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FOREIGN DIRECT INVESTMENT IN U. S. FARMLAND

Gordon C. Rausser and Andrew Schmitz*

FOREIGN DIRECT INVESTMENT in U. S. farmland, a current concern across the nation, has often been given sensational coverage in the press. Stories abound of wealthy foreigners paying for farms with briefcases filled with cash. In response to the concern over foreign investment, 25 states have passed legislation which limits or prohibits nonresident aliens from buying farmland.¹ Congress has requested the General Accounting Office to determine how much U. S. farmland is owned by foreigners.

The growing concern over such investments has been motivated, in part, by a host of charges, few of which have been substantiated. Some of the contradictory charges include foreign owners "overutilizing" land with no desire to maintain or improve social conservation; yet, it has been argued that such lands are currently less productive and thus presumably underutilized. The major concerns, however, relate to the indirect effects of foreign farmland investments on the (i) entry costs to potential farmers, (ii) growing extent of absentee ownership and the disruption of the traditional union between farm ownership and operation, and (iii) economic well-being of rural communities.

In this setting the purpose of this paper is to provide a broad overview of the issues surrounding foreign purchases of U. S. agricultural land. We begin our examination with the extent of foreign ownership followed by a review of recently enacted legislation at both the federal and state levels. In Section III, foreign investment is placed in perspective. A number of major as well as minor incentives for investment in U. S. farmland are addressed in Section IV, while the potential impacts of foreign investment are treated in

Section V. The concluding section offers suggestions for future policies, especially at the state level. The major theme of our investigation is that, despite inadequacies of available data, much can be learned by delineating major as well as minor incentives for foreign investment in U. S. farmland. Only by isolating such incentives and by placing foreign investment in the proper perspective can we hope to mitigate much of the controversy that has arisen on this subject. The resolution to the controversy provides the opportunity for enlightened policies at both federal and state levels.

I. EXTENT OF OWNERSHIP

Data on the extent of foreign ownership of farmland by foreign investors are scanty. The U. S. Department of Commerce survey in 1975 suggests that foreign ownership of U. S. farmland is minimal.² The Department surveyed some 6,000 foreign individuals and companies with investments in the United States and found that their acreage totaled about 4.9 million acres. As Nuckton and Gardner point out: "Even if this were all cropland—which it isn't—it represents less than 1.3 percent of the nation's cropland base of 385 million acres."³ Furthermore, as Wunderlich suggests, even if the 4.9 million acres were doubled to allow for uncounted parcels and other measurement errors, the total amounts to less than 1 percent of total U. S. and foreign private U. S. landholdings.⁴

As discussed later, it is important to keep in mind how much U. S. farmland is bought and sold each year and the percentage of this total which is made up of foreign investment. As Fletcher and Cook point out, the United States has slightly more than 1 billion acres of private farmland, but only a fraction (2 to 3 percent) normally comes on the market in any one year.⁵ Also, foreign investment is less than 30 percent of this yearly total investment in U. S. farmland.⁶

Table 1 illustrates the most recent data on the extent of foreign ownership of U. S. agricultural land (also see Appendix Tables 1-4). Foreign ownership represents less than 5 percent of the total U. S. agricultural land. However, as of October 31, 1979, the USDA reports⁷ that foreigners owned 5.2 million acres of U. S. agricultural land, which is still less than 5 percent of the privately owned agricultural land in the United States. Roughly 85 percent of the foreign-owned land is held in the form of a corporation⁸ with the most common type being a joint U. S.-foreign corporation.

The largest foreign owners of U. S. agricultural land in order of size of investments are: West Germany, Canada, and the Netherland Antilles.⁹ The largest foreign owners where a joint U. S.-foreign corporation is involved are: the United Kingdom, Luxembourg, West Germany, and Canada.¹⁰ West Germany and Canada together represent roughly 25 percent of the agricultural land in the United States which is foreign owned.¹¹

Table 2 illustrates the use of U. S. agricultural land held by foreign owners. By far, the largest average hold is forestland (roughly one-half). Note that cropland represents only 17 percent of total acreage that is foreign owned.

Table 3 illustrates foreign land acquisitions by state acquired during the months of February, March, April, and May, 1979. The largest amount of land was purchased in California, followed by Colorado, Louisiana, and Tennessee. California alone accounted for roughly 38 percent of the acreage, most of which was held in corporate form. By far, the largest single purchaser was West Germany, accounting for roughly 56 percent of the ownership.¹² In terms of investment in individual states, the relative magnitudes have changed markedly. As Appendix Table 1 suggests, California was not always the major recipient of foreign investment.

