examining the success or failure of new entrants in the past, or the total absence of any new entry, in an industry that has generated high long-term profits may also indicate that barriers to entry exist.

⁹ A natural monopoly arises where the most cost effective means of meeting market demand is with a single facility, rather than any combination of smaller or more specialised facilities.

¹⁰ Although the extent to which this occurs will depend in part upon the effectiveness of Part 5 of the QCA Act which deals with third party access to the services provided by these facilities.

Accordingly, in the absence of vigorous competitive rivalry, the presence of any barriers to entry is likely to indicate the government business activity is a government monopoly business activity, especially if the best qualified entrant does not have an established presence in the market. However, if vigorous rivalry is present in the market, then attention turns to whether there is evidence of substantial market power actually being exercised by the government business activity. This issue needs to be considered because competitors may have only been able to enter the market because of the government business activity's high prices.¹¹

Evidence of exercise of market power

The focus of the analysis to date has been to identify situations where monopoly or near monopoly power *could* be used by incumbents. However, it will be open to any government business activity possessing substantial market power to exercise that power to its advantage by raising its prices to maximise its profit.

The exercise of market power by an incumbent means that it is quite conceivable for there to appear to be vigorous competition between a government business activity and its competitors, precisely because the government business activity is exercising its market power, for example, by charging excessive prices.

In order to ascertain whether a government business activity is exercising monopoly power, the following considerations are relevant:

- the extent to which the government business activity's economic income represents an excessive return on its asset base (see Steering Committee on National Performance Monitoring of Government Trading Enterprises' publication *An Economic Framework for Assessing the Financial Performance of Government Trading Enterprises* and Queensland Treasury's publication *Recording & Valuation of Non-Current Physical Assets in the Queensland Public Sector*);
- whether there is a material difference between the productive efficiency of a government business activity relative to its competitors or best practice benchmarks (an example of a lack of productive efficiency arises with goldplating of assets or poor operational efficiency) and there is evidence that the government business activity's economic income would be excessive were it not for its inefficient operations;
- whether the government business activity cross-subsidises between profitable and loss making activities¹².

¹¹ Indeed, it will often be consistent with a government monopoly business activity's commercial interests to raise its prices to the maximum extent possible, which in turn means to the point where competitors are enticed into the relevant market.

¹² A cross-subsidy arises where a business activity receives less commercial benefit from a transaction (including, for example, the reasonably expected benefit of a customer's future business) than the cost to the business activity of the transaction.

Clear evidence of a government business activity's pricing or production behaviour incorporating any of these elements suggests competitive pressures may not be exerted on the entity. In this regard, it should be noted that in competitive markets, firms which persistently engage in these forms of conduct normally do not survive in the long run.

Summary of analysis of competitive pressures

If the analysis of the market indicates effective competitive pressures are being exerted (either because of the presence of vigorous rivalry or the lack of barriers to entry) and there is no evidence of substantial market power being exercised by the government business activity, then the government business activity will not be considered to be a government monopoly business activity. However, where these conditions are not satisfied, then a government business activity should be declared a government monopoly business activity.

Appendix

The appendix outlines the additional factors which are relevant to considering whether to refer a government monopoly business activity for prices oversight.

Appendix - Matters relevant to consideration of whether or not government monopoly business activities should be referred for prices oversight

1. Introduction

The principal paper stated and explained the Authority's recommended criteria for identifying government monopoly business activities. The criteria focus upon market power as the key characteristic of government monopoly business activities.

The primary focus of competition policy in uncompetitive markets should be to increase competitive pressures where possible by removing regulatory restrictions, restructuring public monopolies, requiring competitive neutrality to be observed and introducing third party access rights. Where these measures are not effective in fostering competition in affected markets, or are not taken at all, some form of prices oversight may be warranted.

This appendix links the criteria to the other factors that are considered relevant in deciding whether to refer a government monopoly business activity for prices oversight. This appendix therefore:

- explains why it is important government monopoly business activities do not exploit their market power;
- briefly outlines the policy and legislative framework for prices oversight in Queensland; and
- explains the additional economic factors which are considered relevant in deciding whether to refer a government monopoly business activity for prices oversight.

