

Retail Price Recommendations

Where Do We Stand?

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Outline

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- 2 Recent Theory
- 3 Empirical Evidence
- 4 Policy Implications



Problem

Point of Departure

- **Retail Price Recommendations (RPRs)** are **ubiquitous** (e.g., automobiles, software, apparel, food, books, electronics, watches, medicines, etc.).
- The **economic rationale** for making RPRs is not very well understood: **Why do manufacturers make RPRs if retailers are free to ignore them?**

Policy towards RPRs

- Varies considerably across jurisdictions.
- **Suspicion:** RPRs serve as a substitute for (unlawful) Resale Price Maintenance (RPM), with similar pros and cons.



Example: The Economist



Source: Scan of my copy

Example: The Economist cont'd

Latvia.....	LVŁ4.50	Netherlands.....	€6.50	Romania.....	RON29	Spain.....	€6.30
Lebanon.....	Ł13,000	Nigeria.....	Naira 900	Saudi Arabia...Rials	45	Sweden.....	SKR63
Lithuania.....	ŁTL17.00	Norway.....	NKr62	Serbia.....	RSD720	Switzerland.....	CHF11
Luxembourg.....	€6.50	Poland.....	PLN29	Slovakia.....	€6.30	Turkey.....	ŁL15
Malta.....	€6.30	Portugal CONT.....	€6.30	Slovenia.....	€6.30	UAE.....	Dirhams 45
Montenegro.....	€6.30	Qatar.....	Rials45	South Africa.....	R52.00	UK.....	Ł5.00

Source: Scan of my copy



Example: Truecar.com

☆ 2014 BMW 3 Series Price Report [View Used BMW 3 Series Models »](#)

MSRP: \$38,225



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CHOOSE: [Colors](#) | [Options](#) | [View Incentives](#)ESTIMATED
Loan Payment ①**\$475/mo**ESTIMATED
Savings off MSRP ②**\$4,748**ESTIMATED
Dealer Price ③**\$33,477**

Buying from a TrueCar Certified Dealer can help save you an estimated \$4,748 off of MSRP

Next »

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Your Estimated TrueCar
Dealer Price is 12.42%
below MSRP.

This is a great price.

Loan

Lease

Estimated Loan Payment

\$475/mo Edit

60 month loan at 2.50% APR and
\$6,695 due at signing. Tax, title and
license not included.

Unusually Low Price
Less than \$32,748

Great Price
Less than \$33,929

Good Price
Less than \$34,772

Above Market
\$34,772 or more

Local | National
Showing 29 Sales

\$33,477

Average Paid
\$34,091

Factory Invoice
\$35,840

MSRP
\$38,225

Price Certainty
98.69%



University of St.Gallen

Background

Antitrust Approaches Towards RPRs

- **US:** “Rule of reason” (*Leegin*).
- **EU:** “Pressure or incentives”?
- **Switzerland:** *Hors-Liste Pharmaceuticals* (“RPRs amounted to RPM”).

New Economic Research

- RPRs directly **affect the willingness to pay** of (behavioral) consumers.
- RPRs **communicate private information** from manufacturer to retailer to improve supply chain efficiency

Recent Theory



Puppe & Rosenkranz (2011)

Consumers suffer from **loss aversion** (Tversky & Kahnemann 1991) if the **retail price** p exceeds the **RPR** \tilde{p} .

- **Setting**: Chain of monopolies (1 manufacturer, 1 retailer).
- Loss aversion implies that the **demand jumps down** for any $p > \tilde{p}$.
- The downward jump induces the retailer to set the **retail price equal to the RPR** ($p = \tilde{p}$).
- This leads to a **shift of profits** from the retailer to the manufacturer.



Fabrizi et al. (2012)

Consumers perceive behavioral **losses** when purchasing above the RPR ($p > \tilde{p}$), and **gains** when purchasing below the RPR ($p < \tilde{p}$).