Table 1

U. S. Agricultural Land Holdings
Of Foreign Owners by Selected States, 1979

State	Total Area of State	Agricultural Land	
		Privately Owned	Foreign Owned
		---1,000 Acres---	Acres
Alabama	32,452	29,467	162,430
Arizona	72,587	10,983	71,558
California	100,071	47,353	109,498
Colorado	66,410	37,527	132,137
Georgia	37,167	33,253	223,412
Idaho	52,913	15,166	6,534
Illinois	35,679	32,326	29,477
Indiana	23,102	20,909	5,335
Iowa	35,802	33,912	12,699
Kansas	52,344	49,911	22,496
Louisiana	28,755	26,463	17,032
Michigan	36,363	26,117	5,489
Minnesota	50,745	36,204	16,101
Montana	93,176	54,189	147,630
Nebraska	48,949	45,397	26,807
Nevada	70,328	7,586	130,266
North Carolina	31,231	27,321	75,986
North Dakota	44,339	39,617	11,805
Oklahoma	44,020	38,875	2,982
Oregon	61,557	25,685	166,168
Tennessee	26,450	22,901	285,775
Texas	167,766	156,768	161,951
Washington	42,605	23,028	35,327
Wisconsin	34,857	27,637	9,853
Total of 50 States	2,263,587	1,290,217	2,899,998

Source: U. S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, Foreign Ownership of U. S. Agricultural Land, Agricultural Report No. 447, 1979, p. 4.

TABLE 2

Use of U. S. Agricultural Land
Held by Foreign Owners, 1979

Usage	Number of parcels reported	Acres
Crops	1,256	492,498
Pasture	724	698,029
Forest	1,429	1,289,572
Other agriculture	378	305,605
Other nonagriculture	1,271	100,134
Not reported	26	14,160
Total	5,084	2,899,998

Source: U. S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, Foreign Ownership of U. S. Agricultural Land, Agricultural Report No. 447, 1979, p. 12.

TABLE 3

U. S. Agricultural Land Acquisitions
of Foreign Owners, by State
Acquired February 2, 1979-May 31, 1979

State	Acres	State	Acres
Alabama	2,699	New Hampshire	445
Arizona	1,530	New Jersey	210
Arkansas	3,563	New Mexico	1,870
California	59,045	New York	264
Colorado	13,101	North Carolina	1,868
Florida	2,368	North Dakota	216
Georgia	6,463	Ohio	2,606
Hawaii	6,810	Oklahoma	392
Illinois	1,114	Oregon	213
Indiana	237	Pennsylvania	261
Iowa	1,749	South Carolina	3,310
Kansas	40	South Dakota	154
Kentucky	564	Tennessee	11,377
Louisiana	12,596	Texas	3,980
Maryland	1,371	Vermont	251
Michigan	48	Virginia	2,931
Mississippi	3,970	Washington	2,483
Missouri	215	West Virginia	1,889
Montana	5	Wisconsin	347
Nebraska	277	Wyoming	1,600
		Total	154,432

Source: U. S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, Foreign Ownership of U. S. Agricultural Land, Agricultural Report No. 447, 1979, p. 17.

Interestingly, as Table 4 shows, the largest purchases were cropland acreage (roughly 59 percent of foreign purchases of agricultural land). Thus, it appears that the composition of land recently acquired by foreigners is markedly different from the composition of total-held foreign acreage (Table 1).

Although the extent of foreign investment is small but increasing, the following observations have provided the basis for much alarm:¹³

1. Amrex, a San Francisco brokerage firm, reported that half of its agricultural land transactions (about \$50 million worth) were made with aliens in 1977. It also revealed that 32 French investors had been ready to purchase land in the California wine country but cancelled orders when elections in their country did not result in a Communist-Socialist takeover.
2. Some 50 foreign branch banks are now operating in Chicago and handle investments from overseas.
3. Oppenheimer Industries, Inc., in Kansas City, a brokerage and management firm, reported that sales to foreigners have more than doubled in the past few years and now account for one-third of their annual volume.
4. The 1976 annual report of Northern Trust, another management firm, indicated that it manages 460,000 acres in 35 states for foreign interests.
5. The European Investment Research Center of Brussels estimated that Europeans spent \$800 million on American farmland in 1977.

II. LEGISLATION REPORTING AND RESTRICTING FOREIGN INVESTMENT

Due largely to the inadequate data and information base on foreign investment in U. S. farmland, Congress passed the Agricultural Foreign Investment Disclosure Act of 1978.¹⁴ This Act, among other things, requires foreign persons who acquire, transfer, or hold interests in agricultural land to report such transactions and holdings to the Secretary of Agriculture. This information is then passed on to the various state governments. The information which the foreign person must submit includes (1) type of interest in

TABLE 4

Use of U. S. Foreign Owned Agricultural Land
Acquired February 2, 1979-May 31, 1979

Usage	Number of parcels reported	Acres
Crops	118	91,699
Pasture	47	18,687
Forest	89	29,849
Other agriculture	37	11,618
Other nonagriculture	79	2,579
Total	370	154,432

Source: U. S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, Foreign Ownership of U. S. Agricultural Land, Agricultural Report No. 447, 1979, p. 20.

agricultural land which the foreign person has acquired, (2) intent for use of the land, (3) purchase price, and (4) amount purchased.

