

“Market”: A Definition for Teaching

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This short piece is an abstract, partial equilibrium approach to defining the term “market” in terms useful to students of agricultural economics. Neither the short, dictionary-style definitions nor the longer, more discursive descriptions available are altogether satisfactory for teaching students what a market is—especially in terms consistent with the basic theoretical constructs that we insist they learn. This particular attempt uses familiar concepts of supply and demand but presents them so as to highlight the idea of a “market.”

This short piece provides an abstract, partial equilibrium approach to defining the term “market” in a way useful to students of agricultural economics. As teachers, we spend much time and effort being precise about many underlying behavioral relations and processes affecting economic activity. Yet we often provide students with rather little insight about some very common terms that find their way into economic discourse. A “market” is one such term.

Both agricultural and general economists have tried to define this term usefully and to convey those ideas to their students. The Shepherd *et al.* agricultural marketing textbook summarizes the present state of this long, unsettled discussion (pp. 15–18). They cite numerous authorities from Alfred Marshall to Webster’s unabridged dictionary. However, neither short, dictionary-style definitions nor longer, more discursive descriptions are altogether satisfactory for teaching economics students what a “market” is—especially in terms consistent with the basic theoretical constructs that we insist they learn.

This particular attempt to define a

“market” may not be decisive, but perhaps the approach can be useful in the classroom. The idea here is to attempt neither an extensive literature survey nor a summary of the many discursive and legalistic treatments about what a market is or is not. The immediate goal is to develop a relatively simple view of this term that can fit into analytical discourse. Broader definitions and descriptions for research, regulatory, and other purposes are surely necessary.

Some Definitions of a Market

As a point of departure, consider three representative definitions by oft-quoted agricultural economists. Writing in 1957, Cochrane stated (pp. 21–22):

The concept of a market at the present stage of economic thinking may then be stated as follows: a market is *some* sphere or space, where (a) the forces of demand and supply are at work, (b) to determine, or modify, price (c) as the ownership of some quantity of a good or service is transferred, and (d) certain physical and institutional arrangements may be in evidence.

In 1970, Bressler and King (pp. 74–75) offered this definition:

An area or setting within which producers and consumers are in communication with each other, where supply and demand conditions operate, and title of goods is transferred. The actual movement of goods in space or time is usually but not necessarily involved.

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Shepherd *et al.* in 1976 presented their own, quite terse, definition (p. 173):

... a market is: a group of freely competing buyers and sellers with facilities for trading.

For students of agricultural economics, these definitions and others like them are relatively easy to grasp except for phrases like Cochrane's "sphere," or Bressler and King's "area or setting," or Shepherd *et al.* "group"—all rather vague notions.

Similarly, beginning and intermediate theory textbooks in general economics do not usually attempt an analytical definition of this term. Browning and Browning, for instance, write (p. 6):

Markets ... refer to the interplay of all potential buyers and sellers involved in the production, sale, or purchase of a particular commodity or service.

In this definition, "interplay" is not likely to be an especially clear idea for students. Consequently, the following ideas are an attempt to clarify the notion of a market using basic ideas from economic principles but organizing them with the "market" concept in the forefront.

Another Approach

First consider a well-defined, homogeneous commodity—a product for which partial equilibrium demand and supply (or cost) functions of individual buyers and sellers can be derived. Asserting the existence of a clearly defined commodity in this context sidesteps some of the issues in the traditional debate about what a market is or is not. More about this later. In any case, recall that partial equilibrium demand and supply functions are drawn on the presumption that prices and costs for other commodities and services remain constant, at least momentarily.

Now perform an ordinary horizontal summation of the independent demand curves for a specific set of individual buy-

ers to form an aggregate demand curve. Then add horizontally the independent supply curves of another set of individual sellers to form an aggregate supply curve. The actual number and identity of the various buyers and sellers aggregated within each of these sets can differ from point to point along each of these summed functions. Next, in order to give specific meaning to this abstract summation process, impose two stringent, exclusionary conditions on the aggregate demand and supply curves.

1. The various buyers collected in the aggregate demand curve can obtain this commodity only from the sellers collected in the aggregate supply curve and no one else.
2. The various sellers collected in the aggregate supply curve can dispose of this commodity only to the buyers collected in the demand curve and no one else.

Now the intersection of the two functions has economic meaning. It registers the "market" price of and the "market"-clearing sales quantity of this product. The principles or process of aggregation which result in the two aggregate functions define the "market." The "market" participants (actual or potential) are the aggregated buyers and sellers, whoever and wherever they are and by whatever means they are in communication with each other. The principles or facts of aggregation by which the demand and supply functions are obtained may be defined by space, time, political boundaries, or any combination of these.

