

18 March 2003

Mr Ken Walliss
Director - Convergence
Telecommunications
Australian Competition and Consumer Commission
GPO Box 520J
MELBOURNE VIC 3001

Dear Ken

OPTUS SUBMISSION ON BUNDLING IN TELECOMMUNICATIONS MARKETS

Please find attached Optus' submission responding to the ACCC draft information paper "Bundling in Telecommunications Markets" released in January 2003.

In writing this submission, Optus has considered the information presented in the ACCC's information paper, as well as n/e/r/a's reports titled "Anti-competitive Bundling Strategies" and "Imputation Tests for Bundled Services".

Optus believes that whilst bundling can be beneficial and welfare enhancing, in certain situations it can be detrimental for consumers - namely where a firm has some level of market power which allows it to influence the competitive environment or undertake some form of vertical price squeeze.

Optus supports, in principle, the ACCC's use of information gathering powers, under the Record Keeping Rules in order to monitor and investigate conduct in this context.

If you have any queries in relation to this material, please contact me on 02 9342 7036.

Yours sincerely

Jason Ockerby
Manager
Regulatory Economics

Optus Submission to
Australian Competition and Consumer Commission
on
BUNDLING IN TELECOMMUNICATIONS MARKETS

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1. Overview

- 1.1 Optus is pleased to provide a submission to the ACCC on its draft information paper on bundling in telecommunications markets. Optus is generally supportive of the ACCC's views on bundling and its methods and information requirements to conduct regulatory testing for anti-competitive conduct. However, Optus believes that whilst the n/e/r/a papers provide a useful survey, a strict application of their interpretation of the economic literature may result in a misclassification of conduct as competitive when it is likely that such conduct would substantially lessen competition.
- 1.2 Bundling is now entrenched in many aspects of the telecommunications industry and with the convergence of technologies the recent growth in bundled offerings is expected to continue. This reality poses substantial problems for the ACCC as it seeks to fulfil its obligations under the *Trade Practices Act 1974* ("the Act").
- 1.3 Through its bundling strategies, Telstra's market power is influential in many new and emerging markets. Telstra's monopoly ownership of the local loop and its market power in local call and basic access services remain a source of great concern for competitors. Its bundling of fixed line telephony (including local calls and basic access) with competitive services including long distance, international, broadband, internet, mobile and Pay TV needs to be strictly monitored by the ACCC for possible anticompetitive effects.
- 1.4 There are good commercial reasons to bundle services. However, for a firm with market power these gains are much smaller than the gains from the anticompetitive effect. These anticompetitive effects are magnified for bundling of complementary services.¹ By bundling those goods, the incumbent can capture a large proportion of the high value customers - thus making it more difficult for competitors to enter the market (broadly defined) or to secure a profitable position in the market.
- 1.5 Modern economic literature clearly indicates that vertical price squeezes and predatory conduct is more common than previously thought. It also shows that whilst price-cost comparison tests are very useful in establishing a first impression of conduct, there is a substantial "grey area" in which conduct needs to be examined more closely. As a result, developments in game theory and related analytics may be instructive.
- 1.6 The grey area or "area of concern" as Optus would term it, is the area between the average variable cost and the average total cost of supplying the product at the retail level. Within this range a firm with monopoly power can price at a point that discourages other firms from entering the market, whilst maintaining some level of profits.
- 1.7 Optus believes that a marginal cost based test, recommended by n/e/r/a is too permissive and will allow anticompetitive conduct to thrive. In reality a more pragmatic approach is needed in addressing competition concerns. Imputation

¹ As well as those with positively correlated demands.

analysis should consider the level and history of competition in the relevant markets, barriers to entry, the motivation of the incumbent and the history and level of discounting in the markets.

- 1.8 Section 3 presents Optus' views on vertical price squeezes and predatory pricing, and how they are used in an anticompetitive bundling situation by a firm with market power in one of the relevant markets.
- 1.9 Section 4 outlines the theory behind imputation testing and the premises upon which it is based.
- 1.10 Section 5 examines the application of imputation testing in a bundling context.
- 1.11 Section 6 provides Optus' views on the ACCC's application of its record keeping rules (RKR) and its information gathering powers.

