FINAL VERSION

Proposed Changes to Merger Control and Cross-Ownership Rules: Implications for Consumers

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1. INTRODUCTION

Changes in ownership and corporate control affect the performance of firms and the industry in which they operate. As part of the electricity industry restructuring program in the 90s, the Victorian government introduced cross-ownership restrictions to ensure that 'competition among the few' newly established generators and retailers would provide the driving force behind more efficient production, supply and distribution of services. The same approach to achieving competition objectives was taken with gas industry restructuring

The policy question that is now facing the Victorian government is whether the existing cross-ownership restrictions should be retained or modified to control the level of industry reintegration; or whether an antitrust approach should be taken to regulate horizontal and vertical mergers in energy markets that are considered by regulators to be effectively competitive. The options for cross-ownership and merger regulation are canvassed in the "Cross-Ownership Rules for the Energy Sector – Issues Paper" (the 'Issues Paper') released by the Victorian Minister for Energy Industries and Resources. In this regard, the Consumer Utilities Advocacy Centre (CUAC) has commissioned JayCee Consulting to prepare a research paper on the risk implications of changes to merger regulation for consumers. The main aim of the research paper is to help facilitate a response from consumer advocacy organisations to the Issues Paper.

The key risk for consumers arise from two types of regulatory errors that could be committed by a merger regulator or enforcement agency. A regulator could make an error of not blocking a merger[1] that would harm consumers (in terms of degraded service quality or higher prices) more than the claimed resource cost savings or efficiencies. This is equivalent to the so-called Type II error in statistical analysis. The regulator could, on the other hand, erroneously block a merger that could – notwithstanding its effects on market concentration – potentially result in better services at lower prices or at prices that are no higher than the prevailing prices. This is equivalent to a statistical Type I error.

It is important for policymakers in Victoria to understand the consequences of each of these two types of regulatory errors in order make a judgement about which is more costly to the community. This judgement should be guided by, among other matters, considerations of the role that mergers play in the promotion of economic growth and development, and the concentrative effects of mergers in a relatively small market economy. According to Gal (2003):

> *The concern for ensuring that a sufficient number of competitors operate in each market should be subordinated in a small economy to the more compelling necessity of serving a small population* ***efficiently*** (p. 200), [**our emphasis**].

This suggests that the economic performance of the energy sector, in terms of price affordability, product variety and quality of service, should be considered more important for consumers than the form of competition (i.e., either competition among many or competition among the few).

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1 A "merger" is a transaction between two different businesses that involves changes in ownership that enables one business to control, directly or indirectly, the assets, management or decision processes of another firm. In this regard, a quantitative restriction on cross-ownership holdings is a form of merger regulation. For ease of exposition, the terms "merger" and "cross-ownership" are used interchangeably in this paper unless stated otherwise in the body of text

This research paper is structured as follows:

- Section 2 comments briefly on market power issues with reference with the economic characteristics of the electricity industry.
- Section 3 discusses the consumer risk implications and relative merits of the merger control options canvassed in the Issues Paper.
- Section 4 examines some aspects of the TPA framework that may be improved from an economics of competition perspective.
- Section 5 addresses (briefly) the key questions raised in the Issues Paper.

Appendix A provides some technical analysis of the competitive and efficiency effects of mergers, while Appendix B outlines how consumers' interests are taken into account in two competition cases that were heard by the courts.

2. ELECTRICITY MARKET POWER ISSUES

It is generally recognised that the more concentrated a market becomes, the greater is the potential for the exercise of market power. In the specific case of electricity, Shepherd (1999) notes that:

> *While the problem manifests itself primarily in the wholesale market for electricity, retail access may provide a mitigating influence on horizontal market power. This influence is probably quite small however, since consumers' ability to choose alternative to a dominant supplier, no matter how numerous the choice or resellers, will have little effect if market prices are nevertheless controlled by the supplier.* (p. 10).

This suggests that the conditions that are favourable to the exercise of market power may also arise from the supply and demand characteristics of electricity. In particular:

- Electricity markets are dynamic and demand and supply conditions can change in a relatively short span of time. This tends to create opportunities to exercise market power even though the market may be effectively competitive under other circumstances.
- There is very little opportunity for real-time demand response. In an effectively competitive market, the quantity demanded of a service will fall as price rises, thereby making it difficult for a supplier to its exercise market power. In current retail electricity markets, very few end-use consumers face real-time prices (e.g. because of lack of metering), or have the opportunity to be compensated at the market-clearing price for reducing their demand below the usual level.
- Unlike other product markets, residential electricity consumers have limited options to substitute for electricity services. Substitution of one energy source (electricity) by another (gas) also depends on the purpose (or household appliances) for which the energy is consumed. An electricity supplier that knows that its service is 'essential' can profitable raise prices to the level permitted by price regulation.
- The National Electricity Market is populated by a mix of publicly-owned and private businesses across jurisdictions that have slightly different regulatory regimes. Each type of firm is likely to respond differently to a given market situation.

Policy makers should therefore be made aware that proper mechanisms must be put in place to prevent the accumulation of market power by one or a few dominant firms (regardless of their private or public ownership status). Otherwise, the benefits to Victorian consumers that have materialised or were expected to eventuate from the transition to a National Electricity Market can be significantly eroded by the further consolidation of electricity businesses in the market.

A horizontal merger of two generators may allow the integrated entity to unilaterally control output so as to manipulate prices in the wholesale spot and contract market, e.g. preventing price from falling below a certain level at strategic time intervals. Given that electricity must be supplied on an instantaneous basis, the dispatching decision with respect to one plant could affect, and be affected, by the commercial and physical conditions in the relevant local, regional or national market. The owner of multiple generators can influence market prices by choice of the plant that is run, and/or the price at which it will make that plant capacity available. For example, if transmission constraints restrict the importation of power from one jurisdiction to another, the dominant supplier in the market can control price by determining which plant to run and which plant to withhold from the market.

A horizontal merger of two retailers may allow the integrated retail entity to unilaterally charge higher prices to contestable retail customers and/or it may exercise its newly acquired 'buying power' to lower the price it pays for electricity wholesale contracts.

A vertical merger would give rise to competition concerns if the vertical reintegration of an upstream or wholesale electricity supplier (i.e. a generator) and a downstream electricity supplier (i.e. a retailer) increases the horizontal market power of the integrated firm in the upstream market. The vertically integrated firm may exercise its market power to raise the price of its electricity wholesale contract to foreclose the retail market to rivals or potential new entrants. Put in other words, the integrated firm may seek to extend its market power from the wholesale market to the 'retail market.[2]

A vertical market power issue of some concern to the ACCC involves the 'thinning' of the wholesale contract market. This effect comes about when an integrated generator-retailer withdraws from the wholesale market because of the 'natural hedge' that is created by the merger, i.e. the generator's output matches exactly the load of the retailer. The contract market becomes 'thinner' post-merger simply because there would be two less participants in that market. Generally speaking, the 'thinner' the contract market becomes, the greater are the incentives for remaining market participants (*viz.* stand-alone generators and retailers) to integrate vertically thereby causing further market concentration. Furthermore, the remaining generators may take advantage of a 'thinner' market to raise the price of wholesale electricity. This would have detrimental effects on all consumers given that wholesale price is a component of end-user prices.

3. MERGER CONTROL OPTIONS

In this section, we elaborate on the risk implications for consumers before commenting on the merits or otherwise of the merger options from consumers' perspective.

[2] It should be noted that market foreclosure would only be profitable to the integrated firm if the additional revenues that are earned in the retail market (due to the absence of a competing retailer) more than compensate for the wholesale revenues that are foregone (due to the loss of wholesale contract customers).

3.1. Merger Regulation and Risk Implications for Consumers

The recent trend in energy sector (re)consolidation raises competition and consumer protection issues concerning how prices can be kept affordable, and cost efficiencies and innovations can be achieved without creating new inefficiencies or penalising the existing firms in the energy sector. The benefits from the energy sector reforms over the past decade or so may be eroded, or worse, may not materialise at all, if an overly permissive or inadequate merger regulatory framework leads to highly concentrated markets. If market power is accumulated or abused following the withdrawal or relaxation of regulatory constraints on harmful mergers, consumers will likely lose the benefits that have eventuated or are expected to eventuate from energy sector reforms and restructuring.

