Nonhorizontal Mergers

Merger Antitrust Law

Fall 2017 Georgetown University Law Center

Dale Collins

November 14, 2017

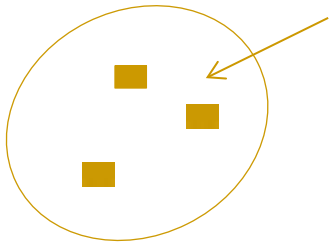
Topics

- Eliminating potential competition
- Vertical foreclosure
- Vertical information conduits

Eliminating Potential Competition

Eliminating potential competition

- Theories of anticompetitive harm based on potential competition[1]
  - Actual potential competition
    - Acquire a firm that that otherwise would have entered the market, reduced concentration, and increase competition—Acquisition eliminates in increase in future competition
    - Not yet approved by the Supreme Court
    - Agencies have used to obtain consent decrees when:
      - The market is highly concentrated
      - Entry is almost certain in the immediate future
    - Typical application: Pharmaceutical acquisition of a company with a competitive product near the end of the FDA approval process



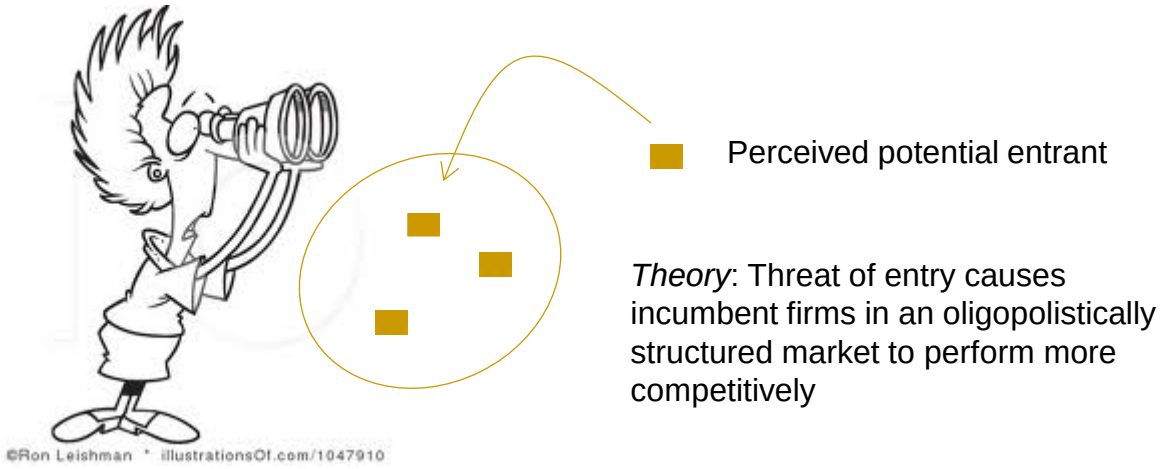
Actual potential entrant

Theory: Entry would deconcentrate an oligopolistically performing market and make it more competitive

[1] Many courts and commentators regard the elimination of potential as a theory of conglomerate merger anticompetitive harm, but potential competition is simply likely future horizontal competition and should be treated as such.

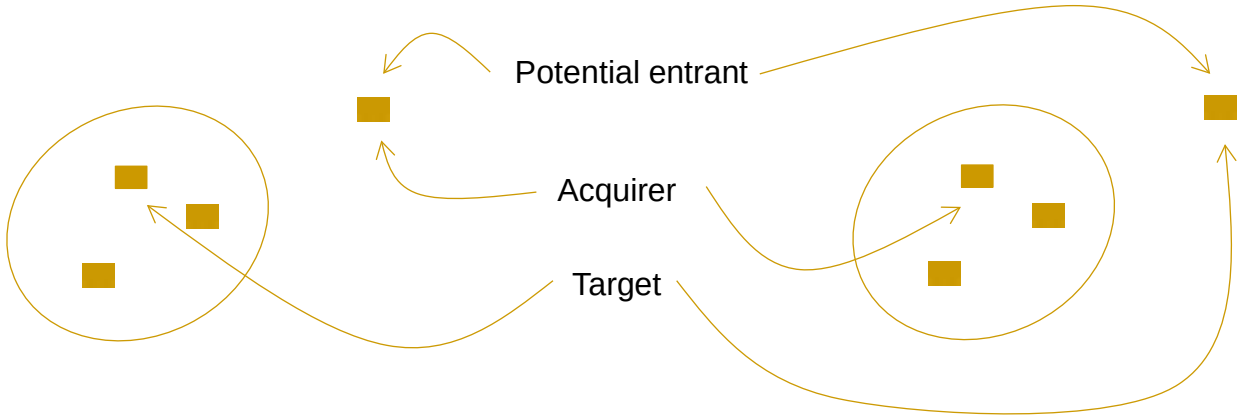
Eliminating potential competition

- Theories of anticompetitive harm based on potential competition
  - Perceived potential competition
    - Acquire a firm that incumbents fear will enter the market and hence have moderated their prices ("limit pricing") to discourage that firm from actually entering
    - Acquisition eliminates the threat of entry and incumbent firms no longer have an incentive to moderate prices
    - Theory recognized by the Supreme Court
    - No modern applications—almost impossible to show that incumbent firms have engaged in limit pricing to discourage entry



