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Effects of Agrarian Reform in the United States on Land-Use Policies and Planning

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by

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INTRODUCTION
by
Professor Thomas E. Dickinson
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In the Department of Agricultural and Applied Economics at the University of Minnesota, Dr. Raup has been involved in one way or another in teaching and research on land economics, land tenure, and world agricultural development for at least 20 years that I have been reading his writings. In part, the reason for putting him as the last speaker on today's program was because I have heard of his ability to pull ideas together in this area. Therefore, I feel that we are very fortunate to be able to have him here this afternoon. I assigned him a topic which was entitled, "Agrarian Reform, and the Effects on Land-Use Planning". He has had extensive experience both domestically and abroad, and this topic was suggested by L. T. Wallace who felt that this would be an apt title with which to wrap up this particular session.

Dr. Raup has spent a lot of time working on tax matters in particular and hopefully he can pull together some of the issues we have been discussing in the last three sessions on land use, taxes, and land reform. Dr. Raup.

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* Transcript of a talk given at a conference on "Agriculture in the Future and Its Implications for Land-Use Planning", sponsored by Continuing Education in City, Regional and Environmental Planning, and University Extension, University of California, Extension Center, San Francisco, May 1-2, 1975.

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We have heard quite a bit about tradition in this pre-bicentennial year, and I think it is appropriate to reflect a bit on the traditions that we have honored in practice rather than in preachment, in our 200 years of history as a nation. If I look back on the Jeffersonian ideal, I find that it has been the subject of much rhetoric but not much honor. The facts force us to conclude that there really is a dominant American agrarian tradition, with two dimensions. It is not that we believe in small farms. Rather, it is that the uniform policy prescription for 200 years has been to grow bigger, and to specialize. In terms of what we practice rather than what we preach, that has been the outcome.

This is understandable. The people who migrated to North America had had bitter, deeply etched experiences with diseconomies of scale in the countries from which they came. They knew all about the problems of farms that were too small. In the continental land mass that we occupied as a nation, this encouraged an expansionary policy based on a concept of economies of scale in a political dimension that also made sense in an economic dimension, and these reinforced each other. We developed an agricultural economy that was guided by a belief that bigger is better, and we also developed a political economy that was dominated by the same principle.

With this background, it is worth reflecting on the fact that we may have passed a watershed or have come to a turning point in that 200-year-old history. For the first time today, we can find empirical evidence of diseconomies of size in agricultural practice. That was not possible, or was at least very difficult, in any previous generation. In the past, it was difficult to find more than a few examples of farms that were too big, or large scale firms in agriculture that were in some sense performing a disservice rather than a service, but today we do not have to look far to find them. The biggest dimension of this diseconomy is the ability of farms or firms today to pass their external diseconomies onto the community, or their customers, or the state, or the nation. In other words, polute if you can get away with it, and let somebody else pick up the tab. Engage in activities that have disastrous price consequences for some other region, but let the other region worry about it. Support heavy investment in irrigation and water facilities that will help some lands but will impoverish other lands that are a little further down the economic chain, and let them worry about it. In this sense and largely in the last 30 years, we have generated a family of problems of diseconomies of size in agriculture that are new in our experience.

There is another dimension that is associated with specialization. We have livestock farms now that produce none or very little of their own feed supply, and we have a large proportion of grain-crop farms that have little or no livestock. This has had differential impacts on labor demands in farming. We have exacerbated the labor peaks in crop farming while smoothing out the labor supply required in some kinds of livestock farming. For example, a big feedlot operated as a continuous flow operation has a more or less uniform demand over the year for labor to run the feedlot. At the same time the demand for labor on the crop farms that provide the feed supply but that have no livestock enterprises has peaked to a sharper peak. This has several consequences.

For one thing, it becomes rewarding to organize the withdrawal of labor on large crop farms dependent upon hired labor because the damage done by denying labor at a critical season in the crop cycle has risen. We can expect to see more of this type of effort to withdraw labor, to organize a strike, because the rewards have increased.

In the livestock enterprise, on the other hand, while labor demand has been stabilized the process has come to resemble that of a big chemical plant, or a hotel chain. One of the most prominent dimensions is that the emphasis shifts from a simple measure of size, like number of head in the lot, or number of barrels of capacity, to throughput. Throughput becomes the key criterion.

As a result, we have cattle feedlots today that suffer from the same problems that plague hotel chains. Unless you can keep the occupancy rate up around 75% or 80%, you are in trouble. When it comes down around 50 or 60%, you are bankrupt if you stay there very long. You must keep the beds occupied in a hotel or motel chain or you go broke. You must keep the pens full of cattle in a cattle feedlot or overhead costs will destroy you. We have not previously had a structure of livestock feeding enterprises that required continuous full-scale operation. Now we do, and we have a good many bankrupt feedlots around, and lots that are underfilled and in financial difficulty. As a result, we have increased the sensitivity of the agricultural plant to weather and to economic forces. It is less able to absorb shock in both a climatic sense and an economic sense.

The traditional multiple product farm provided a form of insurance. If one enterprise was hit hard by weather in a given year, it was not usually true that all enterprises were hit equally hard. What was lost on the crop side could often be made up on the animal conversion side. With no livestock on the crop farm, this opportunity is foreclosed. We had that experience last year. An early frost in parts of the corn belt caught many farms with no livestock to which the soft corn could be fed. We lost resiliency in the agricultural economy as a result.

It will be helpful to examine several consequences of these changes that I have epitomized as functions of a preoccupation with economies of size, and specialization. Some of these changes have been generated inside agriculture, and are indigenous to the agricultural plant. Other forces have come from outside, and are primarily a result of urbanization and industrialization.

Time does not permit a discussion of technological advances within agriculture that have made it possible to expand the scale of operations. This is well known and well documented. Although I will not touch on it, it is very significant.

