

The Antitrust Treatment of Loyalty Discounts: In Search of the Right Theories of Harm

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University of Bologna Workshop on “Competition with Loyalty
Discounts”

November 2010

Part I: The Antitrust Treatment of Loyalty Discounts

Antitrust Treatment of Loyalty Discounts

Introduction

- Discount structures which provide particularly strong rewards to achieve sales targets have attracted significant scrutiny by competition authorities in the past
- In European jurisprudence some forms of discounts have practically been treated as *per se* illegal if offered by dominant firms
- The approach is now shifting to a more effects-based one
- Discount structures can differ primarily in terms of:
 - Target setting
 - Standardized absolute targets*
 - Market share
 - Growth over previous year
 - Individualized absolute targets
 - Rebate mechanism
 - Incremental*
 - Retroactive (“all-unit / back to Euro 1 discounts”)

* Lower competition-risk

Recent Antitrust Cases on Loyalty Discounts

Case / Jurisdiction	Market	Finding
<i>Michelin (EU, 2001, 2003)</i>	Tyres	Retroactive rebate structure with standardised volume targets constitutes an abuse of dominance
<i>British Airways (EU, 1999, 2003, 2007)</i>	Airline ticket sales to travel agents	Retroactive bonus structure with individualised growth targets constitutes an abuse of dominance
<i>BA v. Virgin (US, 2000)</i>	Airline ticket sales to travel agents	BA's conduct not shown to be predatory and therefore <i>not</i> abusive
<i>SAA I (SA, 2005)</i>	Airline ticket sales to travel agents	Retroactive bonus structure with individualised growth targets constitutes an abuse of dominance
<i>Tomra (EU, 2005, 2010)</i>	Reverse vending machines	Mixture of exclusive contracts, quantity commitments and individualised rebate structure is exclusionary
<i>Intel (EU, 2009)</i>	Computer Processing Units	Market share retroactive discounts offered by Intel represent an abuse of dominance (fine in excess of € 1bn)
<i>SAA II (SA, 2010)</i>	Airline ticket sales to travel agents	Retroactive bonus structure with individualised growth targets and lump-sum performance payments constitutes an abuse of dominance

EU Guidance Paper on Article 102

Paper issued in February 2009 provides guidance on a more effects-based approach

- The paper maintains a fairly skeptical attitude towards retroactive rebates, but the focus shifts away from mere existence of negative marginal prices
 - [conditional] rebates [...] can also have actual or potential foreclosure effects similar to exclusive purchasing obligations. *Conditional rebates can have such effects without necessarily entailing a sacrifice* (§ 37)
 - A conditional rebate granted by a dominant undertaking may enable it to use the ‘non contestable’ portion of the demand of each customer [...] *as leverage* to decrease the price to be paid for the ‘contestable’ portion of demand (§ 39)
 - The potential foreclosing effect of retroactive rebates is in principle *strongest on the last purchased unit* of the product before the threshold is exceeded. However, what is relevant for an assessment of the loyalty enhancing effect of a rebate is the *foreclosing effect of the rebate system on competitors* (§ 40)

