Triple Marginalization and Consumer Search

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Discussion: Chris Wilson

Some Recent Themes in the Search Theory Literature

Advertising and Advertising Content

Product Design

Search Order

Obfuscation/Price Comparison

Multiple Products

Production Cost Uncertainty

Vertical Relationships

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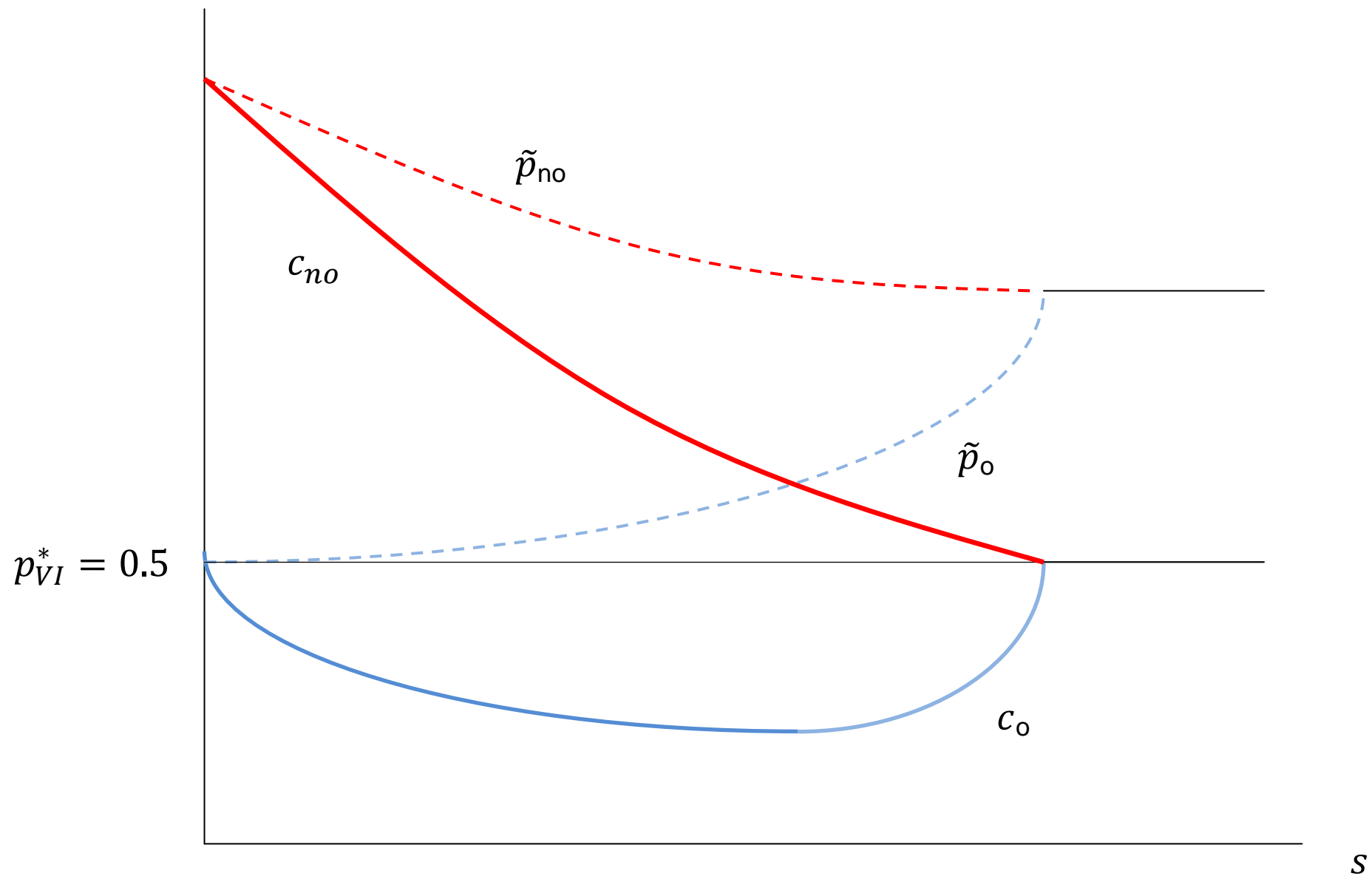
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Vertical Relationships   → Some interesting new issues –
                                                very thought provoking!