2. Bundling in the telecommunications industry

- 2.1 Bundling is common practice in the telecommunications industry. Historically its most basic application is the bundling of fixed telephony services, including bundling retail local calls with line rental (or basic access) services. This fixed line bundle can be extended to include long distance and international call services.
- 2.2 While reforms such as the introduction of preselection have seen formerly monopoly services (such as long distance) become subject to competition, they are often sold in a "traditional" bundle of local calls and basic access. In contrast, the ACCC and n/e/r/a papers have focused on bundling fixed telephony with other services such as mobile, Pay TV, dial up internet and broadband services.²
- 2.3 Bundling is a key business strategy for telecommunications companies and it covers a broader range of strategies, such as the bundling of fixed telephony services and a range of mixed bundling packages and discounts. With the large number of new services and technologies on the market there are increasingly more opportunities for a wider variation of mixed bundles, often with a multitude of pre-commitment requirements and discounting.
- 2.4 Customer preferences for particular bundles are strong and customers' demand for tailored packages is increasing the complexity of offers in the market.
- 2.5 By definition, bundling delivers increased discounts to customers. Price reductions are the essential element of competition and are the real benefit that flows through to customers. However, these very discounts could well be an abuse of market power that lessens competition and means in the long run customers miss out on the intangible benefits of competition (such as diversity and innovation) and the real benefits of sustained reductions in price.
- 2.6 Through its bundling strategies, Telstra's market power is influential in many new and emerging markets. Telstra's monopoly ownership of the local loop and its market power in the local call and basic access market remain a source

² Bundling has received recent attention due to the third line forcing notification by Telstra covering the addition of Foxtel Pay TV to its discount package of fixed telephony, mobile and internet services.

of great concern for competitors. Its bundling of fixed line telephony (including local calls and basic access) with competitive services including long distance, international, broadband, internet, mobile and Pay TV needs to be strictly monitored by the ACCC for possible anticompetitive effects. Competition in some of these markets is precarious and reliant both on significant challengers such as Optus, and on fringe competitors who have the capacity to grow market share in emerging markets.

Why do firms offer bundles?

- 2.7 Bundling is the practice of selling two or more goods as a package. It may take the pure form where the goods are only offered in a bundle or the goods may be offered separately and as a bundled package (commonly known as mixed bundling). Whinston (1990) describes it as when a firm makes the sale (or price) of one of its products conditional upon the purchaser also buying some other product from the same firm.³
- 2.8 While bundling can be a profitable exercise for a firm and potentially lead to net welfare gains, it can also have substantial anticompetitive, welfare eroding effects. Which of these effects prevail depends upon the motivations of the firm undertaking the bundling and the market circumstances under which the bundling strategy is pursued.
- 2.9 There are a number of sound economic reasons for a firm to bundle certain products. These include:
- Exploitation of different customer preferences (commonly known as price discrimination).
 - Creation of new markets or new valuable products.
 - Economies of scope (joint scale) or synergies across goods (eg. one billing system).
 - Product differentiation.
 - Protection of goodwill.
 - Greater incentive to invest in R&D to reduce costs and preserve or extend its prevailing monopoly position.
- 2.10 Commercial reasons, such as synergies in production costs, economies of scope and scale all minimise supply costs and are a justifiable reason for bundling per se. For example, there are economies of scope where Optus supplies fixed line telephony, cable Internet and Pay TV on its HFC network as a bundled package.⁴

³ Strictly speaking, it may also involve the bundling of goods such that the sale of one product is conditional upon the purchaser also buying some other product from a *different* firm. This situation is termed “third line forcing” under the *Trade Practices Act, 1974*.

⁴ Note that the cost saving benefit of bundling may be greatest when the demands for the goods are positively correlated.

Price discrimination effect of bundling

- 2.11 Traditional analysis of bundling shows that a bundling strategy makes particular sound economic sense when people have heterogeneous demands and when firms cannot price discriminate between these individual valuations for a good.
- 2.12 Bundling will be profitable if consumers value the bundle (at the bundled price offered) more than each individual product at their relevant separate prices. That is, it is a profitable strategy for firms to bundle when people have negatively correlated demands. Demands are negatively correlated if customers who place a relatively high value on *good A* tend to place a relatively low value on *good B*, and vice versa. Bundling *good A* and *good B* at a discounted price will mean that some customers who may have only purchased *good A* may now take *good B* as well because of the existence of the discounted bundle. This allows the firm bundling to increase the size of the overall potential market. For example, Optus (and other new entrants) using Pay TV to drive take up of fixed line telephony.
- 2.13 Mixed bundling is a profitable strategy, provided that the demands are somewhat negatively correlated and marginal costs are low. Even if marginal costs are close to zero, mixed bundling is still likely to be the most profitable strategy when demands are somewhat negatively correlated. This is based on the fact that, while some consumers will place a very high value on the bundle, some other consumers will place a higher value on different elements of the bundle.
- 2.14 Alternatively, if the two products have positively correlated demands (at the extreme they could be complementarity goods), then profit will be maximised by selling them in separate markets at their individual prices in those markets. It can be shown that positive correlation in demands makes price discrimination unprofitable.
- 2.15 Nalebuff (1999) shows that if consumers value each product independently, there may still be some value for the incumbent to bundle *good A* and *good B* but this is limited. He also shows that this will only be the case if there is some degree of market power in both markets.