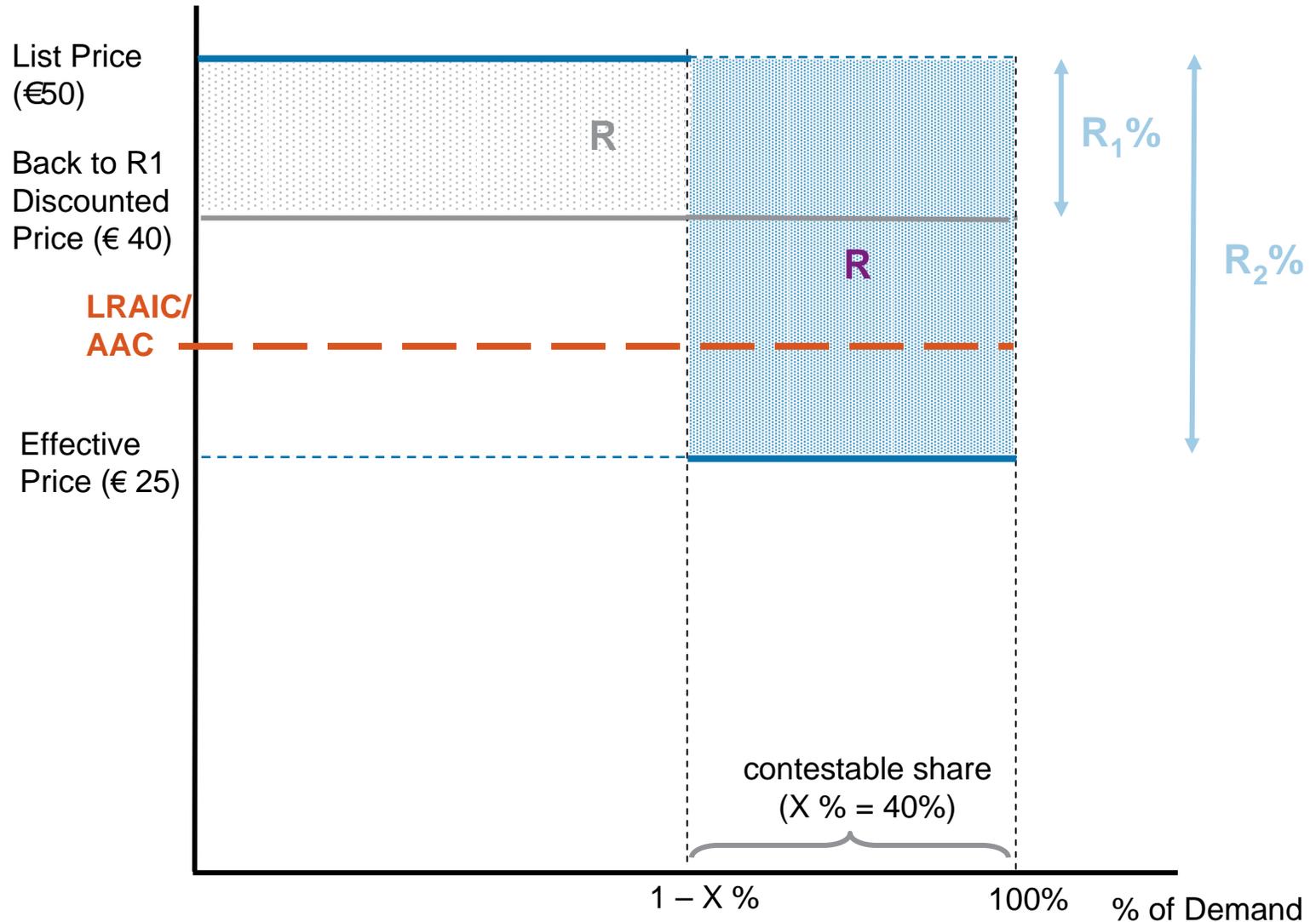
[my emphasis]