I will turn instead to contributing forces that led to this expansion in scale of operations that are not related to straightforward production economies, or economies in the use of large scale machinery, equipment, and land units.

This introduces a web of relationships that we must weave together from a number of different strands. One strand is the sharply increased population of taxpayers in the United States in higher income tax paying brackets. In 1950, there were 84,000 taxpayers with taxable incomes over $50,000 per year, and 125,000 in 1960. By 1972, this number increased four-fold, to 597,000.

This big increase in high-income taxpayers created rich new occupational opportunities for lawyers and tax accountants in the construction of tax shelters. The first fact is that the demand for tax shelters has expanded greatly.

The second strand is that we have inherited a series of accounting rules and tax policies that were not designed or adopted consciously to promote tax avoidance but that taken together have made agriculture one of the rewarding places to look for a tax shelter.

Tax shelters in agriculture are comprised of several parts. First is the preferential tax treatment for capital gains. This is not peculiar to agriculture, but since capital in the form of land and livestock is so large a fraction of the total capital stock in agriculture, farming offers particularly rich rewards for those hunting for tax shelters that depend on the low rate of taxation of capital gains.

Perhaps I should remind you that in general terms, the first $50,000 of taxable capital gains is taxed at not more than 25%. Any capital gain over $50,000 is taxed at not more than 35%, whereas the marginal rate on earned income for a married taxpayer filing a joint return will rise to 60% at a taxable income of $88,000 and goes up to 70% at $200,000.

Whenever taxable incomes rises above $44,000 for this married taxpayer, the marginal tax rate, that is, the tax paid on the next $10,000 earned, will be 50% or higher. If additional income is received as a capital gain, the tax rate will not be more than 25% on the first $50,000 and never more than 35%.

Once taxable income rises above about $50,000, it is highly rewarding to receive any additional income in the form of asset appreciation values or capital gains, and not in the form of wages, salaries, or dividends. If you are very wealthy, the reward is very rich. You can cut your marginal tax rate in half in the extreme case.

The third strand results from the fact that farmers have been held to be incompetent to practice accrual accounting and are permitted to report on a cash basis. Almost all other business firms that operate with the size of turnover that characterizes a modern farm will be required by the Internal Revenue Service to practice accrual accounting. This means that you value inventory in, at the beginning of the year; you accrue expenses only when they are incurred; you carry forward any unused coverage (e.g., insurance) to the next tax year; and any supplies bought but not used in the course of business this year are carried forward and included in the year-end inventory when you inventory out. Inventory values enter income performance during the tax year. You cannot buy a stock of supplies that exceeds your requirements and deduct the whole cost of the purchase as a business expense in that year. On a cash basis of accounting you can do this.

On a cash basis, you deduct expenditures from receipts and the remainder is your income. It is presumed that farmers can only keep books of this kind. Anybody who buys into an agricultural enterprise and claims the receipt of farm income is also permitted to report on a cash basis. A wealthy non-farm investor will be treated as a farmer in reporting his farming income. It then becomes rewarding for him to convert current expenses into capital gains if at all possible.

The traditional tax dodge has been to buy breeding cattle, pay the feed bill for as far in advance as possible, and deduct the cost as a business expense, thus reducing taxable income in that year. When the animals are sold, the proceeds above costs can be treated as a capital gain, if the cattle have been kept more than two years. The difference between the cost of production and the final sale price will be taxed at not more than 25% for the first $50,000, and at 35% for any excess. In the meantime, the total cost of the feed bill was deducted in the first year of the enterprise which in effect provided an interest free loan from the Internal Revenue Service.

As a result, capital has been attracted into farming enterprises in the United States by incentives that are not related to production efficiency but that reflect ability to command the superior services of the better tax accountants and lawyers. The biggest market for these services is on the West Coast and in Texas. These regions have pioneered in devising tax shelters that will shelter income for the very rich. The centers are Los Angeles and Dallas.

As a consequence, we have capital invested in agriculture that is out of line with the need for the products that the capital produces.

A classic case in California involved the projected expansion of citrus and almond groves in the southern San Joaquin Valley, which threatened to bankrupt other California investors in the same kinds of production enterprises. The existing producers joined ranks and supported a change in federal legislation that would force the inclusion of the establishment costs of almond and citrus groves in depreciation accounts. This was one of the reforms of the 1969 Tax Reform. Prior to 1969, it had been possible to pre-pay the costs of establishing an almond or citrus grove and deduct most of the cost as a current business expense, much like the deduction of the feed costs for cattle.

The goal is to be able to treat the cost of creating a depreciable or capital asset as an operating cost, and hence deductible for income tax purposes. An example will make the situation clearer. If I buy a farm and erect a new barn, I cannot deduct the cost of the new barn as an operating expense. I must instead set up a depreciation account, estimate the life of the barn, and the depreciation each year is my deductible expense.

Alternatively, I can buy a farm with an old barn, undertake extensive rennovation, call it "repairs and maintenance", and try to persuade the Internal Revenue Service that the cost is deductible. It does not pay an ordinary farmer to do this unless it increases his efficiency, since the expense reduces his family income. The wealthy non-farm investor finds it rewarding, since his level of living is maintained by his non-farm income and the expense represents dollars that would have been taxed at a high marginal rate if they had been added to his income. As a result, the wealthy investor is tempted to over-invest in livestock, farm buildings, equipment, irrigation systems, fences and other types of capital investment, especially if the cost can be deducted as "operating expenses". The typical example is the wealthy oilman with a cattle ranch.

His opportunities are manifold. He can buy expensive breeding bulls, and this has inflated the price of breeding bulls. He can put in a new water system and refence the ranch. He can modernize the house, and build roads, if it is a big ranch. Much of the cost can be treated as a current, deductible expense. When he sells his breeding animals, or the entire ranch, any increase in value over cost will be taxed as a capital gain. In the meantime, if he has oil wells he has benefitted from the depletion allowance. If properly advised, he can in effect obtain much of his operating capital from the Internal Revenue Service.

