

[The concept covered in this exemplar is elasticity of demand. The student also explained elasticity of supply, calculating and interpreting a PES coefficient from published information, and used supply curves to illustrate the concept.]

Price Elasticity of Demand

Price elasticity of demand measures the extent of change in quantity demanded as a response to a change in the price of a good. If cows' milk were elastic, an increase in its price would cause a proportionally larger decrease in quantity demanded. If cows' milk is said to be inelastic, then an increase in its price will lead to a proportionally smaller decrease in quantity demanded.

According to the values I calculated for price elasticity of demand using the midpoint method, cows' milk starts relatively inelastic from \$3.00 to \$4.50 with values of price elasticity ranging from 0.30 to 0.99, and 0.91. According to economic theory, when the value of price elasticity (derived from the midpoint method) is less than one, the good or service is deemed inelastic. These values indicate that the increase in the price of cows' milk is proportionally more than the decrease in quantity demanded.

Cross Elasticity of Demand

"Cross elasticity of demand measures the responsiveness of the demand for one good, as a result of a price change in another good." The coefficient of the calculation determines whether it is a substitute or complement good. The cross elasticity of demand coefficient is calculated by, percentage change in quantity demanded of X divided by the percentage change in the price of Y.

In the context of cows' milk, 54% of consumers surveyed said that they did not think cows' milk had many substitutes. This means that overall; milk has few substitutes and is a relatively inelastic good for most people. However, of the 46% of consumers who thought that milk did in fact have a number of substitutes (such as soy milk, milk powder, goats milk, almond milk, and water), 99% of them said that they would consider actually foregoing cows' milk for a cheaper substitute if the price of milk reached or exceeded \$5.00. This means that although it is valid to say that cows' milk is relatively inelastic to a point, it still becomes relatively elastic at around the \$5.00 mark as consumers demand for cows' milk will decrease significantly as a response to an increase in price (above \$5.00) and potentially result in an increase in the demand for its substitutes.

Income Elasticity of Demand

Income elasticity of demand measures the responsiveness of demand for a good or service (in this case cows' milk) relative to an income change.

In the context of cows' milk, approximately 93% of consumers surveyed said that they spent 3% or less of their weekly income on cows' milk. This is a very small proportion of a consumers' weekly income, therefore an increase in price is not likely to cause a proportionally larger decrease in quantity demanded, so in relation to income proportion, cows' milk is a relatively inelastic good. It is noticeable though that if consumers' income increased they would buy less inferior, cheaper brands of milk, and QD slightly increased for normal goods, and when they considered milk a luxury good.