EU Guidance Paper on Article 102

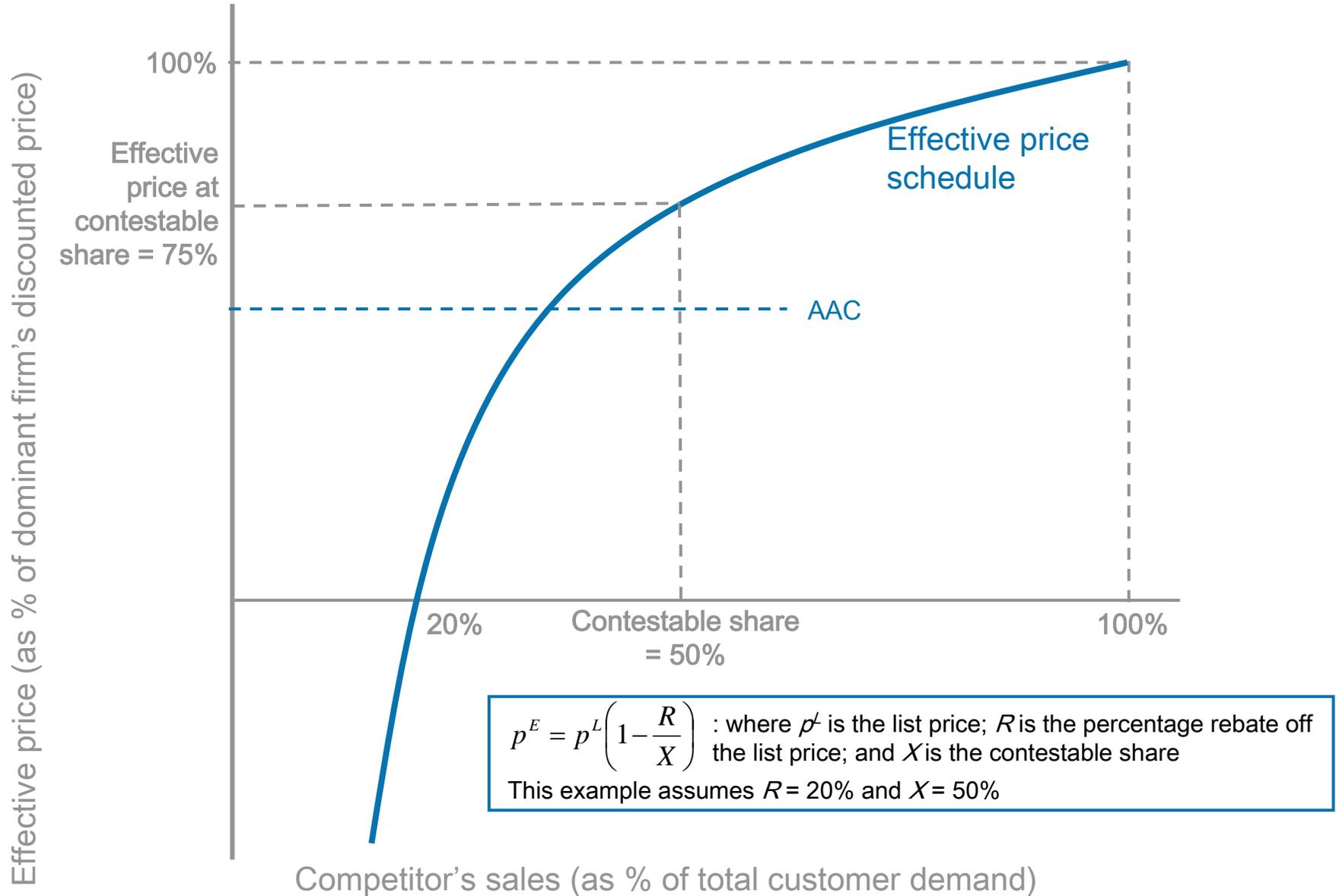
The As-Efficient Competitor (AEC) test

- Puts forward a price-cost test designed to evaluate whether the incremental price on those additional sales which a rival can contest (“the contestable sales”) is above or below cost
- The AEC test
 - If the effective price is below Average Avoidable Cost (AAC), then the rebate is considered exclusionary
 - If the effective price is between AAC and Long Run Average Incremental Cost (LRAIC) then competitor counterstrategies should be considered (e.g. leveraging own non-contestable demand)
- Cost benchmarks to be used are those of the dominant firm (*As Efficient Competitor* principle)