This is where talent was invested in devising tax shelters, since it was here that the rewards were greatest. To this situation we added institutions in the 1950's and 1960's that were not new, but were modified in very significant dimensions.

One was the Subchapter S Corporation. This was permitted by a change in the Internal Revenue Code in 1958 to enable small businessmen to incorporate, but to enjoy the tax advantages of a partnership. If the small business corporation has not more than 10 stockholders and not more than one class of stock, and meets some other requirements, it can be considered a corporation in terms of liability law but can be taxed as a partnership. The significance of this change is that any profit or loss, and in particular, any capital gain, can be passed through the corporation to the individual stockholders whereas in a normal corporation this is not possible.

As a result, there has been a big increase in business firms in agriculture organized as Subchapter S Small Business Corporations, with less than 10 stockholders. If there has been a capital gain, this can be passed through the corporation and the individual stockholders can benefit from the low tax rate. If there is a loss, the loss can also be passed through the corporation and taken on the individual income tax returns. If the stockholder is wealthy, the loss reduces income that would otherwise have been taxed at a high marginal rate of 50% to 70%. He has lost, in effect, some 50¢, or 40¢ or 30¢ dollars.

Quite literally, the livestock journals have carried advertisements from cattle feedlots in the Southern Great Plains in which the first line of the ad reads: "The greatest advantage in cattle feeding is to make money". The next line reads: "The next best thing is to lose money". The organizers of the small business corporations or limited partnerships are perfectly frank about their intent, and the clientele they are seeking.

In this sense, some strange institutions have emerged in agriculture and have distorted capital investment patterns. One consequence is over-investment in some private sectors to the point of surplus capacity, coupled with distorted public capital investments that reflect the power of business firms seeking the tax and accounting advantages of investments in agricultural enterprises. This is especially the case with the tree and vine crops and cattle herds.

The opportunities for this kind of tax avoidance are multiplied if you can manipulate water as well as land. A much greater capital investment can be made in an irrigated farm than in a farm that is on dry land. The possibilities of employing a tax lawyer to advantage are thus very much greater when irrigation is involved. Moreover, the possibilities of manipulating the political process are much improved since irrigation almost always involves public investment and this can often be influenced to the advantage of those who command political power.

In many California water districts, voting in water-district affairs is based on land ownership, and in some districts it is proportionate to the value of the land owned. Where only those who own land can vote, a district may have, for example, 175 landowners and 40,000 people, but a majority of the 175 landowners could determine the nature of water development for the entire district. A recent study of the Tulare Lake Basin Water Storage District showed that four corporations farmed almost 85% of all the land in the water district and one corporation (the J. G. Boswell Corporation) was large enough to determine the outcome in any voting procedure that concerned the water district.[2/] Experience in California, Arizona, Florida, the Mississippi Delta and elsewhere provides abundant proof that a tax-sheltered incentive structure tremendously multiplies the possibility of a distortion in capital investment and a degradation of the political process, when irrigation or drainage are involved.

2/ Goodall, M. R., and James B. Jamieson, "Property Qualification Voting in Rural California Water Districts", Land Economics, Vol. L, No. 3, August 1974.

Tax shelters have not only distorted investment patterns but have also created an unstable source of capital supply. Capital attracted into agriculture by these considerations is unusually sensitive to the business cycle. For a tax shelter to function there must be income to shelter. A capital supply based on this incentive tends to increase capital availability when it is least needed, and dry up the supply when the economy is under stress. Substantial amounts of capital have moved into and out of agriculture, for reasons that have had little to do with the efficiency of its performance in productive enterprises. External considerations drew it in the first place, and productivity considerations are only indirectly related to decisions to withdraw it. This is apt, for example, to exaggerate the price consequences of the traditional cattle cycle. We have been demonstrating this in recent months.

We are currently liquidating cattle herds that were built up in part by investors motivated by a desire to own cattle because of tax-shelter considerations. Ranchers and investors kept on building up cattle herds at a time when normal marketing strategies should have signaled "cut back". Two thirds of all the fed cattle in the United States in 1973 were produced in large-scale feedlots that are efficient only if they are kept full.[3/] In 1973-74 they gave an agricultural twist to the old joke about the merchant who lost money on every sale but was making it up on volume. A ranching and beef-feeding economy structured in this way provides reduced opportunities to move up and down the intensity scale. You are, in effect, operating a machine that has a go, no-go control mechanism. You either run at full speed or you stop. At high levels of output it is very efficient, but the feeding-pens must be kept full.

3/ Meisner, Joseph C., and V. James Rhodes, "The Changing Structure of U.S. Cattle Feeding", Department of Agricultural Economics, University of Missouri, Columbia, Special Report 167, November 1974.

As a result, we have had a supply of cattle coming onto the market that did not reflect good judgements of about how many cattle were needed, or a true profit and loss situation. The amplitude of cyclical movements has been intensified and responsiveness to price signals has been dampened and rendered less efficient.

There are two other important consequences of the trend toward specialization. One is the appearance of a landlord-tenant problem in reverse. This too is new in our history. Our law, our ethic, and our literature are full of references to a big landlord who is powerful and a small tenant who is weak and defenseless. The big landlord-small tenant syndrome has been a part of our cultural inheritance.

We are now finding that we have the problem in reverse, with big tenants and small landlords. A number of firms in agriculture now rent land from a great many small landlords who are more or less at the mercy of their big tenants. The law is often not helpful, and experience provides little guidance. The experiment station booklets and brochures we can hand them were prepared for a flow of power in the other direction. The production of vegetable crops, horticultural speciality crops, and poultry is dominated by big firms that typically do not own the land and buildings involved. In fact, they do not want to own these assets. They want somebody else to own them, in small, fractionated pieces, which they can then dominate, not as owners, but as tenants or contractors. This capacity to dominate through the separation of ownership from control has been very greatly extended by specialization in production and the development of corporate forms of business organization in farming.