Theories of anticompetitive harm

- Elimination of potential competition
  - Under either theory, the potential entrant may be either the target or the acquirer



Scenario 1
Potential entrant as the acquirer

Scenario 2
Potential entrant as the target

Steris/Synergy (2015)

- Transaction
  - Steris to acquire U.K.-based Synergy for $1.9 billion (39% premium)
    - Tax inversion: Steris to move to the U.K.
- The parties
  - Steris: The second largest sterilization company in the world
  - Synergy: The third largest sterilization company in the world
- Gamma sterilization services
  - One of three major types of sterilization services for hospitals
  - Providers: Only two providers in the U.S.
    - Sterigenics (#1), with fourteen gamma facilities in the U.S.
    - Steris (#2), with twelve gamma facilities in the U.S.
    - Collectively account for 85% of all U.S. contract sterilization services (of all types)
  - Synergy
    - Has 36 contact sterilization facilities (primarily gamma facilities) outside of the U.S., but no gamma facilities inside the U.S.
    - But is the largest provider of e-beam sterilization services in the U.S.
    - Operates a commercial x-ray sterilization facility—a new technology that competes with gamma sterilization—in Daniken, Switerland

Steris/Synergy (2015)

- FTC concern: Elimination of actual potential competition
  - Prior to the announcement of the transaction, Synergy had been planning to enter the U.S. with its emerging x-ray sterilization technology
  - Synergy 's entry would have provided competition to the Sterigenics-Steris duopoly
  - Synergy will not enter if acquired by Steris
  - No other company appears likely to enter into the gamma sterilization market postmerger
- District court[1]
  - Following a three-day evidentiary hearing, the court denied the preliminary injunction
  - Assumes the elimination of actual potential competition is a cognizable theory
    - Highly concentrated market
    - Alleged potential entrant "probably" would have entered the market
    - Such entry would have had procompetitive effects
    - Few if any other firms could enter the enter effectively[2]
  - *Court*: The FTC failed to show that Synergy would have entered the U.S. but for the transaction.

[1] FTC v. Steris Corp., No. 1:15 CV 1080, 2015 WL 5657294 (N.D. Ohio Sept. 24, 2015).

[2] These are the elements as stated by the FTC in its supporting papers. Most case law supports a more demanding test on the likelihood of entry by the potential entrant and on the likelihood of entry by other firms in the absence of entry by the potential entrant..

Nielsen/Arbitron (2012)

- Transaction
  - Nielsen to acquire Arbitron for $1.26 billion (26% premium)
  - Combined company: About $6.0 billion in revenue
- Parties
  - Nielsen: Essentially a monopolist in television audience measurement services
  - Arbitron: Essentially a monopolist in radio audience measurement services
- Cross-platform audience measurement services
  - Both Nielsen (on its own) and Arbitron (through a jv with comScore) were separately developing a service for measuring frequency of unduplicated audience exposure for programming content and advertising across platforms (television, radio, PC, smartphones, tablets)
  - Entry requires a broad-based national audience television panel of known demographics and audience measurement technology
  - Only Nielsen and Arbitron have such panels and audience measurement technology
  - They are very expensive to create and there was no evidence that anyone would create a new one postmerger

Nielsen/Arbitron (2012)

- FTC concern
  - Elimination of actual potential competition
    - In the absence of the transaction, Nielsen and Arbitron likely would have developed competing cross-platform audience measurement services
    - With transaction, companies will develop only one service
    - No other company—or consortium of companies—appears likely to enter into the development of such a service postmerger
- FTC consent decree
  - *Principle*: Enable another company to replicate Arbitron's participation in the comScore jv.
  - Requirements
    - Sell Arbitron's Link Meter Technology to an approved divestiture buyer (no buyer upfront)
    - License use of calibration panel, television data, radio data, and calibration panel data for 8 years
    - Provide technical assistance at cost
    - Remove all barriers to hiring key Arbitron personnel
    - Provides for a compliance monitor
    - Permits FTC to appoint a divestiture trustee to sell assets and license technology and data if Nielsen fails to do so within the time limits of the consent decree (3 months)

Nielsen/Arbitron (2012)

- Not addressed by the FTC
  - Lessening of innovation incentive
    - Nielsen was perceived by some industry participants as uninterested in innovation and as suppressing the R&D activity of companies it acquired
    - Arbitron was perceived by some industry participants as a more innovative company
    - Industry concern: The rate of Arbitron innovation postmerger would be suppressed
- Final resolution
  - FTC approved comScore to be the divestiture buyer

