Resale Price Maintenance:

Economics and policy implications

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Introduction

- **Policy perspective**
  - Vertical restraints: hotly debated

    … both in practice and in the economics literature
  - Large divergence law / economics for price restrictions

- **Economics literature: vertical / horizontal interaction**
  - Vertical coordination
  - Rivalry between vertical structures
  - More recently: interlocking relationships (consumer goods)

Resale Price Maintenance

- **Various forms**
  - Imposed price
  - Maximum price (price ceiling)
  - Minimum price (price floor)
  - Recommended, advertised prices

- **Specific product markets**
  - Drugs
  - Books, newspapers

Competition Law

- **Price restrictions are "bad"**
  - In the EU for instance, RPM (price floors) is a "hardcore restriction" (one out of two)
  - Non-price restrictions are more tolerated (rule of reason)
- **Caveats**
  - US policy over time
    - 1911: price floors are per se illegal (*Dr Miles*)
    - 1968 : price ceilings are per se illegal (*Albrecht*)
    - 1997: rule of reason for price ceilings (*State Oil*)
    - 2007: rule or reason for price floors as well (*Leegin*)
  - France
    - *Lang* Act: RPM mandatory for books and press
    - *Galland* Act: de facto RPM for supermarkets

Economics: not so clear-cut

OECD *Report on Franchising*, 1994

EC *Green paper on vertical restraints*, 1997

Rey-Vergé in *Handbook in Antitrust Economics*, 2008

- **Intrabrand coordination (vertical relations)**
  - Price and non-price restraints can have similar effects
- **Interbrand competition (horizontal rivalry)**
  - Not necessarily favourable to non-price restrictions

Economics: Intrabrand competition

- **Double-marginalization**

  Spengler *JPE* 1950

  → positive effect on welfare for price caps (not price floors)

- **Free-riding on retail services, quality certification**

  Telser *JLE* 1960, Marvel-McCafferty *Rand* 1984

  → welfare effect

  - ambiguous/positive

    Comanor-Frech *AER* 1985, Caillaud-Rey 1987

  - similar for price and non-price restrictions
  - easier enforcement?

Economics: Intrabrand competition

- **Producer's opportunism (Hart-Tirole *Brookings* 1990)**

  O'Brien-Shaffer *Rand* 1992, Rey-Vergé *Rand* 2004

  → welfare effect

  - negative
  - similar for price and non-price restrictions
  - applies to price caps as well as price floors

Economics: Interbrand competition

Main concerns relate more to non-price restrictions

- **Competition-dampening: strategic delegation, not RPM**
  - Rey-Stiglitz *EER* 1988, *Rand* 1995 (Bonanno-Vickers *JIE* 1988)
  - Gal-Or *EER* 1991
  - Caillaud-Rey *EER* 1995
- **Foreclosure: tying/exclusive dealing, not RPM**
  - Hart-Tirole *Brookings* 1990
  - Ordover-Saloner-Salop *AER* 1990

→ **Welfare implication: tougher towards non-price restrictions**

Economics:RPM as a facilitating practice

- **Downstream cartel**
  - Sham vertical agreements
  - Relevance
    - Few cases
    - … but RPM was per se illegal (and is still a hard-core restriction in the EU)
    - Little incentives to "denounce" such an agreement

- **Upstream collusion**
  - US Supreme Court (*GTE Sylvania* 1977, *Business Electronics* 1988)
  - "vertical price arguments might assist horizontal price fixing at the manufactured level (by reducing the manufacturer's incentive to cheat on a cartel, since its retailers could not pass on lower price to consumers."
  - Jullien-Rey *Rand* 2007
    - RPM can indeed facilitate collusion by enhancing the detection of deviations
    - RPM more effective than other vertical restraints in doing so