The other and potentially more serious consequence of specialization relates to the concentration of market power on the demand side. Everything said thus far has concerned the supply side, too many cows being fed or too many citrus groves being planted, etc. This is not where the most serious abuse of power is to be expected. It is to be expected instead on the demand side. When firms grow large the inevitable temptation is to use economic power to control markets; to dominate not only supply but also demand.

This can be done in two ways. A seller's monopoly can dominate by withholding products, or regulating the flow of products. "Bringing order into the market" is the common euphemism. Or you can use an advertising budget to create demand. If you are large enough, you can do both.

The true measure of economic power in agriculture today is the ability to command an advertising budget large enough to create a brand preference that will in some sense tie the customer to a brand-named product. This will then permit the firm to pass both the cost of the advertising campaign on to the customer, plus a higher than average rate of profit. In this sense, the full thrust of large-scale organizations in agriculture is not necessarily measured by what happens when we look down the production chain to the farmer, to the laborers, or to the efficiency with which they produce, but rather is more dependent on what happens when we look up the production chain to the ultimate consumer.

This is the point at which we shift from a consideration of changes in farming and turn to exogenous changes, those external to farming. It is at this point that we can begin to see that problems of structural organization in agriculture and agrarian reform are dominated not by farming considerations but by the city. We have a farm structure today that is more a reflection of the structure and size of cities than it is of production techniques in farming. The size, organization and function of farms is increasingly dominated by the way we have organized cities, suburbanized them, created shopping centers, and have fostered large retailing enterprises that can dominate markets by sheer buying power and the volume of their demand for standardized products. This is reflected back down the production chain to the farms that can supply those products with uniformity of size, quality and delivery dates and emerges at the farm level as a determinant of the size and the structure of farms.

The tomato is the classic example. We build a tomato that can be hauled in bulk in 5000-pound truck-loads and that will not crush when dropped on a cement floor from three feet. They are picked at a stage of ripeness that is called "green, mature", a classification that reminds me irreverantly of the way we turn out graduate students. The scientists and engineers have produced a uniform product, with a long shelf-life. This was the goal. But in the process, we have sacrificed taste differences and taste thrills and I am not sure that in the long run we have expanded the market.

This process of technological change has also dictated the size of firm that can achieve the economies of large-scale production made possible by machine-picked tomatoes. The nature of the reserach that went into this development was tailored to a certain size of farm. There was no comparable investment in tomato research that could be used by small-scale farms. The research investment was highly skewed in its original committment.

As a result, we have a technology in agriculture that is geared to large size enterprises. This in turn is a reflection of big cities, big retail outlets, long supply chains, and a focus on standardization and shelf-life as the twin goals of food marketing. The ultimate goal is a uniform product that will fit into a standardized package and will not jam up the machine. This is a consequence of our urban structure, to which I would now like to turn.

We have subsidized this urban structure. It did not "just happen". It is not the result of inexorable forces of nature that we can do nothing about. It is a direct consequence of large-scale investments over a long period of time. One of the most massive of these investments has been in our highways. We have a structure of cities that has been powerfully shaped by the way in which we collect and spend money for roads. We collect money on the basis of a linear function of distance traveled. You pay a tire tax and a gas tax and you get a highway. Money to build highways is a linear function of distance traveled.

We spend it on the basis of an exponential function which is a composite of distance traveled and the relief of congestion. So we have distance and time in the expenditure function and distance only in the collection function. The result has been a gigantic income transfer mechanism. We spend to relive congestion and we tax on the basis of the number of times the wheels go around. In this setting, the way we finance the highway system guarantees a transfer of funds to urban areas. We subsidize the suburbs. In its importance for land use planning, this is probably the largest single public transfer of money that has a direct impact on land use and value.

The second way in which we subsidize our urban structure is in the way we have financed housing. We began with the G.I. Bill after the Second World War, establishing a principle that government would pick up much of the risk element in housing loans. We expanded this with Fanny May and other types of government insurance and mortgage guarantees, resulting in subsidized interest rates and lower down payments then would otherwise have been possible. This was primarily available only to those who would build single family detached houses. It was not available to build apartments, or to build dense, compact settlements. In other words, our housing subsidizies have promoted a demand for space.

Moreover, there is an economic incentive for creditors to prefer sprawled cities. It is a reasonable presumption that the value of the house will depreciate and the value of the land will appreicate. Within limits, the larger the ratio of land value to house value in mortgage loans, the happier the creditor. So the creditors preferred borrowers who would build rather small houses on rather big lots in growing suburbs. The government offered preferential treatment of the risk element, and there was no comparable level of subsidy or incentive available to the person who did not want to live in a single family house in the suburb. If you wanted to share in this subsidy, you had to go to the suburbs to get it, and many people got the message. We have subsidized suburban sprawl by the way we financed housing.

These financial incentives for suburbanization have been augmented by permitting the deduction of interest paid on borrowed money, as well as the deduction of property taxes. If you wanted to maximize the deductibility privilege on your income tax return, the way to do it has been to borrow money for the purchase of real property. For the middle-income taxpayer the optimal way to share in this form of subsidy has been to build a house in the suburbs and mortgage it to the hilt. The principal effect of this form of subsidy has been to expand the demand for urban land.

