Anheuser-Busch executives last month said they were lowering prices to win back drinkers who are choosing wine and spirits over beer. Miller, the No. 2 U.S. brewer, will match Anheuser-Busch's cuts to avoid losing market share heading into the summer season.

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In this lecture series we have intentionally ignored competitors. We did this to avoid a natural tendency to let competitors dictate prices. Instead, we have focused on pricing techniques intended to erect and protect price fences that allow us to defend our value proposition from competitors.

1. Legal Regulation of Pricing

People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.

Adam Smith

1.1. Price fixing and bid rigging. In the United States, price fixing can be prosecuted as a criminal felony offense under Section 1 of the Sherman Antitrust Act. Price fixing is an agreement among competitors to raise, fix, or otherwise maintain the price at which their goods or services are sold. It is not necessary that the competitors agree to charge exactly the same price, or that every competitor in a given industry join the conspiracy. Price fixing can take many forms, and any agreement that restricts price competition violates the law.

Any communication directly with competitors about prices or other elements of competition is strictly forbidden under US and EC antitrust laws. Even indirect communication about prices may be treated as evidence of possible collusion which, combined with other evidence of collusive intent, could result in an antitrust indictment.

- 1.1.1. Patterns that the FTC looks for when detecting price fixing.
 - Identical prices may indicate a price-fixing conspiracy, especially when:
 - Prices stay identical for long periods of time
 - Prices previously were different
 - Price increases do not appear to be supported by increased costs.
 - Discounts are eliminated, especially in a market where discounts historically were given.
 - Vendors are charging higher prices to local customers than to distant customers. This may indicate local prices are fixed.
- 1.1.2. Red Flags to FTC in employee behavior. Each of the following situations has triggered a successful criminal antitrust prosecution:
 - Any reference to industry-wide or association price schedules.
 - Any statement indicating advance (non-public) knowledge of competitors' pricing.
 - Statements to the effect that a particular customer or contract 'belongs' to a certain vendor.
 - Statements that a bid was a 'courtesy,' 'complementary,' 'token,' or 'cover' bid.
 - Any statement indicating that vendors have discussed prices among themselves or have reached an understanding about prices.
- 1.1.3. Examples of successful price fixing prosecutions.
 - Alfred Taubman, the former chairman of Sotheby's auction house, served 9 months of a one-year jail sentence for rigging fees charged to clients. He was also fined \$7.5m. Taubman acknowledged a dozen meetings with his Christie's rival but insists they never colluded. 'We were careful never to

discuss anything that was illegal. And we knew the law and I knew it well,' he said. 'Whatever we do, we mustn't discuss prices,' Mason said. 'Tennant said that was the first thing that Taubman mentioned to him.'

- Airlines colluded between 2004 and 2006 to levy heavy fuel surcharges on transatlantic flights. Virgin Atlantic escaped financial punishment because it came forward to expose the collusion. BA was fined \$200 million by the Office of Fair Trading, Britain's competition watchdog, and \$300 million by the DoJ. Virgin Atlantic escaped financial punishment because it came forward to expose the collusion. Keith Packer, cargo manager, got eight months in US prison and a \$20k fine for his part in rigging the cost of price services to and from America.
- Peter Baci, Senior VP of Yield Management for Sea Star Line, LLC, got 4
 years in prison for fixing the prices of cargo shipped between the US and
 Puerto Rico. Baci claimed in court that he was acting on orders, but this
 didn't help him at sentencing.
- 1.2. **Predatory pricing.** Pricing low with an intent to drive your competitor out of business can be prosecuted under the anti-monopolization regulations of the Sherman Act. However, the Supreme Court ruled in 1986 that fare wars that do not drive out competitors are 'a boon to consumers,' and the government must be very careful not to 'chill the very conduct the antitrust laws are designed to protect.'

2. Preempting Competitive Price Erosion

One thing to note is that in some sense competitive price erosion is becoming less of a concern empirically. According to RSR Research (January 2010), the extent to which 'pricing aggressiveness from competitors' was considered a challenge fell from 48% to 38%. Instead, price erosion became more driven by internal pressure to improve sales.