Determining whether a merger is beneficial or harmful involves a degree of regulatory judgment about the likelihood as well as the materiality of efficiency gains and deadweight loss.[3] In this regard, there are two types of potential regulatory errors (see Table 1 below):

- Blocking a merger that could potentially benefit the overall community had it been allowed to proceed (a Type I error); and

- Not blocking a merger that harms the community more than the resource cost savings or efficiencies claimed by its proponents (a Type II error).

Table 1. Types of merger regulatory errors

Regulatory decision	Merger is harmful	Merger is beneficial
Block a proposed merger	Correct decision	Type I error
Do not block a proposed merger	Type II error	Correct decision

In framing a new regulatory regime for mergers, policymakers in Victoria need to understand the consequences of each of the two types of errors and make some judgement about which is potentially more costly to the community. Type II errors can make energy markets more concentrated and more conducive to abuse of market power to restrict output and charge higher prices, with detrimental effects on consumer welfare. On the other hand, Type I errors may, over time, severely undermine the role that mergers can play in economic development and prevent firms in the energy sector from attaining more efficient scales of production.

3.2. The Canvassed Options

The four options for merger regulation canvassed in the Issues Paper are, briefly:

1. Continuation of Victoria's state-specific cross-ownership rules, operating alongside the TPA;

2. Establishment of new Victorian cross-ownership rules to meet Government objectives;

[3] The term 'deadweight loss' is used in competition analysis of mergers to refer to the loss of consumer benefits (or consumer surplus) as well as the loss of producer surplus (or profits).

3. Replacement of Victorian rules with national energy sector specific measures, operating alongside the TPA; and

4. Sole reliance on TPA.

The common element of choice among these options is the *specificity* of the approach taken, *viz.* should the merger rules be *specific* (or otherwise) to the energy sector and should they be applied *specifically* (or otherwise) to the energy businesses licensed in Victoria (see Table 2 below). In the following, we comment on the circumstances under which a 'specific' approach would be more or less preferred than a general approach.

Table 2. Options for merger regulation

Coverage	Type of merger regulation	
	Energy sector-specific cross-ownership restrictions	*General competition regulation*
Victoria-specific	Continuation of existing quantitative limits (Option 1); or introduction of new limits that meet with Government objectives (Option 2).	(see Note below table)
National	Replacement of Victorian specific limits with national energy sector-specific measures (Option 3)	Reliance on TPA (Option 4)

Note: The Issues Paper noted that under the Victorian electricity industry legislation, a 'competition test' was introduced for the assessment of mergers that breach the quantitative limits on cross-ownership holdings. However, this approach is not canvass as an option.

3.2.1. Energy sector-specific vs general competition regulation

It is worth recalling the policy rationale for the existing quantitative limits on cross-ownership holdings, *viz.* they were introduced to 'preserve' a transitional market structure aimed at fostering the evolution of effective competition 'among the few' newly established electricity (and gas) businesses in Victoria.[4] In other words, the policy objectives and economic circumstances at the time warranted a sector-specific approach that will prevent, with certainty, the re-emergence of concentrated markets and the anticompetitive effects associated with the exercise of market power.

Therein lies the advantages of a sector-specific approach to merger control (namely, Options 1 or 2). Quantitative limits can be set and reviewed periodically to:

- Deal with all merger cases and preserve a market structure that will promote competition directly. The TPA approach promotes competition indirectly by blocking mergers that will or is likely to lessen competition substantially; and

4 According to the Competition Tribunal, "effective competition requires both that prices should be flexible, reflecting the forces of demand and supply, and that there should be independent rivalry in all dimensions of the price-product-service packages offered to consumers and customers." *Re QCMA* (1976) 25 FLR 169 at 320.

- Take into account of Government's new priorities with respect to environmental and social objectives (e.g. the promotion of renewable generation).[5]

That said, cross-ownership restrictions that are 'hard-wired' in legislation or industry codes do not allow a regulator (i.e. the ESC or the new AER) any discretion in terms of its enforcement, or any scope to minimise Type I regulatory errors at the time of enforcement. Mergers that are potentially beneficial but involve cross-ownership holdings that exceed the specified limits are simply not permitted. As noted in the Issues Paper, the quantitative restrictions have been relaxed over time and made contingent on ACCC's 'informal clearance' of proposed mergers under s50 of the TPA, or authorisation under s90. This is arguably a more flexible approach insofar as it takes into account the economic circumstances that apply to the merger in question.

The institutional choice between a sector-specific regulator (such as the AER) and a general competition authority (such as the ACCC) raises issues that are neither new nor novel. Although it is generally considered that a sector-specific regulator would have or have access to industry expertise and knowledge to deal with the complex technical and engineering features of the regulated industry; this may or may not be the case given the way in which the AER has been set up.

The AER has been established under the TPA to regulate gas and electricity markets across all of the jurisdictions in Australia. The AER will take over the ACCC's function of regulating electricity transmission revenue and NECA's functions of compliance monitoring and enforcement of the National Electricity Code; regulate gas transmission (from July 2005) in all jurisdictions except Western Australia; and regulate electricity distribution and retailing (other than retail pricing), upon the development of a national framework by the Ministerial Council on Energy sometime in 2006. The discretion to transfer retail pricing regulation to the AER rests with State and Territory governments.

Notwithstanding the establishment of the AER as a separate and independent part of ACCC,

> *there will be a single body of staff providing assistance to both the AER, and to the ACCC on energy matters, creating a substantial body of specialist skills and knowledge. This will deliver the objective of a single national energy regulator and avoid duplication of processes by the ACCC and AER.*[6]

It remains to be seen whether the AER can ensure consistency between competition regulation and other forms of regulation (e.g. technical and non-economic) in the energy sector.

3.2.2. Victoria specific vs national coverage

The Victorian cross-ownership restrictions set quantitative limits on the permitted extent of cross-ownership between *entities licensed in Victoria*. A state acting alone cannot (absent of inter-jurisdictional arrangements) implement what is essentially an *ex ante* remedy for market concentration problems. Mergers between Victorian and non-Victorian energy sector businesses may cause the market to become more concentrated at a local or regional level. The better way of dealing with such problems would be to replace the Victorian-specific

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5 This is similar to the prescription of cross-media ownership rules in federal legislation to achieve social objectives with regards to diversity of media outlets. Changes in media technology and the introduction of innovative services are taken into account in the review and reform of cross-media ownership limits.

6 Willett (2004), p. 2.

restrictions with national measures (Option 3) or to apply (but not rely solely on) the TPA provisions (Option 4).

3.2.3. Sole reliance on TPA

The purpose of the TPA is "to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection." (s2). Part IV of the TPA, which includes the merger provisions, is constructed purposively for the "promotion of competition" that will maximise economic efficiency for the benefit of Australian consumers. In these regards, the TPA approach does appear to offer more scope for focusing attention on consumer interests and issues.[7]

Authorisation

If the ACCC finds that the proposed merger will or is likely to substantially lessen competition in the relevant market, it may seek enforceable undertakings from the merger proponents or, upon the application of merger proponents, authorise it on public benefit grounds.[8] Public benefits are not clearly defined but the ACCC recognises efficiencies as one of the components of public benefits:

> *Public benefits include inter alia industry rationalisation resulting from more efficient allocation of resources and in lower production costs and improvement in the quality and safety of goods and services.*[9]

A public benefit has been construed by the High Court (in *Re QCMA* 1976) to mean:

> *anything of value to the community generally, any contribution to the aims pursued by society including as one of its principal elements … the achievement of the economic goals of efficiency and progress.*

The Competition Tribunal added, in *Re 7-Elevn Stores Pty Ltd* 1994, that:

> *Plainly the assessment of the efficiency and progress must be from the perspective of society as a whole: the best use of society's resources … efficiency is a concept that is usually taken to encompass 'progress': and that commonly efficiency is said to encompass allocative efficiency, production efficiency and dynamic efficiency.*

For authorisation to be granted, the onus is on the applicant to establish that public benefits outweigh the anticompetitive detriments of the proposed merger. The applicant is not required to show that the acquisition is a necessary and sufficient condition for the public benefit claimed, but the applicant must demonstrate that the public benefits are probable rather than possible and that they have a causal relationship with the merger. Although there is no requirement of formal proof, the probable benefits must be supported by factual material.