We have also subsidized suburban sprawl by the way we permit municipalities to raise money through the issuance of tax exempt bonds. This is a gigantic revenue sharing device, in fact, the only effective federal-local government revenue sharing device we had until quite recently. The Morgan Guaranty Trust Company of New York has pointed out that this resulted in a net revenue loss to the federal government of 3.3 billion dollars in 1971.[4/] Who benefitted? Municipalities that can march their voters to the polls and secure the approval of bond issues. Who will approve bond issues? Growing suburbs with children to educate, roads to build, water systems and sewers to install and many other things to do that will enhance the value of property. The incentives made available by the federal government by functional revenue sharing through tax exempt bonds flow heavily to the newer suburban communities. They will approve bond issues. It is very difficult to secure approval for bond issues in old, established communities. The tax exempt municipal bond gives a reduced income tax liability to the wealthy investor if he will make his money available to deserving municipalities for the public good. A major part of the benefit is received by the suburbs. It is not surprising that we have had a big increase in suburban communities. This has been another way to get a slice of the subsidy cake.

We have also encouraged suburbanization by permitting the fragmentation of government on the principle of the western mining claim. Our laws governing the formation of municipal government have encouraged groups to stake out a claim whenever they thought there was a rich lode of property tax revenue to be mined. We permit them to put a fence around it and say: This is ours, do not enter, we have a right to this tax claim. The residents typically earn the money someplace else which they will use

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4/ Morgan Guaranty Survey, September 1973.

to build their houses on our claim, but we are not going to worry about that. We can capture their tax revenues if we draw the boundaries carefully, rig the zoning act properly, keep out the high cost residents, attract the high income residents, and make money by mining the property tax. The smart municipal subdivision does this.

The lowest rates of property taxation per hundred dollars of market value in Minneapolis and Saint Paul are clustered in the richest suburban subdivisions. They have the highest tax base because they include many of the executives of corporations and business firms with salaries that will support $150,000 to $250,000 houses. In effect, they have used the structure of municipal government to withhold a portion of the tax base from the rest of the community, and reward the formation of new suburbs. The result is a further inflation in the demand for building land.

To this point we have been discussing what might be called the micro aspects of land use. I turn now to the macro aspects, and to some frankly controversial interpretations. We have subsidized the suburbs in the United States, but that is not the only dimension in which our land use pattern is the result of intentional or unintentional income transfers. We have also subsidized entire regions. And now it might be wise for me to clear a path to the door, because I may need to use it.

California ranks high among the states in which the structure of settlement and intensity of land use have been highly subsidized.

The principal tools of this subsidization have been cheap fuel, cheap water, and cheap food. Cheap fuel has encouraged an urban structure and a life style that places excessive dependence on the automobile. There has been a massive investment in highways in California, with much of the cost borne by national trust funds. There has been a very large expenditure on water systems, some of which has been financed internally but an important part of the cost has been passed outside the state, through the pricing system or through the tax system. Underpriced water in California has encouraged an expansion in industrial, residential and agricultural uses that has distorted the water economy of the entire Southwestern United States.

Cheap food has augmented these trends. In the Southwest, the availability of cheap grain prior to 1972 encouraged the growth of a feed-livestock sector that will become very expensive to maintain if the recent relative increases in grain and fuel costs prove to be permanent. The rapid population growth in Arizona and Southern California has placed some 15 million people at the end of a food and water supply chain that will be increasingly sensitive to the rising cost of energy. It is difficult to construct any scenario for the future of this region that does not involve drastic changes in land use.

In this regard, California joins Germany and Japan as examples of major economic areas whose rapid development since 1945 has benefitted from North American grain surpluses. These areas are increasingly dependent on imported food. The suspicion is growing that this food has been supplied at prices that prior to 1972 were below long-run opportunity costs. If true, this form of subsidy has fostered a distortion in patterns of industrial location and settlement that may plague us for years to come.

We can only speculate as to the consequences. One example of the direction in which this speculation takes us is provided by the decision of the federal government to underwrite the losses of the Lockheed Aircraft Corporation. The British partner in this economic disaster was Rolls-Royce, which is agruably the most prestigious engineering firm in the world. It was permitted to go bankrupt. Lockheed, generally regarded as one of the badly-managed business firms in America, was rescued. Why? It will be years, if ever, before we can answer this question but one tentative answer may be suggested. A massive collapse by Lockheed might well have triggered a crisis of confidence that could have shaken the foundation of the entire housing and real estate market in Southern California. No one knew what the domino-effects might be. No one wanted to find out. Lockheed was saved.

Diagonally across the United States we have another example of a major population concentration that is also at the end of a supply chain, and increasingly sensitive to price rises in food and energy. The New England states were scared by the oil crisis and the trucking strike during 1973-74, to a degree that was unmatched in the rest of the country.

In California, cheap fuel and food contributed to what may ultimately be judged to have been the last of the traditional land booms in the history of the settlement of the United States. In New England, cheap fuel and food cushioned a decline that had been under way for roughly a century.

If we have come to the end of an era of cheap food and fuel, the impact upon land use in the United States will be far from uniform. Both the Northeast and the Southwest have been frightened, but the reaction takes quite different forms. To the best of my knowledge, Los Angeles is the only city that has set up a special program to train police in the handling of prospective food riots. Also to the best of my knowledge, the Agricultural Experiment Station Directors in the New England States are the only ones who have been seriously exploring the ways in which they might increase the degree of self-sufficience in food production in their region.

Suffolk County, New York, on the eastern half of Long Island, is famed as banker and stock-broker country, and is solidly Republican. It is the first county in the United States to have authorized the purchase of development rights, or the land itself, in order to preserve its remaining agricultural open space. In almost any other jurisdiction this would be condemned as outright socialization.

New Jersey is a bedroom suburb for upper-income families fleeing New York and Philadelphia. It is the first state in the country to be seriously considering the wholesale purchase of development rights on farm land in order to preserve the remnant of its claim to be a Garden State.

I have noted above that the size and structure of farms in the United States is increasingly a function of the size and structure of cities. This hypothesis can be extended. The reform in land ownership rights and tenure patterns that is under way in the United States is occurring first in urbanized areas and the leadership is coming from city people. An agrarian reform is at hand, and its shock troops are the asphalt peasants.

