Resale Price Maintenance:
Economics and policy implications

Patrick Rey
(partly based on joint work with Thibaud Vergé)
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)


  → 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**
  - 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**
    - “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 $\Pi^M$)
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 $A$: \[ \max \sum_{j=1,2} (p_{Aj} - c) D_{Aj}(p) + (p_{Bj} - w_{Bj}) D_{Bj}(p) - F_{Bj} \]
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
      \[ w_{ij} = c \rightarrow \text{each manufacturer residual claimant on all margins} \]
      \[ \rightarrow \text{set retail prices at the monopoly level } (p = p^M) \]
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
  - \( w \uparrow \rightarrow p \downarrow \)
  - 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 $w \uparrow$, $p$ and retailers’ profits $\downarrow$, manufacturers’ profits $\uparrow$
  - 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
Bibliography

- **Surveys**

- **Personal articles**