

SUMMARY OF CLASSROOM MATERIAL

PRICE

INTRODUCTION

Background. Pricing decisions are extremely important for the firm. Some of the reasons:

- Pricing is the only part of the marketing mix which brings in revenue.
- Once a price has been set, consumers will often show a great deal of resistance to any attempts to change it.
- Pricing frequently has important implications for the positioning of a product.
- Price is the marketing mix variable for which a competitive response can be most quickly implemented.

Conceptualizing price. A logical examination suggests that price should be defined as

$$price = \frac{\text{resources given up}}{\text{goods received}}$$

That is, we need to consider the quantity you receive as well as the amount of money you have to fork out. To say that gasoline costs \$1.29 is meaningless outside the context that this cost is per gallon.

WAYS TO CHANGE PRICE

The above conceptualization suggests that the marketer has several ways available to change price:

- **Increasing or decreasing the "sticker price" of a product.**
- **Increasing or decreasing the *quantity* of material received.** As prices of chocolate increased in the 1970s, firms found it difficult to raise candy bar prices. Instead, they simply made them smaller.
- **Changing the *quality* of a product.** Firms may cut back on services or dilute products more, possibly reducing or cutting out expensive ingredients.

- **Change the *terms* of a sale.** Firms may begin charging for previously free delivery. In recent years, many software manufacturers have stopped providing free telephone support for their programs.

ECONOMIC AND MARKETING PERSPECTIVES ON PRICING

Economists generally assume—quite unrealistically—that consumers have perfect information about:

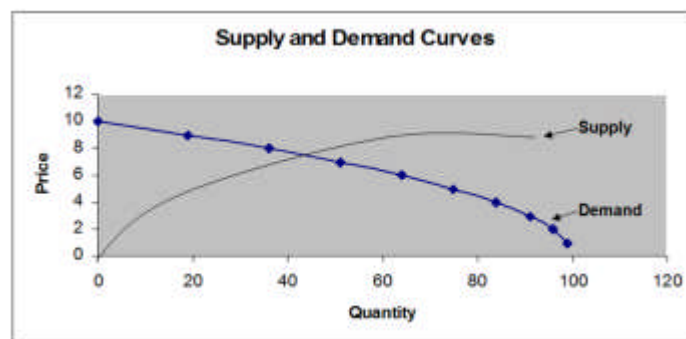
- The quality of all brands available.
- The price charged by each retailer for each respective brand.

Economists contend that although these assumptions are unrealistic, they nevertheless yield accurate predictions.

In marketing, however, it is recognized that consumers are often hit with considerable information overload and that, in practice, finding out all this information can be quite difficult and costly. This results in certain phenomena:

- In some cases, consumers will infer that a higher priced product is of higher quality.
- Consumers have imperfect memories of prices previously observed and paid.
- Consumers, in some cases, do not accurately compute prices. It has been found, for example, that many consumers will tend, without doing the calculations, to buy larger sized packages under the assumption that there will be a “quantity discount.” In fact, per unit costs for larger packages are often *higher*.

Economists, of course, base most of their conclusions on the idea of an equilibrium of supply and demand:



This idea is generally valid, but it does not explain the entirety of consumer choices and firm pricing strategies.

PRICING STRATEGIES

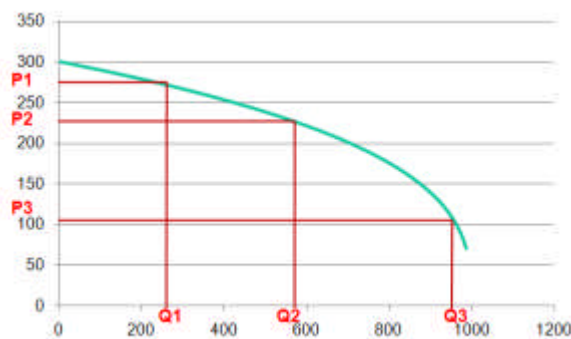
Pricing strategies can be categorized based on several different variables. One variable of interest relates to the consistency of the prices. Some retailers today attempt to follow a strategy of “everyday low pricing.” Although few firms tend to practice this method with perfect consistency, certain retailers like Wal-Mart tend to focus on providing constant low prices without any real sales. Other retailers instead

feature prices which, when not discounted, are somewhat higher. To compensate, periodic sales feature price reductions. Sales can be implemented either with a predictable pattern (e.g., a product is put on sale every fourth week) or in a random manner (e.g., in any given week, there is a 25% chance that the product will offered on sale). (See chart on overheads).