Comments: An Implication

The paper suggests that the triple marginalisation problem may create incentives for the manufacturer/retailer to credibly disclose wholesale prices, in order to aid consumers' search decisions. The authors point to the US car market as an example where this may occur.

- Indeed, Scott Morton et al (2011 QME) find that buyers of new cars who have learned the car dealer's invoice price pay $121 less, lowering the dealer's margin by 8.7%.

- However, Scott Morton et al suggest that this is due to its effect on bargaining rather than on consumer search. Also, there may effects from notions of fairness (Kahneman et al 1986 AER, Rotemberg 2011 JEEA).

- Other examples to explore? Several markets, such as airlines, commonly inform consumers of fuel costs with the use of fuel surcharges.
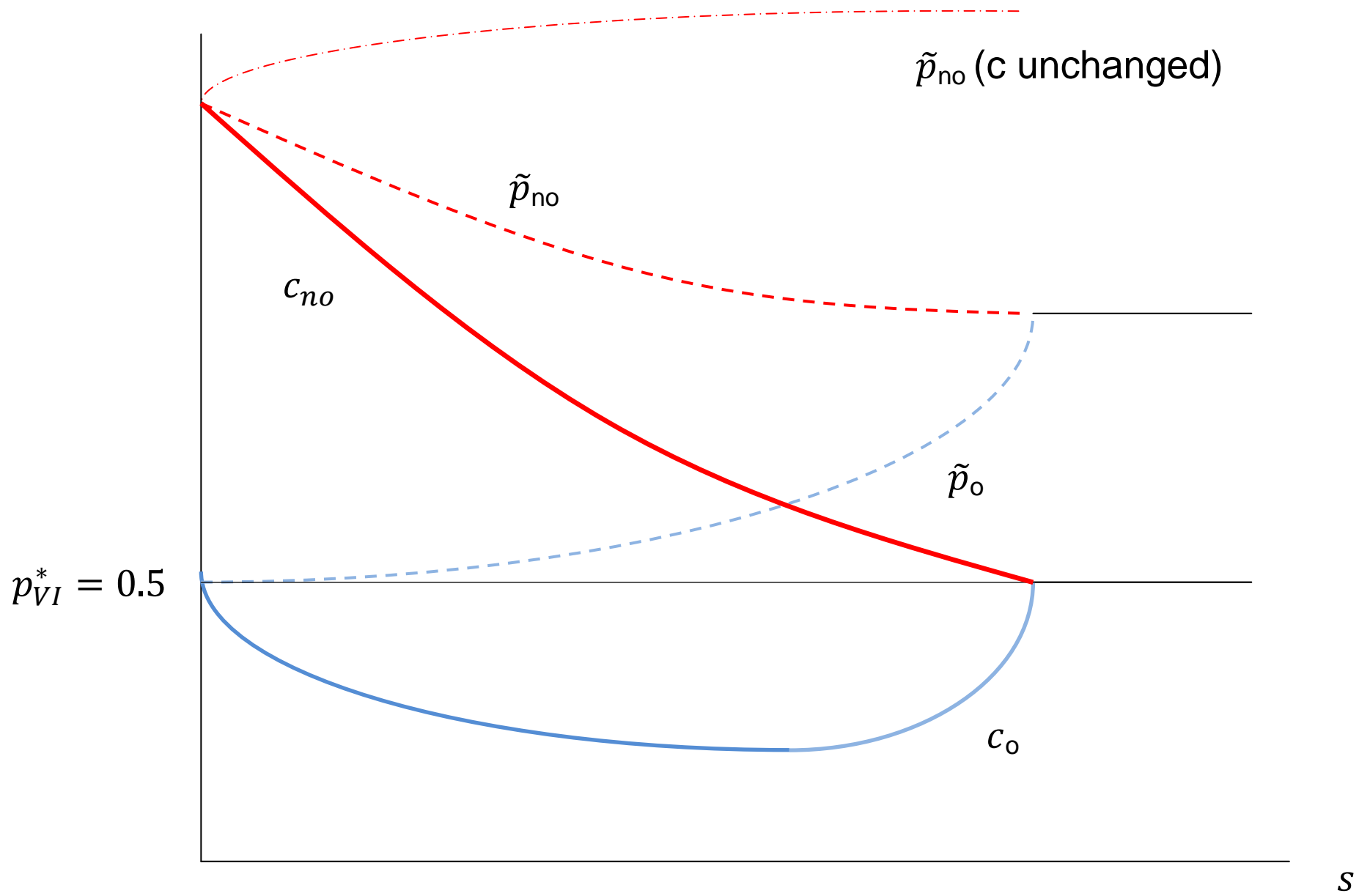
Comments: Some More Implications?