- **Setting:** 1 manufacturer, n horizontally differentiated retailers.
- Due to **gains and losses** from retail prices that deviate from the RPR, the manufacturer has an incentive to **manipulate consumer demand**.
- In equilibrium, retail prices are lower than the recommended prices ($p_i < \tilde{p}_i$), such that consumers are faced with (**pseudo**) **bargains**.
- RPRs may be employed to **manipulate the retail market**.



Lubensky (2012)

RPRs provide **information about aggregate market conditions** to consumers who search.

- **Setting:** 1 manufacturer, continuum of retailers, costly consumer search.
- RPRs help consumers **avoid the search cost of learning about aggregate market conditions** (informing them whether they are offered a “good deal” or should go on searching).
- **Retailers** anticipate the searching consumers’ reaction to the RPR.
- In equilibrium, RPRs influence both **retailers and consumers**.



Buehler & Gärtner (2013)

In a **long-term supply relationship**, **RPRs communicate private information** from manufacturer to retailer which is indispensable for maximizing supply chain profits.

- **Setting:** Chain of monopolies (1 manufacturer, 1 retailer).
- Retail **demand** $D(p, \theta)$ is a function of price p and quality θ .
- The manufacturer has **private information** about marginal cost c and quality θ .
- The manufacturer makes RPRs to **inform** the retailer about the **surplus-maximizing retail prices**.
- **Extension:** If the RPR directly affects **demand** $D(p, \tilde{p}, \theta)$, the combination (p, \tilde{p}) must maximize supply chain profits (e.g. “moon pricing”: $\tilde{p} \gg p$).



Synthesis

Various Roles for RPRs

- RPRs may directly **manipulate the willingness to pay** of **behavioral consumers**.
- RPRs may **provide information about aggregate market conditions** to consumers who search.
- RPRs may serve as a **communication device**, allowing firms to **improve supply chain efficiency**.

Challenges

- How relevant is the **behavioral element**?
- Generalize analysis to **“more realistic” settings** with multiple retailers and manufacturers.
- Work out clear-cut **policy recommendations**.



Empirical Evidence



Faber and Janssen (2011)

RPRs help **coordinate intra- and interbrand prices** in the Dutch gasoline retail market.

- **Setting:** In the Netherlands, oil companies make daily RPRs to gasoline retailers (data on almost all Dutch gasoline stations are used).
- RPRs contain **extra information** relative to publicly available spot market prices which explains changes in retail prices.
- Many stations charge a **retail price below the RPR**, but changes in retail prices are similar to changes in RPRs.

De los Santos et al. (2013)

The **removal of RPRs** has **reduced consumer search** and **increased retail prices** for processed food in South Korea.

- **Setting:** Policy experiment in South Korea. RPRs were banned in 2009 for several processed food categories and (surprisingly) reinstated in 2011.
- There was a general impression that **prices increased after the ban**.
- Retailers did not consistently **display** prices.
- Many **consumers** felt **uncomfortable without RPRs**.



Synthesis

Assessment of Empirical Evidence

- Some evidence that **RPRs may facilitate collusion** in the retail market.
- Some evidence that the **removal of RPRs reduces consumer search** and increases retail prices.
- **No robust evidence** available on whether RPRs are anticompetitive.

Challenges

- Get **access to micro data** on RPRs, retail prices, and wholesale prices.
- Exploit or construct **quasi-experimental settings** to allow for **causal inference**.



Policy Implications



Policy Implications

- ① RPRs may **improve supply chain efficiency** or **inform consumers who search**, i.e., a **ban is inappropriate**.
- ② RPRs may cause **anticompetitive effects** (fairly similar to RPM), i.e., **general permission is inappropriate**.
- ③ Economic analysis calls for a **“rule of reason” approach**.
- ④ In practice (legal uncertainty, enforcement cost), we must put **more structure on the rule of reason approach** (e.g., generous safe harbor).
- ⑤ A note of caution on the **EU approach**: Pressure and incentives may well be implicit.

Thank you for your attention!



References

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