Bundling as an anti-competitive strategy

- 2.16 Optus believes that bundling is generally good for consumers and will only constitute anticompetitive behaviour or anticompetitive outcomes when a CSP or carrier has market power in the supply of at least one of the markets included in the bundled product offering.
- 2.17 However, bundling offers an incumbent with monopoly power the opportunity to exploit its market position and deter new entrants into the market by leveraging or predatory pricing. Bundling can be used to mask anticompetitive conduct that could otherwise be assessed independently.
- 2.18 The welfare consequence of anticompetitive bundling is substantial. There may be short run welfare gains, since output will be higher as a result of the discounting. Even these however, may evaporate if predation involves selling

at less than marginal cost, since too much output results in inefficient resource allocation and detrimental welfare.

- 2.19 If these short run welfare gains exist they could be offset by the longer run welfare losses associated with the reduction in the number of competitors in the market of interest and importantly all other markets as a result of the reputation the dominant firm has established by its predatory conduct.

Leveraging theory

- 2.20 The theory of “leveraging” of market power has developed since the late 1940s with mixed conclusions. The basic premise is that a company with market power in the sale of one good (the tying good) can use tying or bundling to leverage that market power into a second market (that of the tied good).
- 2.21 US antitrust laws, including the *Sherman Act* and the *Clayton Act*, have dominated the development of the conditions under which bundling would be considered anticompetitive.⁵ In applying these laws, the US Courts have devised a well-developed determination test for ruling whether tying *per se* should be considered as “leveraging” market power and be ruled as anticompetitive (the seminal work by Areeda and Turner (1975) which forms the basis of the US Courts’ decisions is discussed further below). n/e/r/a describes a proposed criteria or set of requirements to be considered in its paper on Bundling Strategies.
- 2.22 For leveraging (via bundling or tying) to be a useful tool for the incumbent in the long-term, the incumbent must have monopoly power in one of the markets (the tying market) and some level of market power in the tied market. As many classical economists (particularly from the Chicago School of economics) argue, if the tied market is deemed competitive, then the incumbent’s profits are restricted to the level it would achieve by selling the monopoly good independently.
- 2.23 Insight into this vexed question can be gained by looking at the incentives or motivations of the incumbent. Whinston (1990) concludes that:
- Whilst it may be true that leveraging cannot transfer monopoly power into a competitive tied market, it can be shown however to transfer monopoly power into an oligopolistic market where scale economies exist.
 - Fixed costs in the market for the tied good gives the monopolist the ability to bundle and exclude the rival.
- 2.24 Spector (2001) shows that these conditions may be too restrictive, and that under a competitive (Nash) equilibrium only the existence of fixed costs is necessary to make the predatory conduct possible.

⁵ In the US, allegations of leveraging have been levelled against AT&T for the bundling of local and long distance calls. It is argued that AT&T uses its market power in local exchange telephony to monopolise the long distance market. As Whinston (1990) notes, it could be argued that the method of tying may be inherently changing the market structure of the once competitive market for the tied good. For example, Microsoft designs its software suite so that it can only be used on the Windows platform. This type of “technical” tying involves their software being incompatible with rivals’ systems.

- 2.25 If the average total cost of production is decreasing, that is, there are scale economies due to a high proportion of fixed costs in the tied market, then bundling is a particularly attractive strategy for the monopoly provider.

