

Bundling in Telecommunications Markets - A Submission on the ACCC's draft *Information Paper*

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1. INTRODUCTION

The ACCC has released a draft information paper² on bundling in telecommunications markets and invited submissions in response to its proposed approach to assessing whether specific bundling conduct in the industry is anti-competitive.

We agree, in principle, with the ACCC's proposed approach of assessing bundling conduct on a "case-by-case basis". That said, we believe the real challenge facing the Commission lies in focusing the analysis not only on the alleged anti-competitive conduct *but also expressly on the net effects of the alleged conduct taking into account the competitive constraints facing the firm.*

Our submission is organised as follows:

- Section 2 comments on the economic nature of bundling and tying.
- Section 3 comments on the relationship between network effects and addressable markets.
- Section 4 introduces a 'new economy' view on the competition issues in relation to bundling in the telecommunications industry.
- Section 5 comments on certain aspects of the application of imputation rules.
- A summary and concluding remarks are presented in Section 6.

² ACCC (2003) *Bundling in Telecommunications Markets: An ACCC Draft Information Paper*, January. Hereafter referred to as "ACCC Information Paper".

2. BUNDLING AND TYING

Bundling practices in the telecommunications industry (as in other industries such as banking)³ involve the sale of a package of services at a single price per package. This strategy can be applied in a “pure” or “mixed” form. Where the services are only available as a single package, then a pure bundling strategy is involved and the services in the package are essentially tied.⁵ With mixed bundling, services are available either individually or as a package, with the package price less than the sum of the individual service components. In this regard, there is less scope for mixed bundling to foreclose markets.

A firm that employs bundling for the purpose of excluding competition – either by way of deterring entry or causing rivals to exit – is basically engaging in predatory conduct. But there may be offsetting efficiency enhancements from bundling, so it should only be condemned after a proper and full analysis of the pro- and anti-competitive effects of bundling.

Quite apart from the technical difficulties in determining predatory behaviour by applying imputation rules in any given fact situation (discussed further below), there are good reasons – on both the supply and demand side of the market – to believe that on balance, product bundling is welfare enhancing. More specifically,

- On the supply-side, production complementarities or economies of scope can drive producers to supply combinations of services at prices that are lower than if those services were supplied separately. If bundling is driven by cost savings (in production, distribution and marketing), and if the services are not tied physically or functionally, then a firm should be able to induce consumers to purchase a mixed bundle through appropriate pricing of the bundle of services. Where some of the cost savings are passed to consumers in the form of a lower bundle price, such pricing is not necessarily anti-competitive even if this makes it more difficult for equally efficient rivals to compete with an incumbent.

³ See for example recent ACCC decisions with regard to bank mergers as outlined in: Ross Jones (2002) ‘The Dollars and Sense of Bank Consolidation, Bank Mergers and the Trade Practices Act’, *ACCC Journal*, 40, May-June, pp. 14-21; or Garry K Goddard and Greg Walker (2001) *Bank Mergers in Australia: Competition Assessment of the Commonwealth Bank of Australia’s Acquisition of Colonial Limited*, Working Paper Series No. 2/01, Faculty of Commerce, Charles Sturt University, Bathurst, April.

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⁵ The concepts of bundling and tying are therefore closely related, but the motivations underlying a firm’s choice of one of these business practices over the other are likely to differ. Where these services are tied by contractual means, the services may be offered with separate prices, e.g. “Optus Choice” plans.

- On the demand-side, complementarities in consumption, and reduced search and transactions costs linked to so-called “single bill” effects, can lead consumers to value a combination of goods supplied from a single source more highly than if they were supplied separately.

These effects often combine such that “bundling” of products dominates (is more economically efficient than) separate supply for reasons totally unrelated to predation or market foreclosure.

