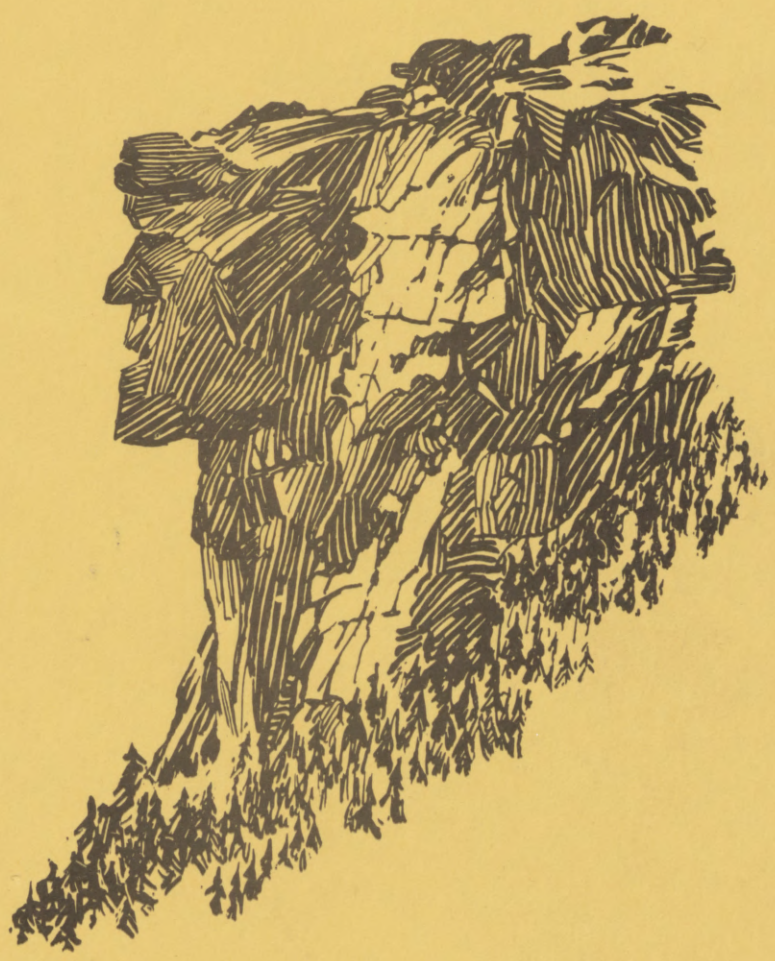
NEW ENGLAND AGRICULTURAL ECONOMICS COUNCIL



PROCEEDINGS
1968

UNIVERSITY OF NEW HAMPSHIRE
DURHAM, NEW HAMPSHIRE

NEW ENGLAND

AGRICULTURAL ECONOMICS

COUNCIL

PROCEEDINGS

1968 ANNUAL MEETING

UNIVERSITY OF NEW HAMPSHIRE

DURHAM, NEW HAMPSHIRE

JUNE 17, 18, 19, 1968

NEW ENGLAND RURAL LAND MARKET AND ITS IMPACT ON RURAL LAND RESOURCE ALLOCATIONS AND COMMUNITY DEVELOPMENT: NORTHERN NEW ENGLAND 1/

Robert O. Sinclair
Professor of Agricultural Economics
University of Vermont

The terms "market" and "resource allocations" in the title of a technical paper presented to a meeting of agricultural economists might imply that the subject is to be discussed within a fairly rigorous framework of economic theory. Such an implication in this case is erroneous for several reasons which, I hope, will become clear in the course of this discussion. I start with the premise that in the Northeast, at least, the resource "land" and the "market" within which it is sold or purchased, does not fit very well the economic model of resource markets and resource allocation. I propose, therefore, to summarize briefly the concepts normally implied by the terms market and resource allocation; to point out why this land resource presents special problems in relation to the model; to discuss trends underway in land prices and land use in Northern New England; and finally, to raise some of the implications of these trends.