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[7] See Appendix B for two s46 cases in which consumer interests are explicitly taken into account by the courts.

[8] s88 allows the ACCC or the Australian Competition Tribunal on review to exempt mergers from s50 where they would result, or is likely to result , in a benefit to the public that they should be allowed to take place.

[9] ACCC Merger Guidelines, s6.38

The term 'public' refers to the community at large and this generally includes consumers and producers, employees as well as shareholders. It is generally considered that a public benefit will arise from cost savings that are achieved through technical or productive efficiency (even if these savings are not actually passed on to consumers).

The acquisition of one generator or electricity retailer by another will definitely lead to a change in ownership and control but not necessarily an increase in competition. For example, from the perspective of a retailer that is acquiring another retailer in a different jurisdiction, the merger may well be motivated by good commercial reasons to "enter into a new market" with captive customers. But it is arguable whether this is in consumers' interest, especially if the acquisition does not lead to any new or genuine competition in the market.

Therefore, in addition to the matters that are to be taken into account by the ACCC in its authorisaton process, there is a need to consider whether (a) there is genuinely new service offered in the market, (b) the acquisition produces measurable benefits for captive customers and (c) the merger deprives existing customers of the benefits associated with the services of the firm that has been acquired.

Merger screening and review

Given the limited experience with electricity merger reviews, 'negotiation' of remedial measures (i.e. enforceable undertakings) and authorisations, it may be too early to rely solely on the TPA approach to merger regulation. The ACCC itself has:

- Noted that there are complex issues with mergers involving baseload generators and that such issues are best addressed through the policy responses of State Governments or the MCE; and

- Acknowledged that the s50 framework may be inadequate for detecting market power in the NEM.

We turn to a discussion of the inadequacies of the s50 framework below.

The 'safe harbours' established by the ACCC for considering merger proposals are set in absolute terms without any regard of the features or characteristics that are unique to an industry, *viz.* "A merger which involves a substantial increase in concentration will not breach these thresholds provided that the four largest competitors have a market share of less than 75 per cent and the merged firm has a market share of less than 40 per cent." (p. 10 of Issues Paper). Para 5.99 of the ACCC's merger guidelines recognise that "in some instances a small increase in concentration may involve the removal of a market participant which played a significant role in maintaining a competitive market … In other circumstances a small acquisition may form part of a pattern of creeping acquisitions, which have a significant cumulative effect on competition". The ACCC will only conduct a more sophisticated analysis of the key factors that can mitigate competitive concerns, viz. entry barriers and efficiencies, if the proposed merger breaches the 'safe harbours'. In other words, data on market shares is used as a screen for the potential for market power.

Measures of market shares indicate the current distribution of electricity sales or generation capacity, but they are 'silent' on what will happen to prices when one firm reduces its output. This is a critical question in electricity markets where the service is not storable and short run demand is relatively inelastic. Because of these factors, measures of market shares may not offer much information (if any) on the potential for market power in electricity markets.

The unique features of an electricity industry should also be taken into account in determining the effects of the merger on competition and consumers:

- A key step in the merger review is definition of the relevant market. The ACCC defines markets geographically as well as with respect to the service that is likely to be affected by the merger. Typically, the market definition exercise focuses on the extent to which prices can be raised above the pre-merger levels. This approach may not be appropriate for the electricity industry, where there may be a lingering of pre-merger market power created by State government regulations that are no longer in place or protected by derogations from the National Electricity Code.[10] An alternative measure of the price effects may be needed to take account of past and/or existing regulatory constraints on electricity businesses.

- Electricity supply and demand must be continuously balanced because of the non-storability of electricity. This means that supply and demand conditions across time intervals may be independent of each other, and may therefore require the definition of separate product markets for each time interval. Otherwise, the efficiencies identified in one product market (or time interval) may not be properly weighed against the anticompetitive effects in a separate but linked product market (or time interval).

- Although electricity is homogeneous in a physical sense, it is a differentiated service in the economic sense. Further service differentiation – in terms of brand names or levels of service quality – may increase over time given the commercial incentives of suppliers to respond to variations in customers' demand for electricity, e.g. consumer preference for electricity from different fuel sources. Service differentiation may alter the degree of substitutability between electricity from different sources and affect the definition of product and geographic markets, as well as the assessment of competitive effects.[11]

- In addition to the effects of the proposed merger on price and output, the screening and review analysis should also consider other forms of economic performance that affects consumers, in particular the effects of the proposed merger on service quality, innovation and consumer choice. For example, the degradation of service quality is equivalent to an increase in the effective price of the service.

3.3. SUMMARY

In our view, policymakers should focus greater attention on the minimisation of Type I errors for the following reason. Once a potentially beneficial merger is blocked by a regulator, consumers cannot avail themselves to other means of obtaining the benefits that would have resulted from that merger.

The application of quantitative limits, either by the ESC (State-specific coverage) or the AER (national coverage) leaves no room for regulatory discretion. This means there would be little scope for regulators to minimise the risk of Type I regulatory errors.

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10 Where there is pre-existing market power, the efficiencies accompanying a merger may need to be more substantive to offset the deadweight loss caused by the merger. This is discussed explained further in See Appendix A.3.

11 As discussed in Appendix A.2, a horizontal merger effectively 'removes' one competitor from the market. Where this merger involves two retailers that offer differentiated services to consumers (e.g. green energy), the 'removal' of one of those retailers from the market post-merger would mean less choice for consumers.

Although the TPA approach may be more flexible and appears to offer some scope to minimise Type I errors, the s50 framework in its current form does not deal with the screening and review of electricity mergers adequately. In the section below, we comment on how certain aspects of this framework may be improved.

4. SOME POSSIBLE IMPROVEMENTS OF THE TPA FRAMEWORK

4.1. TREATMENT OF EFFICIENCIES

The experience with merger enforcement under the TPA suggests that efficiency arguments are often decisive in merger reviews and clearances (but as noted by the ACCC, not determinative of regulatory decisions to clear or block a proposed merger).

One aspect of the s50 framework that may be improved is in the sharper and clearer implementation of merger rules in relation to efficiencies:

- Whether and how efficiencies should be treated in the merger analysis;
- What types of efficiencies should be recognised and given any weight; and
- What standard of proof should be imposed.

The approach currently taken by the ACCC on these issues is summarised in Table 3 below. For the purpose of this research paper, we have also suggested (where possible) how these rules may be fine-tuned to minimise the risks of Type I regulatory errors.

Table 3. Possible fine-tuning of merger rules

Issue	Approach taken	Possible fine-tuning?
Treatment of efficiencies	For informal clearances under s50, efficiencies are relevant to the extent that they impact on the level of competition in the relevant market. For authorisation, efficiencies considered a component of 'public benefits'	None identified.
Types of efficiencies recognised	Economies of scale. Economies that may allow merged entity to constrain the other firms in the market. Pecuniary benefits (only with respect to SLC review)	Pecuniary benefits are transfers. Its inclusion might make the trade-offs more favourable to a merger that lessen competition. Clarify the weights that are accorded to the various types of efficiencies. E.g. a lower weight on efficiencies that are difficult to prove or difficult to attribute to the merger in question.
Welfare standard	For s50 informal clearances,	None identified.

	consumer surplus standard. No clear guidance with respect to authorisations, but total surplus standard appears to be used in some cases.	
Efficiencies passed on to consumers	Yes, for informal clearances. No, for authorisations.	Clarify the time-frame, e.g. must be passed on immediately or within a reasonable period of time
Standard of proof for claimed efficiencies	Must be substantiated to ascertain magnitude. Must be demonstrated to be probable. Strong and credible evidence required.	None identified.