The As Efficient Competitor Test

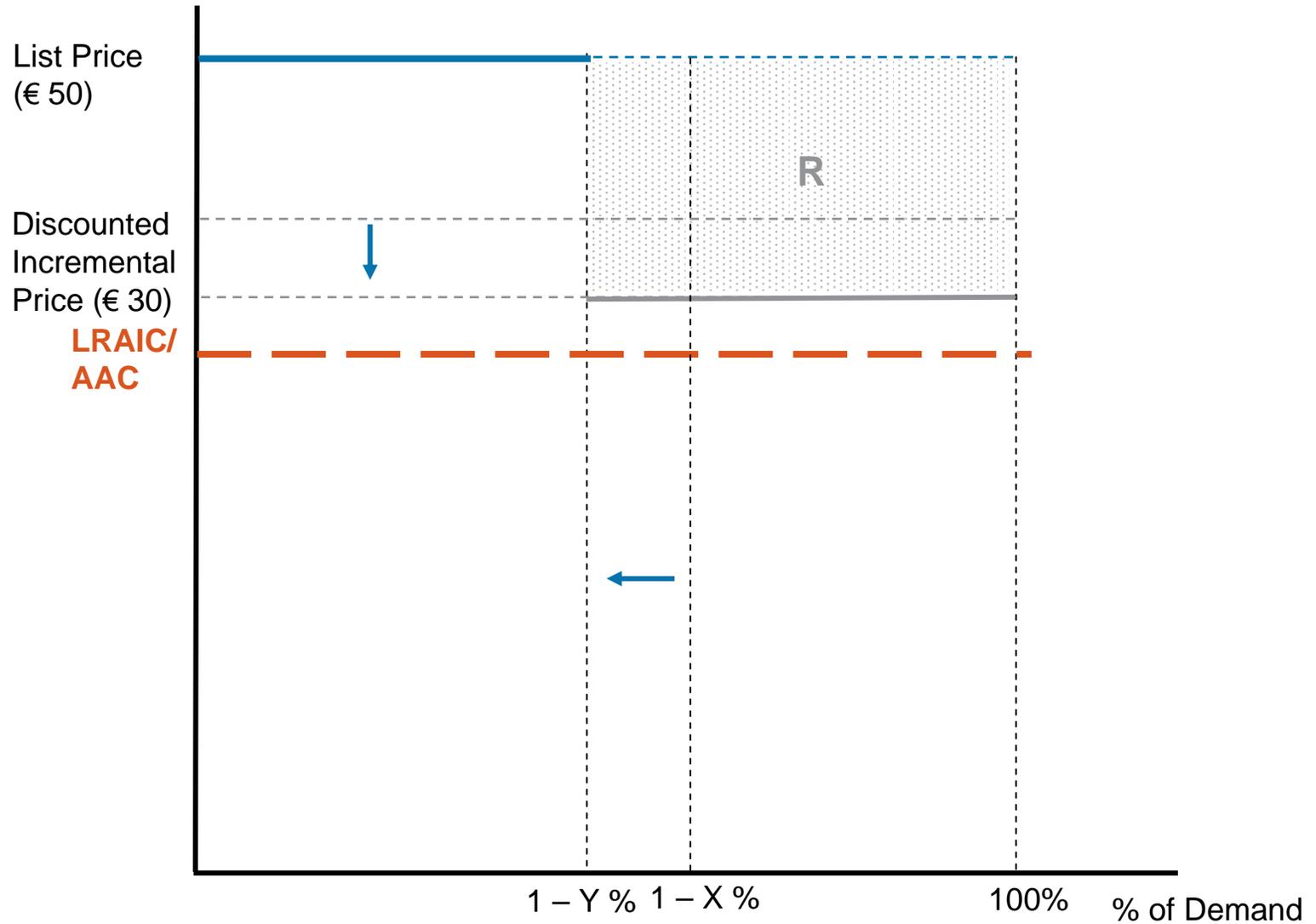


The As Efficient Competitor Test



The As Efficient Competitor Test

Incremental rebates entail lower competition risk



Recent developments: *Intel v Tomra*

Different approaches on the use of the AEC test

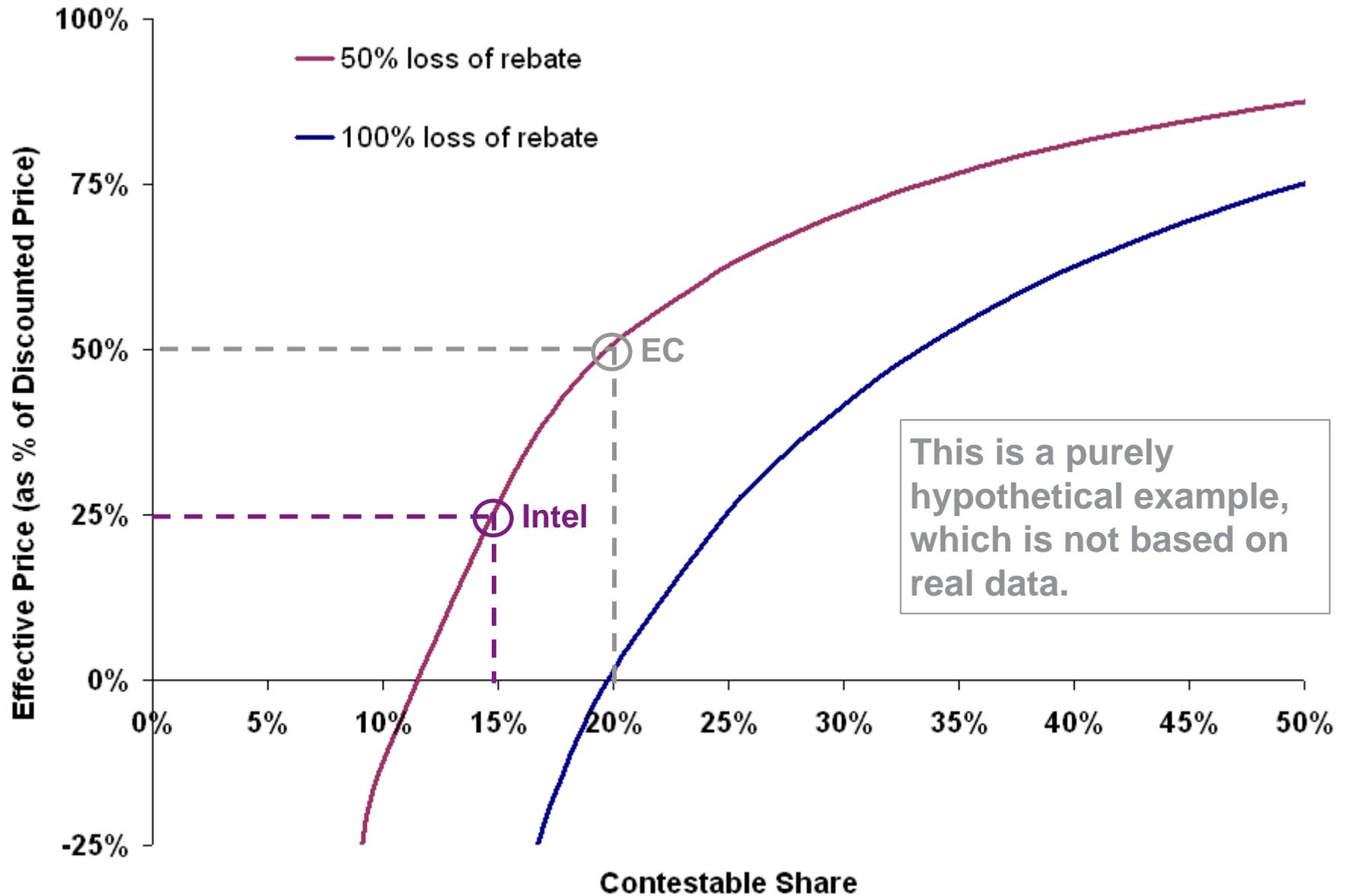
Intel (2009)