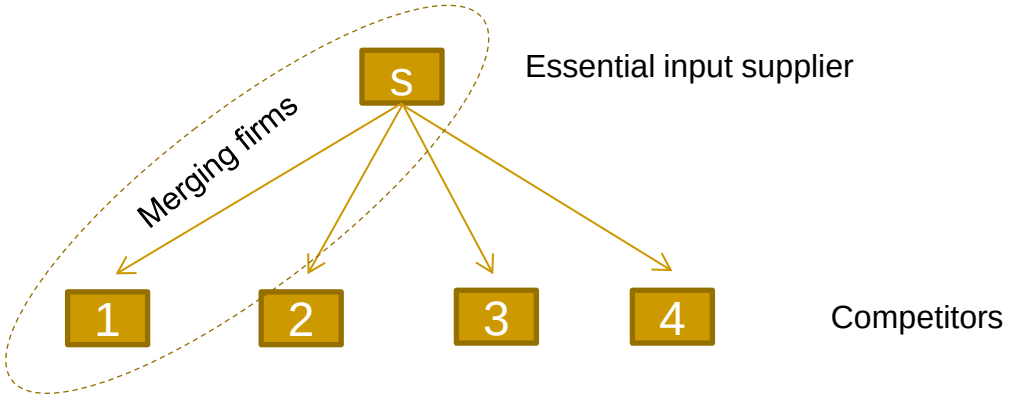
Akorn/VersaPharm (2014)

- Transaction
  - Akorn to acquire VersaPharm for $324 million
- Parties
  - Akorn: A niche pharmaceutical company with 2013 revenues of $318 million
  - VersaPharm: Niche company offering 20 generic products with a pipeline of another 20 products
- Injectable Rifampin
  - Tuberculosis drug—No substitutes
  - Only VersaPharm and two other firms currently have FDA approval
- FTC concern
  - In the absence of the transaction, Akorn likely would have entered the market
- FTC consent decree
  - Divest Akorn Abbreviated New Drug Application (ANDA) to Watson Laboratories (buyer upfront)
  - Provide Watson with any information the FDA requests and assist Watson in obtaining FDA approval for ANDA

Vertical Mergers

Vertical theories of harm

- Paradigm case: Foreclosure
  - Combines the only firm producing an “essential” input
  - With a downstream user in competition with other downstream users
  - Permitting the combined firm to drive its downstream competitors out of the market



The combined firm can cut off the essential input from its downstream competitors and monopolize the downstream market

Vertical theories of harm

- Five variations
  1. Firm 1 could be the acquirer of Firm S
  2. The combined firm raises the price to its competitors rather than foreclosing them altogether
  3. There could be several suppliers of the essential factor, but the theory still applies if the postmerger market the competitors are significantly competitively disadvantaged because
     - the other input suppliers are simply higher cost firms, or
     - with the combination it is easier for the other suppliers to oligopolistically coordinate and charge higher prices

     with the result in either case being that competition in the widget market is reduced.
  5. The essential factor could be a distribution or retail channel rather than an input
- Usual remedies
  - Non-discriminatory access undertakings
  - Undertakings to maintain open systems to enable interoperability

Vertical theories of harm

- Create efficiencies
  - Vertical mergers are generally accepted as creating a gross efficiency through the "elimination of double marginalization" (explained below)
- Modern enforcement practice
  - Since vertical mergers do not eliminate a competitor and are generally accepted as creating meaningful efficiencies, the agencies have not sought divestiture relief
  - Instead, they accept behavioral remedies
    - Obligations to deal on reasonable terms with rivals
    - Firewalls to prevent anticompetitive information transfers