3. NETWORK EFFECTS, ADDRESSABLE MARKETS AND PREDATION

The *ACCC Information Paper* acknowledges the welfare benefits of bundling and then goes on to identify certain situations where bundling could be used in an anti-competitive manner and thus require regulatory intervention. Primarily, these relate to inhibiting or foreclosing entry/expansion⁶ of new competitors by leveraging market power from one market to another. More specifically, the ACCC identify:

- Reductions in the “addressable” market – where the effect of the bundle is to “lock in” the customer base such that a new entrant/competitor cannot gain a sustainable foothold in the market in question; and
- Predatory pricing and vertical price squeezes – where the pricing of the bundle is such that the viability of a single product supplier/new entrant in one of the product markets will be harmed, possibly forcing them out of that market.

Predation is, by definition, an anticompetitive conduct with no redeeming productive purposes, or at least none that would justify the costs that would be incurred by firm engaging in such conduct. But alleged predatory behaviour can be difficult to distinguish, especially when competition *for* the market is intense, resulting in a winner-take-all outcome. Such a market will feature a single dominant firm and possibly the presence of a few surviving rivals at the fringe of the market. Evans and Schmalensee (2001) argue that in such a market there is no meaningful cost-based test for predation.⁷

⁶ An important theoretical contribution to the literature on bundling that demonstrates the effectiveness of bundling as entry-deterrence strategy can be found in Barry Nalebuff (1999) “Bundling”, Yale International Centre for Finance (ICF), *Working Paper No. 99-14*, November.

⁷ David Evans and Richard Schmalensee (2001) *Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries*, NBER Working Paper 8268.

A key part of the analysis (implicit in the proposed ACCC approach) should be to establish whether the price/bundle in question is a genuine bundle, driven by the underlying supply and/or demand side factors noted above, or whether the bundle is really an “artifice” constructed merely to lock in customers or price entrants out of a market. The difficulty for the ACCC is that in the real world the two effects may be hard to separate. Further, some bundles that are seen as having the purpose or effect of substantially lessening competition (SLC) may still be welfare enhancing, depending on the relative magnitudes of the effects discussed above.

In order to construct an anti-competitive bundle the supplier in question will require “market power” in the supply of at least one of the products in the bundle. Logic would suggest that the identification of market power provides a good “screen” of alleged anti-competitive conduct, for if this cannot be established then the likelihood that a bundle has an anti-competitive purpose or effect is low.

Some of the economic drivers for bundling come from the very nature of competition in an industry where network effects matter.⁸ In the presence of network effects, a firm’s current customer base is an important determinant of its future profits. If the marginal value of the firm’s customer base is positive, then the firm will have incentives to charge a price (set a quantity) that is lower (higher) than the short-run profit maximising level in order to increase its market share and hence its future profits. In other words, a low ‘penetration pricing’ strategy is not necessarily anti-competitive nor predatory.

Furthermore, the firm must (in every period of a dynamic competition game) balance the incentive to charge a high price to “harvest” more current profits against the incentive for a low price that “invests” in market share and hence higher future profits.¹⁰

⁸ Network effects arise from complementarities between a consumer’s choice and those of other consumers. These effects are often, but need not be necessarily externalities. See S. J. Liebowitz and S. E. Margolis (1994), “Network Externality: An Uncommon Tragedy”, *Journal of Economic Perspectives*, 2:133-150.

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¹⁰ See J. Farrell and P. Klemperer (2001), “Coordination and Lock-In: Competition with Switching Costs and Network Effects”, unpublished paper available from www.paulklemperer.org

4. A 'NEW ECONOMY' VIEW

The more difficult competition policy and enforcement issues raised by the bundling of telecommunications products can be seen as part of a wider set of “new economy” problems confronting competition regulators around the world. The analytical challenges and enforcement approaches best suited to competition regulation in new economy markets have recently been outlined in a report (prepared by CRA staff and senior consultants) for the Office of Fair Trading in the United Kingdom.¹¹

Loosely speaking the new economy can be thought of as comprising those industries where high levels of innovation and product development are the key drivers of competitive rivalry rather than price (e.g. IT, on-line businesses, biotechnology and convergent technologies such as those in telecommunications and digital broadcasting). The difficulties for competition regulators in these markets arises from such characteristics as:

- network effects, which may drive the market toward a dominant system/supplier;
- research and intellectual property as the keys to competitive strategy, rather than price;
- high sunk costs and low marginal costs, leading to high levels of concentration, price discrimination and large margins; and
- the need for erstwhile competitors to cooperate on such matters as standards and interoperability, rather than to compete.¹²

The CRA study concluded that a flexible approach by competition regulators and policy makers to new economy markets is required, rather than relying too heavily on past approaches linked to the use of, for example, *per se* offences in legislation and formulaic approaches to competition analysis. Instead a “first principles” approach to competition policy should be employed where: “Considerations of market definition and power are subsumed under a more direct evaluation of alleged anti-competitive behaviour and its likely effects.”¹³ This approach would allow for a broader analysis of competitive constraints confronting the firm, including presentation of the Schumpeterian nature of competition.

¹¹ The CRA report entitled “Innovation and Competition Policy” can be found at www.offt.gov.uk/News/Publications under “Reports/Competition Policy” report number OFT337. For a summary see “Competition Policy in the New Economy” (2002) *CRA Insights*, Fall/Winter, pp. 1, 3-5.

¹² *Ibid*, pp. 3-4.

¹³ *Ibid*, p.3.

In our opinion, the ACCC's proposed "case-by-case" approach to telecommunications bundling, while broadly consistent with a "first principles" approach, can and should be extended to include an explicit analysis of whether the firm in question had the ability, power or incentive to engage in the alleged anti-competitive conduct.

5. APPLICATION OF IMPUTATION RULES

Predatory pricing rules need to be applied carefully, especially in industries with high fixed costs. When economies of scale are large, a small competitor may be forced to exit with prices that deliver positive per unit product margins, but leave the firm unprofitable overall. Or, where the relevant markets are subject to network effects, penetration pricing occurs at levels at or below variable costs in order to generate critical mass in the market. As noted earlier, such a strategy in itself is neither predatory in intent or effect.

Thus simple price-cost margins (such as the standard Areeda-Turner test or variants thereof) should be applied with great caution. Such tests may not even be useful as a first screen for predatory behaviour.¹⁵

Firms in the telecommunications industry are more likely to produce multiple products than a single product; this has been recognized by the ACCC. As a result, any test developed to determine if pricing practices within the industry are anti-competitive must account for complexities that arise from this structure. The standard imputation test is designed for a single product firm, and, thus, in its basic form, does not accomplish this. With relatively simple modifications this test can be adapted for use in situations where more than one product is being produced in the downstream market using the essential input.

Specifically, the move from a single product to multiple outputs raises issues for the revenue imputation rule in the following three areas:

- Common costs;
- Different degrees of market power over the various downstream products; and
- Different degrees of market power across various customer groups.

In the following, we draw heavily from King and Maddock (2002)¹⁶ in our comments on how the standard imputation rule can and should be adapted to deal with each of these issues.

¹⁴ Network effects arise from complementarities between a consumer's choice and those of other consumers. These effects are often, but need not necessarily be, externalities. See S. J. Liebowitz and S. E. Margolis (1994), "Network Externality: An Uncommon Tragedy, *Journal of Economic Perspectives*, 2, pp. 133-150.

¹⁵ In our view, the critical step in ascertaining predation is in understanding the nature of competition in the relevant market.

5.1. COMMON COSTS

When there are two retail products that share a common input it is not possible to define unambiguously the imputed total cost of each product. The issue is whether the imputed cost of each product should include, ignore or allocate part of the common cost. If, for example, the revenue imputation rule is applied to one product alone, then the retail price might satisfy the rule if the common cost is not included as a product specific cost. The same could apply to the other product if tested separately. Nevertheless, it would not be possible for the rivals of an integrated firm to produce both products unless common costs were recovered in some way through retail prices.