Resource Markets. In a general economic sense, a market tends to be defined in terms of the functions it performs. According to Black, (2) "Most economists are ready to accept, with qualifications, Alfred Marshall's definition of a market as 'the whole of any region in which buyers and sellers are in such intercourse with one another that the prices of the same goods tend to equality easily and quickly'." Thus, a market is some geographical area in which commodities are sold and purchased at a common price. Implied in the definition are such characteristics as known geographic area, homogeneous products, and near-perfect knowledge. The price established by the market is dependent upon existing demand and supply schedules. It is the function of the market to bring buyers and sellers together.

Demand, in resource markets, is determined by the firms marginal physical product, and the firm will use a resource to the point where the value of the marginal product of each resource is equal to its price. The market supply curve of owners of resources is assumed to be upward sloping to the right, allowing more of a resource to be placed on the market at high prices than at low prices. The market demand and supply curves determine price, and this price will equal the marginal value products of all firms using the resource. To reiterate, prices govern the allocation of resources at three levels; among industries, among firms, and within firms. A competitive, free enterprise system allocates resources with maximum efficiency, assuming the conditions of the model are met. If resources are used where they obtain the highest rates of renumeration, if they are employed efficiently in these industries, and if they are used to produce the commodities that consumers

1/ Presented at the annual meeting of the New England Agricultural Economics Council, University of New Hampshire, June 17-18, 1968.

most desire, output is as large as possible and economic efficiency is maximized.

Unique Characteristics of Land as a Resource. Agricultural economists have been interested for a long time in the price of land and those factors which are assumed to determine price. However, until fairly recently such studies have generally focussed attention on determinants of land prices that are endogenous to agriculture. Only a few isolated efforts have attempted to analyze nonfarm determinants of farm land prices. (4, 5, 6, 7) Analyses which fail to consider exogenous variables are doomed to failure in the Northeast.

According to Scofield (8), the land market is not a single entity, or a series of closely integrated markets. Land sales occur in thousands of separate locations and there is little meaningful exchange of information. Buyers have imperfect knowledge, sellers are little better off. There is little competitive bidding and a low volume of transfers at any one location.

Land also has some unique characteristics as a commodity. There are the physical characteristics - the so-called "inherent" qualities of soil fertility, drainage, texture, etc. that contribute to or determine its value to agriculture; and, incidentally are beginning to be recognized as important factors affecting value in nonfarm uses. Location is, of course, another important factor which adds to or detracts from value. Finally, there are important subjective intangibles that effect value; some of these relate to the agricultural fundamentalism philosophy of the "goodness" of owning land, others are more profit-motivated and are based on the belief that land serves as a hedge against inflation.

The supply-demand relationships create problems of analysis. The total supply of land is fixed, and so, for the most part, is the supply of land suitable to agriculture; in fact, it is decreasing due to competitive pressures from other uses and to new technologies. Alfred Marshall is quoted as having once said, "All short sentences in economics are wrong", so we should start qualifying our statements about the fixed supply of land. Although land in farms is decreasing in the Northeast, the stone walls running through our forests are mute testimony that agriculture was once supported there. If food demands and price relationships so dictated, much of this land could again be brought back into cultivation. However, as Schultz has pointed out, (7) land is becoming a less important input in the production process, and there is every indication to indicate that in spite of population pressures on food supplies, substitution relationships are such that this trend will likely continue.

Although agriculture is probably the largest single land holding sector, the industry does not hold a majority of the land, in fact, the proportion in farms ranged from 42.5 percent in Vermont to 13.0 percent in Maine, and averaged only 19.0 percent for the three northern states. However, except for recreation, most of the competing uses of land draw primarily on the land in farms.

Our knowledge of the market supply and of the sellers of land is much more incomplete than our knowledge of the buyers of land. Since they comprise one-half of the price equation, we should acquire more adequate information of who the sellers are and what prompts them to sell. The supply function really

relates to the quality of land offered for sale at any point in time, and not to the total quantity of land, it is, in fact, a function of the reaction of landowners in the market. Farmland probably goes on the market for one or more of several reasons; the death of the owner, financial pressures from the cost-price squeeze or heavy liabilities, high land taxes, and occupational mobility resulting from opportunities for nonfarm employment. The individual farmer may very well have a perfectly inelastic supply function; if the price is high enough he will sell, if it is not high enough he will not. (3) However, since the aggregate supply function is made up of all individual landowners it slopes upward to the right in the normal way, since different landowners enter the market at different prices.