- The European Commission applied the AEC test extensively in the *Intel* decision, finding that AMD's contestable share was typically below the required share (for the main OEMs targeted by Intel)
- Application of AEC in Intel raises several practical issues
 - Two of the three key variables required to implement the test (the loss of rebate if loyalty is breached, and the contestable share) are particularly hard to measure
 - The effective price schedules are very sensitive to both assumptions (more than to costs), implying risk of "false convictions"
- Measuring contestable share over a short (one-year) horizon may be unduly conservative, if a rival faces incentives to 'invest' in market legitimisation

Tomra (2006, 2010)

- No analysis of effective price in the original 2006 decision
- The Commission assumed that in presence of quantity commitments or retroactive discount targets:
 - All volumes up to quantity threshold foreclosed (if demand > threshold)
 - All demand foreclosed (if demand < threshold)
- The General Court confirmed this approach in September 2010, finding that with a loyalty rebate "*[a] customer's remaining demand is at best limited so the competitor's average price will remain structurally unattractive*" (¶270)
- This conclusion holds regardless of whether a competitor might be able to compensate a low price on some (incremental) units, with higher prices on other sales

The AEC Test in Practice



A “natural” interpretation of the AEC test

Loyalty discounts as disguised predation

- The AEC test could be interpreted as applying a quasi-predatory framework to loyalty rebates
 - It effectively sees loyalty discounts as ‘disguised’ predation
 - Predatory incremental prices are ‘hidden’ by non-predatory prices on non-contestable units
- As in any coherent theory of predation, it would be then necessary to discuss and assess the scope for *asymmetric recoupment* possibilities between the predator and the prey (as the Guidance Paper itself recognises)
- But these issues are not discussed in the *Intel* decision, which assumes that recoupment is *not* actually required for its theory of harm to make sense
- This is actually in line with the Guidance Document (which states that rebates need not be associated to profit sacrifice)
- It is also confirmed by the Court in *Tomra*: high prices on non-contestable sales can compensate for low prices on contestable ones, resulting in average prices which “may well be far above cost and ensure a high average profit margin” (¶ 267).

An Alternative Interpretation: Loyalty Discounts as Anti-Competitive Leverage

Approach in *Intel* and *Tomra*

- “The rebate [...] enables Intel to use the inelastic or ‘non-contestable’ share of demand of each customer [...] as *leverage to decrease the price for the elastic or ‘contestable’ share of demand*, that is to say the amount for which the customer may prefer and be able to find substitutes.” (*Intel*, ¶1005)
- “[...] Intel was able to use the tool of conditional rebates that were capable of inducing loyalty and *thereby limiting consumer choice and foreclosing the access of competitors to the market*” (*Intel*, ¶1598)
- “[...] *the fact that a “rebate” can be leveraged by the dominant company from its non-contestable share into the contestable share* may allow that company to foreclose [...] rivals, even if its overall average price is higher than that of its rivals. This is therefore to the detriment of consumers and competition *both in the short and in the long term*” (*Intel*, ¶1612)
- “customers on the foreclosed part of the market should have the opportunity to benefit from whatever degree of competition is possible on the market” and “it is not the role of the dominant undertaking to dictate how many viable competitors will be allowed to compete” (*Tomra*, ¶ 241).

Economic Critique of the Leverage Interpretation

Foreclosure and Recoupment

- As implied in the AEC test, if a dominant firm has a monopoly position with respect to certain sales, then if it offers a given ($R\%$) discount on *all units* as part of a competition for X additional (contestable) units, then a smaller rival would have to offer a discount for these contestable units that is greater than $R\%$.
- The asymmetry in the percentage level of the rebate does *not* mean that the dominant firm has an economic advantage *per se* in competing for the contestable units
 - its effective price for the incremental units is the *same* as the one that rival needs to offer to remain competitive
 - A dominant's firm ability to express the discount on total sales (rather than just incremental sales) is therefore not a source of economic leverage
 - In particular, it does not mean that foreclosure is cost-less ("no profit sacrifice") and that future recoupment is not necessary to make the conduct profitable ("one-monopoly profit" argument)

Economic Critique of the Leverage Interpretation

Loss of variety and consumer harm

- The source of consumer harm identified by the Commission in *Intel* (and implied by the Court in *Tomra*) is also not apparently robust
- Any loss of product choice ‘suffered’ by (foreclosed) consumers should in principle be *compensated for* by the discount that they receive on incremental units (which is why consumers purchase these units from the dominant firm, and not the smaller rival)
 - Foreclosure in this case does not imply consumer harm in the *short-run*
 - Injury to consumers would typically only follow in a dynamic setting, through the marginalisation/exit of rivals and recoupment
- Even if the rebate is paid to retailers (rather than to final consumers) one would expect retailers to pass on the discount to consumers in order to compensate them for the loss of product variety (and remain competitive)

Loyalty discounts: the Commission's *Holy Grail*

Inability to Match

- Rivals cannot profitably outbid the dominant firm
- There is competitor harm / foreclosure

