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Elasticity is a fundamental concept in economics that measures the responsiveness or sensitivity of one variable to changes in another variable. It helps to quantify the degree to which the quantity demanded or supplied of a good or service changes when its price or other determinants change.

Price elasticity of demand (PED) is one of the most commonly used elasticities and measures the percentage change in quantity demanded in response to a percentage change in price. If the PED is greater than 1 (elastic), it indicates that demand is sensitive to price changes, and a small change in price leads to a relatively larger change in quantity demanded. Conversely, if the PED is less than 1 (inelastic), it signifies that demand is not very responsive to price changes.

There are several factors that influence the elasticity of demand. Firstly, the availability of substitutes plays a significant role. If there are many substitutes available, consumers can easily switch to alternatives when the price of a good increases, making demand more elastic. On the other hand, if there are limited or no substitutes, consumers have fewer options, making demand relatively inelastic.

Another factor affecting elasticity is the necessity or luxury status of a good. Necessities like food, utilities, and healthcare tend to have inelastic demand because people have to consume them regardless of price changes. Luxury items, on the other hand, typically have elastic demand as their consumption is more discretionary and sensitive to price fluctuations.

Additionally, the time frame considered also influences elasticity. In the short run, demand tends to be more inelastic as people may not have immediate options to switch to substitutes. However, in the long run, consumers have more time to adjust their consumption patterns and find substitutes, leading to more elastic demand.

Price elasticity of supply (PES) is another important elasticity concept. It measures the percentage change in quantity supplied in response to a percentage change in price. The determinants of PES include production capacity, availability of inputs, and time frame. If the PES is perfectly elastic, any increase in price will result in a large increase in the quantity supplied, whereas inelastic supply indicates a small change in quantity supplied for a given price change.

Elasticity is crucial for businesses, policymakers, and economists as it helps in understanding market dynamics, predicting price and revenue changes, and determining the impact of taxation and subsidies. It assists firms in setting prices, anticipating changes in demand, and making production decisions. Policymakers consider elasticity when formulating tax policies, as higher elasticity implies greater responsiveness to tax changes. Overall, elasticity provides valuable insights into how different variables interact and the potential consequences of changes in those variables

Alfred Marshall: In his book "Principles of Economics" (1890), Marshall introduced the concept of price elasticity of demand. He defined elasticity as "the ratio of the percentage change in quantity demanded to the percentage change in price". Marshall emphasized that elasticity provides a measure of responsiveness, allowing economists to understand how changes in price affect consumer demand.

Paul Samuelson: Samuelson's renowned textbook "Economics: An Introductory Analysis" (1948) explains elasticity as "a measure of the percentage change in one variable in response to a one percent change in another variable". He expanded the concept beyond price elasticity of demand to include income elasticity and cross price elasticity. Samuelson's contribution was to provide a framework for analyzing elasticity across various economic variables.

John Hicks: Hicks introduced the concept of elasticity of substitution in his book "Value and Capital" (1939). He defined it as "the percentage change in the ratio of two factors of production in response to a one percent change in the ratio of their prices". Hicks' focus was on the substitutability or complementarity of factors of production and how elasticity affects the optimal use of inputs.

Paul Krugman: Krugman, in his book "International Economics: Theory and Policy" (1998), discusses the concept of price elasticity of demand for imports and exports. He emphasizes that understanding elasticity is crucial for trade policy analysis and negotiations. Krugman provides examples of how countries with more elastic demand for their exports have a competitive advantage in the global market.

Hal Varian: Varian's book "Intermediate Microeconomics" (1999) delves into elasticity in the context of consumer behavior. He explains how price elasticity of demand helps economists predict consumer response to price changes and analyze market outcomes. Varian illustrates elasticity with examples of luxury goods, necessities, and the varying elasticities across different markets.

These references showcase the contributions of influential economists to the concept of elasticity. From Marshall's initial development of price elasticity of demand to Samuelson's broader framework and the subsequent works of Hicks, Krugman, and Varian, these authors have expanded our understanding of elasticity in various economic contexts.

**References**

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