The demand function for land is made up of many different sectors. Agricultural demand, which is essentially limited to land already in agriculture arises from whole farm transfer and from farm consolidation. Nonfarm demand is more complex. Here we see to a limited extent in Northern New England the influence of urbanization pressures; for housing, commercial or industrial development, public recreation facilities, highways, and other public facilities. Speculative demand for land as an investment plays an increasingly important part in the total demand, and this may be for land now in agriculture or for nonfarm land. Finally, the recreation industry is contributing an ever-increasing role in the demand for both farm and nonfarm land. This may be evidenced in private recreation development utilizing fairly large blocks of acreage, as ski developments or water-based recreation. Also significant is the increasing ownership by residents and non-residents alike of vacation homes. Vacation homes may range all the way from a small camp on limited acreage to old farm houses including all of the farmland.

To summarize: We have in land a unique commodity. As a commodity, land has value for the flow of services it provides. It is not consumed in the production process. It is fixed in total quantity, but this total quantity has varying and competing uses. The supply of agricultural land, given present supply-demand-price equilibra, is also fixed, and the value of agricultural land to producing farmers is dependent upon its capitalized income stream. However, all agriculturalland has value for other potential uses, and the rate at which it enters other uses and its value in other uses is dependent to a large extent upon its spatical location and upon factors exogenous to agriculture. The supply of land may also be fixed for other than agricultural uses. There is a limited amount of frontage on Lake Champlain, or for ski development on Mt. Mansfield. The supply of hilltop land with panoramic views is also fixed, as some of us looking for such land are finding out to our sorrow. Although new interstates and interchanges can and no doubt will be built, the supply of land around a single interchange is fixed, and as one moves further out from interchanges, value goes down. The demand function is made up of many different prospective purchasers of land for different reasons; many of which cannot be empirically qualified and measured. The market exists wherever and whenever a potential buyer and seller, usually acting individually, get together and agree on a price. It is no wonder that vigorous statistical analysis of such a market is fraught with pitfalls.

Implications. In discussing the implications of the imperfections of the land market, I shall rely primarily upon my knowledge of Vermont. I hope this may be

justifiable on two counts: first because I am unfamiliar with the New Hampshire and Maine situations; and secondly, because I believe that what is happening in Vermont is reasonably representative of what is happening in the three northern New England states.

Turning first to farmers, we see some interesting developments. Land in farms and numbers of farms are decreasing, but size of farm is increasing as a result of consolidation. Normally, increasing land as an input, holding other inputs constant, would drive the marginal productivity of land down; however, other inputs are not constant. New technologies and improved labor efficiency are allowing farmers to operate larger units, and frequently the marginal product of land consolidated with operating farms results in greater returns to this combined unit of land than would be the case if it continued in production as a separate unit. Thus, demand for land for consolidation purposes is a factor affecting rising land prices.

Another factor influencing land prices is the competition for existing farms resulting from farmers forced out of production in southern New England. They come north with their pockets full of money and bid high for good farms in the better agricultural areas. The improved milk prices of the last 18 months have caused values of good farms to increase from 15-20 percent, according to farm lenders.

Many farms in less desirable areas (less desirable for agricultural purposes) are going either for summer homes or other recreational purposes, or for speculative holding, for prices in excess of their capitalized agricultural income producing potentials. A similar situation exists for forest land, where speculators are offering prices in excess of any capitalized value of the income from forestry operations.

As tax assessors study these sales prices, they tend to transfer per acre values established by these sales to the remaining land. This frequently results in tax assessments based on fair market value that are in excess of present use value, and is one source of discontent with using the fair market value concept for assessing agricultural or forest land. Hence, the agitation for preferential assessment plans.

As more and more land in northern New England comes under ownership and control of nonresidents, some significant changes occur in rural communities. The tax base frequently increases, since the nonresident owner may make sizable improvements to the land in the form of vacation homes, or in the form of commercial recreation or other development. There is evidence that the demand for certain types of services, notably education and welfare, decreases. This, of course, may be reflected in lower public revenue needs. However, the demand for other services, e.g. highways, police and fire protection, water or sewerage and zoning, may in fact, increase. We know too little about how these changing demands for services affect the total revenue needs of local communities.

