UNILATERAL CONDUCT

Message From The Editors

Lisa Kimmel & Eric Berman

Welcome to the Fall 2014 Edition of Monopoly Matters. Inside you will find an interview with Terrell McSweeny, the most recently appointed Commissioner at the Federal Trade Commission, and an interview with Patty Brink, Director of Civil Enforcement at the Antitrust Division of the U.S. Department of Justice. You can also read articles about developments in the economic analysis of conditional pricing, *Sanofi*'s application of the price-cost test to loyalty discounting, the EC's safe harbor approach to seeking injunctive relief on FRAND-encumbered SEPs, the EC's approach to exclusivity rebates by dominant firms, private damage actions in Europe, competitive effects of loyalty discounts, and RPM in Brazil. And if you have been too busy to catch all the committee brownbags or follow the global enforcement news, you can learn what you missed in the program reviews and regional enforcement updates that follow the featured articles.

We want to thank all the authors who contributed to this edition. We would also like to thank Jody Boudreault at Squire Patton Boggs LLP and Joshua Chad at McMillan LLP for their assistance in preparing the newsletter. If you would like to provide feedback on this newsletter, or contribute to the next issue, please contact Eric Berman, who will be taking editorial responsibility for the next edition. You can contact Eric at ESBerman@venable.com.

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The Discount Attribution Test and the Competitive Effects of Loyalty Discounts

Sean Durkin[1]

There is considerable debate among economists and legal scholars about the competitive consequences of loyalty discounts. The discounts that raise the most concern are all-units discounts offered to intermediaries. These give buyers a lower price for buying some threshold volume of purchases or share of purchases from a seller and a higher price for any purchases below that threshold.

One of the main points of the debate is the role that a price-cost test, such as the discount attribution test, should play in assessing whether loyalty discounts are anticompetitive. Several authors have pointed out both theoretical and practical problems with the discount attribution test.[2] Nonetheless, some form of the discount attribution test often plays a role in litigation involving loyalty discounts. In the recent *Eisai Inc. v. Sanofi-Aventis* case, Eisai's expert used a price-cost test to determine the share of sales for which Eisai could not compete because of Sanofi's loyalty discounts.[3]

Despite its flaws, the discount attribution test framework presents a simple, intuitive way to illustrate a potential exclusionary effect of loyalty discounts. The discount attribution test assumes that two sellers compete for sales to a buyer that has both contested and non-contested purchases. A buyer's contested purchases are those for which it is willing to use either seller, and its non-contested purchases are those for which it would only use one seller. A seller may be able to exclude its rival by offering discounts on the non-contested units, for which it faces no competition from the other seller, that are conditional on the buyer choosing to buy all its contested purchases from the seller rather than its rival.

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[2] *See*, *e.g*., Joshua D. Wright, Comm'r, Fed. Trade Comm'n, Remarks at the Bates White 10th Annual Antitrust Conference: Simple but Wrong or Complex but More Accurate? The Case for an Exclusive Dealing-Based Approach to Evaluating Loyalty Discounts (June 3, 2013) (transcript available at http://www.ftc.gov/public-statements/2013/06/simple-wrong-or-complex-more-accurate-case-exclusive-dealing-based); of Kevin M. Murphy, Edward A. Snyder & Robert H. Topel, *Competitive Discounts and Antitrust Policy*, *in* 2 Oxford Handbook of International Antitrust Economics (Roger D. Blair & D. Daniel Sokol eds, 2014).

[3] *Eisai Inc. v. Sanofi-Aventis U.S., LLC*, No. 08-4168 (MLC), 2014 U.S. Dist. LEXIS 46791, at *73-75- (D.N.J. Mar. 28, 2014); *see also, Cascade Health Solutions v. PeaceHealth*, 515 F.3d 883, 909 (9th Cir. 2008) (holding that the appropriate measure of incremental costs in a bundled discounting case is average variable cost).

While loyalty discounts can potentially exclude competitors, economists and legal scholars have shown how they can also benefit buyers by inducing sellers to compete more aggressively. However, these procompetitive effects do not appear to be fully understood or appreciated. This has led to several common misconceptions about loyalty discounts that often play an important role in litigation.

This article shows that the discount attribution test framework also provides a simple, intuitive way to illustrate the procompetitive consequences of loyalty discounts. In particular, the discount attribution test framework can be used to illustrate the effect, on both rivals and on buyers, of allowing sellers to offer loyalty discounts. In so doing, this framework sheds light on the misconceptions about loyalty discounts.