2. Importance of addressing market power

Government business activities are key providers of vital products and services to the Queensland economy, including much of this State's infrastructure, such as the railways, the electricity supply industry, the ports and water authorities.

Whilst infrastructure industries constitute approximately 10% of gross state product, their real impact is considerably larger because of the inputs they provide for all other industries, particularly those which are export oriented. For example, infrastructure costs alone constitute approximately 25% of the free-on-board price of Australia's biggest export, coal.

Consequently, the international competitiveness of the Queensland economy depends to a large degree upon the prices charged by these government business activities for the products and services they provide and the efficiency with which they are provided. However, many government business activities operate in an environment characterised by weak competitive pressure.

In competitive markets, sellers increase their prices or reduce the quality of their products at their peril, as consumers are able to find alternatives relatively easily. Where an incumbent possesses substantial market power, the rigours provided by competition:

- to price and produce efficiently;
- to satisfy customers with quality relative to price; and
- to innovate,

are substantially weakened.

The absence of competitive pressures can allow an incumbent to charge more and give less to maximise profit, potentially undermining the competitiveness of the entire economy. The problems presented by government monopoly business activities exploiting market power are particularly acute since the products and services they produce tend to constitute significant and unavoidable inputs for all downstream activities. Consequently, excessive pricing by these business activities not only forces consumers to pay excessive prices for these products and services, but contributes to raising costs throughout the economy.

There is also the opportunity for monopoly or near monopoly producers to become less efficient in their operations and produce poorer quality products or services than might be expected if they operated in more competitive market conditions. The adverse consequences of bad management decisions can be passed onto customers.

Monopoly pricing raises significant equity concerns because of its impact on income distribution. The problems associated with adverse income distribution assumes particular significance since it is often those most vulnerable who have the least capacity to pay monopoly prices or to seek out alternatives (ie consumers). Prices oversight therefore needs to address both the market distortions and equity issues.

The problems associated with government monopoly business activities exercising market power are likely to have increased with corporatisation and commercialisation reforms. This is because these reforms place greater emphasis on the commercial performance of government business activities, which in turn increases the incentives of those who have market power to exploit it by setting excessive prices to increase profitability.

3. The QCA Act and prices oversight

The QCA was established under the QCA Act. Part 3 of this Act requires the Authority to recommend to the Ministers the criteria for identifying government monopoly business activities and to undertake prices oversight of those business activities referred to it.¹³ This section discusses the provisions of the QCA Act pertaining to prices oversight.

¹³ The QCA Act also confers upon the QCA responsibility for investigating alleged breaches of competitive neutrality by significant business activities, assessing whether accreditation applications should be approved and administering the State based third party access regime.

Need for referral from Ministers

The QCA does not have jurisdiction to investigate a Government business activity's prices unless it first receives a reference from Government. There are two methods by which the QCA's jurisdiction is triggered; either by a standing reference (where the Government business activity would be prescribed by regulation under the Act) or by a ministerial referral by gazette notice.

Standing references require the QCA to initially investigate the most appropriate level and structure of prices for a particular product or service and subsequently monitor a government monopoly business activity's pricing practices. Ministerial references may require the QCA to investigate or monitor a government monopoly business activity's prices (or both).

The QCA Act also empowers the QCA to request a business activity be referred to the QCA for prices oversight either by way of standing or ministerial reference. A list of these requests is to be maintained by the Authority and be available for public inspection at the Authority's office.

Prices oversight investigations

When undertaking prices oversight, the QCA Act requires the Authority have regard to a wide range of matters, including "economic" criteria (such as the efficiency of the business activity and the cost of supply), social, equity and regional concerns, environmental issues and any government directions to the business activity. The weight given to each of these factors will vary with the circumstances of each investigation.

In general, the Authority envisages conducting its enquiries in a transparent process to facilitate public input. The QCA Act requires the results of investigations be published.