Note that "high-low" and "everyday low price" strategies are intended to take advantage of different price elasticities across people. Some consumers are price sensitive and will tend to buy only during sales; other people, in contrast, will buy all the time. Thus, people who are not willing to switch brands will have to pay full price for your products when they are not on sale; while they are on sale, a large number of "switchers" are attracted and sales volumes are increased.

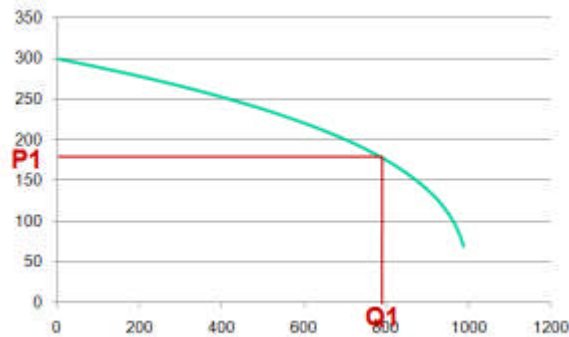
Other dimensions of interest in pricing involve the price introductory strategy. The "skimming" strategy entails offering a product first at a relatively high price.

Consider, for example, what we can do when there is a large degree of price elasticity—i.e., when some consumers are willing to pay more than others. In the chart below, we see that some consumers are willing to pay a lot of money (P_1) to get a new product quickly, while others are not willing to pay as much (and P_2 and P_3). This often happens, for example, with new computer chips. It may be possible, then, to charge the first segment more money, and then lower the price enough so that the next segment will buy it. The process continues until all segments that can be profitably served have bought.



Since consumers differ in how much they are willing to pay for a product, it is possible to make large margins on the price inelastic segment. For example, Intel tends to charge high prices for its most recent chips, gradually lowering prices as a new generation is introduced.

Alternatively, firms may choose to use the "penetration" pricing strategy. This strategy also takes advantage of price elasticity and attempts to dramatically boost the number of units sold by offering the product at a low price.



Since costs of production tend to go down as cumulative production increases, this strategy may be effective. Penetration pricing is also useful when a firm wishes to establish a large market share early on, and it may be useful to develop a market for accessories to products. For example, a manufacturer of a new computer system may want to increase sales volumes in order to encourage the development of compatible software so that the computer brand will become more competitively attractive.

Note that "skimming" and penetration pricing involve tradeoffs. A clearly preferred strategy may not be obvious, and managers may need to engage in some serious consideration to arrive at a desired strategy. Both strategies involve some level of risk. The main risk to "skimming" is the attraction of aggressive competitors who see an opportunity to make large profits by entering. Penetration pricing, in contrast, gambles on the possibility that sales volumes will in fact increase with lower prices.

Two other concepts are worth noting. A "*cost-plus*" pricing strategy entails marking up the estimated cost of producing a product by a certain, fixed percentage. We will discuss deficiencies of this approach later. In contrast, pricing based on *consumer perceived value* keeps the firm in closer proximity to the market.

Several objectives can be pursued in pricing. One is *product line pricing*. In some cases, it may be useful to settle for small margins on some members of the product line in order to assure the success of others. For example, Avery, the maker of adhesive labels, sells relatively inexpensive software for printing on the labels in order to stimulate demand for the higher margin labels. *Two-tier pricing* involves an attempt to entice the consumer into buying a product at a low price with the expectation that he or she will buy accessories later. For example, makers of razor blades tend to sell the razors at low prices so that the consumer has an incentive to go with the same brand of blades later on. *Tying*, which is often illegal in the U.S. when it is based on unreasonable exercise of monopoly power by a dominant firm in a market, involves requiring the consumer to buy a less desirable product in order to be able to buy a more desired one. Back when Xerox was the dominant manufacturer of copy machines, for example, a court case forced the company to abandon its policy of including service of the copiers with machine purchase; consumers were now free to seek out any cheaper third party service available. For a more contemporary example, let's imagine that hip-hop singer Joyoys J has two albums on the market: *A Rated X-Mas* and *X-Mas Gift 'rappin'*. If market research suggests that *X-Mas Gift*