Background on the discount attribution test framework

Consider the following example. Suppose there are two sellers, A and B that compete for sales to a retailer. Assume the retailer has 100 customers who each buy one unit of a good and that 60 of the retailer's customers are choosy and 40 are not. Choosy customers prefer one seller's products sufficiently that they are not contestable for the other seller. Assume 40 units are non-contestable for A and 20 are non-contestable for B. Non-choosy customers view the products of the two sellers as perfect substitutes and buy the lowest priced product. Assume, also, that the profit maximizing price for each seller if it only sold non-contested units is 10 and that each seller has a constant marginal cost of 5.

One can imagine that the two sellers are Coke and Pepsi. Some of a retailer's customers strongly prefer Coke and would not buy Pepsi even if Pepsi sold for the lowest price Pepsi could profitably offer. A smaller number of the retailer's customers strongly prefer Pepsi and would not buy Coke. Other customers view Coke and Pepsi as close substitutes for each other and would buy whichever drink has a lower price.

Assume seller A offers the buyer a price of 10 if the buyer purchases less than 80 units from seller A and 20 percent discount if it buys 80 units from A. Suppose the buyer accepts that offer and buys 80 units from seller A and 20 units from B. If seller A's marginal cost per unit is a constant 5, then it earns a profit of 3 per unit on the contested sales for a total profit of 120. To win those contested sales, it offered discounts of 2 per non-contested unit or a total of 80.

In this example, the seller passes the discount attribution test because the 120 it earned in profit on contested sales exceeds the 80 in profit it gave up on non-contested sales. However, if the discount offered by seller A was 30 percent, then it only earns a per-unit profit of 2 on the contested units for a total of 80, but it gave up 3 per unit on non-contested units for a total of 120. In this case, the seller would fail the discount attribution test. One can interpret the results as telling us

whether seller A has offered a below cost discount. In other words, it demonstrates whether the seller is acting predatorily by offering a discount on non-contested units that is greater than the profits it earns on contested units.

The discount attribution test framework can also be used to assess whether seller B can price low enough to profitably compete for contested sales. If the sellers are equally efficient in that they have the same marginal costs as A, then it is simple to show that B can profitably compete for contested sales as long as A passes the discount attribution test. If seller B has higher marginal costs than A, then B may not be able to compete for contested sales even if A passes the discount attribution test.

In addition to presenting a simple way to illustrate how a seller's loyalty discounts can prevent a rival from competing for contested sales, the discount attribution test framework also provides a simple intuitive way to illustrate the potentially procompetitive effects of allowing sellers to offer loyalty discounts. The discount attribution framework can be used to compare the outcomes for buyers and sellers when sellers can only offer a single, unconditional price to outcomes in which they can offer loyalty discounts.

Using the discount attribution test framework to illustrate the effects of loyalty discounts

Outcomes without loyalty discounts

Because each seller has non-contested units, they are guaranteed a profit equal to the number of non-contested units times the per unit margin on sales of those units. If sellers can only offer the buyer a single, unconditional price, then any reduction in its price below the non-contested price to compete for contested sales will reduce its profits on non-contested sales. As a result, profits on non-contested units act to limit the willingness of sellers to compete for contested sales.

Using the example discussed above, A's profit, if it only competes for non-contested units, is $200 = 40(10 - 5)$. This means that A would only offer a price to compete for contested sales that would give it a total profit of at least 200. The price that generates a profit of 200 if A sells both contested and non-contested units is 7.5. Table 1 shows the relevant values without loyalty discounts.

The lowest price A is willing to offer depends on two factors: 1) its marginal production costs per unit of 5; and 2) the per-unit cost in terms of profit lost on non-contested of 2.5. The per-unit lost profits equals the per unit margin on non-contested units of 5 times the share of non-contested units in contested plus non-contested units of .5 (.25 = 5x.25). The lowest price that seller B would offer is 6.67. Seller B's minimum price is lower than A's because its lost profits on non-contested units is lower due to the fact that it has fewer non-contested units.

Consider the pricing decisions of the two sellers. Seller A's profits are lower if it charges below 7.5 than if it charges 10, so it will not offer a price below 7.5. Seller A also knows that if it prices at 7.5, it will be profitable for seller B to price just below 7.5. If so, seller B would win all the contested sales, and A's profits would be lower than if it priced at 10. As a result, seller A will charge a price of 10, and it will not compete for contested sales. Seller B knows it can win all the contested sales if it prices just below 7.5, and it will be profitable to do so because 7.5 is greater than 6.67 which is the lowest price it would be willing to offer to compete for contested sales.

Thus, if sellers can only offer a single, unconditional price, A charges 10, and B charges 7.5. The buyer pays 400 for the 40 units that it buys from A and 450 for 60 units it buys from B for a total of 850. Seller A earns a profit of 5 per unit on 40 units for a total of 200, seller B earns a profit of 2.5 per unit on 60 units for a total of 150 which is higher than the 100 it would have earned if it only sold contested units.