Implementing recommendations

The QCA only has the power to advise Government of the level of prices it thinks appropriate for a particular entity. Ultimate responsibility for price setting will remain with Government.¹⁴ However, the QCA Act specifies that the Government must make a decision whether it will accept or reject the Authority's recommendations and requires this decision to be publicised. The legislation requires the Authority's reports to be published within two days of being submitted to the Ministers (unless the report contains confidential material in which event that material may be excised from the publicly released version of the report).

After receiving a report from the Authority, the QCA Act obliges the Ministers to make a decision within 1 month and notify their decision and the reasons for it as soon as practicable after it is made. The Authority's annual report will provide a vehicle for the Authority to publicly state whether its recommendations have been accepted by the government and to indicate the extent of implementation of its recommendations.

¹⁴ This is not the case, however, under the State based third party access regime also contained in the QCA Act under which the QCA exercises deterministic price setting powers in conducting arbitrations.

4. Additional factors relevant for referring government monopoly business activities for prices oversight

Government monopoly business activities are those government business activities which are declared as such by the Ministers. However, there may be factors which affect the perceived desirability of imposing prices oversight upon government monopoly business activities. These factors include:

- the manner in which market power was acquired by the government monopoly business activity;
- the extent to which a government monopoly business activity's customers possess countervailing market power;
- dynamic factors, such as the rate of change in demand and technology in the industry;
- the impact of other structural and regulatory reforms, such as third party access, on the government monopoly business activity; and
- whether undertaking prices oversight is expected to produce a net public benefit.

This approach is consistent with the recommendations of the Report of the Independent Committee of Inquiry (the Hilmer Report) which emphasised that prices oversight should be applied sparingly and only after proper investigation of the underlying market circumstances. The Authority endorses these sentiments and notes it may be desirable to take into account the matters discussed below before referring a government monopoly business activity for prices oversight. In addition, an assessment of these factors will also affect the nature of prices oversight that is undertaken.

The manner in which market power was acquired

If a government business activity's market power has been gained *solely* by its superior skill, foresight, efficiency or innovation, there should be a reluctance to apply prices oversight to it, if to do so would undermine the incentive for desirable economic activity.

However, it is emphasised that the assessment of the manner in which market power is acquired must be approached with extreme caution. Many government business activities have been explicit or implicit recipients of government support and subsidy during their history. Indeed, a principal reason for the establishment of many government business activities is that government support was considered necessary to provide the products or services. Such support precludes recipients from asserting the position they have gained in their market is exclusively due to their superior performance.

Countervailing market power

If those who deal with government monopoly business activities possess countervailing market power, then the desirability of applying prices oversight to the government monopoly business activity may be reduced. This is because the market power possessed by the government monopoly business activity may be effectively negated by the buyer's equivalent market power.

In such a market structure, assessing the desirability of applying prices oversight to a government monopoly business activity is complex. However, the critical issue is to ensure that the buyer's countervailing market power produces competitive outcomes for consumers rather than resulting in monopoly profits being shared between the parties. This, in turn, depends on the competitiveness of the final products market for consumers. For example, the location of a forestry plantation may be such that it can support only a single processor. However, if the markets serving the final products for the timber are competitive, then the intrusion of prices oversight is unlikely to be warranted.

Impact of market dynamics

Dynamic factors, such as rapid growth in demand or technological development, (or both) may also have an impact on the need for prices oversight or the intensity of prices oversight if it is undertaken. In general, the greater the rate of growth in demand or technological change in an industry, the more likely it is that new investment will be made by a government monopoly business activity's competitors, undermining its competitive position.

These factors can combine to accelerate the process of competitors challenging a government monopoly business activity's position in the market. In very dynamic market conditions, the intensity of competitive pressures exerted on a government monopoly business activity may be greater than might appear on a purely historical assessment of the market.

Therefore, the current market structure must be considered in light of the past and with an eye to the future. The nature of the regulatory environment will be a critical factor in how competition develops in such markets.