In the standard case of double marginalisation, the inefficiencies from successive mark-ups might be resolved by practices such as vertical integration, nonlinear wholesale tariffs or resale price maintenance.

Does the model imply that we are more likely to see such practices in search markets where the stronger triple marginalisation problem may exist? Could this be tested empirically?

Maybe. But, as in the standard case, underlying cost uncertainty may limit the effectiveness of some of these practices.

A foundation for a search theoretic literature on vertical relationships and vertical restraints? There is an interesting related paper on (non-binding) RPM in search markets by Lubensky (2011).

Comments: Some More Implications?

Instead of reducing the triple marginalisation problem by informing consumers of wholesale costs, vertically integrating or using vertical restraints, might the firms wish to ease the inefficiencies by increasing search costs?

The paper suggests that an increase in search costs benefits the retailers, but not the manufacturer – some conflict in incentives.

Manufacturers often reduce search costs by helping consumers to find their nearest retailer, but why don't they go further?

Retailer resistance? Or are there other issues? Service provision?

Again, this seems to open up many further questions for the future.

Other (Minor) Points

Intuition

Figure 4. In both the ob and non-ob cases, the manufacturer tries to ease the marginalisation problems by reducing the wholesale cost, c. However, there are some interesting differences that currently remain under explored in the paper. First, why are the reductions in c large enough to make $\tilde{p}$ fall in s in the non-ob case but not in the ob case? Second, why is c strictly decreasing in s for the non-ob case yet non-monotonic in s for the ob case? Similar differences also appear to exist in regard to variations in lambda. In understanding and presenting the intuition for these, it might be useful to also plot $\tilde{p}(c\ unchanged)$ - the (ave) price that would exist if there was no change in c – as I've guessed for the non-ob case in the slides above.

I accept the explanation of (5) in footnote 8, but I'm still struggling with the intuition in the main downward sloping demand case. I agree that shoppers' demand must react to the actual cost level, c. But how can it be that the non-shoppers' demand reacts to the expected cost level, $\hat{c}$? Their search decision is influence by $\hat{c}$ and they all stay – but then their demand should surely depend upon the observed price, which will equal the actual cost level, c?

At the top of p.11 you explain the intuition for the upward price deviation. In part of the intuition, you state the possibility of losing some demand from the shoppers. Is this a mistake? If non-shoppers buy, then surely the shoppers must buy too? Otherwise, the intuition still follows I think.

Presentation

I don't think you explicitly state that the manufacturer's costs are zero in the assumptions.

I think footnote 5 has been included by error from an earlier draft?

Should Lemma 2 refer only to s_0 not s_1?

The term 'monopoly price' (equal to 0.5) on p.7 is a bit loose. Might it be better termed as something like the optimal price under vertical integration or the price that would maximise industry profits if the firms were acting collectively?

Definition 4: should it be expected profits in point 1, not demand?

Sorry to be the fussy Englishman, but it might be helpful in the long run for me to point two frequent grammatical errors within the paper. First, often you write 'in case' where I think you mean 'in the case where'. The meaning is potentially different. For example, in the first main paragraph of p.3 you write 'In case retailers' cost is unobserved…', when I think you mean, 'In the case where retailers' cost is unobserved'. The second one is less important, but it would be my preference to add 'the' in a lot places. E.g. at the bottom of p.9 I would write 'It follows that if THE search cost is high enough that the upper bound of THE retailers' price distribution….'.