As I look at the way in which land development and subdivisions have been carried out, where they have been carried out, and the areas in which this process is dangerously extended, I ask myself: What will be the impact of a sharp rise in the price of gasoline on those parts of the United States that are now excessively dependent on the automobile? Just how elastic is the demand for motor fuel? We do not know, and we have no data to guide us. The expectation is that there is some elasticity in the demand structure. If there is, it will be reflected in the demand for farm land at the suburban fringe. This is the cutting edge.

If the pace of suburban expansion is cut back by the energy cost of maintaining sprawled suburbs, the brunt of the cutback will fall on speculators and developers who bought land that is not yet under houses, and on farmers who borrowed money on the strength of expected but unrealized capital gains. A considerable amount of the capital structure of rural America represents these expected capital gains.

In the urban shadow it has been possible to mortgage farm land for more than it is worth in farming and expect to recoup in the process of urban expansion. The mortgage proceeds are often used to maintain family levels of living and to cover any operating deficits and the farmers can keep on farming. They may be growing poorer every year in terms of annual income and richer every year in terms of net worth. This process may well come to a stop in suburban fringe areas.

There is another but related process that may also be sharply retarded and that is the widespread practice of cost-plus government contracting. If we want something produced that is not normally traded in the market-place, the conventional solution has been to insure the producer against loss with a cost-plus contract. We introduced government cost-plus contracting on a widespread basis during the Second World War, and maintained it and even expanded it in some sectors and regions under the impetus of the Cold War, the Korean War, the space race and the Vietnam War. Urban expansion in many areas that have experienced the most rapid growth during the last 30 years has been a history of business and industrial activity that depended heavily on cost-plus government contracts. This may not be coming to an end, but it seems certain to slow down.

This may be one of the most significant consequences of the end of the Vietnam War. I doubt that there will be as much cost-plus contracting in the next decade as we had in the last. The implications for future growth trends in regions that have been the principal beneficiaries will be profound. These cost-plus contracts have generated demands for housing and therefore for land in areas that may now experience a prolonged period of stagnation. The impact will be greatest in those areas in which the pattern of land holding reflects the greatest expectations of land value appreciation. These expectations have been the primary driving force in our housing industry. The location, scale, and speed of housing development have become functions of the expected rate of capital gains.

Put yourself in a developer's shoes. Can he affect the labor wages that he pays? Only in marginal cases. Can he affect the interest rate he pays? In some cases, yes, but in general he must compete for capital in a national market. Can he affect the price of building materials? Probably not very much, even if he is a large-scale developer. What can he affect? The cost of land. His success depends on buying land cheap, and selling it dear. Everything else that he buys is purchased in a national market and at price levels that he cannot influence. But he can leapfrog, buy and develop cheap land, mount an adequate advertising campaign and persuade prospective home-buyers to share with him in the anticipated capital gain. His marketing skills, organizing skills, and management skills are focused on land value appreciation. He succeeds only if he can suburbanize the countryside. He cannot function unless he can sprawl. His profit depends on his ability to capture a part of the economic rent that results from appreciation in the value of land.

This is the process that is being subjected to increasing criticism. It has distorted the land use pattern and capital structure in real estate, both urban and rural. It is the dominant, though not the only determinant of our pattern of dispersed urban settlement. If it continues, it will have a profound impact on the composition and cost of our food supply.

To the mid-twentieth century, the search for capital gains in land had exercised a relatively benign influence in the economic development of the United States. It promoted the rapid settlement of a continent, gave some stability to the commitment of capital to slow pay-out investments in rural and urban land development, and created a tax base that provided a measure of financial independence for local governments. These are monumental achievements. But we now need to question the direction this development is taking.

This reexamination is forced upon us by two trends which we can sense but cannot quantify. They compel us to ask two questions:

1) What is the extent and significance of the loss of agricultural land to non-farm uses?

2) What is the extent and significance of concentration in the ownership of wealth in real estate?

The opportunity to share in capital gains in land was widely dispersed in preceding generations. Millions of relatively small farmers shared in the land value increases that accompanied our economic development until well after the Second World War. As their numbers declined, their place in the population of those who could share in anticipated capital gains was taken by suburban home owners, a replacement process that lasted until the end of the 1960's. It is possible that the proportion of the population of the United States that could reasonably expect to share in capital gains in land reached a peak in the two decades, 1950-1970.

The cost must be measured in urban sprawl. Any retardation in sprawl raises questions about the threat of a growing concentration in the ownership of landed property.

In agriculture the hope of capital gains has retained manpower and capital in farming. There has been a trade-off between income and wealth. But the population of those who can work for reduced incomes every year and die rich is diminishing. Land ownership is essential to this solution of the low income problem in agriculture. Much of our agricultural output in the past has been produced by farmers who were underrewarded through the price system but who offset this with rewards received through the capital structure. This has held down the price of food. The cost of our diet has been lower than it would have been if farmers had been compelled to seek all their reward through the income flow. If we preclude the possibility of rewarding part of the management, labor, and land investment in farming through the capital structure and force all rewards through the income flow, then farmers will demand higher incomes. They will no longer work long hours for substandard labor incomes. This will create a permanently higher cost base for food products.

If it develops that a realtively few landowners are receiving most of the capital gains in land, this will become intolerable in a political democracy. In the business world, the classic response to those who corner a market is to reorganize the market and declare the stock worthless. If too few people have too large a share of the national wealth in land, any responsive democratic government will be compelled to prevent them from reaping the capital gain. This is the course being followed in varying degree in Sweden, Denmark, the United Kingdom and several other countries. This is the prospect that awaits us.

If it comes to pass, it will cause a complete restructuring in our housing industry, our structure of government, the size of our cities, the competition between urban and rural areas for land, the price of food and many other things. The evidence is already persuasive that this constitutes the principal challenge of land reform for our generation.