No Profit Sacrifice

- Dominant firm does not suffer a loss at the margin
- Standard predatory framework does not apply

Short-Run Consumer Harm

- Foreclosure leads to immediate harm to consumers (no need for recoupment)
- Consumers do not buy from foreclosed rivals despite suffering harm

Loyalty discounts: the Commission's *Holy Grail*

Candidate economic theories

Inability to Match

Exclusive Dealing

- Rival is not able to recover costs of entry (due to strong first-mover advantage favouring the incumbent)

Exclusionary Bundling

- Rival cannot match bundled discount if it competes on a single product

No Profit Sacrifice

- Prices may remain at monopoly levels (for all consumers)

- Price discrimination leads to more efficient rent-extraction (profit-increasing)

Short-Run
Consumer Harm

- Buyer mis-coordination exploited (fragmented buyers)

- Possible if dominant firm can commit to pricing above monopoly level if bundled discount not accepted

Part II: *British Airways* Revisited

(joint work with P. Régibeau)

British Airways Revisited

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Preliminary Work

Bologna, November 2010

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The case(s)

- Several allegedly dominant airlines found guilty of abusing their dominance by offering retroactive commission payments to travel agents
 - *British Airways* (EC: 1999; CFI: 2003; ECJ: 2007)
 - *Alitalia* (2001)
 - *SAA I* (2005)
 - *SAA II* (2010)
- Market context
 - Significant percentage of tickets distributed by travel agents (70%+)
 - Travel agents primarily used by time-sensitive / price-insensitive consumers
 - Asymmetric information between travel agents and passengers on fares and frequency of each airline

- Retroactive commission payments
 - "Back to Euro 1" commissions paid if agents meet given sales threshold(s)
- Individualised targets
 - Sales thresholds differ by agent (e.g. set as growth target on past year's sales performance)
- This structure can be interpreted as an individualised "forcing" contract: pay T_i if $e_i = e_i^*$, pay 0 (or some standard amount) otherwise
- Remedy: standardised *and* incremental contracts with constraint on slope (linear; reflective of cost savings or increase in value of service provided by agents)

Contract design

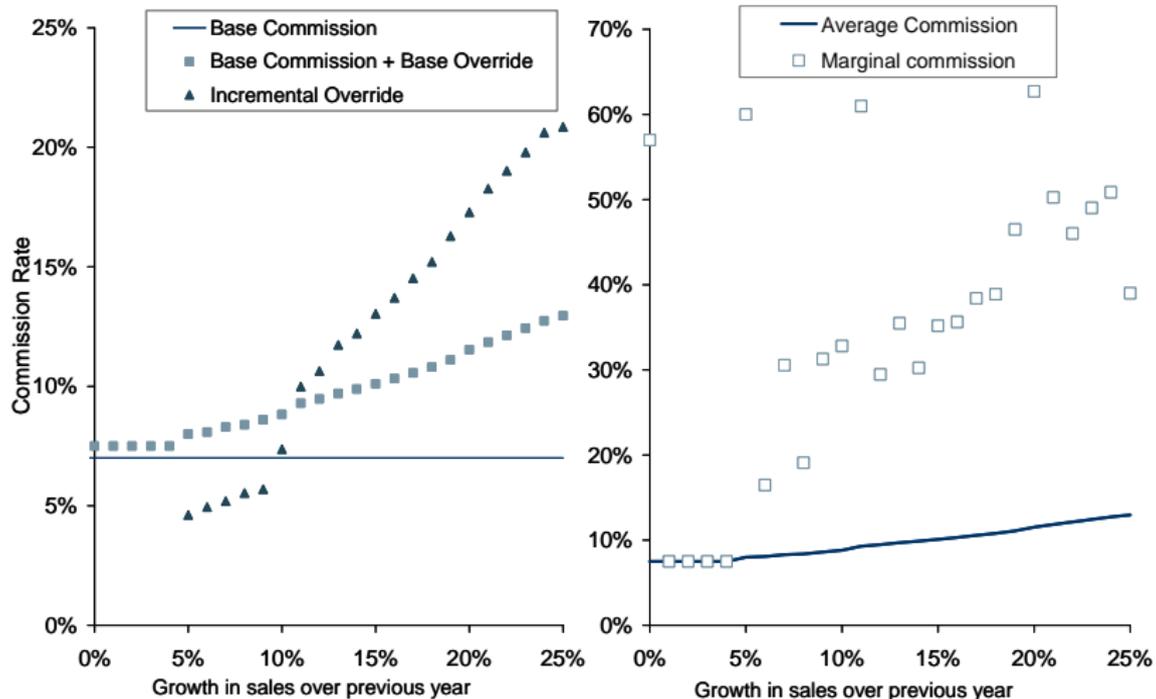


Figure: Retroactive commissions: SAA I

Traditional legal analysis (e.g. CFI/ECJ in *British Airways*)