A simple solution is to augment the revenue imputation rule to allow for multiple products and common costs, which involves applying the rule both to each individual product and to every combination of retail products that share common costs. This addresses the issue while avoiding specific allocation of common costs to individual products.

5.2. NON-COMPETITIVE RETAIL PRODUCTS

A second complication arises if the integrated firm has different degrees of market power in the different markets where it sells its retail products. An integrated firm in this situation will make significant profits on the product that it sells in the non-competitive market providing it with “spare” revenue. If it is able to convince the regulator that the separate retail products are merely the ‘one same product’, then the firm will be able to institute a price squeeze in the competitive retail market while using the “spare” revenue to satisfy the revenue imputation rule. The integrated firm would have considerable scope to undermine competition in the competitive retail market without violating the imputation rule by such revenue averaging.

The main issue that needs to be considered in this situation is why there is a lack of competition for one retail product. If it is because non-integrated firms choose not to enter or expand production of the non-competitive product, then there is not an anti-competitive advantage to the integrated firm. If, on the other hand, there are barriers to entry in the non-competitive retail sector, the integrated firm should not be allowed to use its profits from the non-competitive sector to disguise anti-competitive behaviour in the competitive retail market.

In the latter situation, the revenue imputation rule needs to be applied to the competitive sector taking into account common costs. As there is no unique justifiable way to distribute the common costs between the retail sectors in this case, the best solution is to apply the imputation rule using a variety of allocations of these costs. If the integrated firm’s pricing fails to satisfy these rules, particularly for relatively low allocations of common costs to the competitive sector, then a vertical price squeeze is highly likely.

5.3. CUSTOMER CLASSES

A final complication to the revenue imputation rule arises when an integrated firm has different degrees of market power across different types of customers. There are two cases to consider with this issue.

First, the integrated firm might supply essentially the same product to both competitive and non-competitive customers, but set different prices. The integrated firm can then gain abnormal profits from the non-competitive customers and uses these to establish prices for the competitive customers that cannot be matched by non-integrated firms.

Alternatively, the integrated firm might set the same retail price for the two customer types even though they face different costs. If the costs of serving each competitive customer exceed those of each of the non-competitive customer, the non-integrated firms might be unable to effectively compete for the competitive class of customers.

In both cases, the imputation rule applied over all customers, instead of just the competitive set, can fail to detect anti-competitive behaviour. Thus, when applying imputation rules customers facing different degrees of competition should be treated as if they are actually buying different products. This prevents the integrated firm from circumventing the imputation rules by averaging revenues or costs over different types of customers.

6. SUMMARY AND CONCLUDING REMARKS

In the context of a dynamic industry (such as the telecommunications industry subject to rapid technical changes), bundling issues that need to be considered include:

- The ability of bundling to reduce prices and increase sales; and
- The potential for cost savings from bundling.

Firms competing in markets involving large fixed (and sunk) costs require reasonable prices and volumes to survive. In light of this, the regulator will need to closely examine and evaluate the potential for using bundling practices to foreclose competition. Bundling practices that reduce the share of the market available for the entrant (i.e. the addressable market) may have potential to deter entry. Yet the specific bundling practice should only be considered anticompetitive after a thorough analysis of why it was used and what its competitive effects are. In these regards:

- Market power is the appropriate place to start the analysis – consistent with the “first principles” approach – if a carrier does not have market power then it will be unlikely that they can construct an anti-competitive bundle/price.

- Establishing whether a bundle is genuine or artificial should help inform the analysis – for if it is genuine then it will be hard to show anti-competitive purpose or effect.
- The wider purpose of competition enforcement (leaving aside legislation, and imputation tests) should be to enhance welfare – the ACCC needs to step back and constantly ask (if only to remind itself) whether
 - the costs from regulatory intervention/enforcement are likely to exceed the expected gains; and
 - whether regulatory intervention is needed to promote competition instead of protecting competitors.

If the focus of competition enforcement is to be placed squarely on welfare maximisation, then we consider that welfare can be enhanced better by promoting *competition for the market* rather than protecting *competitors in the market*.