Are Rebates really Rebates?
On Counterfactuals & Harm to Consumers


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Overview

• Are rebates really rebates?
  • Rebates 101: mechanics + effective unit price + suction effect
  • Consumer harm/ Counterfactual (monopoly)
    → The “Rebates are Rebates” Fallacy
• The theory of harm (foreclosure + market coverage..)
  • Reference period fallacy
  • Averaging fallacy
  • Ex post fallacy
  • Coverage fallacy
  • Case by case fallacy

Rebates 101: What is a rebate?

\[ p = \text{base price} \]
\[ p^T = \text{rebate price} \]
\[ \alpha = \text{rebate} \]
\[ \alpha p = \text{price reduction} \]
Rebates 101: Effective unit price

\( x^T = \text{threshold} \)
\( x^* = x^T - x = \text{remaining units} \)
\( \alpha = \text{rebate percentage} \) \( \alpha \in (0, 1] \)
\( p(x^*) = \text{effective unit price (not transaction or average price)} \)

\[
p(x^*) \equiv \frac{p(x^* - \alpha x^T)}{x^*}.
\] (1)
Rebates 101: The suction effect 2D

As the unit of account for \( x \to \) infinitesimally small, i.e. from t to kg to g to mg, the suction effects becomes more important.

Marginal prices are always negative.
Rebates 101: The suction effect in 3D

Suction Effect with $p = 1, x^T = 10000, \alpha \in [0, 0.5]$
The “rebates are rebates” fallacy

- Assumed counterfactual
- Hypothesized (static) consumer harm
- Alternative counterfactual
Consumer harm without foreclosure

Theoretical papers:

Experimental papers:
• Maier-Rigaud & Beckenkamp (2007) Purchase Decisions with Non-linear Pricing Options under Risk - Experimental Evidence, Preprint Max Planck Institute Bonn
Conclusion

• Rebates are not always and everywhere rebates (i.e. prohibiting rebate schemes does not necessarily imply higher prices; need to move away from sloppy thinking)
• Even without foreclosure, consumer harm can be demonstrated theoretically
• Behavioral research suggests that rebate schemes can raise substantial consumer protection issues
The averaging fallacy: in quest of economic sense