Competitive standard

- 2.26 n/e/r/a assert that it is appropriate to simply “interpret anticompetitive behaviour as behaviour inconsistent with expected behaviour in a competitive market”. Moreover, its view is that this interpretation is consistent with the Act.
- 2.27 Optus, however, believes that this view is too simplistic and not definitive. This simplistic rule uses a competitive market as the base case upon which to compare all market behaviour. In some cases using a competitive market scenario may be appropriate to capture the cost advantage of the most efficient firm in the test for anticompetitive conduct, however, the alternative is not necessarily collusion. For example, the market may instead follow a Stackleberg equilibrium in which one firm (the leader) chooses its actions and other firms follow with their best response to the leader’s choice.
- 2.28 This is an appropriate model of a market in which an incumbent has established capacity and a new entrant must consider its entry decisions based on that capacity. Entry deterrence is possible but not inevitable (Mas-Colell, Whinston and Green, 1995). Importantly, the profit forgone by the leader in deterring entry is not that of a competitive (or Nash) equilibrium but that of a first mover or leader.⁶
- 2.29 While this is not a competitive market situation, a Stackleberg leader forgoing profit for the purpose, or with the effect, of entry deterrence would in our view be in contravention of the Act. However, the simplistic conclusion above does not cater for this particular market situation.
- 2.30 Similarly, the conclusion that pricing below average variable costs must be predatory (unless it leads to higher profits in the future) depends on the base assumption that perfect competition exists, there are no fixed costs in production, and price equals marginal costs. Application of the proposed simplistic conclusion would lead us to believe that if fixed costs do exist then this inevitably leads to a monopoly situation. This is not the case.
- 2.31 Clearly, this small diversion from the classical competitive analysis demonstrates the dangers in applying overly simplified rules and price-cost comparisons to definitively judge whether conduct is anti-competitive.

Price discrimination versus the entry-deterrent effect

- 2.32 Bundling can be used as an entry deterrent or monopoly extension, as described by Nalebuff (1999), particularly for the cases where the goods are positively correlated (complementary). In fact, Nalebuff (1999) states that the gains from the entry-deterrent effect of bundling are much greater than the gains from the price discrimination, particularly when the bundled goods have

⁶ Note the leader’s profit will be greater than an otherwise identically efficient firm as a result of its first mover advantage.

a positive correlation in value and price discrimination becomes less effective. The reason for this is the size of the market. When there is positive correlation consumers demand both *good A* and *good B*, there is one market for *good A* and *B*, whereas when they are negatively correlated there are two separate groups of consumers, one market for *good A* and one market for *good B*. Simply, the competitor who only provides *good A* or *good B* can still compete with the incumbent providing *good A* and *B*.

- 2.33 The size of the bundle is an issue with respect to gauging the incumbent's incentives of price discrimination versus entry deterrence. Nalebuff (1999) postulates that as the number of products included in the bundle increases, the gains from price discrimination decrease and the entry deterrence effect of the bundling increases.
- 2.34 It can be seen above, that traditional bundling analysis shows that bundling is generally only profitable when demands are negatively correlated (absent significant costs savings). However, if demands are positively correlated than a monopolist has a very significant incentive to bundle. In this case, the monopolist can lessen competition and the profitability of companies that can only compete in the competitive market. This is because the bundle offered by the monopolist will capture all consumers willing to pay a high reservation price (high value consumers) for both goods (*A* and *B*). This will leave the competitor in the *good A* (or the *good B*) only market with the remaining low value customers.
- 2.35 This insight is critical to any ACCC investigation that seeks to identify bundling conduct that reduces the "addressable market" to competitors. The bundling of complementary services (or those with positively correlated demands) is of most concern to competitors. By bundling those goods, the incumbent can capture the high value customers that make on-going competition or entry unprofitable.
- 2.36 Nalebuff (1999) shows that although price discrimination provides a reason to bundle; the gains are small compared to the gains from the potential entry deterrent effect. The discrepancy is magnified when correlation is considered because price discrimination gains from bundling will only occur when the two goods are negatively correlated and entry will only be deterred when the two goods are positively correlated. An examination of the correlation of the goods will give a regulator some insight into the motivations behind the bundling.

ACCC approach to bundling and predation

- 2.37 In order to distinguish between bundling which is efficiency enhancing and pro-competitive versus bundling which is anti-competitive, the ACCC is proposing to focus on whether:
 - (a) The bundling conduct significantly reduces the "addressable market" of competing carriers or CSPs, such that equally-efficient competitors are unable to compete on their own merits; and
 - (b) The price(s) for the bundled services involves predatory pricing or a vertical price squeeze.