→ **Welfare implication: caution when used in a generalized way**

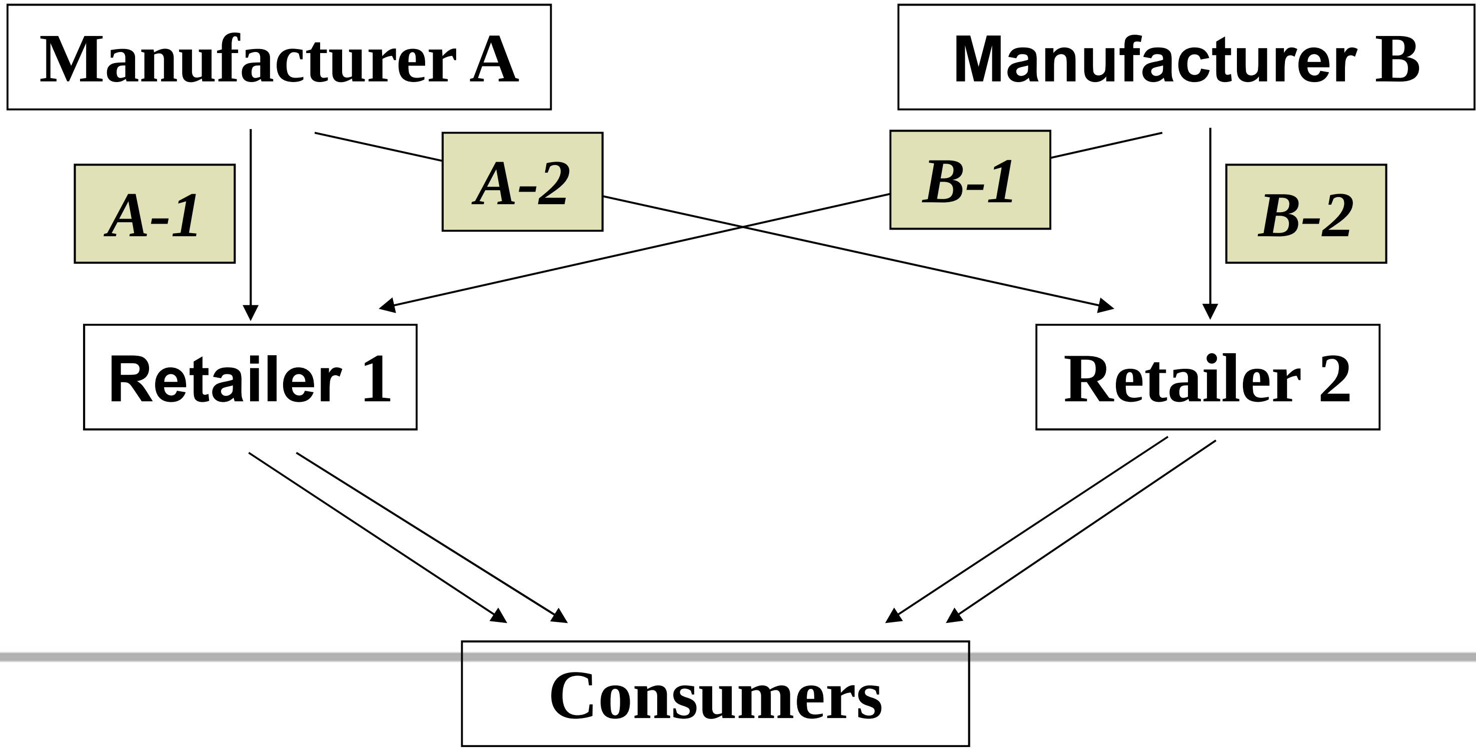
More recently: Interlocking relationships

Joint research with Thibaud Vergé (*JIE* 2010, work in progress)

- **Commonly observed feature**
  - Competing stores can carry the same competing brands
  - Applies to most consumer goods
- **In this context, competition is “fragile”**
  - Retailers can act as “common agents” for competing brands
  - RPM eliminates both intrabrand and interbrand competition
  - Territorial restrictions would not achieve the same outcome

Interlocking relationships

- **Market structure**
  - 2 (differentiated) manufacturers A and B, constant marginal cost c
  - 2 (differentiated) retailers 1 and 2, constant marginal cost (= 0)
  - demand pattern for 4 “products” (monopoly prices p^M, profit Π^M)



Interlocking relationships

- **Competition game**
  - Upstream competition
    - manufacturers offer two-part tariffs, with or w/o RPM
    - retailers (observe all tariffs) and accept / reject
  - Downstream competition: retailers set retail prices
  - Note: Dobson and Waterson (*IJIO* 2007) on linear tariffs