Elimination of double marginalization

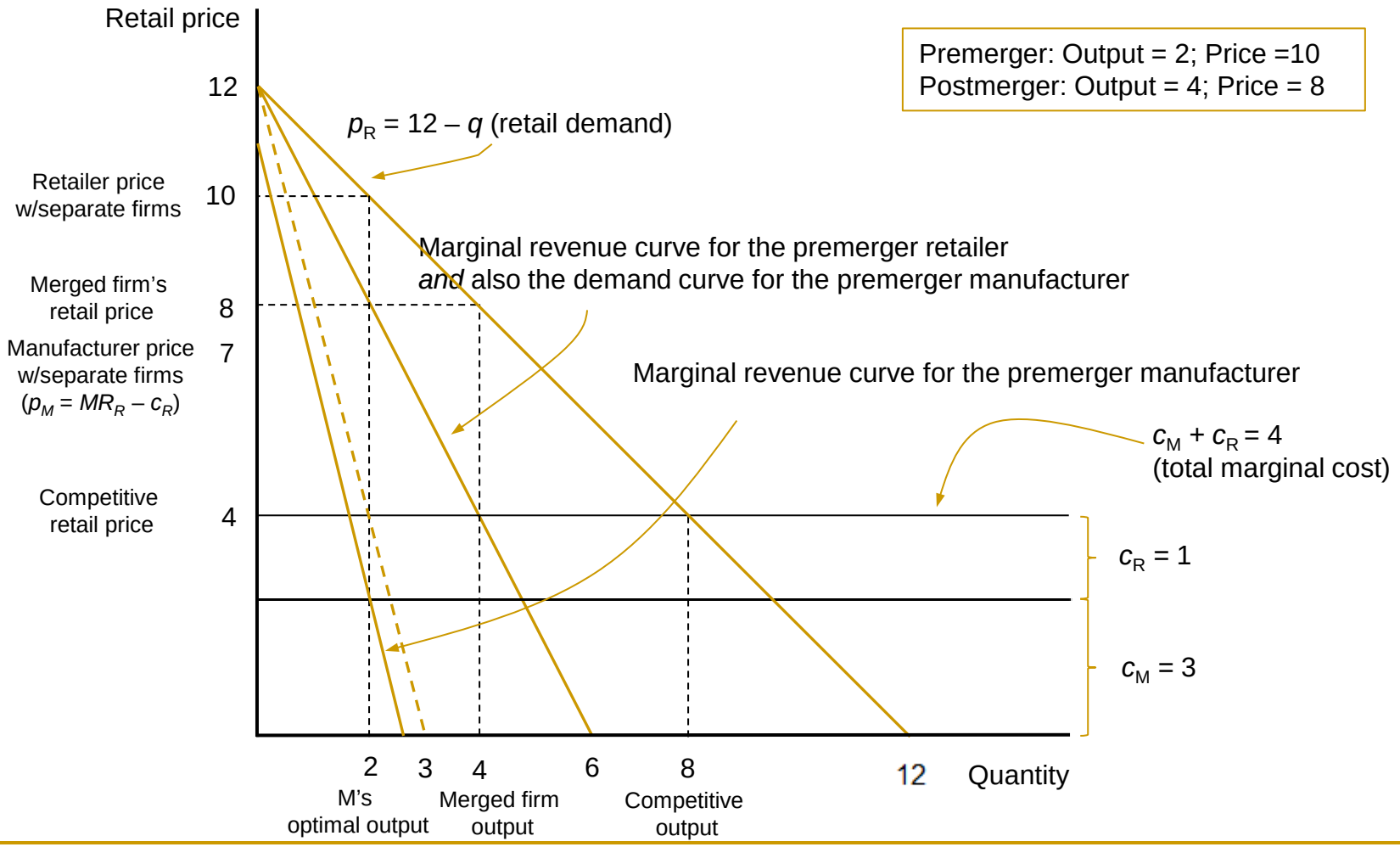
- Elimination of double marginalization
  - This is a widely accepted benefit of vertical mergers
  - Can lower price and increase output
- The idea
  - Consider a manufacturer and a retailer in the chain of distribution
  - Assume that both have some degree of market power
    - That is, the each face downward-sloping demand curves
  - They both then have an incentive to “markup” their price above the competitive level and produce at less than the competitive level
  - The double markup increases prices and reduces output
  - Vertical mergers eliminate one (but not both) of the markups, reducing price and increasing output compare to the premerger levels
  - This drives enforcement policy to allow the merger subject to behavioral remedies but without requiring divestitures

Elimination of double marginalization

- The model
  - Consider a simple model in which:
    - There is only one manufacturer, which sells to only one retailer
    - There is a one-to-one correspondence of what the manufacturer sells and what the retailer sells (so that they both face the same ultimate consumer demand curve)
    - The manufacturer has constant marginal costs c_M
    - The retailer has constant marginal costs c_R (which for simplicity may be zero) in addition to the price p_M it pays the manufacturer
    - Total retailer's marginal costs $c_T = p_M + c_R$
  - The manufacturer recognizes the incentive of the retailer to markup its price and takes that into account in determining its own price and output
  - The retailer raises price above the competitive level so that its marginal revenue equals its marginal cost
  - *Key insight*: The retailer's marginal revenue curve is the demand curve for the manufacturer (adjusted for the retailer's other marginal costs)
    - The retailer is willing to purchase from the manufacturer up to the point where the retailer's total marginal costs equals its marginal revenue, that is, where $p_M + c_R = MR_R$
    - Rearranging, $p_M = MR_R - c_R$, which is the demand function for the manufacturer

Elimination of double marginalization

- The model



Elimination of double marginalization

- Example: The math
  - Retailer (premerger)
    - Demand curve: $p_R = 12 - q_R$
    - Revenue: $R_R = p_R \times q_R = (12 - q_R)\, q_R = 12q_R - q_R^2$
    - Marginal revenue: $MR_R = 12 - 2q_R$
    - Set marginal revenue equal to marginal cost: $MR_R = 12 - 2q_R = c_T = p_M + c_R$
  - Manufacturer
    - Demand curve: $p_M = MR_R - c_R$ (rearranging retailer's profit-maximizing condition)
    - Revenue: $R_M = p_M \times q_M = (12 - 2q_R - c_R)\, q_M = 12q_M - 2q_M^2 - c_R\, q_M$
    - Marginal revenue: $MR_M = 12 - 4q_M - c_R$
    - Set marginal revenue equal to marginal cost: $MR_M = 12 - 4q_M - c_R = c_M$ or $12 - 4q_M - 1 = 3 \rightarrow q_M = 2$
    - Now $q_M = q_R$ (by hypothesis), so $p_R = 10$ and $q_R = 2$
  - Merged company
    - Same demand curve, revenue curve, and marginal revenue curve as retailer premerger, but now we can look at total marginal costs: $c_C = c_R + c_M = 4$
    - Set marginal revenue equal to marginal cost: $MR_R = c_C \rightarrow 12 - 2q_R = 4$
    - So $q_R = 4$ and $p_R = 12 - q_R = 8$