- Contract design is anti-competitive because:
 - results in high marginal payments which smaller rivals find impossible to match
 - it is loss-making at the margin for the dominant carrier [but note different finding in the U.S.]
 - fails a no-economic sense test (“*BA can have had no interest in applying its reward schemes other than ousting rival airlines*”)
 - change in marginal payments not commensurate to cost savings or benefits from higher sales (“no objective justification”)
- No need to consider concrete effects
 - “*it is sufficient to demonstrate that conduct tends to restrict competition*”
- This approach (but not necessarily the finding) has been criticised by several economic commentators

Motivation of this work

- Develop economic model which captures some of the essential features of the case and can shed light on whether the competition law findings might make sense
- In particular we seek to establish whether:
 - A dominant firm is able to outbid a smaller firm in a model where agents are offered highly non-linear contracts to divert traffic between carriers
 - The outcome is predatory or not (i.e. can the dominant firm profitably outbid its rivals without making a loss in the short-run?)
 - Consumers are harmed as a result of the conduct (also in the short-run if the mechanism is non-predatory)

- Consumers are uniformly distributed on the unit circle
- Each consumer buys at most one unit of the good (air travel) and has a constant reservation value V
- The net utility enjoyed by each consumer is: $U(P_j) = V - P_j - d$, where P_j is firm j 's price and d is the minimum distance between the customer's own location and the closest of firm's j flights
- To model dominance we assume that the dominant firm (denoted by d) has $2N$ flights on the circle, whilst a smaller competitor (denoted by c) only has N flights
- Assuming even spacing of products, the distance between any two neighbouring flights is therefore $\frac{1}{3N}$.
- We assume full market coverage in baseline case (i.e. $VN > \frac{2}{3}$)
- Cost of providing flight normalised to 0

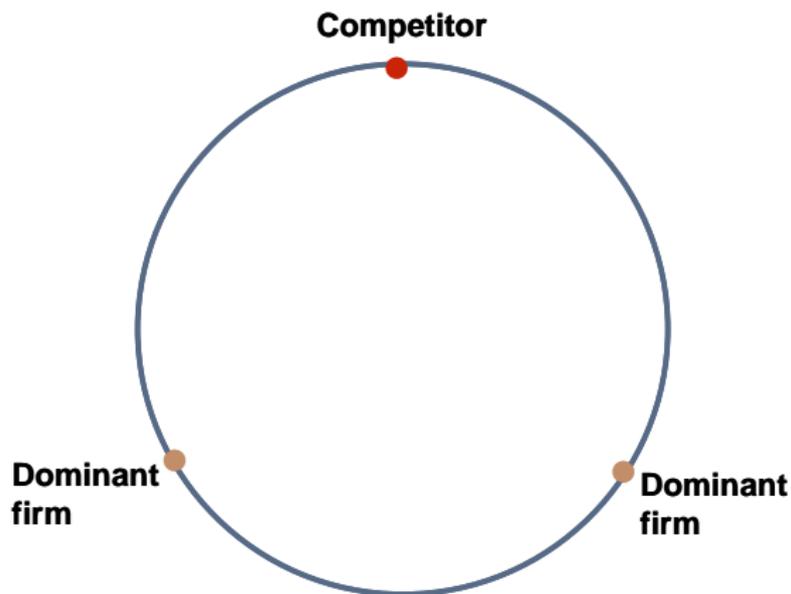


Figure: Assumes $N = 1$.

Baseline: no travel agents bias

- Assume that to purchase tickets consumers must go through a travel agent, which presents travelling options *but* does not set prices
- The benchmark result is given where travel agents show both price-flight offers of each airline to all consumers (unbiased advice)
- Timing: (1) airlines set prices; (2) travel agents reveal prices and flight schedules to consumers; (3) consumers choose preferred option
- Price and quantity results are as follows in this case:

$$P_d = \frac{5}{9N} > P_c = \frac{4}{9N}$$

$$Q_d = \frac{5}{9} > Q_c = \frac{4}{9}$$

- The full market coverage condition is derived from these results

Modelling travel agents bias

- Assume that travel agents can also distort the information given to consumers to favour one airline
- To model this we assume that the favoured airline would get “first dips”
 - the agent would first show its price and schedule to consumers
 - if the consumer does not find an offer which satisfies it (i.e. $U(P_j) < 0$) it is then shown the schedule of the other airline
 - approach similar to models of “prominence”, with high search costs (e.g. Armstrong *et al.*, RAND 2009)
 - can be extended to model with p informed customers, and $1 - p$ uninformed
- We model forcing (or “back to Euro 1”) contracts: a lump-sum bid in return for favouritism (i.e. airline j pays T_j if $Q_j = Q_j^*$, 0 otherwise).
- Timing: (1) airlines bid for favouritism; (2) travel agents accept one of the bids; (3) timing then follows benchmark case.