- 2.38 These two conditions are linked somewhat, in the sense that a price squeeze can assist in incentivising customers to uptake a bundled package and in the sense that bundling allows a firm to magnify the price squeeze by reducing the “addressable competitive market”. However, it is important that the ACCC consider each of these conditions independently. That is, for any activity to be deemed as anti-competitive conduct, either condition (a) or (b) may be applicable, rather than a requirement of (a) and (b) being satisfied.
- 2.39 With respect to (a) above, to determine whether there is a reduction in the “addressable market” due to bundling activity some analysis is required with respect to the economic nature of the services, the defined market in which they exist and the nature of the consumer demand for each service.
- 2.40 Optus believes that the “addressable market” will be reduced in a bundling package that offers:
- (a) The monopoly service exclusively within the bundle (tied goods)
 - (b) Where the unbundled monopoly service is priced in such a way that customers are strongly incentivised to only take it within the bundled package.
- 2.41 Optus also believes there are other circumstances where bundling by a dominant incumbent with market power may, by its very nature lessen competition. These include:
- (a) Where the goods are complements or where the demands for these goods are strongly positively correlated.
 - (b) Where the goods are “virtually tied”. We describe this as the case where the demand for the competitive good is such that in order to compete in the market for that good *only*, requires the competitor to offer a discount on the bundled price.⁷
- 2.42 Optus believe that these types of bundling, done with the intention of reducing the addressable market can be considered without the need for imputation testing or tests for vertical price squeezes.
- 2.43 However, to the extent that imputation testing is undertaken, it is clear that the anticompetitive consequences of this form of bundling will be very sensitive to price squeezes. That is, a modest price squeeze (say pricing less than average total cost rather than pricing below marginal cost) in these types of services may be more likely to lessen competition than the same level of discounting would be when bundling other goods.

3. Anticompetitive vertical price squeeze

- 3.1 Where an integrated firm is a monopoly provider in the upstream wholesale supply of an essential input service, there is scope for that firm to squeeze non-integrated resellers out of downstream markets that rely on this input service. Without this monopoly power in the upstream market a vertical price squeeze is impossible.

⁷ This is related to the large one-bill effects.

- 3.2 In addition to price squeezing competitors in the downstream market for a monopoly good, when tied or bundled with competitive goods and service the lower retail price in the monopoly product can lessen the competitive environment in the market for those competitive goods and services.
- 3.3 The integrated firm can administer a vertical price squeeze by using its market power to:
- Raise the access price it charges to access seekers for its product or service⁸; or
 - Lower the retail price to a level that is unviable for access seekers to remain in the market.
- 3.4 The integrated firm can lower its retail price below the minimum retail price that an efficient reseller would have to charge to recover all attributable access costs and retail costs. By reducing its prices, the integrated firm is essentially foregoing some level of its monopoly profit in the short run.
- 3.5 n/e/r/a argue that anticompetitive conduct must eliminate rivals from the market (or discipline them into adhering to collusive prices) so that, in the long run, prices can be increased by the monopolist to recoup lost profits. However, predatory strategies need not necessarily have pricing outcomes. Spector (2001) shows that in the presence of fixed costs, the exclusion of an equally efficient firm may be profitable as a result of the market captured by the predatory firm from excluding the rival (the increased output would reduce average cost, thereby inducing profitability). This may be possible without a subsequent price rise. Only the extreme case of pricing below marginal cost would require a firm to raise prices after excluding the rival firm in order to recover its lost profits.
- 3.6 Whilst any level of vertical price squeeze is only possible if the integrated firm is the sole provider, or at least has a collusive strategy with all other players in the upstream market, it may only be sustainable if they also have some level of market power in the downstream market. The market power in the downstream market may consist of barriers to entry, such as:
- High transaction costs associated with retail market entry or exit;
 - High sunk costs required for retail resale (eg. billing systems, high advertising costs);
 - Customer switching limitations.

⁸ Whilst in theory the integrated firm should face the same cost of access as the access seeker, in practice there remains considerable scope for the integrated firm to overstate total wholesale costs thereby inflating the regulated access price to be charged to access seekers. By overstating what costs are classified as “unavoidable” the integrated firm can shift its costs from its retail sector to its wholesale sector (monopoly provider) and therefore have the costs incorporated in the estimate of the access cost. This discrepancy is not addressed in this submission; however, it remains a general cause for concern for Optus. Optus believes that some parts of the ACCC’s current pricing principles provide an avenue for Telstra to inflate the wholesale access prices in order to administer or exacerbate a vertical price squeeze.

- 3.7 The level of market power in the downstream market for a product depends on the type of product and the type of customer profile that dominates the demand for that product. That is, the extent of these barriers will vary between customer groups, for example business customers are more likely to have more transactions costs associated with switching service providers.