The risks of Type I regulatory errors can also be minimised if the claimed efficiencies are scrutinised more closely. In particular,

- The claimed efficiencies must be specific to the merger and should only be recognised if neither of the merging parties can achieve such efficiencies on their own or there are no other less anticompetitive means of achieving the efficiencies. For example, the EU Merger Guidelines state that merging parties must provide all information necessary to demonstrate that there are not less anticompetitive, realistic and attainable alternatives of a non-concentrative nature or of a more concentrative nature than the proposed merger under which the efficiencies are claimed.[12]

- The claimed efficiencies must be attributable to the post-merger and not pre-merger level of output. Even if these efficiencies are not passed-on to consumers, what matters for the merger review and informal clearance process is the expected or likely outcome and not a historical but irrelevant event.

- Changes caused by the merger that merely result in a redistribution of income from consumers to owners or shareholders of the merged entity should not be counted as efficiency gains.

4.2. ALTERNATIVE WELFARE STANDARDS

A merger that lessens competition in the relevant market can lead to a higher than competitive price. But the same merger can also lead to real resource cost savings if it makes production more efficient. One challenge facing a regulator or enforcement agency is how to weigh the efficiency gains against the detrimental impact on consumer welfare. The key issues revolve around the treatment of:

12 Consumer groups should note or at least be aware of the commercial reasons why a firm may prefer to merge with a competitor rather than to pursue efficiencies internally, e.g. it has excess capacity or the costs to acquire new capacity are prohibitive.

- Deadweight loss and redistributive effects, i.e. how and to what extent are these effects treated in the assessment or review of merger proposals; and
- Efficiency gains; i.e. how and to what extent these are to be passed on to consumers.

For the purpose of this research paper, we have surveyed the various standards that have been applied by competition authorities in the US, EU and Canada.

4.2.1. The Price Test

This test is used by US antitrust enforcement agencies. Under this test, the resource costs savings from the merger are to be passed on – entirely or partly – to consumers in the form of a lower price or a price that is not any higher than the pre-merger price. This implies that a merger that causes any deadweight loss would be blocked. The price test appears to be a narrow one given its emphasis on the immediate price-related benefits to consumers. To the extent that non-price benefits of a merger (e.g. better quality or more reliable services) are ignored, it has a greater risk of Type I regulatory errors compared to other welfare standards.

4.2.2. Consumer Surplus Standard

Two forms of this standard has been applied by competition authorities in merger reviews.

In the US and EU, competition authorities will allow a merger to proceed if it does not cause a net reduction in consumer surplus. Clearly in the case where efficiencies lead to a fall in (post-merger) prices, the merger would satisfy the consumer surplus standard (as well the price test). Unlike the price test, the consumer surplus standard also recognises other non-price related benefits that are made possible by the merger. This means that even if the merger were to cause an increase (instead of a fall) in price, it would be allowed to proceed so long as it can be demonstrated that the non-price related benefits (e.g. service improvements) will make consumers better-off than before the merger. On the other hand, a merger that does not cause higher prices may still make consumers worse-off if it reduces the range of services in the post-merger market environment. Such a merger will cause a net reduction in consumer surplus by reducing the market choices available to consumers. In other words, a merger that satisfies the (narrow) price test will be blocked under the consumer surplus standard.

The Canadian form of the consumer surplus standard (sometimes referred to as the Hillsdown standard) accepts a loss of consumer surplus so long as it is more than offset by the efficiency gains from the merger. More specifically, the post-merger efficiencies must exceed the deadweight loss of consumer surplus, *including* the portion of consumer surplus that is transferred to the producer. In other words, the Hillsdown standard does not recognize the transfer of surplus as a gain in efficiency attributable to the merger.[13]

4.2.3. Total Surplus Standard

Total surplus refers to the sum of consumer and producer surplus. A merger that results in a higher post-merger price without any improvements in service quality would unambiguously reduce consumer surplus. If the merger is profitable, then producer surplus would increase

13 The Hillsdown standard has been rejected by the Competition Tribunal in Canada on the grounds that it is not consistent with the competition policy goal of promoting efficiency.

through higher profits. Some of the increase in producer surplus is transferred from the decrease in consumer surplus.

Under this standard, the anticompetitive effects of a merger are measured solely with reference to the total deadweight loss to society (i.e. the sum of the loss of consumer and producer surplus resulting from a price increase). The merger is allowed to proceed if the efficiencies exceed the total deadweight loss. This standard is indifferent to whether the transaction benefits producers at the expense of consumers, so long as resources saved exceed the resulting deadweight loss due to increased market power. Stated otherwise, the redistributive effect (from consumers to producers) is treated as a 'neutral' effect. This avoids the vexed question of how different individuals value an extra dollar gained or lost.

Economists generally consider that relatively poorer individuals would value an extra dollar (gained or lost) more than relatively wealthy individuals. Therefore if those who gain from the merger are relatively more wealthy than those who lose, then it is possible for a merger to meet the total surplus standard notwithstanding its apparent regressive effect on the community.

4.2.4. Balancing Weights Standard

The distributional weights approach taken in Canada takes the total surplus standard as the starting point and asks one further question: Are the distributional effects of a merger so egregious that the losses of 'less well-off' individuals should be assigned a higher weight relative to the gains received by those who benefit from the merger? It should be noted that the issue is *not* about weighing corporate wealth against individual wealth. Rather, it seeks to address – as pragmatically as possible – the question of whether the benefits received by shareholders/individuals should be counted differently from the benefits received by consumers/individuals.

The balancing weights approach can be explained further as follows.[14] Under the total surplus standard, the *ratio* of cost savings to total deadweight loss must be greater than 1 because of the requirement that efficiencies must exceed the sum of the loss of consumer and producer surplus. Suppose that, given the facts and circumstances of a merger, this ration is 1:w. If there is evidence that the distributional impact of the merger would be egregious, then the consumer deadweight loss should be assigned a weight (or 'social premium') in excess of w% relative to the efficiency gains. This would also mean that the merger should be rejected. If there is no evidence of egregious distributional impacts, then the merger should be allowed to proceed since it would have met the total surplus standard.

This approach clearly involves making socio-economic value judgments that depends on the merger-specific evidence and the competition authority's perceptions of equity among income classes. Because of this, the merger clearance process could become more uncertain, complicated and protracted.

4.2.5. Summary

The salient features of welfare standards, in terms of their respective treatment of deadweight loss, efficiencies and redistributive effects, are summarised in Table 4 below.

14 The following example is drawn from Townley (2004).

Table 5. Salient Features of Welfare Standards

Welfare Standard	Deadweight loss	Passed-on of efficiencies	Weighting of redistributive effects
Price test	None permitted.	No more than the amount required to prevent price from rising.	Implied full-weight to consumer surplus and zero weight to producer surplus.
Consumer welfare standard	Acceptable so long as there is no net reduction in consumer surplus (US/EU); or so long as it is more than offset by efficiency gains (Canada).	None required.	Weights implicitly assign in favour of consumers. The US/EU form of the standard assigns a higher weight on the direct price/non-price benefits to consumers. The Canadian form of the standard treats the transfer of surplus from consumers to the producer as an adverse effect on consumers.
Total surplus standard	Acceptable so long as it is offset by efficiency gains.	None required.	Neutral.
Balancing weights approach	Subject to an efficiency-equity trade off.	None required.	Subject to an efficiency-equity trade off.

A point that is worth noting is that value judgments on the treatment (i.e. weighting) of redistributive effects are made, albeit implicitly, in all of the welfare standards (other than the balancing weights approach):

- The total surplus standard assigns equal weights to consumer and producer surplus even though consumers and the merging firms' owners (and shareholders) may differ significantly in terms of the value they place on a dollar lost or gained.

- The price standard assigns a full weight to consumer surplus and a zero weight to producer surplus even though the distributional impact of a merger may not be as egregious as it is presumed.

