Vertical Relations

- Our strong conclusion were very much tied to there being just one retailer.
- Things change dramatically when introduce a second retailer.
- Now assume the same setup as before but there are 3 players M, R_1, R_2.
- Also assume M's marginal costs are c, R_i has no variable cost besides wholesale price w.
- Recall that without retailer competition, setting $w = c$ led the retailer to set $p = p^M$.
- But with retail competition if $w = c$ retailers would set prices below p^M, to undercut their rival.

- In fact, if retailers engaged in Bertrand competition, they would set prices to wholesale costs.
- That's because w is their marginal cost.
- So if $w = c$, $p = c$ and the manufacturer and the retailer make zero profits.
- Therefore, the optimal solution for the manufacturer is to set $w = p^M$, so the retailers set $p = p^M$, and the manufacturer gets monopoly profits.
- Things change if firms engage in Cournot competition.
- Specifically, the manufacturer's optimal whole sale price is in between w and p^M.

- Generally speaking, the higher the degree of competition between retailers (either by type of competition or number of firms) the higher the profit maximizing wholesale price set by the manufacturer.
- Another situation which can effect equilibrium prices are externalities at the retail level.
- Specifically, suppose one retailer makes a large investment in sales effort, so a lot of potential customers are attracted.
- Suppose the other retailer makes no sales effort but offer a lower price.
- Of course what will happen is that consumers will go to the first retailer to learn about the product, and then purchase from the second.
- This is simply an example of an investment externality.

- The investment in sales effort by the first retailer benefits the second, a.k.a. the free rider.
- In equilibrium there are no incentives for investment in retailer service quality which has a negative effect on the manufacturer.
- RPM, where manufacturers impose minimum prices on retailers can alleviate this problem.
- If the RPM is high enough every retailer will stick to it, so the gains from higher sales can go to the retailer who makes the corresponding sales quality investment.
- Advertising is a similar case of this inter-retailer externality.
- Here RPM would not generally solve the free-rider problem.

- Other vertical restraints, such as exclusive territory contracts might be more effective.
- Generally speaking, RPM may have the benefit of curtailing retailer competition that would hurt retailers' incentives for investing in industry demand increasing efforts.
- How do equilibrium conditions change when we introduce competition at the manufacturing level?
- As we'll see it will affect the form of the optimal contracts between manufacturers and retailers.
- There are clearly some industries where the number of manufacturers is large with respect to the number of retailers.
- In this situation the franchise fee paid by the retailer may be negative- e.g. the manufacturer has to pay the retailer for shelf space.

- Other ways in which retail market power reverses the direction of vertical restraints is when the retailer imposes clauses imposing exclusive dealing on its suppliers.
- Note that in this industry structure (i.e. many manufacturers, relatively few retailers) externalities can occur between manufacturers, resulting in a different type of free riding problem.
- Specifically, part of the training investment made by one manufacturer benefits rival manufacturers.
- In this case the manufacturer would be to impose the vertical restraint of exclusive dealing where retailers with any other manufacturer.
- With more than one manufacturer, vertical restraints can be used to gain market share from rivals.
- In an industry with a few manufacturers but many retailers, exclusive dealing is the norm.

- A leading example is the cola industry where Coke has deals with colleges, ball parks etc. that preclude sales with rival brands.
- Of course such exclusive dealing is often meant to drive out rivals from the industry, resulting in efficiency concerns.
- One of the reasons that vertical constraints may open the door for public policy analysis is that it can serve as a collusive device.
- Consider the case of manufacturer competition when wholesale price is set to marginal cost.
- Suppose also there are multiple retailers which engage in Bertrand competition, so $p = w = c$ and profits all around are 0.
- If the manufacturers impose a minimum retail price, the monopoly price p^M.

- This would imply higher profits and lower social welfare.
- So vertical restraints such as RPM can be a way of weakening competition between firms.
- Public policy implications of vertical restraints can be ambiguous:
- On the one hand exclusive dealing may have the effect of foreclosing the market from upstream competitors which is welfare reducing.
- In 1967 the Supreme Court declared (certain) vertical restraints to be illegal.

- But ten years later it was decided that vertical nonprice constraints were to be evaluated case by case, under the Rule of Reason.
- Both in the US and Europe there is a tendency to be increasingly lenient in the treatment of vertical restraints.