'rapping' will be received as a mediocre album while *A Rated X-mas* is likely to reach Platinum status, Joyoys J might refuse to sell *A Rated X-Mas* without a simultaneous purchase of the less desirable product. The legal issues here are complex, in part because there are often serious questions about the extent to which it is reasonable for the customer to be able to buy only one product when most customers would want to buy the combination. It is probably not reasonable, for example, to insist on being allowed to buy only pink M&Ms® since most customers appear to prefer a mix of colors.

Product price bundling, generally legal, presents an alternative to outright tying. Here, the consumer can buy each product separately, but a discount is offered for buying two or more items simultaneously. In Joyoys J's case, a possible pricing schedule might be:

<i>A Rated X-mas</i>	\$20.00
<i>X-Mas Gift 'rapping'</i>	\$10.00
Both for	\$25.00 (>\$20.00+\$10.00=\$30.00)

In general, simple "cost-plus" pricing is inappropriate because:

- Your costs, in a market which is not perfectly competitive, may not be reflective of the costs of your competitors. If theirs are lower than yours, you may be over pricing your products; if it is higher than yours, you may be able to charge higher prices than cost-plus would suggest.
- Your costs are not reflective of the value of the product to consumers.
- The prices of some products are more *salient* than those of others; thus, you may want to use some products as "*loss leaders*."

Cost should, however, play some role in pricing decisions:

- Whether you can produce products at a cost low enough to compete effectively against market existing market prices should help determine whether to enter (or exit) a given market.
- Understanding the relationship between price and quantity demanded as well as the cost of producing this quantity will help make decisions on pricing and quantity produced. In this context, note the effects of experience previously discussed in the text. That is, it may be profitable to sacrifice margin immediately to move along the experience curve and enjoy a cost advantage relative to competitors later.

CONSUMER PRICE AWARENESS

Research suggests a large segment of consumers does not give much attention to the prices of individual products. Consumers were found on the average to spend only about 12 seconds between arriving at the site within a store where a frequently purchased product was located and departing; on the average, consumers inspected only 1.2 products. Only 55.6%, seconds after having selected a product, could specify its price within 5% of accuracy. Note that this study does not indicate a total lack of consumer price sensitivity since consumers are undoubtedly making some inferences

about the overall price levels of a store. Thus, the store has some incentive to maintain reasonable overall prices.

COMPETITION AND ANTITRUST ISSUES IN PRICING

The United States maintains relatively stringent (by international standards) antitrust laws. Much of the rest of the World is catching up with us, but traditionally, anti-competitive laws in many European and Asian countries were either non-existent, intended to actively encourage collusion, or not enforced. In fact, a professor at INSEAD, the premier French business school, reported that his students—who came from countries throughout Europe—actually expected him to *teach* them how to collude with each other. Antitrust issues relevant to prices can be categorized into the following main categories:

- *Minimum prices*: It is generally, with a few relatively complicated exceptions, illegal to sell products below your cost of production. (For firms holding a large market share, these costs, in accounting terms, must be "fully absorbed"—that is, overhead and development costs must be apportioned among products sold).
- *In selling to entities that compete against each other, price discrimination or volume discounts* are generally only legal to the extent that a manufacturer can prove actual cost savings associated with serving a large account. In the U.S. criminal justice system, we are used to think of a person being "innocent until proven guilty," but this standard does not apply in this kind of civil case. The law provides that the manufacturer has the burden of proof to establish that cost savings exist. The overheads indicate the pricing structure of Morton Salt employed in the 1940s. Although the volume discounts are modest and seem reasonable, the U.S. Supreme Court held against Morton because the firm failed to prove cost savings. (*Federal Trade Commission v. Morton Salt Company*, 334 U.S. 37 [1948]). The prohibition on price discrimination generally applies only to entities competing against each other. This means that differences in prices charged by a firm to competing restaurants must be justified by demonstrable cost savings, but it may be legal to charge supermarkets different prices than those charged to grocery stores to the extent that restaurants and grocery stores do not significantly compete in the affected product category. Restaurants, for example, tend to use hot sauce as an ingredient in food served while grocery stores tend to resell the hot sauce.
- *Anti-competitive pricing*: In general, *collusion*, or firms getting together to fix prices, is outright illegal in the U.S. (but not in all countries—it is sometimes legal, for example, in Switzerland). In the late 1980s and early 1990s, certain airlines were accused of fixing prices by communication through their computerized reservation systems. Most airlines settled the suit, agreeing to certain injunctions limiting this practice.
- *Price maintenance* refers to the practice of encouraging a certain minimum resale price of products. In 2007, the U.S. Supreme Court reversed its previous holding and ruled in the case *Leegin Creative Leather Products, Inc. v. PSKS, Inc.* that it is not automatically ("*per se*") illegal for manufacturers to require as a condition of sale that retailers of its products agree to charge a price no lower than a "floor" price established by contract. Courts may still decide,

depending on the facts and conditions of a particular case, that certain minimum price agreements between manufacturers and retailers result in a “restraint of trade” in violation of the Sherman Act. This conclusion is, however, no longer automatic and has to be established through the “rule of reason.” A theory asserted is that, under some circumstances, retail price maintenance may actually increase *inter*-brand competition, or competition among brands since retailers will now have a greater incentive to provide services and make investments in brand building knowing that they will not be undersold by retailers not offering these services. *Intra*-brand competition—or competition among the retailers selling the same brand—is likely to be reduced, but it is argued that the non-price benefits of increased service may be more valuable to customers in some circumstances than facing the lowest possible prices. In the U.S., manufacturers generally cannot prevent retailers from selling their inventory at a lower price than what has been contractually specified, but the manufacturer can stop selling to such discounting retailers without being in automatic violation. As a matter of pragmatics, very few manufacturers would actually want to enforce price maintenance today. Discounters have now become a major force in the economy and the source of a large number of sales. Refusing to sell to discounters, or pressuring them to charge higher prices, is almost certainly not a viable strategy for most firms today.

- *Tying*: it is generally illegal to require a customer to buy a less desired product in order to buy a more desired one. In practice, it is difficult to decide where to draw the line. For example, most consumers would probably prefer to buy a fishing rod and reel together; so it is not unreasonable, for the sake of expediency, to sell the two only together. On the other hand, Ford in the 1950s refused to drill holes in auto dashboards if the consumer did not purchase a radio with the vehicle. This made buying third party radios quite unattractive, and Ford was forced by litigation to abandon this practice.

CONSUMER REFERENCE PRICES

Consumers typically maintain *reference prices* for products. These are typically based on prices they have seen or paid in the past or perceived fairness of prices.

There are two kinds of reference prices:

- *Internal reference prices* are price expectations based on the consumer's experience. These are:
 - Typically lower than actual retail prices; thus, consumers frequently experience "sticker shock" when shopping for certain products.
 - Frequently updated, but somewhat difficult to change dramatically.
 - Confined to a narrower range for some products than others.
- *External reference prices* are prices supplied by a marketer as a means of influencing a consumer's price expectations—e.g., "Regularly \$3.99; Now \$2.99." Although one might think that an implausible (unbelievable) external reference price would suggest to the consumer that the retailer is lying,

research has shown that clearly implausibly high external reference prices actually increase internal reference prices.

Research shows that both experience (prices previously paid) and the sale context (prices of competing brands) influence a consumer's internal reference price.

Consumers tend to experience two sources of value for a product. *Acquisition utility* refers to the utility of obtaining a product, while *transaction utility* refers to the difference between a subject's reference price and the featured price.

Traditionally, managers have believed that you need to approach a certain threshold of some 15-20% discount before consumers will respond significantly to sales. More recent research, however, shows that a large segment of the population will apparently respond to "negligible" discounts. For example, if a product is reduced in price from \$3.98 to \$3.96 (a "whopping" one half of one percent price cut!), a large number of consumers will "bite." A store manager similarly found that just placing a sign saying "EVERYDAY LOW PRICE" randomly among store products increased sales of the affected products by some 20%.