- The US/EU form of the consumer surplus standard weighs the redistributive effects of a merger in favour of consumers by implicitly assigning a higher weight on the efficiencies that have a short-term (i.e. immediate) and direct positive effect on consumer welfare. There might be other efficiencies claimed by the merger proponent, but these would only be considered and recognised to the extent that they can be shown to ultimately benefit consumers. This approach taken by US competition authorities has been characterised as a "hybrid" consumer/total surplus standard.[15]

15 See Kolasky and Dick (2003).

Although the ACCC's Merger Guidelines are silent on the question of welfare standard, some of its recent decisions suggest a higher weight is placed on efficiencies that are passed on to consumers relative to those that are retained by the merging parties. In its recent Final Determination of the proposed Qantas-Air New Zealand merger, that ACCC noted that:[16]

> *the cost saving benefits accrue to the Applicants and their shareholders. While the Commission is of the view that benefits to a particular group or segment of the community may be regarded as benefits to the public, consideration needs to be given as to whether the community has an interest in that group being benefited and whether that benefit is at the expense of others – for example, consumers through higher prices. The level of competition in a market will affect both the durability of the benefit and the likelihood and extent of that benefit being passed through to consumers. Where benefits are not passed on to consumers this may be symptomatic of a lack of competitive pressure that would otherwise cause such benefits to endure and be passed through. Such benefits are likely to be accorded a lower weight by the Commission.* (p. 146).

The ACCC denied an application for authorization of the proposed merger of the Australian Pharmaceutical Industries Ltd with Sigma Company Ltd on similar grounds: notwithstanding the efficiency gains that would be achieved by the merger, the ACCC considered that such gains would be likely to be retained by the merger entity for its benefit and the benefit of its shareholders.[17]

On the basis of these decisions, it would appear that the ACCC treats the redistributive effects of a merger in a way similar to how such effects are treated under the "hybrid" consumer/total surplus standard, namely weights are accorded in favour of consumers' interests.

5. CONCLUDING REMARKS

Given the interrelationship of the Victorian cross-ownership provisions with the Trade Practices Act (TPA), are there benefits from retaining the current Victorian cross-ownership provisions?

Cross-ownership rules were introduced as strict limits on the extent of cross-ownership of entities licensed in Victoria. At the time of its introduction, such quantitative limits were considered necessary to 'preserve' the market structure and to facilitate the development of more effective competition. These limits operated as *per se* merger rules – any mergers between the licensed businesses in Victoria that breach the specified cross-ownership holdings are strictly prohibited.

As noted in the Issues Paper, these limits were relaxed over time and made contingent on ACCC's 'informal clearance' of proposed mergers under s50 of the TPA, or authorisation under s90. It was also noted that "the Victorian cross-ownership provisions as they currently operate do not apply to mergers to the extent that the ACCC decides that the merger would not breach the TPA – and so in most cases do not add to the operation of the TPA."

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16 Applications for Authorisation: A30220, A302121, A30222, A90862 and A90863, "Acquisition by Qantas Airways Limited of ordinary shares in Air New Zealand Limited and cooperative arrangements between Qantas, Air New Zealand and Air Pacific Limited", 9 September 2003.

17 Application for Authorisation: A30215, "Australian Pharmaceutical Industries Ltd. In respect of proposed merger with Sigma Company Ltd", 11 September 2003.

There do not appear to be any benefits from retaining legislative provisions that are, by and large, redundant.

If there is evidence that markets in Victoria have yet to reach a level of effective competition (an empirical issue), the 'best' way of promoting competition directly is to review and revised the existing quantitative limits to prevent further market concentration. To make these limits effective, they need to be de-coupled from the operation of the TPA.

Is it appropriate to apply State-based quantitative restrictions, given the increasingly national character of energy markets?

As noted in Section 3.2.2 of this Research Paper, any NEM jurisdiction acting alone cannot (absent of inter-jurisdictional arrangements) implement effectively what is essentially an *ex ante* remedial measure to prevent the accumulation of market power and the exercise of such power in a State-based market that is interconnected with the markets in other jurisdictions.

The question of whether State-based quantitative restrictions are appropriate raises three other related issues in relation to the current mix of publicly-owned and private electricity businesses operating in the NEM; the 'gap' in merger regulation if quantitative limits are only set in one of the NEM jurisdictions; and the potential regulatory inconsistencies if all of the member States of the NEM sets restrictions but choose a limits that reflect their respective policy priorities. For example, by preventing industry re-consolidation in the State, Victoria can 'protect' the competition among Victorian licensees. But this is not likely to create any effects that will curb the exercise of market power over an interconnected market by one or a few dominant generators in a cross-ownership 'restriction-free' jurisdiction.

If the electricity market is increasingly national in character (which is arguably the case for electricity generation), then the appropriateness of State-based restrictions is, in a sense, an 'all-or-nothing' proposition – none of the NEM jurisdictions should seek to control the accumulation and exercise of *horizontal* market power in a national market by itself. Instead, all NEM jurisdictions should set and apply uniform restrictions for the common objective of preventing the concentration of market power. If, as suggested by some commentators, the electricity market is just a series of State-based markets (which is arguably the case for electricity distribution and retail), then State-based restrictions that focus on the potential problems of market foreclosure or vertical restraints may be warranted.

Are measures in addition to the TPA required to protect the pro-competitive structure of the energy sector?

Given some of the unique characteristics of energy markets, it is arguable that the TPA by itself would be adequate. Furthermore, given that determinative decisions are made by Courts or the Tribunal, such decisions could well lead to mergers that satisfy the SLC test but do not meet with Victorian objectives to promote electricity competition that will benefit Victorian consumers.

Measures may therefore be needed in addition to TPA. One possible approach might be to focus on the economic performance of the energy sector in Victoria. What matters to consumers, especially the more vulnerable low-income group, is price affordability and quality of service. One principle underpinning well-designed competition regulation is the emulation of competitive outcomes (a performance issue), not control of the form of competition in the marketplace (a structural issue).

Market performance can be gauged as 'good' or 'bad' in terms of consumer welfare vis-à-vis the affordability of prices; or the absence of excess profits. If prices are 'too high' (and if there are barriers to entry), then an efficient (but certainly not perfect) price regulation regime could be designed to emulate the competitive pricing outcome. Such an approach is not very different from that taken in the regulation of access pricing of a 'bottleneck' or essential facility (like the transmission grid).

Are quantitative ownership limits capable of being struck that could apply to all potential merger cases, and that remain relevant over time?

Quantitative restrictions can be set to deal with all merger cases, and reviewed periodically to keep pace with changes in economic circumstances. As noted in the Research Paper, this is similar to the federal approach to cross-media ownership rules.

Can a competitive generation sector be maintained in Victoria through the TPA as is stands, or does it require other forms of regulatory intervention?

See comments on Q3 above.

Could the State's policy objectives be better met by a different Victoria-specific cross-ownership regime?

Yes, so long as the design of a different regime informed and guided by clear policy objectives and priorities.

Is it appropriate to place sole reliance upon the TPA provisions for regulating changes in ownership in the national energy markets?

The ACCC has taken the view that this is a policy matter that is best dealt with by State Governments or the MCE. See also Section 3.2.3 of the Research Paper.

Should the Australian Competition and Consumer Commission (ACCC) release expanded merger guidelines that deal expressly with the energy sector?

Yes, see Section 4 of the Research Paper.

6. REFERENCES

Gal, M. (2003) *Competition Policy for Small Market Economies*, Harvard University Press, Boston, Mass.

Kolasky, W. J. and Dick, A. R. (2003) "The Merger Guidelines and the Integration of Efficiencies into Antitrust Review of Horizontal Mergers", *Antitrust Law Journal*, 71, 207, available at http://www.usdoj.gov/atr/hmerger/11254.pdf accessed on 9 April 2005.

Ordover, J., Saloner, G. and Salop, S. (1990) "Equilibrium Vertical Foreclosure", *American Economic Review*, 80, pp. 127-42.

Sanderson, M. (2002) "Competition Tribunal's Redetermination Decision in *Superior Propane*: Continued Lessons on the Value of the Total Surplus Standard", *Canada Competition Record*, 21(1), Spring/Summer, pp. 1-5.

