Derived and Primary Supply and Demand (10/27/09)

Today:
• Chapter 6 Schrimper
• Journals due
• Exam II Review

Thursday (10/29/09) – Exam II

Demand and Supply at Different Levels in the Marketing Chain

- The demand schedule that we have discussed has really been the one at the consumer (retail) level – primary demand
- The supply schedule that we have discussed has really been the one at the producer (farm) level – primary supply
- How does one determine the equilibrium price and quantity at the producer (farm) level and at the consumer (retail) level?

Assumptions

- Fixed proportions (e.g. eggs, fruits, vegetables vs livestock/processed products where conversion factors must be known)
- Marketing input prices remain constant for a range of quantities (i.e., perfectly elastic supply of marketing inputs)
- Competitive Market Conditions

Derived Demand vs Primary Demand

- The derived (farm-level) demand is “derived” from the primary (consumer or retail) demand.
  - The farm level demand for wheat is “derived” from the retail level “primary” demand for bread and other bakery products.
  - The farm level demand for tobacco is derived from ....
  - The farm level demand for grain is derived from ....
Derived Supply vs Primary Supply

- The derived (consumer or retail) supply is "derived" from the primary (farm-level) supply.
- The supply of peaches at the consumer level is "derived" from the farm level supply
- The supply of rib-eye steaks at the consumer level is "derived" from ...
- The supply of cheese at the consumer level is "derived" from ...

Primary and Derived Supply

Price SR (Derived or Consumer/Retail Supply)
SF (Primarily or Farm-Level Supply)

Quantity

Farm and Retail Prices

Price SR (Derived or Consumer/Retail Supply)
SF (Primarily or Farm-Level Supply)

PR

Quantity

Derived Demand Shifters

- Shifters of the derived demand include:
  - Any primary demand shifter (e.g. income, price of substitutes and compliments, taste and preferences, population, ect.)
  - Change in marketing costs (e.g., transportation, labor, storage, ect.)

Effects of an Increase in Personal Incomes – Holding all other factors constant

Note: An increase in income will shift the primary demand to the right...

What happens to the Marketing Margin when Income increases?

Effects of an Increase in Marketing Costs – Holding all other factors constant

What happens to the Marketing Margin when Marketing Costs increase?
What happens to the Preceding Graphs When the Following Occur?

- Increase in Farm Input Prices
- Change in Consumer Taste and Preferences
- Technology Adoption to Increase Farm Yields
- Increase in Packaging/Processing Costs
- Increase in Advertising Expenditures

Other issues to consider? (pp. 116-117)

- Price differentials due to quality and location differences
- Direct marketing
- Adjustment time
- Non-competitive market conditions
- Marketing costs are not constant over a range of quantities sold.

How will the following affect the primary and derived supply/demand curves?

- Marketing Costs Increase with Higher Quantities Marketed?
- Marketing Costs Decrease with Higher Quantities Marketed?

Effects of Price Elasticities on Price Changes

- The relative change in prices at both levels is affected by the price elasticities of demand and supply.
- If the slope of the demand curves is steeper (i.e., less elastic) than the slope of the supply curves:
  - The magnitude of the price change at the consumer level will be greater than at the farm level.
- If the slope of the supply curves is steeper (i.e., less elastic) than the slope of the demand curves:
  - The magnitude of the price change at the farm level will be greater than at the consumer level.
- Within agriculture, supply tends to be less elastic than demand, especially in the short-run, resulting in a greater change in prices at the farm level.
Effects of an Increase in Technology – holding all other factors constant

\[ P_R^1 = P_R^2 \]

\[ Q_1 = Q_2 \]

AEC 305, Food and Agricultural Marketing Principles