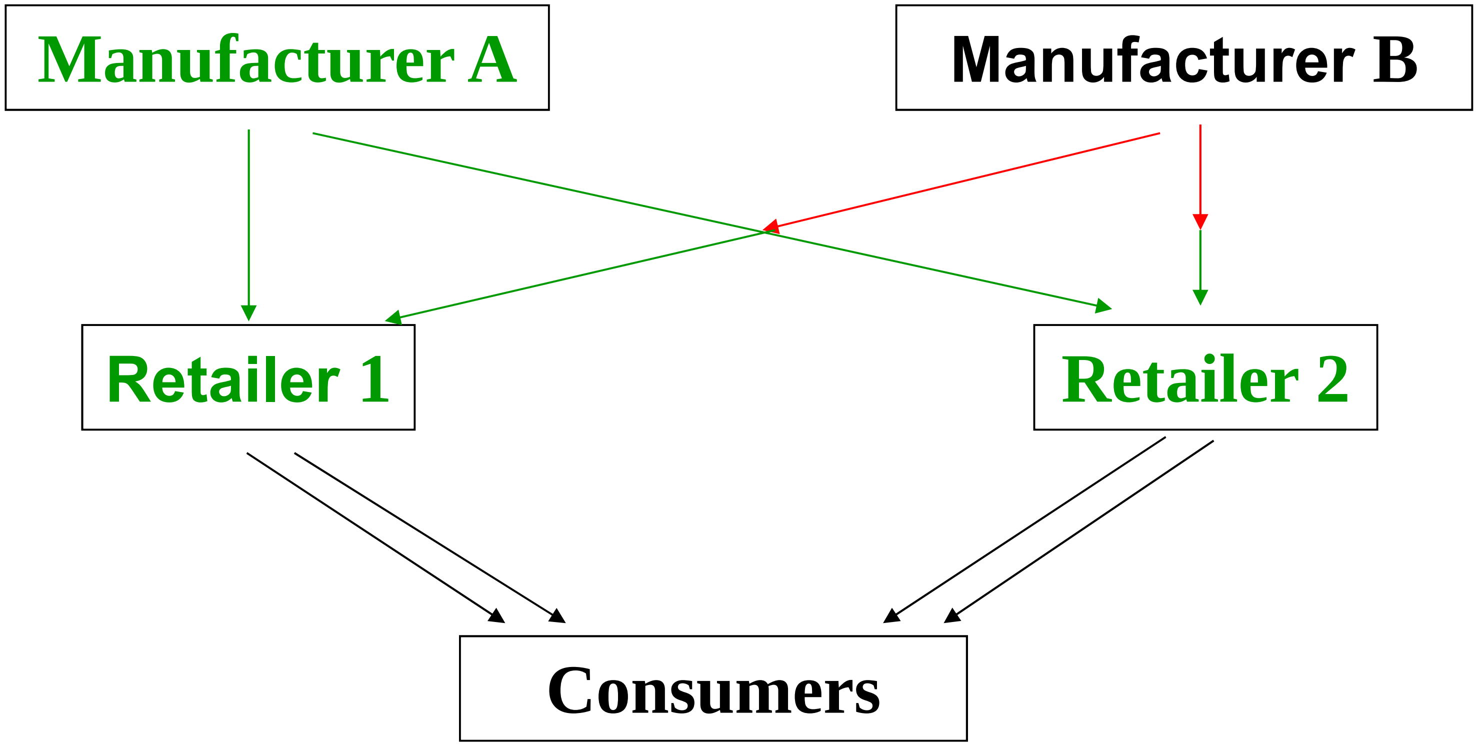
- **Retail market power**
  - No retail bottleneck
    - Potential competition at each retail location: selection process (BW *Rand* 1985)
    - Bypass: manufacturers set-up own their own outlets or sell directly
  - Retail bottlenecks: a single retailer at each retail location (confer rents)

No retail bottleneck (and no RPM)