There is nothing really new in these ideas. In fact, they could hardly be more familiar to generations of economists and their students. What may be novel, hence useful in the classroom, is this specific way of framing them to highlight the term "market."

To define a market for any particular product, this abstract reasoning must be

reversed and given empirical content. That is, we must identify the aggregation principles or facts which will deliver the two exclusionary criteria, or an acceptable approximation, over relevant, real ranges of prices and quantities. This aggregation process will then define the market. It may be very simple or very complex, but it allows us to give analytical content to the vagueness of "sphere," "area or setting," "group," and "interplay."

A single market price and a single market-clearing quantity, suggested by a textbook-like intersection of aggregate supply and demand curves, probably will not emerge in most real cases. Transactions and physical transfers within a given market may occur at numerous places and times. Individual transaction prices may differ from each other by transfer costs which reflect these differences. The systematic interconnections among many prices for a product, in fact, describe the dimensions of a specific market in space and time. Consideration of these ideas in the classroom can follow quite logically from the basic analytical definition of a market.

A given market does not function in isolation from markets for related products. Changes in prices or costs of items which alter the position, shape, or number of underlying individual demands or supplies will affect the market in question. For example, suppose the long-run price of crude oil, hence gasoline, increases greatly. The market definition for corn may change in a fundamental way. This is because the number of individual demand functions to be aggregated at various relevant corn prices would be increased as more corn is sought for alcohol-based fuels by previously uninterested buyers. But if we clearly specify the commodity at issue and hold other prices constant, then cross-product effects of substitution or complementarity are not central to defining a market.

However, if we alter the *a priori* definition of the commodity in question, then

the principles of aggregation and exclusion will change. Our market will alter; its dimensions will change. For instance, consider how the principles of demand and supply aggregation might change if the market for hard red spring wheat, once defined, were widened to include all wheat, or if a clearly delineated market for fluid milk were broadened to encompass all dairy products. At heart, the economic concept of a market is as pliable as the concept of a "commodity" or a "consumer" or a "firm." Its character cannot be established once and for all. Much depends on the problem at hand and the analytical approach to be taken. Yet, for teaching purposes, it is surely sensible to give students at least a toehold on this ubiquitous term.

Cochrane's approach to the problem of describing markets and delineating one from another built upon ideas advanced by Papandreou and Wheeler in their 1954 book, *Competition and Its Regulation*. In both cases, the individual firm was the focal point. The analysis mainly sought to identify the substitutability or complementarity of one firm's output with that of another. Such an approach combines the problem of commodity definition with the issues of aggregation and exclusion emphasized here. The question of product definition may be very important for some inquiries, especially in manufacturing and other nonagricultural industries. But it can be separated, in principle, from the aggregation-exclusion principles both for teaching and for general discussion.

Few Buyers and Sellers

There is no real reason that buyers and/or sellers need to be numerous for this view of a market to be useful. It is simply that this idea, like many others, is clearest in the perfectly competitive context. However, our market, as defined, need not be perfectly competitive. If the exclusionary conditions hold for any collection of buy-

ers and sellers, then we may identify a "market" even though there are only one or a few agents on either or both sides of potential transactions. How and why the particular exclusionary principles are what they are may be of concern in antitrust or antimonopoly inquiries, but that is not the point here. That they exist is sufficient.

Market prices and quantities may be established by monopolistic or oligopolistic behavior among few buyers and sellers rather than through atomistic competition. Moreover, actual price and quantity transactions may be indeterminant from the theoretical viewpoint. Still, there is nothing in our view of a market that reserves it only for perfect competition. Also, the behavior of nations, acting directly or indirectly through trade policy schemes, can be accommodated in this view of a market. Through their coercive and legislative powers, nations can control the way individual demand and supply functions are aggregated for transactions across national borders and the terms under which these transactions are conducted. This gives international markets political as well as economic dimensions.

A Possible Definition

Here is a possible definition using the ideas and the spirit of the previous discussion.

A market is a collection of actual or potential buyers and sellers of a specific good or service. This collection has two characteristics: (1) none of the buyers has the option to purchase the item from sellers out-

side this collection and (2) none of the sellers has the option to sell the item to buyers outside this collection. The interaction of these buyers and sellers generates a set of interrelated prices and conditions of sale or use. The principles or facts determining which buyers and sellers are in this collection identify the market spatially, temporally, and politically.

Although these ideas probably will not alter empirical research in agricultural economics, they may help to sharpen the way we communicate with students about this elusive topic. It is also possible that they may help us to formulate and conduct research by providing a basis from which more sophisticated or detailed views of particular markets can evolve.

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