

DRAFT

BUNDLING: ARE US AND EUROPEAN VIEWS CONVERGING?

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I argue below that the US and EU approaches to bundling and tying are probably quite similar, but that neither is actually conducive to good policy or good policy implementation.

1. A brief survey of the economic thinking on bundling and tying

The problem for economists with bundling and tying as an abuse is that there is no unifying theory of harm. There are at least three different theories of why a firm bundles a product that are routinely discussed in the economics literature and that may have an adverse effect on consumer and social welfare. They overlap to some extent and there are multiple versions of each.

1. Bundling and tying as a method of price discrimination. There are two forms of this. The first is metering, which is based on tying sales of an input to the sale of a consumer durable. The classic example of this that is often referred to is the tying of paper to photocopiers. If the photocopier manufacturer insists that only its paper is used in its photocopiers, then it can effectively charge heavy users of photocopiers more than light users. The effect of this is that those who value the photocopier more (i.e. who use it the most), pay the most, whilst some consumers who would not buy the photocopier at the “competitive” price are bought in to the market. A more up to date example might be the tying of games to games consoles. Whether this price discrimination is good or bad for social welfare is ambiguous. Those who value the durable good the most, end up paying more than in the absence of bundling, but those who value it less end up paying less.

The other form of price discrimination is achieved with mixed bundling. This occurs where two products (A and B) are offered separately but are also offered as a bundle at a discounted price. For instance, A might be priced at £10, B at £10, but the bundle at £15.

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Those who value A (B) at more than £10 but the bundle of A and B at less than £15 will buy only A (B). Those who value the bundle at more than £15 will either buy the bundle or one of the products on its own (e.g. if you value the bundle at £16 but A at £12, then you get more consumer surplus from buying A rather than the bundle). This sort of scheme can bring consumers into the market who value A and B separately at less than £10 but the bundle at more than £15. This form of price discrimination is likely to be pro-competitive, but as with most price discrimination the social welfare effect is actually ambiguous.

2. Bundling to foreclose or leverage monopoly across markets. There are a number of theories of harm related to the use of bundling to foreclose. The basic idea is quite simple and intuitive. Suppose that a firm is a monopolist in one market (the widget market) but also operates in a competitive market (the gadget market). If the monopolist bundles the sales of widgets and gadgets together, this is likely to reduce the demand for gadgets sold by “gadget only” firms. By bundling the two products together, the monopolist is likely to increase its sales of gadgets and so reduce the residual demand curve faced by other suppliers of gadgets. This might so reduce the sales that a gadget only firm can make that they exit the market or do not enter it in the first place.

There are numerous versions of the entry deterrence argument. At its most basic, if gadgets are only useful when used in conjunction with widgets, then the widget monopolist can simply foreclose the market for gadgets to other suppliers by bundling the two products together. The idea here is that by bundling two products together, the monopolist might be able to use its monopoly of widgets to also become a monopolist of gadgets. Whether it has an incentive to do this is not always clear (i.e. the Chicago critique is relevant), but the broad argument is clear.

Another version is that bundling can be used by the monopolist effectively to commit to pricing the competitive product lower and this leads to foreclosure. The idea is that if the monopolist bundles widgets and gadgets together, then each time it fails to make a sale, it has lost two margins and this makes it compete more strongly than if only one margin

was in danger of being lost.² For this to lead to consumer harm there must be some idea that the short run benefit of lower prices is outweighed by longer term dynamic loss, such as through reduced innovation by new entrants or by prices rising once potential entrants have disappeared.

Another version is the Microsoft/Internet Explorer argument. This provides an answer to the question “Hang about, if IE and Navigator are effectively the same and Microsoft is giving IE away for free, where is the harm to consumers?” The answer given is that Navigator was a potential threat to the Windows monopoly and so the harm to consumers comes from (i) a potential competitor to Windows being excluded from that market; and (ii) other potential competitors to Microsoft concluding that fighting Microsoft was unlikely to be profitable and so not innovating or entering in the first place. The final paragraph of Judge Jackson’s decision makes it very clear that this was his main concern: bundling as a signal to potential competitors to keep out.