- **Interbrand competition, then intrabrand competition**
  - Retail prices are (somewhat) competitive ($p^c < p^M$)
  - Not entirely obvious, due to interlocking relationships
    - Manufacturers recover retail margins through fixed fees
    - Internalize impact of (retail) prices on
      - the entire margin on sales of own brand
      - the retail margin on sales of rival brand
    - Retail prices are driven by wholesale (marginal) prices
    - Maintaining high retail prices requires high wholesale prices
      - Positive upstream margins
      - Free-riding on rival manufacturer's upstream margin

No retail bottleneck

→ for A: $\max \Sigma_{j=1,2} \; (p_{Aj} - c) \, D_{Aj}(p) + (p_{Bj} - w_{Bj}) \, D_{Bj}(p) - F_{Bj}$



Resale Price Maintenance

- **Retail prices are directly set by manufacturers**
  - Recover as before retail margins through franchise fees

    → internalize as before the impact of (retail) prices on
    - the entire margin on sales of own brand
    - the retail margin on sales of rival brand
  - No need anymore to use wholesale prices to maintain retail prices
    - squeezing upstream margins yields monopoly outcome

      $w_{ij} = c$ → each manufacturer residual claimant on all margins

      → set retail prices at the monopoly level ($p = p^M$)

Resale Price Maintenance

- **Continuum of equilibria**
  - For any given wholesale prices, there exists an equilibrium
    - given p, A and 1 can share profits through either w_{A1} or F_{A1}
    - $\rightarrow$ A and 1 are thus indifferent about w_{A1}
    - but w_{A1} affects A's dealing with 2, as well as 1's dealing with B
  - Eq. wholesale and retail prices are negatively correlated
    - $w \nearrow \; \rightarrow \; p \searrow$
    - free-riding on rival's upstream margin
  - Only one equilibrium robust to (even small) retail effort
    - retailers as residual claimant
    - wholesale prices at cost, retail prices at monopoly level

Retail bottlenecks

- **Retailers earn positive rents**

$$(p_{A1} - w_{A1})\, D_{A1} - F_{A1} \;+\; (p_{B1} - w_{B1})\, D_{B1} - F_{B1} \geq (p_{B1} - w_{B1})\, d_{B1} - F_{B1}$$

$$\rightarrow\; (p_{A1} - w_{A1}) D_{A1} - F_{A1} \geq (p_{B1} - w_{B1})[d_{B1} - D_{B1}] > 0$$

$$\rightarrow \max \Sigma_{j=1,2}\, (p_{Aj} - c) D_{Aj} + (p_{Bj} - w_{Bj})[D_{Bj} - d_{Bj}]$$

- **Retailers indifferent wrt dealing with both or only one**
  - manufacturers can easily deviate to exclusive dealing
  - even small deviations can trigger very different market structures
  - “double common” agency equilibria may no longer exist

Retail bottlenecks

- **RPM**
  - For a linear demand and a range of parameters
    - continuum of double agency equilibria
    - including monopoly pricing ($p = p^M$ for some $w < c$)
  - As $w \nearrow$, p and retailers' profits $\searrow$, manufacturers' profits $\nearrow$
    - manufacturers prefer lowest retail prices
    - retailers prefer highest retail prices (even above p^M)
- **Secret contracting (work in progress)**
  - Restores existence of double common agency equilibria
  - More competitive without RPM
  - Still yields monopoly prices with RPM

Illustration: France

- **Empirical evidence**
  - France – Germany: branded products in supermarkets
  - Biscourp-Boutin-Vergé *EJ* forth.: market concentration and prices
  - Bonnet-Dubois-Simioni *Rand* 2010
    - French market for bottled water
    - Structural econometric model
      - Berry-Levinson-Pakes *Econometrica* 1995
      - Berto Villas-Boas *Rand* 2009
    - Linear prices / two-part tariffs / RPM

      → best fit: two-part tariff + RPM, monopoly prices

Policy implications: key factors

- **Industry structure**
  - Type of distribution channel
    - Franchising
    - Interlocking relationships
  - Scope for collusion
    - Concentration: tight oligopolies vs competitive industries
    - Market transparency
- **Coverage of the practice**
  - Bilateral contracts versus industry-wide practices
  - Temporary versus permanent programs

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