Economic Analysis and Law: The Economics of the Courtroom
CHAPTER 1 SOLUTIONS

1. Why do markets fail? Discuss the importance of equity in economic and judicial decisions.

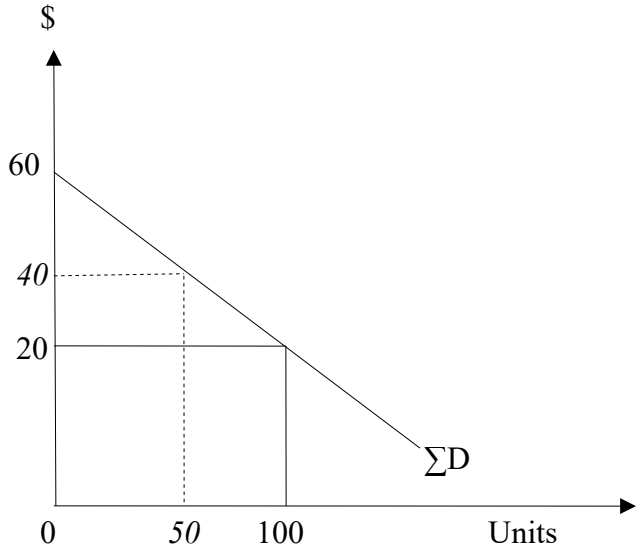
Markets might fail for multiple reasons, including:

- *Asymmetric information: sellers have information that buyers do not have (or vice-versa); that is imbalanced information in the market place.*
- *Price inflexibility: the circumstances in which prices cannot adjust or adjust slowly*
- *Moral hazard: undertaking risk without the financial or monetary culpability for those risks*
- *Adverse selection: Responding to the requests of the least desirable market participants instead of the better or best participants*
- *Economic shocks: Sudden and disruptive disturbances that are temporarily beyond the control of market participants*
- *Inadequate monetary or financial resources: not everybody will have enough income or money to purchase essential goods and services in the market place*
- *External effects: Markets may generate undesirable outcomes, like pollution, health hazards, and environmental degradation that are detrimental to the interests of non-market participants.*

Equity is fundamental fairness, which ensures the smooth operations of markets by minimizing distrust and risk aversion. Responses to inequitable situations: (a) make it possible for the poor to have access to essential goods, (b) promote intergenerational equity, and (c) increase aggregate consumption for increases in aggregate wealth and health. Therefore, consequential and successful economic policies cannot disregard the importance of equity in economic relations.

Judicial decisions that are equitable affirm the economic necessities of equity. They significantly ensure efficient market operations and restore justice on occasions of unjust transactions. Equitable judicial decisions preserve the integrity of just laws by giving fair and equitable meanings to precedents and statutory laws. When laws are unjust or absent, judges are obligated to use the principle of equity (what is fair and reasonable). Equitable judicial decisions ensure law and order or the rule of law and the cohesion of societies. Therefore judges are always expected to perform their duties with an unequivocal commitment to equity.

2. Suppose consumers are willing to pay $60 for a good, what will be the consumer surplus if they pay $20 for 100 units? What will be the reduction in consumer surplus, if consumers reduce their consumption of the good by 50 units because of a-$20 increase in the price?



The consumers are willing to pay $60 just to have the option of purchasing the good though the good is not currently available in the market. Therefore, $60 can be considered to be a demand choke price, implying that consumers are not willing to pay more than that to have the good in the market.

The consumer surplus (CS) is the difference between what consumers are willing to pay and what they actually pay for 100 units of the good. Intuitively, it is the area of the triangle underneath the demand curve:

$$CS = \frac{(60-20)*100}{2} = \frac{\$4,000}{2} = \$2,000.$$

If consumers reduce the consumption of the good by 50 units, the demand choke will not change, but the market price has increased to $40; consumer surplus will now become smaller:

$$CS = \frac{(60-20)*100}{2} = \frac{\$2,000}{2} = \$1,000.$$

3. What is a class action suit? Discuss the conditions for bringing about a class action suit in a US court of law. Why is it that certain products have been targeted for class action suits? Are the suits frivolous? Why?