Seller B can also make non-contested sales even if it has higher production costs than seller A. For example, suppose seller A's production costs are 4 rather than 5. In this case, seller A's minimum price is 7 rather than 7.5, but it is still more than seller B's minimum price of 6.67, so seller B makes contested sales even though it has higher costs.

TABLE 1

	Seller A	Seller B
Non-contested units	40	20
Contested units	40	40
Non-contested price	10	10
Marginal cost	5	5
Minimum price	7.5	6.67
Price without loyalty discounts	10	7.5
Sales without loyalty discounts	40	60
Profits without loyalty discounts	200	150
Buyer costs from seller without loyalty discounts	400	450
Buyer costs with loyalty discounts if it accepts seller's loyalty discount offer	800	800
Price with loyalty discounts	7.5	6.67
Profits with loyalty discounts	200	100
Buyer costs from seller if it chooses A's loyalty discount offer	600	200
Buyer costs from seller if it chooses B's loyalty discount offer	400	400

Outcomes with loyalty discounts

Assume, instead, that buyers allow sellers to offer two prices: a lower price if the buyer commits to buying all the contested units from it, and a higher price if the buyer purchases contested units from its rival. One immediately obvious effect of allowing sellers to offer loyalty discounts is that it would induce seller A to compete for contested units. Without loyalty discounts, seller A would not compete for contested units because if it offered a price of 7.5 it would lose profits on non-contested units without being able to make any contested sales. If A can offer a price of 7.5, conditional on it making the contested sales, and 10 if it does not, then it does not lose profits on non-contested sales if the buyer chooses B for its contested sales.

Without loyalty discounts, a seller simply needs to offer a price lower than its rival to win the contested sales. If sellers can offer loyalty discounts, then to win contested sales a seller must offer a discounted price that makes the buyer indifferent between accepting its loyalty discount offer and the rival's offer. This means that the seller with the lower minimum price will not necessarily win the contested sales.

Suppose each seller offers its minimum price conditional on the buyer giving it all the contested purchases and its non-contested price if it gives the contested purchases to its rival. In other words, seller A offers a price of 7.5 if it sells 80 units and a price of 10 if it sells less than 80, and suppose that seller B offers a price of 6.67 if it sells 60 units and a price of 10 if it sells less than 60. The cost to the buyer of buying 80 units from A and 20 from B is 7.5 x 80 + 10 x 20 = 800. The cost of buying 40 units from A and 60 units from B is 10 x 40 + 6.67 x 60 = 800.

Thus, competition among the sellers will induce them to offer loyalty discounts equal to their minimum price, and the buyer would be indifferent between choosing A or B for its contested sales. Since buyers would be indifferent between the two loyalty discount offers, the determination of which seller makes the contested sales is random. If there are a number of different buyers, then we would expect that the sales of contested units would be evenly split between the two sellers across all buyers. If, instead, seller B has higher production costs, then seller A makes all the contested sales.

This means that the less preferred seller is worse off with loyalty discounts. Without loyalty discounts, the less preferred seller makes the contested sales for all buyers. With loyalty discounts, both sellers make contested sales to some buyers. Because the more preferred seller competes for contested sales if it can offer loyalty discounts, the less preferred seller also has to charge a lower price to compete for contested sales. Because it sells fewer contested units and charges lower prices when it does, seller B's profit is lower with loyalty discounts.

While the less preferred seller's profits are lower, buyer costs are also lower with loyalty discounts. As shown in Table 1, the reduction in buyer costs is exactly equal to the reduction in seller B's profit. Without loyalty discounts, the more preferred seller does not compete for contested sales, so the less preferred seller can win contested sales by charging a price greater than its minimum price. With loyalty discounts, seller A does compete for contested sales, and this causes both sellers to offer their minimum price. Effectively, loyalty discounts transfer to buyers the profits seller B earns without loyalty discounts because it can charge more than its minimum price to win contested sales.

Correcting misconceptions about loyalty discounts

Misconception 1: Loyalty discounts do not represent competition on the merits

Plaintiffs and their experts often claim that competition without loyalty discounts represents competition on the merits while competition with loyalty discounts does not. This analysis highlights the fact that competition with loyalty discounts is no less competition on the merits than competition using a single, unconditional price. Without loyalty discounts, seller B has an artificial advantage over seller A that is not related to lower costs or greater demand. Instead, it is due to the fact that seller B has lower lost profits on non-contested units than A, and this means that seller A will not compete for contested sales. In this example, this means that seller B has more sales even though it is less preferred. Loyalty discounts eliminate this advantage and transfer to buyers the profits the less preferred seller earns as a result of that advantage.