There is some question as to whether "odd" product prices (those ending in "9," "95," or "99") actually increase sales. Some effect has been found in the U.S., but no effect was found in Germany. Note, however, that "odd" prices may communicate the idea that you are receiving a bargain, which may or may not be consistent with the desired positioning of the product.

As some firms have painfully learned, changing the price of a product can be difficult. Some experimenters tried to introduce a laundry detergent both at a "high" and "low" price in stores. After eight weeks, the price of the laundry detergent under the "low" intro price condition was changed to match that of the "high" introductory condition. Although sales were higher in the low introductory price condition while the price was low, sales dropped dramatically after the price had been raised—in fact, after sixteen weeks, cumulative sales were higher in those stores where the price had been high all along. This suggests that consumers started thinking about the product as a "low price" one and had difficulty adjusting when the price was later changed.

There are other cases where changing product prices has proven difficult. In the 1970s, consumers were reluctant to pay above an effective \$2.00 "ceiling" for cereal. The Coca Cola Company also found it difficult to raise its price above its highly salient 5 cent level.

The "*framing*" of products tends to dramatically influence consumer response. The Automobile Club of Southern California, for example, indicates that upgrading to "AAA Plus" service costs "only pennies a day" rather than emphasizing the yearly cost. Note that this framing effect may also have implications for the practice of sales—when the sale is retracted, consumers may see this as a loss rather than the termination of a gain.

MANUFACTURER VS. RETAILER PRICING INTERESTS

Retailers and manufacturers often have conflicting interests since:

- *Retailers seek to maximize category profits.* For many product categories, consumers simply switch brands (but do not buy more) when one brand goes on sale. Thus, the retailer might as well "pocket" much of the price difference. In fact, U.S.C. marketing professors Gerard Tellis and Fred Zufryden have developed an econometric model (based on observations of consumer response to price changes across brands) indicating to retailers the optimal proportion of price cuts passed on to pass on to consumers. This is one reason why it may pay to for manufacturers to use coupons or mail-in rebates, which circumvent retailer efforts to pocket discounts.
- *Manufacturers may resent having their products used as loss-leaders* (possibly damaging their brand image).

"STICKY" PRICES

Research by Professor Alan Blinder at Princeton University (former Vice Chair of the Federal Reserve Bank) suggests that firms do not tend to immediately pass on price increases or price decreases to consumers when these become predictable. Price increases will often not be passed on until these have in fact taken place—despite the fact that the opportunity cost of the inventory depleted has, in fact, gone up. When prices decrease—as petroleum prices have in recent months—manufacturers will often not pass these on to consumers until their competitors start to do so. Although price decreases have been passed through to consumers on petroleum, savings on the reversal of increases in food costs that have resulted from petroleum prices coming down again appear to have mostly not been passed on. Once one major manufacturer starts to pass these on, others will likely have to follow, but each hopes that the others will hold off for as long as possible.

ADVERTISING: DOES IT INCREASE OR DECREASE PRICE ELASTICITY?

Economists such as John Kenneth Galbraith have traditionally held that advertising serves to create artificial differentiation among products where few real differences exist and thus allows the firm to charge higher prices. This effect can be observed on whole-sale prices, where heavily advertised products tend to sell for higher prices.

Research shows, however, that advertising may have the opposite effect on prices *at the retail level*. Retailers will often use highly advertised products as loss leaders, and thus advertising may depress retail prices of products. It has also been found that prices of eye-glasses are lower in those states that allow advertising (containing price information), and after deregulation, air fares were negatively correlated with advertising on the route in question (again making prices more readily comparable). Advertising does, however, seem to increase prices at the *wholesale*

level. That is, because the more heavily advertised products are more in demand among consumers, retailers will be willing to pay higher prices. This means that, for many highly advertised products, retail margins are likely to be small. Because retailers compete intensely among themselves, this is likely to mean that the lack of margins on the highly advertised products will have to be made up elsewhere, possibly resulting in higher prices of non-advertised products.