2.1. Assessing risk of price erosion.

2.1.1. At risk.

- (1) Falling Demand
- (2) Spare Capacity
- (3) Few differences in differentiation value

Beer is classic example of a product where there is a potential for price wars. It is an undifferentiated product with high fixed costs. Falling demand due to increased demand for wine and other alternatives.

2.1.2. Not at risk.

- (1) Tight Capacity
- (2) Steadily Increasing Demand
- (3) Plenty of differentiation value. Razor-Blade or Two-Sided Markets are ideal

In April, 2009, in the UK, Amazon offered 100 popular MP3s at just 29p (0.50c) per download. Apple's iTunes store responded by raising prices on the most popular MP3s to 99p, or \$1.50. Apple could do this because of switching costs and superiority of iTunes experience.

2.1.3. Cross-price elasticities. A cross-price elasticity measures the percentage change in unit sales for a firm's product to the percentage change of a competitor's price.

$$E_{A,B} = \frac{\% \text{ change in demand of product A}}{\% \text{ change in price of product B}}$$

It is also possible to calculate a cross-price elasticity for your product using the log-log transformation and the slope formula in Excel. The ys are the log of sales of your good, the xs are the log of price of your competitor's goods. Ideally it would be zero. Anything over 0.5 is worrying.

2.2. Assessing competitor's pricing sophistication.

- What are their price/cost structures?
- Are they strategically sophisticated? You can only play a pricing game at the level of your least strategic competitor.
- Pricing Game:
 - (1) You need to pick an selling price between \$0 and \$50 for this object which will maximize your chances of winning this competition.
 - (2) This is a tricky market where the ideal price-discount is 20%. Any higher, then people do not switch their brand allegiance. Any lower, then people begin to doubt the quality of the product.
 - (3) The person who picks a selling price at stage 1 which manages to undercut the average price by 20% (i.e. charges 80% of the average price) will win this object.

Group	Average Iteration
Computer Scientists	3.8
Portfolio Managers	2.8
High School Students	1.6
CEOS	1.0

Strategic pricing relies not only on an understanding of game theory but an understanding of how well your competitors understand game theory.

- 2.3. **Pricing threat.** Selectively revealing information about capabilities and future plans can be useful in avoiding harmful negative-sum game. The goal of such information is to dissuade competitors from reducing prices and ever challenging the firm's resolve.
 - Some strategists say that expanding capacity makes you so fearsome that no competitor dares cut prices for fear of your response.
 - However, the airline industry only regained profitability after they cut capacity after 9/11. In 2003, the industry load factor had recovered from 9/11 and was the highest ever: 73.4% of available seats were filled.
 - Talking about a cost advantage can sometimes backfire:
 - An early car computer software firm stated that competitors would not be able to under-cut its prices since it had a cost advantage due to out-sourcing of call centers. Its competitors also moved their service departments overseas, which led to price increases from the callcenters.
 - Most effective strategy is to commit in public to fight back with pricing.
 - In the case of Winn-Dixie and Big Star vs. Food Lion, price matching commitment lead to doubling of prices on 79 commonly purchased brand items after two years as Food Lion raised its prices.
 - However, the recent 'secret memo' that was revealed about Best-Buy's attempts to circumvent its own price-matching policies shows problems of these policies.
- 2.4. Talking to the press about pricing. Firms should take steps when communicating with the press to make sure that their pricing strategy is advantageously perceived by competitors, in the same manner as they manage perceptions of stockholders and securities analysts
 - Pre-announce pricing intentions and justify increases and decreases
 - Good Communication example: 'Serguei Beloussov...., the CEO said he's now taking a cue from Apple, positioning Parallels [desktop virtual machine software] as a premium product with improved quality and service. What he says he won't do, is get in a price war with close competitor VMWare Fusion.' 'Beloussov is convinced that the best path to more market share is improving the product and support while adding more features than the competition. Mac users, he says are not as price-conscious as their Windows counterparts, and are willing to pay more for a product that works well.'