A class action is a legal procedure by which a large group of entities (class) challenge a defendant's allegedly unlawful conduct in a single lawsuit, rather than through numerous, separate suits initiated by individual plaintiffs.
In the US, the Federal Rule of Civil procedures prescribes procedures for class action suits. The class action claim must pass mandatory certification by US courts of law. Federal Rule of Civil

Procedure 23 establishes the prerequisites. A suit may represent several members if: (i) if the number of aggrieved parties is so large that it is not feasible for each member to bring a suit individually (numerosity), (ii) the questions of law and facts are common to the class (commonality)(iii) the defense is typical of the class (typicality), and (iv) the class is capable of protecting all relevant interests adequately (adequacy) At an early practicable time after a person sues or is sued as a class representative, the court must determine by order whether to certify the action as a class action.

Some consumer products are very easy to target for class action suits because of their concentration in stores and easy access to labels and scanners. Therefore, these products are easily prone to genuine and abusive litigation. Since public companies are generally sensitive to unfavorable public image (notoriety) and loss of revenue, they tend to settle class disputes (with or without merit) at a relatively cheaper cost rather than pursuing them in courts of law.

Suits can be frivolous when they lack merit; that is, there is no material intent to mislead and injure consumers. Some class action attorneys may not always act in the best interests of the class members. They may conduct laborious research in markets by reading labels and scanning products, and watching advertisements on TV and social media. Consumers may subsequently be dragooned into legal complaints for the personal gain of some class action attorneys. Cases that are not certified may exemplify frivolity.

4. What is the price elasticity of demand? Imagine that the market demand function for packets of blue cheese is specified as follows:

$$\mathbf{Q_{DC}= 20-6P_C;}$$

where Q_{DC} is for the quantity of blue cheese packets demanded and P_C is for the price of blue cheese per packet. Evaluate the function when price is $2 per packet and explain why consumers may or may not be sensitive to changes in the price of blue cheese.

Hint: $$|\eta_D| = \left(\frac{dQ}{dP}\right) * \left(\frac{P}{Q}\right) \rightarrow \frac{dQ}{dP} = -6\frac{p?}{Q?} \leq \text{ or } \geq 1$$?

Price elasticity of demand is an estimate of the responsiveness of consumers to price changes in specific set of goods in the same market. The responsiveness is otherwise known as "own elasticity," since consumer responsiveness to a price change tracks sensitivity of consumption of a good to its price and not other prices. Given that Q_{DC}= 20-6P_C, the point elasticity can be estimated as follows:

$$\left(\frac{dQ}{dP}\right) * \left(\frac{P}{Q}\right) = -6 * \frac{2}{8} = |1.5| > 1$$

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Consumers are sensitive to the change in price of blue cheese, because the elasticity coefficient is greater than 1 in absolute terms. This might be because consumers can use Swiss cheese or American cheese. Consumers may also have a reduction in income or a change of heart (preference)

5. Suppose the cheese function is alternatively specified as:

$$\mathbf{Q_{DC} = 20 - 6P_C + 2P_Y,}$$

where P_Y is for the per unit price of yellow butter. Explain how this information will help you to generate a legal brief about the relationship between blue cheese and yellow butter.

You might want to develop a legal theory as to whether yellow butter and blue cheese are substitutes or complements. Unlike own elasticity, which has been previously discussed, the function should enable you to determine that blue cheese and yellow butter are substitutes because the cross-price elasticity coefficient is positive:

$$\frac{dQ_{DC}}{dP_Y} = +2.$$

Implicitly, an increase in the price of yellow butter encouraged consumers to purchase blue cheese instead of yellow butter. Establishing these types of relationships is very important when attorneys and judges are trying to make legal decisions in merger cases about the relationships of goods or vertical and horizontal mergers.

Further, an increase in the price of yellow butter is most likely to increase the quantity of blue cheese consumed by 2 units, while an increase in the price of blue cheese will reduce the quantity of blue cheese consumed by 6 units. The changes are not proportional and their significance is contingent on t-tests, which is discussed in a later chapter.