4. Imputation testing

- 4.1 Imputation tests attempt to measure whether retail prices (P_r) are greater than (or equal to) the wholesale access price (C_w) plus the firm's retail and other costs (C_r) required in selling the final product. This can be represented by the following simplistic equation:

$$P_r \geq C_w + C_r$$

- 4.2 Imputation testing is used to identify whether an integrated firm with some degree of market power in at least one product market is administering a vertical price squeeze as described in Section 3. Taking the access price as given the imputation test asks whether the incumbent foregoes profit and actually makes a short-term loss. This pricing behaviour would be unprofitable unless its part of a strategy leading to higher prices later, a strategy only available to a firm with market power.
- 4.3 Of course, this simplistic view of predatory conduct assumes that firms produce the same good and compete on price. This may not be the case, making simplistic tests difficult to apply.

Marginal imputation test versus average imputation test

- 4.4 The form of imputation testing offered by n/e/r/a compares either average revenues with average costs or marginal revenues against marginal costs in specified markets. n/e/r/a discuss the ongoing debate as to which is the preferred or more accurate measure of anti-competitive behaviour.
- 4.5 There two main types of imputation tests are offered by n/e/r/a to identify a vertical price squeeze:
- (a) An average imputation test which relies on average total cost (ATC), requires that for any final product sold by the integrated firm, the average revenue that the firm earns from the sale of that product is no less than the average cost of producing that product; and
 - (b) A marginal imputation test which relies on marginal cost (MC) requires that for any final product sold by the integrated firm, the marginal revenue (price) at which the firm sells that product is no less than the marginal cost of that product.
- 4.6 n/e/r/a advises a testing strategy that uses the MC at the outset, due to it being a more stringent and thorough test (see Posner (1976)). n/e/r/a goes on to advise that in the cases where the more stringent MC test is failed, then the next step would be to test for anti-competitive pricing behaviour by applying the ATC. If the incumbent also fails the ATC then it is likely that there is

some level of anti-competitive price squeezing and a substantial lessening of competition in at least one market.

- 4.7 Areeda and Turner (1975) rejected average total cost as the appropriate price floor for antitrust purposes.⁹ While in their view marginal cost is the more accurate measurement of the economic cost of producing each incremental unit, that cost, as a practical matter was generally difficult to derive from accounting statements. Accordingly, they concluded that average variable cost (AVC), or the sum of all variable costs divided by the number of units produced (or output), should be the benchmark for determining whether the challenged pricing was predatory.
- 4.8 n/e/r/a suggests that there are a number of alternatives when considering how to define marginal cost, these are avoidable AVC (as advocated by Baumol (1996)¹⁰) or incremental average variable cost (AIC). n/e/r/a then go on to discuss each of these alternatives. Perhaps following Areeda and Turner (1975), n/e/r/a note that the dimensions of the conduct will be important in defining the cost basis to be used in the test – in particular the *scale of the output* change and the *time* over which the conduct is performed.
- 4.9 In the long run, it is argued that all costs are variable (firms can vary all inputs in their production function) and the marginal increment becomes larger, or in other words, AVC or AIC, as defined, approaches ATC.¹¹
- 4.10 It can be shown that pricing below MC (or AVC) is predatory, while pricing above ATC will not exclude an equally efficient competitor. The ACCC and n/e/r/a describe a “grey area” of pricing that falls in the area above AIC but below ATC.
- 4.11 Spector (2001) shows that the Areeda-Turner advocated AVC test is “too permissive: it does not deter all socially detrimental exclusionary practices”. Pricing below marginal costs is therefore a sufficient condition to be considered anticompetitive, but this is not a necessary condition.
- 4.12 The economic literature supporting vertical price squeezes and predatory conduct remains in many circumstances inconclusive. The most widely used tests are borne from the seminal paper by Areeda and Turner (1975), who proposed a simple price-cost comparison. Since then, developments in game theory and related analytics have shown that predatory pricing behaviour, which was previously thought to be rare, is in fact common.
- 4.13 Spector (2001) states, “if any conclusion is to be reached from the vast economic literature on predation, it is that no single rule or procedure,

⁹ Though Areeda and Turner (1975) examine predatory pricing, the same cost arguments are instructive for considering which retail costs to include in a vertical price squeeze imputation test.

¹⁰ Average avoidable cost is not considered by Optus as an appropriate estimate for MC, based on the fact that avoidable costs can be subjective and will tend to understate the costs of an efficient entrant. There has also been a deal of confusion over the definition of avoidable cost on the part of Telstra.