Shephard, W. G. (1997) "Market Power in the Electric Utility Industry: An Overview", National Council on Competition in the Electric Industry, available at http://www.ncouncil.org/mktpower.pdf accessed on 8 April 2005.

Townley, P. G. C. (2004) "The Treatment of Efficiencies in the *Competition Act:* Response to the Commissioner of Competition's Consultation Paper", December 2004 (available at http://www.primestrategies.ca/bureau/submissions/Townley_Report.pdf, accessed on 9 April 2005.

Willett, E. (2004) "The benefits of a single Australian Energy Regulator", paper presented at the National Power Conference, Melbourne, 16 August 2004.

Williamson, O. (1968) "Economics of an Antitrust Defence: The Welfare Trade-offs", *American Economic Review*, 58.

Willig, R. (1991), "Merger Analysis, Industrial Organization Theory, and Merger Guidelines", *Brookings Papers on Economic Activity--Microeconomics*, pp. 281-332.

APPENDIX A: THE ECONOMICS OF MERGERS

In this Appendix, we:

- Summarise the general characteristics of a merger in terms of its underlying corporate, economic and financial objectives and/or motivation;
- Explain the nature of the competitive effects of mergers; and
- Discuss the implications of pre-existing market power for merger efficiency analysis and consumer welfare.

A.1 OBJECTIVES AND/OR MOTIVATION

Mergers might be motivated by corporate objectives that do not raise anticompetitive concerns. Some of the objectives and justifications identified in the business management literature include:

- Increasing market share;
- Expanding into new geographic markets;
- Consolidation, restructuring and rationalization of an existing business to achieve efficiencies that could not be or would remain unexploited through internal growth;
- Improving the profitability of the assets acquired by replacing ineffective management; and
- Maximizing shareholder value.

Mergers are also considered as an efficient instrument for redeploying capital because of the lower costs of internal financing. This may be a motivation behind the merger of a firm that has growth opportunities but large financial needs with a firm that has excess cash flows. A larger firm size may also increase its debt capacity and therefore better access to the capital market. The need to overcome internal financial constraints by accessing capital markets may be a crucial factor for some energy businesses, e.g. generation.

The modern economics literature emphasises the strategic use of mergers by firms to achieve real resource cost savings or efficiencies that would not possible or available to the merging parties operating separately. These efficiencies that are expected to result from scale and scope economies as well as the expected "synergies" (such as the avoided duplication of fixed costs of production, R&D and advertising) are usually claimed as justification for a proposed merger. It should be noted that some of these efficiencies may be achieved by other types of business arrangements such as joint ventures, licensing and distribution arrangements and strategic alliances.

Given that a merger effectively removes one player from the marketplace, it is a limiting form of business arrangement that confers upon the merged entity a level of market power that neither of the merging firms has before the merger. An electricity business can be said to have market power when it acts in a manner with the intention to raise and maintain its prices at a non-competitive level for a significant time period.

A.2 COMPETITIVE EFFECTS OF MERGERS

The exercise of market power can be manifested in terms of "unilateral effects" or "coordinated behaviour":

- A merger between two firms that sell products that are close substitutes may weaken the competitive constraint these firms pose for one another and allow the merged firm to unilaterally charge prices higher than those that would prevail absent of the merger; and

- By reducing the number of competitors, the merger may make it easier for rivals in a market to coordinate their strategies tacitly or achieve higher prices through parallel post-merger market behaviour.

Unilateral effects

The merger of two firms that compete in the same retail or wholesale market may diminish or harm competition by making it possible for the merged entity to "unilaterally" raise prices without consideration of the likely responses of the remaining firms in the market. The scope for unilateral effects[18] depends on:

- The 'closeness' of the merging firms in terms of the services they offer to consumers[19]; and

- The difference between the integrated firm's services and those of the remaining competitors in the market.

From the standpoint of a firm, a merger with its closest market rival (i.e. one who sells a close substitute to consumers) effectively 'eliminates' that rival from the market. Absent of its closest rival, the demand facing the merged entity will become less elastic, i.e. consumers of the merged entity's services are less sensitive to a price change.

The merged entity may then find it profitable to raise its price because when demand is less elastic the additional revenue that could be earned from the higher price would more than make up for the loss of sales to consumers. Furthermore, if consumers regard the products of the merging parties' as very close substitutes, a significant amount of the sales run-off would be recaptured by the merged entity. This can be explained further by way of the following example.

Suppose there are four electricity retailers *A, B, C* and D in the market with each serving 50 customers. Suppose further that *A* will lose 20% of its sales (or customers) if it raises its price by 10%, and that *B* is the closest market rival. Before the merger, *A* will lose 10 units of sales when it raises its price by 10% (see Table 6 below). 6 of these 10 units would have run-off to *B* (the closest rival).

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18 Competition authorities in the EU use the term 'single firm dominance' to refer to unilateral effects.

19 If consumers regard the respective products sold by two firms to be close (but not necessarily perfect) substitutes, then these two firms can be considered to be close market rivals.

Table 6. Hypothetical Example of Unilateral Effects

Firm	Units sold at existing prices	Units lost or acquired following 10% price increase by *A*	Units sold after price increase by *A*
A	50	-10	40
B	50	+6	56
C	50	+3	53
D	50	+1	51
Merged AB	100	-4	96

Now suppose *A* merges with *B*. This will effectively 'remove' *B* as a constraint on *A's* pricing decision since *A* would now be less concerned about the run-off of consumers to *B's* services. The merged entity *AB* can unilaterally raise its price by 10% and recaptures (i.e. internalises) 6 of the 10 customers who would have switched to *B*. The merged entity *AB* will only lose 4 units of sales to its remaining competitors instead of 10 units before the merger. This is the reason why charging a higher price (10% in our example) may well be profitable to the merged entity *AB*.

When there is only one firm (such as *B*) in the market that sells services similar to that of *A* and the services sold by all other competitors are very different, a merger between *A* and *B* may allow the merged entity to raise its price substantially. This is more likely to occur if a significant proportion of consumers in the market considers the products of the merging firms to be their 'first-' or 'second-best' choices, e.g. *A* is an electricity retailer and *B* is a gas retailer.

When an integrated firm raises its price post-merger, it can also cause a 'feedback' effect *vis a vis* the prices that would be set by the remaining competitors in the market. Consumers of these other firms' products will find the merged entity's product 'too pricey' and therefore less attractive. This means that the demand facing all these other firms will become less elastic. As such, these firms may also find it profitable to raise their prices in the post-merger environment.

Generally speaking, the magnitude of industry-wide feedback effects depends on:

- Market concentration: The more concentrated the post-merger market, the larger are the feedback effects;
- Demand elasticity: The more inelastic the market demand, the larger are the feedback effects; and
- Entry barriers: The higher the barriers to market entry, the larger are the feedback effects.

If there are a number of firms that are 'close' to *A* in the sense of selling similar products (or, in an extreme case, all firms sell a homogeneous product like electricity)[20], then a merger between *A* and its closest competitor may not provide any scope for a unilateral price increase. This is because the other competing firms could reposition their product lines to capture a significant portion of the run-off, thus making the unilateral price increase unprofitable for the merged firm. The strength of this 'competitive constraint' depends on the capacity or ability of the other firms to serve the market. If there are limitations on the capacities of competing firms, they may not be able to increase output to a sufficient level or fast enough to meet the demand of consumers. In such a market, consumers have limited options to switch away from the merged entity to a lower-price supplier.

Unilateral effects can be thwarted or mitigated if:

- Competitors are able to reposition their differentiated products or capacity to compete more directly against the newly merged firm;
- A sufficiently large number of consumers are able to find alternatives for the merged firm's product; and
- New market entry or expansion by existing competitors is likely.

Coordinated effects

A horizontal merger reduces the number of firms in the market. By making the industry more concentrated than before, it can also potentially improve the conditions for competing firms to coordinate their conduct (either tacitly or expressly) to increase profits to the detriment of consumers.[21] This may include the threat of higher prices resulting from price leadership by a dominant firm which will harm consumers in the same way as price fixing by firms.