Elimination of double marginalization

- Example: The numbers

Demand: $q = 12 - p_R$

Marginal cost (manufacturer): $c_M = 3$

Marginal cost (retailer): $c_R = 1$

Marginal cost (total): $c_M + c_R = 4$

Competitive	p	q	Revenues	Costs	Profits
	4	8	32	32	0

Merged firm	p	q	Revenues	Costs	Profits
	0	12	0	48	-48
	1	11	11	44	-33
	2	10	20	40	-20
	3	9	27	36	-9
	4	8	32	32	0
	5	7	35	28	7
	6	6	36	24	12
	7	5	35	20	15
	8	4	32	16	16
	9	3	27	12	15
	10	2	20	8	12
	11	1	11	4	7
	12	0	0	0	0

Elimination of double marginalization

- Example: The numbers

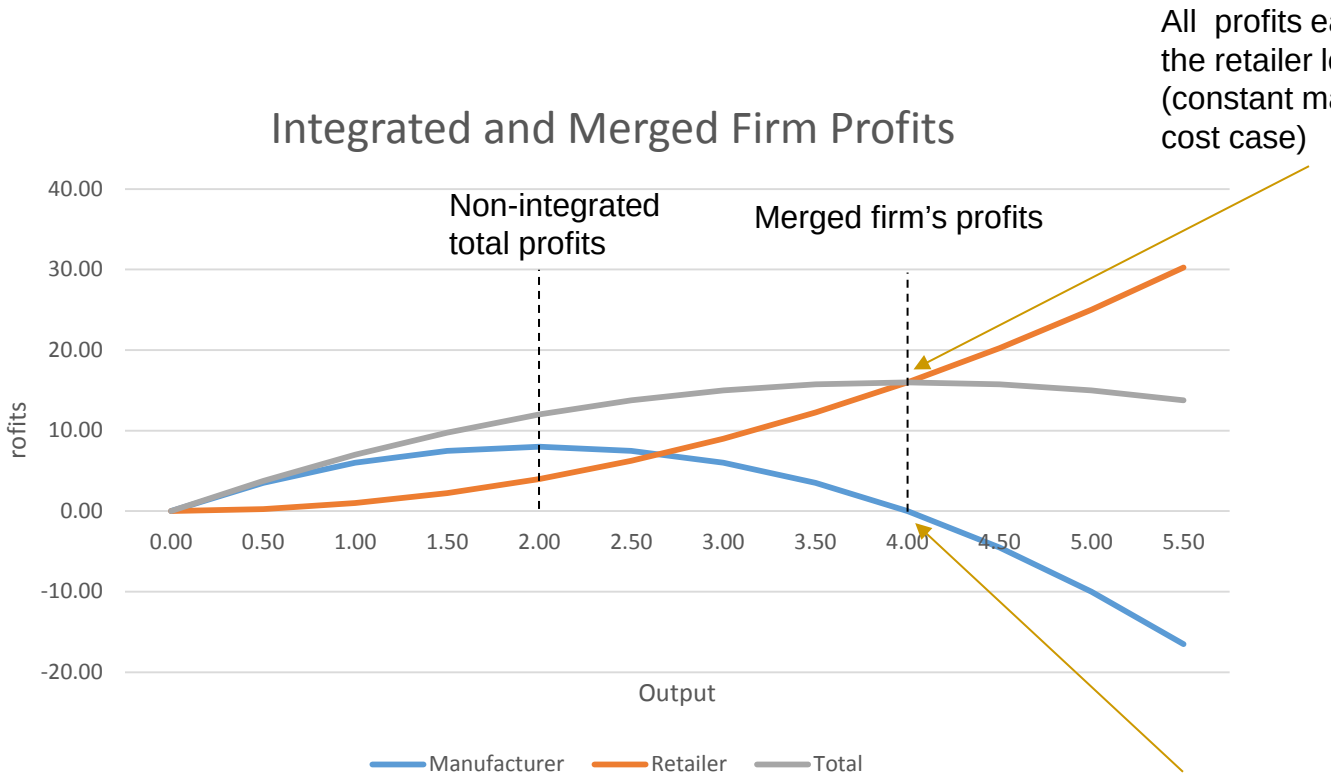
Retailer pM	pR	mcR-T	qR	Revenues	Costs	Profits
0	6.50	1	5.50	35.75	5.50	30.25
1	7.00	2	5.00	35.00	10.00	25.00
2	7.50	3	4.50	33.75	13.50	20.25
3	8.00	4	4.00	32.00	16.00	16.00
4	8.50	5	3.50	29.75	17.50	12.25
5	9.00	6	3.00	27.00	18.00	9.00
6	9.50	7	2.50	23.75	17.50	6.25
7	**10.00**	**8**	**2.00**	**20.00**	**16.00**	**4.00**
8	10.50	9	1.50	15.75	13.50	2.25
9	11.00	10	1.00	11.00	10.00	1.00
10	11.50	11	0.50	5.75	5.50	0.25
11	12.00	12	0.00	0.00	0.00	0.00
12	12.50	13	-0.50	-6.25	-6.50	0.25