Travel agents bias: underlying assumptions

- The underlying assumption in the model is that there is asymmetric information between travel agents and passengers, and that agents can therefore engage in directional selling
- This was a key element of the recent antitrust cases
 - *“BA has argued that agents provide a useful service filtering information communicated to passengers who are faced with a proliferation of different air transport fare structures” (CFI 2003)*
 - *“the customer’s ability to police opportunistic behaviour by agents is seriously constrained because of the informational asymmetries that may exist” (SACT 2005)*
 - *“the evidence [...] strongly supports a finding that during the relevant period travel agents did indeed have the ability to influence customer’s preferences to a large extent” (SACT 2010)*
- We also assume no competition between agents (supported by contract design in SAA case)

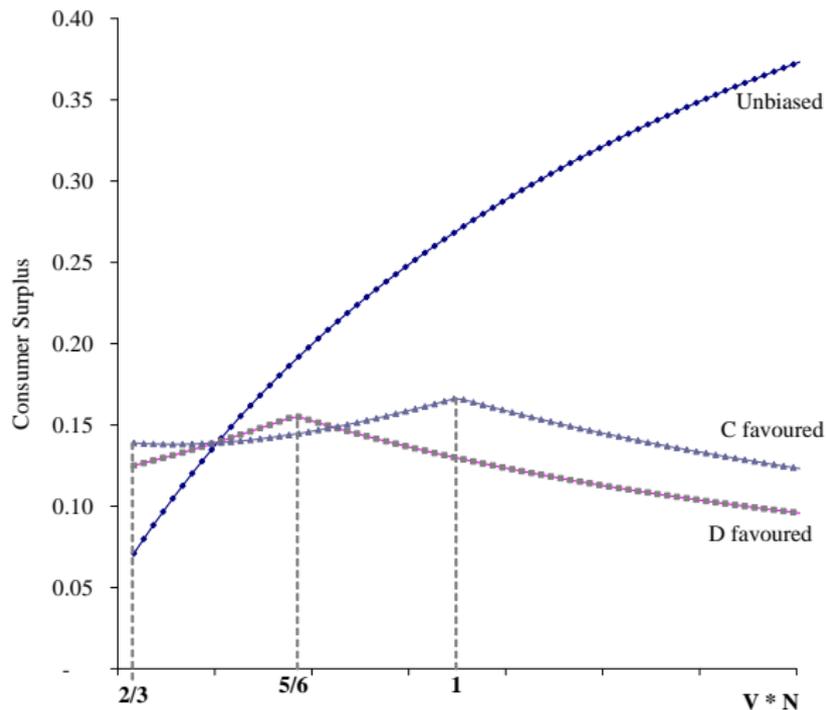
Equilibrium with travel agent bias (1/2)

- For all values of $NV \geq \frac{2}{3}$
 - The larger airline always outbids the smaller one ("efficiency" effect from the denser network), resulting in partial or total foreclosure
 - Total welfare falls relative to outcome with no favouritism
- Case I ($NV \geq 1$)
 - The favoured airline takes all the market, leaving the marginal consumer with 0 surplus
 - Prices are higher than with no bias (and $P_d > P_s$)
 - Consumer welfare is lower (with consumers better off if competitor is favoured)

Equilibrium with travel agent bias (2/2)

- Case II ($NV \in [\frac{5}{6}, 1)$)
 - The dominant airline takes all the market if favoured, but the smaller rival does not
 - The equilibrium price comparison is ambiguous but at the first threshold value ($NV = \frac{5}{6}$) the dominant's firm prices are *lower* with favouritism (demand is more elastic)
 - Favouritism still harms consumers (due to product mis-allocation)
- Case III ($NV \in [\frac{2}{3}, \frac{5}{6})$)
 - Favoured airline does not take the whole market (partial foreclosure)
 - Price of foreclosed firm is *higher* than with no travel agent bias
 - Consumers benefit from favouritism for NV small (less than approximately $\frac{3}{4}$), but in this case favouring the competitor is better than favouring the dominant firm (since prices are lower)

Consumer welfare results



Example assumes $N = 1$ (threshold values in VN are independent of N)

- In a setting which resembles the *British Airways* case(s) a plausible economic theory of consumer harm can be identified
- Non-dominant players are fully or partially foreclosed
- The conduct is non-predatory (i.e. the dominant firm does not incur profit sacrifice) but nonetheless smaller rivals cannot match it profitably
- Consumers are harmed relative to benchmark case if competition without favouritism is sufficiently intense (VN sufficiently high)

- What competition remedy can achieve or promote the non-favouritism benchmark?
- Ban on airline commissions, with travel agents collecting service fees from consumers
- Linear (flat) commission contracts: can eliminate or soften favouritism if agents face a positive cost of directional selling [see illustration]
- Non-discriminatory incremental contracts: can effectively lead to second-degree price discrimination (if agents heterogeneous) and therefore less directional selling effort relative to a forcing contract

Illustration of intuition with linear contracts