Impact of other regulatory mechanisms

The desirability of addressing monopoly positions by regulatory and structural reform was addressed in the principal paper. The desirability of applying prices oversight to government monopoly business activities operating in affected markets depends on the extent of these reforms. For example, the restructuring of the Queensland Electricity Supply Industry has been designed to ensure a competitive electricity generation market emerges in this State.

In addition, the QCA Act establishes a third party access regime to apply to natural monopoly infrastructure, such as rail lines and port channels. Third party access will apply to many facilities owned by government monopoly business activities, undermining their market power. However, the effectiveness of third party access in disciplining government monopoly business activities will often depend upon whether potential competitors are prepared to invest and compete with entrenched monopolies. Government monopoly business activities are likely to retain a significant "first mover"

advantage in these markets for a considerable period.

The extent of barriers to entry represents a significant factor for any potential competitor to consider in this context. For this reason, the market definition considered in the analysis of whether a government business activity could be characterised as a government monopoly business activity generally excludes potential competitors where significant new investment is required for competitors to enter the relevant market. However, this will need to be considered in the circumstances of each particular industry.

Assessing whether prices oversight will produce net benefit

In setting criteria for assessing whether government business activities should be subject to prices oversight, a balance must be struck between the costs associated with prices oversight and the gains the process offers. Applying prices oversight to small government business activities, even if they are monopolies, may not yield net benefits for the community.

A large body of economic principles has been developed to assist in the quantification of the costs and benefits of a particular policy instrument, such as prices oversight. These principles provide a sound economic framework in which to undertake this analysis, incorporating not only financial effects, but also impacts from a social perspective (for example, an improved distribution of income).

A cost benefit assessment will need to consider:

- an initial assessment of the extent of monopoly pricing and its effects on the Queensland economy in a macro sense, as well as its effects on any class of customer in a micro sense; and
- the costs of undertaking the process. The costs include those incurred by the Authority and the government business activity that is potentially subject to prices oversight. More difficult to quantify are the costs (and benefits) associated with changing the incentives of government monopoly business activities and their actual or potential competitors arising from the application of prices oversight.

In practice, the assessment needs only to be sufficiently detailed to provide clear evidence of a net benefit to the State from instigating prices oversight. The assessment should assist the Ministers to prioritise prices oversight candidates. In addition, the process should facilitate an assessment of type of investigation that should be undertaken (ie an investigation of the government business activities pricing practices or simply monitoring those prices).

Nature of prices oversight

The matters outlined in this section will also affect the nature of the prices oversight undertaken. For example, there is a greater likelihood of light handed (ie less invasive) approaches being appropriate where a government monopoly business activity is in an environment which is rapidly changing than one which is relatively static (although in rapidly developing markets, it is important to ensure particular classes of customer are not adversely affected by the changes).

Similarly, light handed approaches may be more appropriate where the government monopoly business activity is subject to other regulatory mechanisms (such as third party access) if these measures are expected to produce robustly competitive markets in a reasonable period of time. Light handed approaches are likely to be more suitable where countervailing market power is present in the market structure.

In addition, the views of stakeholders in the industry and potentially a range of other factors, including marketing arrangements, should be taken into account when determining the nature of prices oversight which is proposed.

5. Concluding Comment

Government monopoly business activities provide significant and unavoidable inputs for virtually all productive activity within the economy. The adverse consequences of monopoly pricing by these organisations potentially undermines the competitiveness of the entire economy and can cause adverse equity impacts upon vulnerable members of the community.

Prices oversight is potentially a powerful instrument for the Government to improve community welfare and achieve economic and social objectives by preventing adverse effects of monopoly pricing by government business activities.

The application of prices oversight to a government monopoly business activity involves considerable effort and expense being incurred by all stakeholders. Moreover, the very application of prices oversight is likely to affect the incentives for the government business activity and perhaps more importantly, the incentives of its actual and potential competitors.

History has shown, both in Australia and elsewhere, that if prices oversight is misused, it is capable of significantly reducing community welfare.