Determined simultaneously with double marginalization

Manufacturer pM	mcM-T	qR	Revenues	Costs	Profits	Total Profits	
0	3	5.50	0	16.50	-16.50	13.75	
1	3	5.00	5	15.00	-10.00	15.00	
2	3	4.50	9	13.50	-4.50	15.75	
3	3	**4.00**	**12**	**12.00**	**0.00**	**16.00**	Merged firm
4	3	3.50	14	10.50	3.50	15.75	
5	3	3.00	15	9.00	6.00	15.00	
6	3	2.50	15	7.50	7.50	13.75	
7	**3**	**2.00**	**14**	**6.00**	**8.00**	**12.00**	Separate firms
8	3	1.50	12	4.50	7.50	9.75	
9	3	1.00	9	3.00	6.00	7.00	
10	3	0.50	5	1.50	3.50	3.75	
11	3	0.00	0	0.00	0.00	0.00	
12	3	-0.50	-6	-1.50	-4.50	-4.25	

Elimination of double marginalization

- Example: The numbers



Comcast/NBCU (2011)

- Transaction
  - Comcast and General Electric to form a joint venture consisting of NBC Univeral's and Comcast's content and Internet assets
  - JV to be owned 51% by Comcast and 49% by GE
    - Comcast to pay GE $6.5 billion to balance contribution
    - JV to raise $9.1billion of debt, with proceeds to be distributed to GE
  - JV to be managed by Comcast
- Contributions
  - GE: NBC Universal's businesses (valued at $30 billion), including:
    - The NBC Network (including NBC's 10 owned and operated TV stations)and NBC Sports
    - The NBC cable networks (including USA, Bravo, Syfy, CNBC and MSDNBC)
    - Universal Pictures, Focus Films, and Universal Studios (including the film library)
    - The Universal theme parks
    - Hulu (32% ownership) (an "online video distributor" or "OVD")
  - Comcast cable network businesses (valued at $7.25 billion), including:
    - Cable networks (including E!, Versus, and the Golf Channel)
    - 10 regional sports networks
    - Certain other digital properties

Comcast/NBCU (2011)

- DOJ concerns
  - JV give Comcast control over NBCU's video programming
    - Comcast could limit competition with its cable systems by refusing to license (or, more likely, licensing at higher prices) NBC's essential programming content to
      - Multichannel Video Programming Distributors (MVPDs),[1] and
      - Online Video Programming Distributors (OVDs)[2]
  - JV gives Comcast control of NBC's 10 O&O TV stations and their local content
    - Comcast could raise fees for retransmission consent for the NBC O&Os or effectively deny this content to certain video distribution competitors of Comcast cable systems
  - JV gives Comcast control over a 32% interest in Hulu
    - Comcast could use its rights to impede Hulu's development as a OVD competitor
  - Likely effects
    - Decreased competition in the development, provision, and sale of video programming distribution services in local geographic markets served by Comcast cable systems
    - Increased prices for video programming distribution services in local geographic markets served by Comcast cable systems
    - Ability to limit content and raise input prices could also reduce the rate of innovation and quality improvement of video programming distributions services

[1] Includes cable overbuilders (primarily RSN), direct broadcast satellite services (DirecTV and EchoStar DISH), and telephone companies (e.g., Verizon Fios).
[2] Includes "over the top" (OTT) services delivered over the Internet but not through a cable system set-top box.

Comcast/NBCU (2011)

- DOJ consent decree[1]
  - Traditional competitors
    - Coordinated with the FCC—FCC order requires the JV to license NBCU content to Comcast's cable, satellite, and telephone company competitors
    - Not included in DOJ consent decree as redundant
  - Online video distributor competitors
    - Must make available same package of broadcast and cable channels that JV sells to traditional video programming distributors
    - Must offer broadcast, cable, and film content similar to, or better than, distributor receives from JV's programming peers
      - NBC's broadcast competitors: ABC, CBS, Fox
      - Largest cable programmers: News Corp., Time Warner, Viacom, and Walt Disney
      - Largest video production studios: News Corp., Sony, Time Warner, Viacom, Walt Disney
    - Commercial arbitration if cannot reach agreement on license terms
    - Prevents restrictive licensing practices and retaliation
    - Comcast prohibited from unreasonably discriminating in the transmission of an OVD's lawful traffic over Comcast ISP
  - Hulu
    - Comcast to relinquish voting and other governance rights in Hulu
    - Comcast precluded from receiving confidential or competitively sensitive information about Hulu's operations

[1] DOJ action joined by five state attorneys general: California, Florida, Missouri, Texas and Washington.