A whole new social structure may develop. Communities that once were composed of tightly-knit social groups are now faced with an influx of "outsiders", at least during the summer months. Social institutions that once depended upon year-round participation of their members now find their pattern of memberhhip activity adversely affected.

In Vermont, absentee landowners are disenfranchised. It is extremely difficult for them, either individually or as a group, to get their desires for services recognized by the resident voters. Also, there is a general feeling (undoubtedly with some basis in fact) that they are more heavily taxed in proportion to fair market value than are the resident property owners.

Other land-associated factors are affected. Absentee owners may be more prone to posting their land against sportsmen or other trespassers. Land that was once in farms and "open" in the sense of producing hay crops, now may grow up to brush and trees and affect the scenic beauty of the area. What were formerly near-wilderness areas suddenly start sprouting vacation trailer homes, camps, or chalets. To use David Allee's expression, "The woods are full of people". (1)

Except for isolated cases, the problems posed by this new form of development are not yet serious. However, as the trend continues, environmental quality will be affected. An obvious problem is that of pollution, resulting in the need for some form of common sewerage disposal. One example of the deterioration of environmental quality can be illustrated by the land developer in one of Vermont's ski communities who purchased 200 acres of prime, isolated hilltop land and subdivided it into one-eighth acre lots laid out like city blocks, to sell to out-of-staters for ski chalets (huts would be a more appropriate term). Other effects are highways clogged with traffic and strewn with waste, the proliferation of honky-tonk establishments and "cute gift shoppes" with their attendant signs and billboards, and land growing weeds and collecting junk as it is temporarily by-passed by hit-or-miss expansion of urban residential or commercial development.

It may seem trite to mention in a technical paper the tremendous concentration of population, located within one day's drive, either south, or west, or north of a central area of Northern New England, such as Laconia, New Hampshire, or St. Johnsbury, Vermont. But trite or not, the people are there, they have higher incomes, more leisure time, and better means of travel than ever before; and travel they will. And as they travel, many of them get a yearning to sink roots in the last remaining sparsely populated regions of the Northeast. We have long recognized certain legal rights of the state pertaining to land; among them eminent domain, taxation, police power, the "power of the purse", the right of escheat. It may very well be that if we are to preserve the qualities of northern New England that have made the region attractive not only to the residents but to the visitors as well, we will have to accept another state's right: the right to compel beneficial use. This right has been freely imposed in much of Western Europe and is generally accepted by landowners. The benefits resulting from this power of the state in maintaining environmental quality under far greater population pressure than exists now even in Southern New England are evident to anyone traveling through the United Kingdom, Netherlands, Germany, Switzerland or Scandinavia. Such controls would be bitterly opposed now, but as time goes on, they may become more palatable as the ravages of uncontrolled development continue.

LITERATURE CITED

1. Allee, David J. Changing use of rural resources, Journal of Farm Economics, Vol. 48, No. 5. pp. 1297-1304.

2. Black, John D. Economics of American Agriculture, New York: The Macmillan Company. 1953.

3. Cochrane, Willard W. and Herdt, Robert W. Land prices and technological advance. Journal of Farm Economics, Vol. 48, No. 2. pp. 243-263.

4. Renshaw, Edward F. Cross sectional pricing in the market for irrigated land. Agricultural Economics Research. Vol. 10, pp. 14-19.

5. Rultan, Vernon W. The impact of local population pressures on farm real estate values in California. Land Economics. Vol. 37, pp. 125-131.

6. Schuh, G. Edward and Scharlach, Wesley C. Quantitative analysis of some farm and non-farm determinants of agricultural land values -- impact of economic development. Purdue Agric. Exp. Sta. Bull. 821. 1966.

7. Schultz, Theodore W. Land in economic growth. In Modern Land Policy. Urbana: University of Illin ois Press. 1960.

8. Scofield, William H. Prevailing land market forces. Journal of Farm Economics, Vol. 39, pp. 1500-1510.

9. Stigler, George J. The Theory of Price. New York: The Macmillan Company. 1952.