¹¹ In some cases the AVC at the increment may require construction of new facilities, this needs to be taken into account in calculating the true cost to supply that incremental unit. Hausman and Tardiff (1995) discuss the issue of the low levels of substitutability or fungibility of outputs in telecommunications. Unlike other production processes low uptake in one geographic area may not be able to be served by excess capacity in another. This supports the case for using incremental cost as a measure of marginal cost.

however complex, can encompass the variety of situations identified by Industrial Organisation theory as potentially conducive to predatory behaviour”.

- 4.14 Optus would describe the grey area between AVC and ATC pricing as an “area of concern”. Within this area there is cause for considerable concern that the pricing is anticompetitive and the ACCC should consider the level and history of competition in the relevant markets, the motivations of the incumbent and the likely effect on consumers, the history and level of discounting.
- 4.15 There is no “cost standard” enshrined in Australian law on anti-competitive market and it not clear that the ACCC should seek to enshrine. Consistent with the US Government’s position against AT&T, it may be that pricing without regard to costs with the purpose and effect of damaging competition may be upheld under Australian law.¹²

Extension – When the cost of supplying the rival is higher

- 4.16 Consistent with the premise for imputation testing, C_w is calculated as if the integrated firm was buying access at the same access price(s) as its non-integrated downstream competitors.¹³ However, it has been argued that the imputation test should be modified to account for differential access costs, even though the integrated and non-integrated firms are equally efficient at the retail level.
- 4.17 In its extension, n/e/r/a appear to agree with Hausman and Tardiff (1995) who consider the cost savings from providing the input internally rather than to the rival firm should be factored into the analysis. n/e/r/a develop a modified imputation test to allow “firms to compete on their merit, as it would allow pricing that would make less efficient firms ... (non-integrated) ... unviable”.
- 4.18 This is not however, consistent with the concept of a vertical price squeeze that seeks to test whether there is predation at the retail level. Critically, n/e/r/a and others ignore the essential element of defining predatory behaviour, that is the forgoing of short run profits.
- 4.19 Bolton et al (2000) define “a predatory price is a price that is profit maximizing only because of its exclusionary or anti-competitive effects”. The implication of this is that any price incrementally below the price capable of being offered by the efficient competitor will have the same consequence as a price that captures any wholesale access cost differential.
- 4.20 King and Maddock (2002) note that wholesale access cost differences allow the integrated incumbent to just undercut the efficient competitor. However, they show that the unmodified imputation test is entirely consistent with

¹² For example, this could be tested by the fact that if the incumbent were to bundle goods that are positively correlated, it would be showing no regard for its loss of profit, its purpose for bundling would be entry deterrence.

¹³ Given the lack of transparency of information, it may be difficult to identify what are the actual costs of providing wholesale access, that is it is difficult to determine if the wholesale access price being charged to the access seeker is equal to what the integrated firm implicitly pays (in theory) to itself for wholesale access.

efficient production and will identify conduct in which the integrated firm forgoes short run profit, by giving up its cost of access advantage, for the purposes of damaging competition.

5. Application of imputation testing in a bundling context

- 5.1 Imputation testing is made problematic when it is undertaken in the context of a bundled offering. As discussed above, bundling can mask anticompetitive conduct and allow the incumbent to leverage the negative aspects of that conduct into other markets.
- 5.2 Substantial complications can arise in conducting imputation testing due to bundling including cost shifting, cross-subsidisation, market definition, economies of scope and scale, the importance of different customer groups, and the range of unbundled offerings that service the same market.

Aggregate imputation test versus market-by-market imputation test

- 5.3 There appears to be some conflict in the position arrived at by both the ACCC and n/e/r/a on this issue. On the one hand, n/e/r/a appear to prefer an aggregate imputation test albeit with significant caveats. It argues that this is necessary because of economies of scope and the need to allocate common costs. It concedes however that if the relevant product or market is narrower than the bundle then these “should be removed”.
- 5.4 By contrast, the ACCC appear certain that a market-by-market approach is appropriate in all circumstances. Optus agrees.
- 5.5 Optus believes that where there is bundling the imputation test should be applied to each individual market. This is consistent with the Act. The complications identified by n/e/r/a will need to be addressed, but the reality is that issues associated with allocated economies of scope and common costs are pricing issues and are not “arbitrary”.
- 5.6 Optus does support n/e/r/a in its proposal to impute an imputation test when all firms do not offer the non-relevant product (given by equation (10) which summarises an imputation test for *good x*, where *good y* is non-relevant).

$$P_{xy} - P_y \geq A_x + C_{x/y} \quad (10)$$

- 5.7 Given the competitive construct of the test, Optus believes it is appropriate to subtract the price of *good y* offered by the bundling firm from the bundled price rather than its applicable cost.
- 5.8 Optus believes that the test described in the equation above (10) should be applied in all circumstances where the relevant market or product is narrower than the bundle. Optus does not believe the access price should be adjusted to factor in any reduced costs associated with acquiring both products. This is not the nature of a test for a vertical price squeeze; it is more attune to a predatory pricing test. It is arguable that economies of scope and common costs are factored into the retail costs. This will depend on the circumstances of the conduct.