- Bad Communication example: In 1997 Compaq Computer Corp CEO Eckhard Pfeiffer claimed that his company's new business model and aggressive price cuts will not lead to the price war among major PC makers that some were anticipating. The company says...the announced prices make the DeskPros 6-8% cheaper than the comparable Dell offerings. Pfeiffer [says]... all-out war will be averted because cuts by other manufacturers 'will come from their margins,' obviously something Pfeiffer feels won't carry too far given current market pressure.
- Explain yourself if you are changing your prices to avoid retaliation
 - Heart monitor manufacturer had to sell off multiple units that didn't comply with proposed FTC regulation, so they reduced price. This set off a price war as their competitors did not understand what they were doing.
- 3. Responding to Competitive Price Erosion Using the Other 3Ps

Sabotage Customer Perceptions of Price Cut by exploiting Product, Promotion and Placement

3.1. Product.

- Develop a Fighting Brand. Read 'Should You Launch A Fighter Brand?' by Mark Ritson in Harvard Business Review, October 2009 before you do.
 - Intel used its Celeron chip to fight price wars with rather than its premium Pentium chips reasonably successfully.
 - Delta's Song airline did not stave off JetBlue.
- Improved Product
 - Norton Anti-Virus. After McAfee came in offering 'Net-to-Zero' rebate, Symantec examined customer research showing that customers wanted more manageability across products (AV + Utilities). Instead, they responded by shifting to a value bundle. Norton SystemWorks, which was a well integrated suite of great point products with a single, easy-to-use user interface. Symantec built a lead in profitability from retail segments, while McAfee retreated and continued to invest in corporate solutions.
- 3.2. **Promotion.** One danger of price wars is that a promotional message can get lost. However, promotion can actually be an effective tool to counter price erosion.
 - Southwest Airlines, for example, responded to American's value-pricing move not with a price move of its own but rather with an advertising

campaign proclaiming, 'We'd like to match their new fares, but we'd have to raise ours.'

Don't get too complicated. A Medical device manufacturer told its client
hospitals that if he was forced out of the market, they would be at the
mercy of the larger company. With a monopoly position, the CEO warned,
the customers would find their short-term price cuts transform into longterm price increases. This was not every effective as the hospitals were not
sure how credible this was.

3.3. Placement.

- Form strategic partnerships with distributors and suppliers or complementary good sellers. Do not tell your distributors not to distribute a low-cost good. That leads to jail time.
 - 2003, 3M was found guilty under Section 2 of the Sherman Act for a de facto exclusive dealing arrangements whereby 3M offered customers large cash payments to purchase their transparent tape exclusively from 3M. Damages totaled \$68 million.
 - In 2001 Bed, Bath and Beyond planned to introduce Waterford/Crystal and China. However, Federated and May Co. secured the exclusive deal for the purpose of preventing Bed Bath & Beyond from selling the Lenox/Waterford products. Successful prosecution in NY state and million-dollar fines.
 - Criteria for legal action is any two of
 - * Product boycott is horizontal (e.g., encompassing two or more competitors) as opposed to vertical (e.g., covering entities at different levels of the distribution chain)
 - * Designed to suppress price competition
 - * Involves firms with market power or control over a critical source of supply.
- Instead work with key buying influencers. For example, when Microsoft threatened to enter the small business financial software market, Intuit started a special program to reach out to the 200,000+ accountants who provide support for QuickBooks.

3.4. Why not lower price?

- (1) Shallow-Pockets Trap
 - You may have deep pocketed competitors. Wal-mart vs K-mart in 1990s.
 - Bromine manufacturer Dow defeated predatory pricing by a governmentsupported German cartel, Bromkonvention. Bromkonvention had been

flooding the US market with below-cost bromine, at an even lower price than Dow's. But Dow simply instructed their agents to buy up US Bromine at the very low price, then sell it back in Germany at a profit but still lower than Bromkonvention's price. In the end, the cartel could not keep up selling below cost, and had to give in.

- (2) Low Quality Trap
 - Customers assume quality is low
- (3) Fragile Market Share Trap
 - The consumers you attract are not loyal. Sprint has found that its recent 25% discount plan has led to higher churn. The problem is that the defecting customers are only 2.6% of their total number of year-end subscribers. The risk is that the other 97.4% of the customers are going to want discounts too.

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