Misconception 2: Loyalty discounts have no procompetitive efficiency justification

Loyalty discounts induce seller A to compete for contested sales. To see why, note, as discussed above, the price a seller is willing to offer to compete for contested units depends on two factors: 1) the seller's marginal production cost; and 2) the cost per unit to the seller in terms of lost profits on non-contested sales. If seller A does not compete for contested sales, it could be induced to compete for contested sales if either its production costs fall or the per-unit lost profit on non-contested sales falls.

The per unit lost profits on non-contested units depends on the number of contested units. As the number of contested units rises, the lost profit on non-contested units is spread out over a larger number of units which induces the seller to offer lower prices. If forced to charge a single, unconditional price, seller A knows that it cannot win the contested sales. As a result, it effectively assumes the number of contested units equals zero and simply offers its non-contested price. With loyalty-discounts, seller A's cost of competing for contested sales is lower because it only loses profits on contested units if it makes the contested sales.

In this sense, the ability to offer loyalty discounts acts just like a reduction in production costs. A reduction in sellers' production costs reduces the price sellers are willing to offer for contested units. The ability to offer loyalty discounts has the same effect as a reduction in production costs because it reduces the cost in terms of lost profits on non-contested units. This is important because experts for plaintiffs often argue that there are no cost-based efficiency justifications for loyalty discounts, particularly market share discounts. While cost-based efficiencies are not necessary for buyers to benefit from loyalty discounts, this analysis shows that one reason buyers benefit is that allowing sellers to offer loyalty discounts acts just like a reduction in its production costs.

Misconception 3: Loyalty discounts act like a tax on smaller sellers and harm competition

In addition to changing who competes for contested sales, allowing sellers to offer loyalty discounts also changes how they compete for contested sales. Without loyalty discounts, the buyer chooses contested sales based only on the price offered by the two sellers. With loyalty discounts, sellers compete by offering prices that make the buyer prefer its loyalty discount offer over a rival's.

The less preferred seller has an advantage without loyalty discounts because its lost profits from competing for contested sales are lower. In fact, as shown in Table 1, the buyer purchases 60 percent of its units from seller B and 40 from seller A even though B is the less preferred seller. Seller B loses that advantage if sellers can offer loyalty discounts because seller A competes for contested sales. With loyalty discounts, seller A has an advantage because the buyer has a higher cost of committing to seller B.

For the same discounted price, buyers' costs of committing to B are higher for two reasons. First, the buyer will prefer seller A over seller B because the discounted price applies to both contested and non-contested units, and seller A has more non-contested units. Second, the premium the buyer has to pay for non-contested units is higher if it selects seller B's loyalty discount offer rather than seller A's offer, and this allows seller A to offer a higher discounted price.

Some argue that this effect harms competition because it raises the cost of buying from seller B. As a result, it acts like a tax on buying from seller B, forcing seller B to charge a lower price than seller A to compete.[4] In a litigation context, plaintiffs often refer to this as a penalty for committing to the less preferred seller. However, it is important to note that the advantage B has in the single-price equilibrium is due to a market failure arising from the fact that seller A can offer only a single, unconditional price. This inefficiency reduces the

incentive for A to compete for contested sales, and allows seller B to charge a higher price. The less preferred seller's costs of competing for contested sales are higher with loyalty discounts because they were artificially low without them when A does not compete for contested sales.

One way to induce seller A to compete is to tax buyers for purchasing contested units from B. Taxing purchases of B can induce seller A to compete for contested sales and force seller B to lower prices to compete. Thus, a tax can replicate the loyalty-discount equilibrium and benefit buyers. To illustrate this using the example in Table 1, suppose the buyer faces a per unit tax if it purchases more than 20 units from B, that is just above the difference between A's minimum price of 7.5 and B's minimum price of 6.67. If so, seller A would be willing to offer a single, unconditional price of 7.5, and it would sell 80 units. Seller B, knowing it could not compete for contested sales, would charge 10 and sell 20 units. This means that the tax would exactly replicate the outcomes with loyalty discounts and buyers would benefit. Stated differently, the tax or penalty associated with loyalty discounts induces sellers to compete more aggressively, so it increases rather than decreases competition.

Conclusion

Evaluating the effect of loyalty discounts through the discount attribution test framework helps to illustrate some of the misconceptions about loyalty discounts that often arise in litigation. The three main takeaways are as follows. First, competition with loyalty discounts represents competition on the merits at least as much competition without loyalty discounts. Second, loyalty discounts act like a reduction in production costs in that they reduce the cost of competing for contested units, so they have a procompetitive efficiency justification. Third, the fact that loyalty discounts act like a tax on purchases from the less preferred seller induces sellers to compete more aggressively and benefits buyers.

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[4] *See, e.g.*, Joseph Farrell, Janis K. Pappalardo & Howard Shelanski, *Economics at the FTC: Mergers, Dominant-Firm Conduct, and Consumer Behavior*, 37 Rev. Indus. Org. 263 (2010).