Vertical Information Conduits

Vertical information conduits

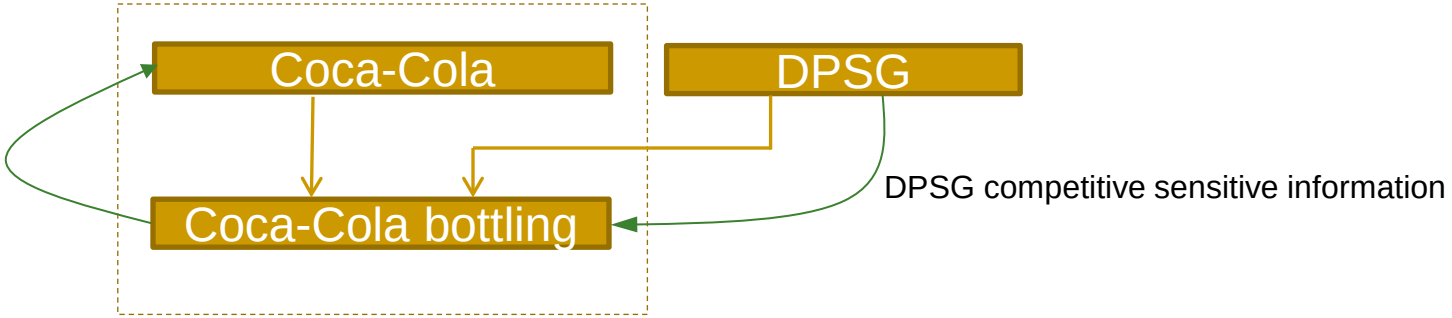
- Paradigm case
  - Market is conducive to oligopolistic coordination *except* that information on which to coordinate is not ready available and the vertical merger provides a mechanism for a information exchange

Coca-Cola/Coca-Cola Enterprises (2010)

- Transactions
  - Coca-Cola to acquire CCE's North American operations for over $12.3 billion
  - Separately, Coca-Cola paid Dr Pepper Snapple Group (DPSG) $715 million to distribute DPSG brands (including Dr Pepper and Canada Dry) in specific geographic areas
- Parties
  - Coca-Cola: The largest manufacturer of oft drink concentrate and carbonated soft drinks
  - CCE: Coca-Cola's largest independently owned North American bottler
  - DPSG: The third largest soft drink competitor after Coca-Cola and PepsiCo
- Soft drink bottling
  - Soft drink shares: Coca-Cola (40%), PepsiCo (30%), DPSG (17%)
  - Soft drink concentrate manufacturers license bottlers to produce, bottle/can, and distribute the manufacturer's soft drinks in a prescribed geographic area
  - CCE
    - Accounted for 75% of Coca-Cola's U.S. sales of bottled and canned soft drinks
    - Accounted for 14% of DPSG's U.S. sales of bottled and canned soft drinks

Coca-Cola/Coca-Cola Enterprises (2010)

- FTC concerns
  - Concentrate manufacturers need to provide their bottlers with advance confidential information regarding their advertising, marketing, and promotion strategies and their new product introductions
  - The DPSG distribution agreement with Coca-Cola did not provide adequate safeguards against access by Coca-Cola's competitive operations to DPSG competitively sensitive and confidential information obtained by Coca-Cola's bottling operations, resulting in:
    - Likely elimination of direct competition between Coca-Cola and DPSG
    - Increase in the probability that Coca-Cola could unilaterally exercise market power or influence and control DPSG's prices
    - Increased in the probability of coordinated interaction



Coca-Cola/Coca-Cola Enterprises (2010)

- FTC consent decree
  - Information firewall to
    - Limit access to and use of DPSG' competitively sensitive information to Coca-Cola bottling operation for use in the bottling and marketing of the DPSG products
    - Prevent Coca-Cola's competitive operations from gaining access to such information
  - Set procedures for changing bottling operations personnel
  - Imposed a compliance monitor

- Query
  - Why did the FTC believe that the confidentiality provisions of the DPSG distribution agreement were insufficient?

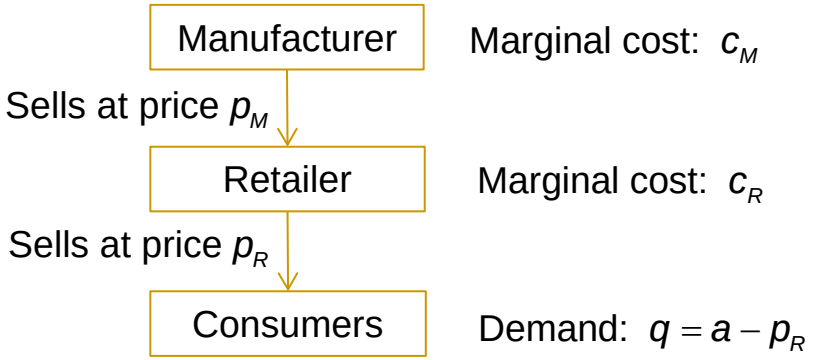
Appendix

OPTIONAL

Elimination of double marginalization

- Eliminating "double marginalization"
  - This is a major claim of efficiencies in vertical mergers
  - Paradigm example:
    - Conditions
      - Firms M and R are adjacent firms in the chain of distribution, both of which have some market power (i.e., face downward-sloping demand curves).
      - Assume without loss of generality, that Firm M is a manufacturer and Firm R simply resells M's product without modification and that c_M and c_R are the (constant) marginal costs of production and resale, respectively, for manufacturer M and reseller R.
      - In equilibrium, manufacturer M sells quantity q to reseller R at price p_M, which in turn sells the same quantity q to consumers at price p_R (i.e., there is no overproduction or inventory holding).
    - Assume that consumer demand is linear and normalize p so that:

$$q = a - p_R.$$



Elimination of double marginalization

- Eliminating "double marginalization"
  - *The retailer's problem*: The profit function and first order condition for the retailer R are:

$$\begin{aligned}
\underset{p_R}{\text{Max}}\ \pi_R &= p_R q - (p_M + c_R) q \\
&= \left(p_R - (p_M + c_R)\right)(a - p_R) \\
\frac{\partial \pi_R}{\partial p_R} &= -\left(p_R - (p_M + c_R)\right) + (a - p_R) \\
&= -2p_R + a + (p_M + c_R) = 0
\end{aligned}$$

Firm R's marginal cost is its unit input cost p_M plus its unit distribution cost c_R

so that $p_R = \dfrac{a + (p_M + c_R)}{2}$

$$q = \frac{a - (p_M + c_R)}{2}$$

$$\pi_R = \left(p_R - (p_M + c_R)\right)\left(\frac{a - (p_M + c_R)}{2}\right)$$

Elimination of double marginalization

- Eliminating "double marginalization"
  - *The manufacturer's problem*: Now consider the profit function and first order condition for the manufacturer M, which understands how retailer R will price the resale and can take this into account when maximizing its own profits:

$$\underset{p_M}{\text{Max}}\ \pi_M = p_M q - c_M q$$

$$= (p_M - c_M)\left(\frac{a-(p_M + c_R)}{2}\right)$$

$$\frac{\partial \pi_M}{\partial p_M} = -\frac{(p_M - c_M)}{2} + \left(\frac{a-(p_M + c_R)}{2}\right)$$

$$= \frac{-2p_M + a + (c_M - c_R)}{2} = 0$$

Since retailer R holds no inventory, the demand q for M's product by R is equal to the demand q for R's products by consumers

so that $p_M = \frac{a + (c_M - c_R)}{2}$

$$q = \frac{a-(p_M + c_R)}{2} = \frac{a - \left(\frac{a + (c_M - c_R)}{2} + c_R\right)}{2} = \frac{a-(c_M + c_R)}{4}$$

$$\pi_M = (p_M - c_M)q = (p_M - c_M)\left(\frac{a-(c_M + c_R)}{4}\right)$$

Elimination of double marginalization

- Eliminating “double marginalization”
  - Total profits of the manufacturer and retailer:

$$\pi_M + \pi_R = (p_M - c_M)q + \left(p_R - (p_M + c_R)\right)q$$
$$= \left(p_R - (c_M + c_R)\right)\left(\frac{a - (c_M + c_R)}{4}\right)$$

Elimination of double marginalization

- Eliminating "double marginalization"
  - *The merged firm's problem*: Assume that M and R merge. Keep in mind that the merged firm is a monopolist at both the manufacturer and retailer level. Now consider the profit function and first order condition for the combined firm:

$$\begin{aligned} \underset{p}{\text{Max}}\ \pi &= pq - (c_M + c_R)q \\ &= (p - (c_M + c_R))(a - p) \\ \frac{\partial \pi}{\partial p} &= a - 2p + (c_M + c_R) = 0 \end{aligned}$$

$$\text{so that } p = \frac{a + (c_M + c_R)}{2}$$

$$q = \frac{a - (c_M + c_R)}{2}$$

$$\pi = (p - (c_M + c_R))q = (p - (c_M + c_R))\left(\frac{a - (c_M + c_R)}{2}\right)$$

Elimination of double marginalization

- Eliminating "double marginalization"
  - Comparing the non-integrated and merged firm solutions

	Non-Integrated Firm	Merged Firm
Price to consumers	$\frac{a+(p_M+c_R)}{2}$	$\frac{a+(c_M+c_R)}{2}$
Quantity produced	$\frac{a-(p_M+c_R)}{2}$	$\frac{a-(c_M+c_R)}{2}$
Total profits	$(p_R-(c_M+c_R))\left(\frac{a-(c_M+c_R)}{4}\right)$	$(p-(c_M+c_R))\left(\frac{a-(c_M+c_R)}{2}\right)$

  - If $p_M > c_M$ (which it will be so long a $q > 0$), then the merged firm has lower prices to consumers, higher output, and higher profits than the two firms operating independently.
  - The merged firm has a "transfer price" $p_M = c_M$, that is, the manufacturer within the merged firm prices as if it is in a competitive market and all profits are taken out at the retailer level.