The Commission’s theory of harm in the Windows Media Player case is a version of the bundling to foreclose argument. By bundling WMP in with Windows, Microsoft ensures that WMP becomes ubiquitous and thus drives out competitors such as Real and Quicktime. Whether this strategy does actually foreclose is an empirical question since many consumers use multiple media players, but the theory is clear enough.

3. Bundling to soften price competition. There are at least two versions of this theory. Suppose the monopolist of widgets bundles its sales of gadgets with widgets. This reduces the incentive for a gadget-only suppliers to cut prices. When the monopolist is engaged in bundling, any reduction in the price charged by a gadget only supplier will lead to a smaller increase in demand for the gadget only supplier than would be the case if the monopolist was not bundling. This is because some consumers who would switch in the absence of bundling to the gadget only supplier will not switch in the presence of bundling because they value widgets highly. If the benefit to a firm of cutting prices is lessened, it will typically price higher.

² This “two margin” story explains why “competition in bundles” (i.e. competition between firms both offering bundles) can be fiercer than competition between individual products.

Another version of this theory is that bundling of widgets and gadgets by a monopolist has the effect of increasing product differentiation. Assume that the gadgets sold by the monopolist and by its competitors are effectively the same. Then we should expect to see very competitive pricing in the gadget market. If the monopolist bundles its gadgets with its widgets, then this creates product differentiation between the monopolist and suppliers of only gadgets. Depending on the strength of competition between gadget only suppliers, this may lead to a softening of prices.

To this can be added a fourth, which economists think is an efficiency but regulators are less sure about.

4. Cournot complements. If two products are Cournot complements, then a firm will price them lower if it sells them both than if they were sold by two different firms. The logic for why this is so is clear. If they are sold by two separate firms then neither firm will take into account the positive externality between sales of each product (i.e. increases in sales of widgets will increase sales of gadgets and vice versa). However, if they are sold by the same firm, then that firm will take this positive externality into account and so price the two products lower than would the separate firms. Formally, this effect does not require bundling, but it is likely to be stronger if the products are bundled together in addition to just being sold by the same firm. To an economist this looks like a welfare improving efficiency, but European regulators have disagreed on occasion (e.g. the GE/Honeywell merger), fearing that the bundling firm might be able to price so low as to drive competitors out of the market and then raise prices in the longer run.

Before moving on, there are third things to note from the above list. First, there are a number of different theories of potential harm from bundling. Second, they have different short run effects: bundling can soften prices in the short run or raise them. Third, whether bundling harms consumer welfare is not clear even within a particular theory of harm: the specific facts of the case matter. To put it bluntly, the economics of bundling and tying is not settled and policymakers need to bear this in mind.

2. What are the current policies on bundling in the US and EU?

This is not an easy question to answer. In the US the issue is that policy is set by the courts and can differ across circuits. However, the Ninth Circuit has recently endorsed a form of the “as efficient competitor” test in the *PeaceHealth* case.³ Suppose a firm offers two products (A and B) both separately and as a bundle, with the bundle being sold at a discount to the combined prices of the separate products. The question is whether the incremental price at which the potentially competitive product is sold is above the incremental cost of production for the monopolist. So suppose A and B are sold for \$10 each but for \$15 as a bundle. The incremental price of B in the bundle is \$5 (i.e. \$15 for the bundle less \$10 for A). If the incremental cost of producing B is more than \$5, then the discount is held to be exclusionary under Section 2.⁴

This is not quite an “as efficient competitor” test as a competitor with the same average variable costs as the monopolist might still be excluded if he had significant fixed costs. It is actually more akin to the standard predation test. It is, however, a much clearer test than came out of *LePage v. 3M*⁵ and is, I understand, probably the best guide to how a US court would treat a bundling case in the near future.