Questions

Q. Am I to understand that to zone land exclusively for agriculture prohibits subdividing it and will prohibit the sale of it and division of it for urban growth or anything other than agriculture? Isn't this liable to create a virtual panic? Because people are relying on land development and the sale of land to bail them out?

A. Proposals for exclusive agricultural zoning or the limitation of urban growth do generate violent reactions. Unless you have participated in this experience, you have no idea how bitter the reaction can be. Anyone who proposes limitations on urban growth that will reduce the prospects of capital gains in land will be called a Communist, and charged with the destruction of the roots of American democracy. In Minneapolis-St. Paul we are now debating a proposal to limit urban expansion. Landowners in the suburban fringe, local government officials from communities just beyond the existing suburbanized areas, and housing developers have grown skillful in playing on these fears. But there are also many people who are increasingly aware of the costs of unrestrained urban growth. And there is also a growing awareness that those who are paying the price of this growth are not the ones who are receiving the benefits.

Q. Your final comment was what I'd hoped you would start with. Can I ask you to be a little bit more specific about it. What do you perceive as being the political possibility of that kind of redistribution? Can we generalize from some experiences that have happened in other countries? A lot of people have talked about land reform a la Latin America, or land reform a la someplace else, and I guess I am really asking, what does it mean to have land reform. What are the implications for the United States?

A. I had consciously raised this topic at the end of my talk, thinking that there would be questions. Perhaps an example of one approach will be helpful. The Minnesota legislature is currently considering a bill to authorize the state to buy agricultural land, hold it, and sell or rent it to farmers, to relieve them from the pressure of acquiring or carrying so large a capital stock in land. The cost of getting started in farming has become prohibitive. Even if you inherit one, you can not now transfer the larger farms in Minnesota in the best farming counties of the state without a tax so large that it will force a liquidation of some of the assets. We are developing an agricultural structure in which the only way to get started in farming is through inheritance or marriage. As a result, the problem of maintaining the capital structure in agriculture will probably persuade many people who have been opposed to government interference in this field to consider some drastic alternatives. This specific alternative is similar to the "Land Bank" program that is being tried in Saskatchewan.

Q. How do they propose to finance such a thing as this?

A. Initially, with a government injection of capital, but on the principle that over a long period of time it will be largely self-financing. This has been the experience in Sweden, and the intention in Saskatchewan, although the Saskatchewan plan has not been in existence long enough to provide a test.

There are several instruments that are available for us to study, but not necessarily to adopt. One is the procedure under which the Swedish County Boards have authority to buy agricultural land to accomplish structural reform goals, hold it, restructure it, and resell it. In other words, they can do in rural areas what we do through urban renewal authorities in urban areas in this country. In Sweden, this was done primarily through an active land purchasing program. In extreme cases, they can use eminent domain, that is the power of the state to take private land by condemnation and resell it to another private person, which we do in urban renewal programs. But this power was used very rarely in Sweden.

Once started, the program becomes more or less self-financing. A similar policy was of long standing in the city of Stockholm, where for decades the City Council has authorized the purchase of land in advance of expected expansion, with a goal of keeping twenty years ahead of the need for land. This policy of municipal purchase of land required for anticipated urban expansion is the primary explanation for the development of the model suburbs for which Stockholm is famous.

The French have created similar authorities, called SAFERs, an acronym that can be roughly translated as Societies for Land Tenure Reform and Rural Restructuring. Once a SAFER has been created it has authority to buy land from private owners, consolidate small parcels into viable farm units, and resell the farms. Alternatively, they may sell some of the land to existing farmers to permit farm enlargement.

Once this type of policy has been established, one possible extension or alteration is to lease the land on long term leases instead of reselling it. In fact, the Saskatchewan Land Bank legislation includes the express intent that the farmer will be given the option of leasing the land instead of buying it, in which case they retain control over the disposition of the land. In effect, they accomplish the ultimate in zoning. This is one way to resolve the capital problem for a beginning farmer in that it does not compel every generation to refinance the capital value of the total land investment.

What we are really talking about is some way to get over that hurdle. One way is to abandon the insistence on ownership of the title to land in fee simple, and be satisfied to achieve security in some other way.

Q. You said the legislature in Minnesota is considering a program of buying and reselling. Considering, but not buying or leasing it as yet. Is that right?

Yes, the proposal is at a very early stage and is being debated before committees of the legislature.

Q. May I ask you if you have time to look at the development right concept that is being taken up in Vermont?

A. Yes, certainly. This is another option. The right to develop land can be purchased or, as is the case with the Ramapo plan in New York state, the presumption is that they might even receive a donation of the development rights. It is the possibility of donation that intrigues me.

If you sweeten up the cake enough, you might get donations of development rights, and bypass the whole cumbersome purchase mechanism. This could be achieved by givimg land owners a major tax concession, if they donate the development rights. The tax concessions that have been given thus far, for example, under the Williamson Act in California, and involving preferential taxes for agricultural land, have been basically tax relief measures for landowners and not devices to control urban growth or preserve open space.

In fact, the existing programs have generally been inequitable, because a few landowners receive most of the benefits. This has been the case with entries under the Williamson Act in California, and it is also true with the tax reductions provided under the so-called "Green Acres" law in Minnesota. The biggest single agricultural land holding registered under the Minnesota tax abatement law is owned by the president of one of the largest business firms in the state. The law was designed to preserve agricultural land uses in urban fringe areas, but people eventually will get a little tired of subsidizing that type of land-ownership. The other alternative options include the purchase of development rights, the use of eminent domain or condemnation to acquire development rights, or sweetening up the tax abatement schemes so that landowners will donate the development rights. A combination of all of these approaches might work.