There is no 'critical' number of firms below which coordination becomes more likely or effective. It all depends on the number of firms and their relative sizes in the market. Economic theory suggests that the higher the market concentration and the lower the degree of inequality between the market shares of the larger firms, the greater the likelihood that competing firms could reach agreement on the terms of coordinated behaviour.[22]

The market conditions conducive to reaching an agreement may include:

- Product characteristics; the more homogeneous the product, the easier it is to agree on collusive output.
- Stable demand and cost structures, and relatively small and frequent market transactions; and
- Barriers to entry.

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20 Note that with recent industry developments, electricity may still be considered homogeneous in the physical sense (i.e. one electron is the same as another) but not necessarily in the economic sense (e.g. 'green power', on- and off-peak electricity).

21 'Coordinated effects' has the same antitrust meaning as 'coordinated interaction' in the US and 'collective dominance' in the EU.

22 See for example Willig (1991).

In addition, market conditions must be such that the parties to an agreement can detect and deter 'cheating' with credible threats or actual punishment. Conditions that may facilitate monitoring include readily available and transparent output and price data, e.g. prices that are posted or published. Credible forms of retaliation may include, for example, the use of excess capacity to increase output and reduce prices to deter cheating. A party to the agreement with excess capacity can cut price deeply without fear of being unable to serve the higher demand that will predictably flow from a lower price.

Electricity is a homogeneous product with particularly transparent spot market prices and frequent spot market transactions. These market features may make the electricity industry prone to coordinated behaviour.

Market foreclosure and vertical restraints

A vertical merger – involving parties at different stages of production, or parties who are already in or could potentially enter into a buyer-seller relationship – does not reduce the number of competitors in either the retail (downstream) or generation (upstream) market. But vertical mergers may lead to 'market foreclosure' (i.e. foreclosing rivals from key inputs or distribution channels) and 'vertical restraints', e.g. raising the costs of rivals by denying them access to an essential input.[23] Furthermore, vertical mergers can potentially:

- Reinforce existing market power and create conditions that would make it easier to earn or maintain monopoly profits;
- Mute price competition by foreclosing essential conduits to the market for competitors. It may also diminish consumer choice; and
- Reinforce other barriers to entry.

Vertical mergers only give rise to competition concerns if one or the other merging parties possesses market power at the horizontal level (either upstream or downstream). Pre-existing market power is an important issue that is sometimes overlooked in the analysis of merger efficiencies (see the discussion in Section A.3).

A.3 PRE-EXISTING MARKET POWER AND EFFICIENCY ANALYSIS

The question of whether a merger is socially beneficial or harmful depends on the *combined* effects of the market power that is acquired by the merged entity and the economic efficiencies that could or would be achieved as a result of the merger. According to Williamson, a merger that increases market power may be, on balance, beneficial to society if it results in *real* resource cost savings.[24] Real resource cost savings are savings that come when a firm exploits scale economies to produce a higher level of output at lower costs, or

23 Ordover, Saloner and Salop (1990) argue that a downstream firm might raise the costs of its rivals by merging upstream so that the remaining downstream competitors might start to behave collusively.

24 Williamson (1968).

when the firm makes joint use of its assets to produce two or more products at lower overall costs than if those products were produced separately (economies of scope).[25]

Williamson's analysis suggests that a modest real resource cost savings (in percentage terms) will suffice to offset the economic harm to consumers when the merged entity uses its market power to raise prices. For example, if the elasticity of demand for the product in question is 'unitary' (i.e. for any given per cent change in price, the quantity demanded will change by the same proportion), a 2.4 per cent reduction in the cost of production will offset the harm caused by (what Williamson considers to be an empirically realistic) price increase of 20 per cent.

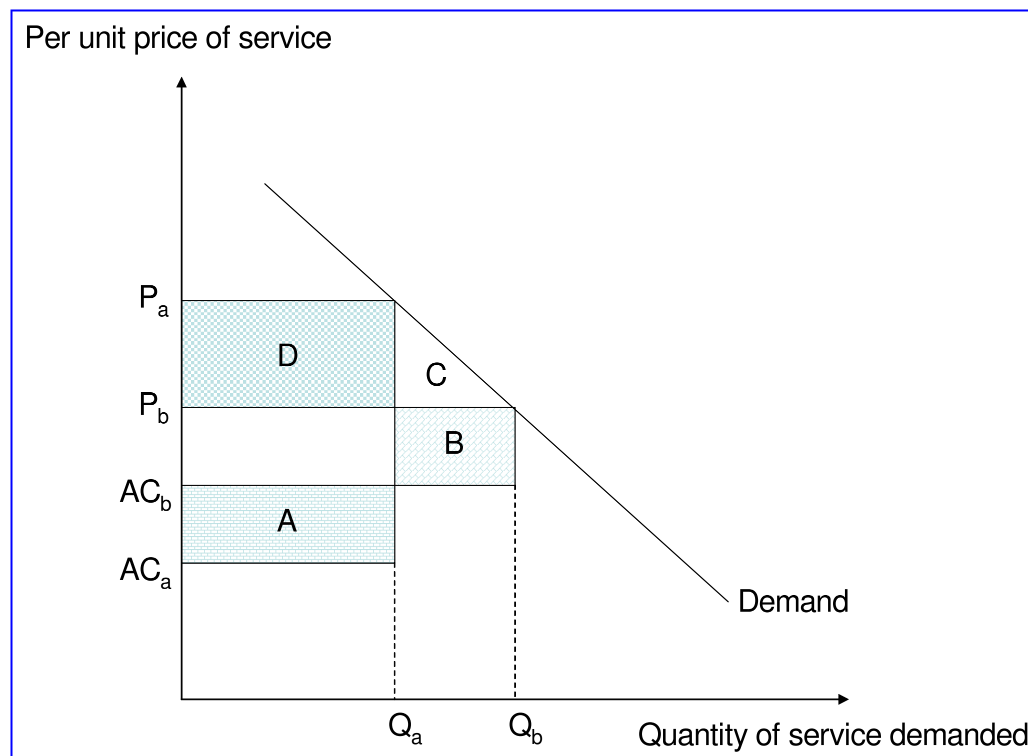
This offset does not take into account the market power that may have been created by past regulation or the market power that has lingered on in the transition to a deregulated market. Shepherd (1997) is of the view that "significant market power problems often remain after competition has been introduced into a previously-regulated industry" (p. 1). As such, the efficiencies of a merger need to be examined in the context in which that transaction is occurring. According to Sanderson (2002):

> *Mergers in markets with pre-existing market power can still give rise to a substantial lessening of competition. Further, the greater the amount of pre-existing market power, the greater the efficiencies must be in order to offset the resulting welfare loss. As a consequence, the more closely a merger approaches a merger to monopoly, the less likely it is that any efficiency accompanying the merger will offset the resulting welfare loss.*

This can be explained further by way of Figure 1 below. The firm's profit-maximising price, output and average costs (of production) *before* the merger are shown as P_b, Q_b and AC_b respectively. The profit-maximising price, output and average costs *after* the merger are shown as P_a, Q_a and AC_a respectively. In the circumstance where there is some degree of pre-existing market power, the firm's pre-merger price is marked-up above its cost (i.e. $P_b > AC_b$ as depicted in Figure 1).

[25] The concept of real resource cost savings is related to the concept of productive efficiency, i.e. goods are produced at its minimum possible costs. The most recognizable form of resource cost savings is the reduction in the variable cost of supply, since these can be achieved in a relatively short time frame. Economists make a distinction between real resource cost savings and pecuniary savings. The latter are those that result from a transfer of income from one party to another. For example, when two firms combined, they may have greater bargaining strength that enables the integrated firm to purchase inputs more cheaply than if these same inputs were purchased by the parties separately. From an economic perspective, pecuniary savings do not necessarily reflect a reduction in real resource costs.