Bundled price versus unbundled price

- 5.9 When considering how to define the market, it should be kept in mind that there may be multiple customer classes and geographic aspects within each type of product group and different levels of market power in each of these. A common problem when there are non-homogenous customers is termed “cherry picking”, where the monopoly provider uses strategies that tend to prefer the high-spend customer groups such as business users.
- 5.10 It is not clear that these different customer types may be considered as different markets in any imputation analysis.
- 5.11 Optus believes that imputation testing would appropriately be applied to the single market definition. As demonstrated in previous sections, bundling of goods with positively correlated demands gives the incumbent the capacity to remove the “high value” customers from the market. More valuable customers may value the bundle more highly; therefore they are willing to pay a bundled price that is closer (or greater than) the independent prices. This may lessen competition more broadly.
- 5.12 Optus believes that n/e/r/a’s view, which supports a weighted average of the bundled and unbundled prices, may not be appropriate. The practice of price discrimination does not apply weighted averages of prices across consumer groups, a firm instead considers what price to charge for each type of consumer. Consistent with this, it is reasonable to take only the bundled price as the relevant benchmark for the purposes of the imputation analysis.
- 5.13 The Act requires that the ACCC consider the impact of particular conduct on a market, and whether that conduct is likely to lessen competition in the defined market. This does not automatically mean that an imputation test (to detect for a vertical price squeeze) need be perfectly aligned with the defined market.
- 5.14 Optus believes that it may be reasonable (particularly as a first step in a broader analysis) that the imputation test be applied to a particular subset or segment of the market. If a vertical price squeeze is found then it is necessary to consider the consequence of this price squeeze on the market more broadly.
- 5.15 Bundled offerings and deep discounts are likely to be most attractive to price sensitive customers. These may be the customers most likely to switch carriers (almost by definition they would be considered marginal) and as such be critical to the development of competition in new markets.

6. ACCC’s information gathering powers

- 6.1 The passing of the recent *Telecommunications Competition Act 2002* appears to increase the ACCC’s power to access relevant information that potentially relates to bundling and/or vertical price squeezing activity.
- 6.2 In particular, Optus supports the view that in order to investigate certain bundling behaviour the ACCC requires specific information from Telstra and possibly other carriers.
- 6.3 With respect to the ACCC’s information requirements of Telstra, it would be appropriate if the ACCC request that Telstra provide detail on the costs and

the discounts on each product in the bundle rather than just the accrued discount for each bundled offering. This will assist where the ACCC decides to go ahead with a market-by-market approach to imputation testing.

- 6.4 Specifically, the detail required would include the following:
- (a) Total customer numbers for each of the bundled and unbundled offerings for the relevant and non-relevant services.
 - (b) Total customer numbers taking up the bundled and unbundled offerings. In order to prevent double counting and gain a clearer picture of the addressable market, total new customers should be reported as a separate group.
 - (c) Usage patterns of customers may also be important information to be collected, in that this information would indicate the level of correlation of demands across services. As discussed in earlier sections this information is a key indicator of the incentives of the monopolist. In addition, this will assist in identifying the types of customers (high value or low value) that may uptake the bundled product.
 - (d) Retail and other operating costs associated with bundled and unbundled offerings. Telstra would also be required to provide details of how common costs and joint costs have been allocated to each service.
 - (e) The discount allocated amongst services within the bundle. Where discounts are linked to supply cost savings in bundling, such as economies of scope, specific cost savings should be quantified and justified to the ACCC.
- 6.5 Optus welcomes the public disclosure of Record-Keeping Rules (RKR) information where it assists in promoting competition.
- 6.6 With respect to what information would be disclosed publicly, it is not clear that all the information collected need be disclosed to all market participants. Consideration should be given to disclosure on a case-by-case basis, particularly if there is a competition complaint on foot. Optus hopes that the ACCC would provide a detailed description to all CSPs and carriers of the specifics of its disclosure plans and intentions.

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