Q. Is that going to solve the problem with the estate tax?

A. To some extent it may, if it retards land value increases. The estate and inheritance taxes provide a classic example of fiscal creep. Inflation in land values has a particularly acute impact on these forms of taxation. The inheritance tax in Minnesota, for example, yielded about 500,000 dollars worth of revenue in 1956 and 39 million dollars worth of revenue last year. It has been the fastest growing tax in the whole Minnesota tax structure, by far. The reason is inflation.

With no significant change in the rate structure since the 1930's inflation has been forcing land values up through the tax-rate sieve so that much more of the estate is now taxable. The cure for estate tax problems is to slow down the rate of inflation in land values.

Q. One of the things that you said frightens me and that is getting the federal government into the landlord business. I'm assuming that this would involve some bureaucrat, somebody who is not even interested in guarding the land. The bureaucratic reputation is legendary. All you have to do is think about the IRS or somebody like that, administering the custodial shifting of land. Isn't there some other way that we might be able to accomplish that, like letting all farmers incorporate, or maybe even creating a brand new institution that will avoid estate taxes in transferring land?

A. Yes, you could do that, but remember that land law is still state law, and we are really talking about state governments, not the federal government. The history in the other countries where it has been tried is that it has been impossible to prevent the fortunate few who had economic power in their political system from using it to get a disproportionate share of the advantages. So they wind up with the biggest part of the cake. This is the risk that is involved.

Q. So you have your choice between increasing the bureaucratic power of the government or benefitting a chosen few?

A. Yes, perhaps we do. But the significance of the bureaucratic criticism is being vetoed or nullified now, because we have more and more private firms holding land who exhibit the same rigidities that any large bureaucracies exhibit, whether private or public. We now have business firms in agriculture that are capable of the senescence that has characterized the railroads. We never had that before. We have never had business firms in agriculture that were capable of hardening of the economic arteries.

The greatest advantage of the small farm, a la Jefferson, was the cheap social cost of failure. It could go broke at a low social cost, and it could absorb underemployment with less dislocation. It could disguise real unemployment by permitting it to be treated as underemployment, and this did not involve a loss of prestige or self-esteem on the part of the worker. It involved a very low social cost on the part of the community.

When we move these workers outside their proprietary enterprises, and force them to obtain all their rewards through the wage structure, and then declare them unemployed, they have no option but loss of prestige and self-esteem. There is no way, so far, in this country that we can disguise unemployment, e.g., in General Motors, by some form of socially and privately acceptable underemployment. There are some unions working on this, but functionally we don't have it yet. But we have had it in agriculture. This capacity to absorb unemployment and disguise it as underemployment is a real social asset. Economists generally condemn underemployment. I think most of my colleagues would disagree with the argument just presented, don't you? But there is a great social plus in a structure of business firms that is not compelled to declare people unemployed every time a certain curve goes below a certain line. A structure of small farms is not as uneconomic and fragile as it might seem. For the same reason that they can go broke easily, they are peculiarly able to draw up their belts. They can survive disaster.

Q. A central problem is this estate tax. I don't know myself how to judge the advantages of small farms and large farms and probably the issue of bureaucracy is important. In my observation, we fail to compare systems. We compare a small unit with a large unit, and really what we should have been doing is comparing a collection of small units with one large unit. In other words, make comparisons between two comparable systems, and then come up with estimates of the social consequences and economic consequences. My observation is that a collection of small units can still reflect this same bureaurcracy. I have a problem in deciding whether or not you are really addressing the issue of the estate tax in trying to keep a certain group of people farming the land or whether you are considering big farms vs. small farms and what the economies of scale are.

A. There are two concerns with the estate tax. One is the concern that arises from the combination of no change in the rate structure and a high degree of inflation. This has reduced the significance of the exemptions so greatly that the tax has a different impact than was originally intended. The rate structure has been rendered obsolete by inflation and farm size expansion. As a consequence, the conventional family farm that could be passed on without being destroyed through inheritance and estate taxes in the 1950's and 1960's cannot now be passed on without risk of destruction.

There is another concern that is politically important. A number of investors who put their money into land for tax shelter or other reasons now find that the land has appreciated in value and they are in a much higher estate and inheritance tax-paying bracket then they realized. They have suddenly become aware of what estate and inheritance taxes will do to them. The pressure for reform is coming from both the topside and the bottomside of the farm land ownership structure.

Q. What would happen if you do away with estate taxes? How do you keep from freezing landownership patterns the way they are today?

A. You can't do away with estate taxes. Not in a democracy, because it would lead to progressive distortions in the distribution of income and wealth. It would also remove a major feature of the tax structure that tends to equalize wealth distribution over time. It may not do a very good job of equalization, but it is not worthless.

Q. Don't we have to distinguish between the federal estate tax and the state inheritance taxes, one being made payable by the estate, and one falling on the heirs? The effects are different. The other point I'd like to make concerns the inference that I draw from your comments that any public acquisition of land will have to occur at the state level. In other words, it will be the states that are likely to be the owners of land acquired by the public to achieve land use goals. There must be bills in at least ten state legislatures that are moving in this direction, either through the purchase of development rights or in other ways. I'll talk about that tomorrow, but it seems to me that the inference is that remedial action will be taken at the state level so that the new owners will become tenants of the state with a lifelong contract, subject to being passed on. Whether the federal courts will consider that a sham, to get around the income tax or the inheritance tax, I don't know, but I can see it happening. At the federal level, the nationalization of land, I think, would at this time create a lot of hostility.

A. I do not think that it is workable, and I would oppose it flatly. A more likely solution in the American tradition would be to create special land bank or land management districts. And that is not as foolish as it may sound. That is essentially what the French did. Their SAFERs are similar in some respects to small watershed or drainage districts, and quite similar to our urban renewal authorities. They are designed to bridge over existing units of government to achieve a special purpose. We have a long and on the whole successful tradition in the United States in the operation of special districts of this kind.