Figure 1. Efficiency analysis: case of pre-existing market power



The attendant increase in the firm's market power following the merger enables it to restrict output (i.e. $Q_a < Q_b$) and charge a higher price (i.e. $P_a > P_b$). The loss of consumer surplus induced by this higher price is represented by the sum of the triangular area C and rectangular area D. The D portion of the loss of consumer surplus is transferred to the firm in the form of higher profits earned from selling a lower level of output at a higher price.[26]

By producing the post-merger level of output at a lower cost, the firm can achieve efficiencies represented by the rectangular area A. But since the firm is producing and selling a lower level of output (compared to the pre-merger level), it sacrifices some of its profits that would be earned absent of the merger. This loss in producer surplus is represented by the rectangular area B.

The outcomes for consumers and the owner (or shareholders) of the merged entity are summarised in Table 7 below.

26 The term 'consumer surplus' to refer to the difference between the value of the product to a consumer and the price that is actually paid. For example, if a person pays a market price of $10 for a product that is, in his or her personal valuation, worth $15, then that person has accrued a consumer surplus of $5. In this sense, consumer surplus is a measure of the net benefits from the consumption of the good in question. There is a symmetrical 'producer surplus' concept that refers to the difference between the price that is actually received by a producer and the price at which that producer is willing to supply the product. For example, if a producer is willing to supply a product at $7 per unit (to just recover the economic costs of production) but actually receives a price of $10, then the producer has accrued a producer surplus of $3. Producer surplus is a measure of the net benefits from the production of the good in question. Economists use the term 'deadweight loss' is to refer to the loss of consumer surplus.

Table 7. Summary of efficiency gains and deadweight loss

	Consumers	Firm owner(s)
Efficiency gains	n.a.	A + D
Deadweight loss	- (C + D)	- B

If the firm has no pre-existing market power (i.e. it operates in an effectively competitive market), then the pre-merger price would be set equal to the firm's pre-merger costs of production. In diagrammatic terms, the area B 'disappears'. The modest offset, as alluded to by Williamson, only requires that A > C for the merger to be considered socially beneficial.

If there is pre-existing market power, a price increase (post-merger) will cause a loss of both producer and consumer surplus. The loss in producer surplus (i.e. rectangular area B) is a real loss to the economy and it must be counted – together with the loss of consumer surplus – against the efficiency gains. In this case, the condition A > (B + C) implies that significant rather than modest efficiencies may be required to more than offset the deadweight loss caused by the merger.

A closer examination of Figure 1 suggests a number of other pertinent factors that should be considered in an efficiency analysis of a merger, *viz*:

- The size of the potential efficiency gains that may be achieved from a merger depend on the expected percentage change in average cost (the calculation of which would include the expected resource cost savings from reduction in fixed and common costs);
- The steeper the demand curve (i.e. more inelastic demand) for the product in question, the higher the expected price increase post-merger and the larger the deadweight loss of consumer surplus; and
- The greater the mark-up of pre-merger price over cost, the larger would be the expected deadweight loss of consumer *and* producer surpluses. Claims that deadweight losses can be offset by modest efficiency gains should therefore be evaluated closely to ensure that the comparison is not restricted to just the deadweight loss of consumer surplus.[27]

It should also be noted that any efficiencies arising from the merger are specific to the two merging firms. But, as we have explained in Section .0 above, the unilateral price effects may lead to price increases by the remaining firms in the market. Where a merger gives rise to industry-wide price effects, the deadweight loss of consumer surplus is likely to be understated.

In summary, a merger that allows the merged entity to acquire greater market power and leads to higher prices will generally result in:

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27 In terms of the diagrammatic exposition in Figure 1, even if the rectangular A is larger than the triangular area C, it may or may not be larger than the trapezoid area (B + C).

- Deadweight losses that reflect the foregone consumption on the part of some consumers or classes of consumers. A merger with industry-wide price effects will increase the size of this deadweight loss;

- A less than socially optimal level of output produced by the merged entity; and

- A 'transfer of wealth' (from consumers to producers) when consumers continue to purchase services at prices higher than those that would have prevailed under more competitive market conditions.

All these factors need to be taken into account and assessed properly to minimize the risks of regulatory errors.

APPENDIX B: RELEVANCE OF CONSUMER INTERESTS

There are two s46 cases in which the courts have explicitly recognised the interests of consumers in their findings of conduct that lessen competition in the market.

B.1 QUEENSLAND WIRE INDUSTRIES PTY LTD V BROKEN HILL PROPRIETARY CO LTD (1989) 167 CLR 177

- Main Issue: Whether BHP had or had not taken advantage of its market power, the behaviour in question involved a refusal, through highly uncompetitive pricing, by BHP to supply a steel product (called the Y-Bar) to the appellant corporation (Queensland Wire) who was attempting to enter the market.

- Mason CJ and Wilson J highlight that the purpose of s.46 is not to ensure "the economic well-being of competitors", but rather to maintain competition and protect the **interests of consumers**; "The operation of the section being predicated on the assumption that competition is a means to that end".

- Deane J and Toohey J also referred to s.46 in a way which indicates they believe it to have the primary purpose of protecting and advancing competition to promote consumer welfare. This case, as well as the case of Melway Publishing Pty Ltd v Robert Hicks Pty Ltd, has been instrumental for consumer recognition, with courts explicitly stating that s.42 is designed primarily for the interests of consumers, (as the Act states 'to enhance the welfare of Australians'), as opposed to protecting private interests of corporations or individual competitors.

- Stated that vertical integration is a means for a firm to capitalise on market power and extract more favourable prices from its customers, because it is more able to determine between which customers have more or less elastic demand (example given of a power plant that, through its distribution channels, can distinguish between corporate and residential customers). Therefore, vertical integration is considered an indicator of market power which can decrease consumer welfare through asymmetric information.

- A common theme throughout the case involved the definition of a market. In fact, the actual existence of a market for Y-bars was in contention because Australian Wire Industries (a wholly owned subsidiary of BHP) was the only corporation to ever purchase Y-Bars from BHP, leading some judges to reason that there was no market, as such.

- In the 1989 appeal by QWI, the High court ruled that that s.46 had been breached, because consumers would ultimately lose out from the uncompetitive pricing of the Y-bar, through which BHP was effectively protecting AWI from competition with QWI in the rural fencing market.

B.2 Boral Besser Masonry Ltd v ACCC (2003), 195 ALR 609

- Main Issue: Whether Boral had or had not engaged in anti-competitive behaviour, specifically predatory pricing intended drive out smaller competitors, the upgrade of its Deer Park Plant, and the attempted acquisition of another competitor (C & M Bricks), which thereby substantially increased their production capacity and would potentially increase their market share. Other issues included the definition of a product market and how market share and the existence of barriers to market entry determine market power.

- Beaumont J found that the conduct of customers (as well as that of competitors) can be seen as a reason behind certain pricing behaviour, as is inferred by s.46(3).

- In the circumstances where competitive firms, by their nature, seek to maximise profit and increase their market share, there is a high probability that one or more of the competitive firms must leave the market. It must be seen that this situation does not reach a point where the market becomes less competitive and to the detriment of consumer welfare. This concept is also stated in Queensland Wire.

- At the time when BBM was accused to have been engaging in predatory pricing behaviour, it was instead argued that consumers benefited from the 'price-war'. (It was also reasoned by Heerey J that it was in fact consumer pressure which contributed to BBMs decision to price below avoidable cost). The assertion was made (in lay terms) that BBM benefited consumers with low prices in the short-run, and did not have the ability to harm them in the long-run through supra-competitive pricing. (As recouping their costs would have been impossible in that particular market situation)

- This indicates that if a corporation had the market power to recoup their costs which arose from predatory pricing, that the courts would find that consumer welfare had been negatively affected and rule that the corporation be in breach of s.46, hence demonstrating how the consumer is identified as a beneficiary and how consumer interests can be used as a 'measure' of anti-competitive behaviour.

- Kennedy J stated that without recoupment of losses, "predatory pricing produces lower aggregate prices in the market and consumer welfare is enhanced… unsuccessful predation is in general a boon to consumers".

- In this case, the ACCC was unsuccessful in proving that Boral had engaged in predatory pricing conduct, and Boral went on to apply for indemnity costs against the ACCC.