The EU approach to bundling under Article 82 is also not clear. This is because we have a clear statement from the European Commission about their preferred approach to bundling, but the Commission is constrained by the European Courts’ case law and this is not always consistent with the Commission’s preferred approach. The approach suggested by the Commission in their December 2005 Discussion Paper on Article 82⁶ is to compare incremental prices to long run incremental costs. If it appears that incremental prices are below long run incremental costs,⁷ then the next thing to do is to see whether any potentially exclusionary effect cover a significant portion of the market. If it does, then the bundling may be abusive.

³ Cascade Health Solutions (f.k.a., McKenzie-Willamette Hospital) v. PeaceHealth (05-35627 and 05-35640), 9th Circuit, 4 September 2007.

⁴ The standard used for incremental cost in *PeaceHealth* is average variable cost.

⁵ *LePage’s Inc. v. 3M*, 324 F.3d 141 (3rd Circuit 2003).

⁶ “DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses”, December 2005.

⁷ The Commission notes in the Discussion Paper that formally incremental revenues should be compared to incremental costs, but argues that it is easier to measure incremental price than incremental revenue.

The comparison of incremental costs and prices looks similar to the US approach, but it should be noted that the use of long run incremental cost is different to average variable costs. Long run incremental costs include fixed costs and so the EC's test is close to a genuine "as efficient competitor" test. It should also be noted that the EC's Discussion Paper deals only with exclusionary abuses and not exploitative abuses.

3. So what?

It looks like the US and EU approaches are quite similar. There has been a significant difference of opinion over the Cournot complements issue, but hopefully this has been resolved in favour of the US approach (i.e. no efficiency offence). But there is a much more fundamental issue to be discussed: so what? Does the approach advocated by either jurisdiction with reference to bundling really get us very far?

There are two points that I want to make here. The second is the more important one. The first point to note is that the "as efficient competitor" test is not relevant to all the theories of harm outlined above. It is not relevant to the theories based on price discrimination or softening pricing competition. It is not always relevant to the theories of foreclosure. For instance, if B is bundled with A at an incremental price above LRIC, this may still exclude rival suppliers of B if B is only useful in conjunction with A. The tests advocated by the 9th Circuit and the Commission are both based on mixed bundling and so would not be useful in cases of pure bundling.

My second point is that designating an abuse as "bundling" or "tying" and so applying a particular test does not help the policy debate. The different theories of harm above really are quite different and should be looked at in different ways. For instance, the price discrimination theories are quite different to the foreclosure theories and should be looked at in a different way. Price discrimination typically has ambiguous welfare effects, but a reasonable test is to ask whether the practice is likely to raise total output on the market. If it does, it is very likely welfare improving. The as efficient competitor test is just irrelevant here.

The foreclosure theories are better suited to the as efficient competitor test. However, it is not clear what is added by designating a practice as “bundling” as opposed to some other designation, such as predation. In general, the question is whether the practice is likely to foreclose the market to other firms and, if so, whether this is likely to harm consumers. These are questions that can be answered directly without raising the spectre of “bundling” and the associated lack of economic clarity. Designating Microsoft’s behaviour with respect to Explorer or Windows Media Player as bundling may be right but it adds nothing to the analysis. The analysis is pretty straightforward predation in both cases (a firm gives away a product for free, thus potentially excluding rivals and leading to long term competitive harm) and we have pretty standard tests for this (e.g. Areeda-Turner or the Akzo test). Whether the theory of harm is right depends on the facts, but that is another matter.

4. Conclusion

The economic analysis of bundling and tying is a mess. There is no unifying theory and the implications of the various economic models are often highly sensitive to the exact inputs and assumptions used. These are not the characteristics of economic theory that is likely to be useful to policymakers. So rather than designating a case as a “bundling” case and trying to apply these models to cases, a better approach is to go back to first principles. What is the theory of harm? What evidence do we need to substantiate it?