Question 1: How can we determine an individual's consumer surplus?

The Concept of Consumer Surplus:

Identified by French engineer and economist Jules Dupuit (1804-1866) and later developed by English economist Alfred Marshall (1842-1924), consumer surplus theory assumes that the price paid by consumers for a good never exceeds and seldom equals the amount they are willing to pay rather than forgo the good (Bergson, 1975). Stated differently, if the price actually paid is lower than the maximum price consumers are willing to pay, they get a bargain. The amount of the bargain ("consumer surplus") is determined by calculating the difference between the total willingness to pay for a good or service and the actual amount consumers do pay. If consumers are willing to pay more than the actual price, their "bargain" is how much they saved when they didn't pay that price.

Question 2: How can the consumer surplus be expropriated?

To expropriate, that is to reduce or deny, the amount of consumer surplus in favor of the supplier, the author of this essay recommends that the supplier set pricing based on an analysis of four broad categories, each containing several variables:

1. Costs & expenses.
2. Marketing objectives. Is the purpose to initially penetrate the market? To deny competition? To acquire only a selective portion of the market? To maximize profits for just a short-term objective? To create brand awareness?
3. Pricing method & strategy. While a complete discussion of pricing strategy is beyond the scope of this paper, there are several common ones used by businesses to take advantage of customer pricing psychology, an understanding of which is essential toward expropriating consumer surplus, as follows:

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- Multiple Unit Pricing: Simply put, this is a strategy where the customer perceives quantity buying as involving greater savings. People will buy extra units of the product and use them as needed (Passewitz, 1995).
- Odd Number Pricing: This pricing method refers to setting a price just below the psychological breaks in the dollar, such as a price is set at 49 cents or 99 cents rather than 50 cents or $1 (ibid).
- Prestige Pricing: Prestige pricing refers to high markups and/or pricing above the market. Many consumers are willing to pay more for a product or service because it is felt the product or service is of higher quality or possesses brand or manufacturer prestige (ibid).
- Dynamic Pricing: Dynamic pricing is when the price the firm charges to customers is sensitive to very short run changes in demand. For example, Coca Cola is experimenting in raising the price of cans from vending machines when the average temperature increases (Tutor2u, 2006).

4. Consumer perceptions & demand. Finally, the supplier should attempt to determine, through empirical estimating, the maximum amount that a person is willing to pay to have the item, referred to as "willingness to pay" (Newman, 1955). The willingness to pay can be due to either tangible or intangible factors, or to a combination of both. Making the estimate even more relevant would be the inclusion of the timing of purchases, since consumers may have the capacity or desire to purchase more goods or services at different times. Both the timing and the willingness to pay can often be concluded by either surveying consumers directly ("Stated Preference" or "Contingent Valuation"), or by observing consumer behavior ("Revealed Preference").

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- Stated Preference Method:

  One approach is to conduct a survey, presenting the consumer a series of pair-wise comparisons between combinations of attributes (which may or may not include price). e.g., "Would you rather have item A for price X; or item B for price Y?" The chosen combination is assumed to have the higher utility (King and Mazotta, 2005).

- Contingent Valuation Method

  Sometimes called the "Transfer Price Method", this technique aims to obtain a direct assessment of the individual's valuation of the offering, in terms of willingness to pay (Portney, 1994). The normal way in which this is done is with a questionnaire, posing questions of the form: "What is the most you would be willing to pay in order to obtain X?"

In comparing the Stated or Contingent techniques, the latter method, in principle, could provide precisely what is required – the difference between the actual cost and what a consumer might be willing to pay – the consumer surplus; however, there are serious problems in ensuring that the survey is without bias. As with any survey technique relying on hypothetical alternatives, the questions need to be carefully formulated, in terms of correctly conveying the specific improvements to which the interviewee must respond, and in eliminating bias in both the questions and the interviewing technique (Hammond, 2004). The Stated Preference method, while generally avoiding the problem of bias, does not directly address the issue of price and is therefore less desirable for use in calculating willingness to pay, and consequent consumer surplus.

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- Revealed Preference Method

  Pioneered by American economist Paul Samuelson (1915-), Revealed Preference theory is a method by which it is possible to discern the best possible option by observing consumer behavior. Essentially, this means that the preferences of consumers can be revealed by their purchasing habits, based on the assumption that consumers make consumption decisions based on their intent to maximize their utility (Gul and Pesendorfer, 2005). Tracking the purchases of two identical products or services, offered at different prices, and each having no previous brand identity, could reveal which of the two offerings is preferred, based on the perceived (intangible) value of the individual consumer. From the observations, therefore, the perceived benefits (the consumer surplus) for the sample group can then be extrapolated and calculated for an entire population.

In this student's opinion, since both the observation and the empirical data about purchases can be obtained both randomly and without bias, the Revealed Preference Method would best determine consumer valuations, along with the maximum dollar amount and the maximum quantity of goods or services a consumer would be willing to pay/purchase. Since the consumer is given a choice of identical - yet differently priced - products, the Revealed Preference method can help determine the amount beyond minimum that a certain percentage of people are willing to pay, based solely on perceived value — the "Consumer Surplus". Combining the results from the Revealed Preference Method, together with the cost of sales, expenses, marketing objectives and pricing strategies could then be used to determine how great a percentage of the consumer surplus that the supplier wishes to expropriate.

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