The laws governing how much foreigners can invest in U. S. farmland vary among states. As Table 5 shows, 25 states have no restrictions on alien ownership of U. S. farmland. Eight of the states which restrict investments do so in a major fashion: Connecticut, Indiana, Kentucky, Minnesota, Mississippi, Nebraska, New Hampshire, and Oklahoma. For example, Oklahoma prohibits aliens from holding land unless they are bona fide residents of the state. It also requires aliens to dispose of all or part of their landholdings within specified times if they do not become U. S. citizens or residents of the state in question.

With few exceptions, state laws on foreign investment are becoming more restrictive. For example, Minnesota amended its law on real property in 1977 to require that only U. S. citizens or permanent resident aliens can acquire any future interest in agricultural land. Missouri amended its law on landownership in May, 1978, to prohibit nonresident aliens from acquiring more than 5 acres of agricultural land for farming.

One of the critical problems in enforcing state laws on foreign direct investment is ownership identification. To be sure, since there are numerous means by which foreigners can avoid being identified, the data presented earlier on the extent of foreign investment are probably grossly inaccurate. Many states do not require that the citizenship of the purchaser be specified. Moreover, as Nuckton and Gardner note:¹⁵

True ownership can easily be disguised in trusts, partnerships, corporations, and proxy U. S. individual owners. Tranquility Modesta, Ltd., for example, has only one stockholder—Qilar Costa of Uruguay. How can anyone tell who really owns the land from

TABLE 5

State Laws Governing Foreign Investment in U. S. Farmland

Classification of state laws	Number of states
Restrictions on alien ownership of U. S. farmland	25
General prohibition or major restrictions on nonresident alien ownership of land	9
Restrictions on size of landholdings or duration of ownership	11
Restrictions on inherited land	9
Restrictions on acquisition of State property	4
Other minor restrictions on ownership	6
No restrictions on alien ownership of U. S. farmland	25
Restrictions on corporate ownership of U. S. farmland	13

Source: U. S. General Accounting Office, Foreign Ownership of U. S. Farmland--Much Concern, Little Data, June, 1978.

the county record of a corporate name? An illustration of how complex a transaction can be and how great the effort to remain anonymous might be, is provided by the sale of a 2,500 acre Kansas farm: an unnamed West German investor contacted a Canadian realty firm, which contacted a Wyoming broker, who contacted a Chicago bank, which employed a statewide Kansas broker, who in turn found a local broker. As another example: a West Coast broker told of visiting an elite Spanish hunting club where the men had hunted together for 15 years—yet not one of them knew that each of the others was my client. They just don't talk about it.

III. FOREIGN INVESTMENT IN PERSPECTIVE

In evaluating public policies directed toward foreign ownership of U. S. farmland, it is important to have clearly in mind the proportion of foreign investment in U. S. agriculture relative to other industries and the extent of U. S. direct investment abroad. For example, in 1978 foreign direct investment in the United States amounted to \$40.8 billion.¹⁶ Of the total, manufacturing made up the largest component—\$16.3 billion. Petroleum, manufacturing, trade, and insurance alone made up roughly 85 percent of the investment. As the data show, the amount of foreign investment in U. S. farmland is small relative to the total amount of foreign investment in the United States.

Table 6 illustrates the amount of direct investment by foreigners in the United States and the amount of U. S. direct investment abroad. The amount of U. S. direct investment abroad is roughly four times as large as direct investments in the United States (U. S. direct investment in Canada roughly equals the total direct foreign investment in the United States). However, note that foreign direct investment in the United States is growing at a much faster rate than U. S. direct investment abroad (roughly a 30 percent increase versus a 20 percent increase).

TABLE 6

Foreign Direct Investment in the United States
and U. S. Direct Foreign Investment, 1976-1978

Year	Foreign direct investment in the United States	U. S. direct foreign investment
	million dollars	
1976	30,777	136,809
1977	34,595	149,848
1978	40,831	168,081

Source: U. S. Department of Commerce, Survey of Current Business,
Vol. 58, No. 8 (August, 1979).

In terms of total direct investment, the largest foreign investors (1978) in the United States are the Netherlands, the United Kingdom, Canada, West Germany, Switzerland, and Japan—in that order. When all assets are taken into account, in 1978 U. S. assets abroad totaled \$450 billion, while foreign assets in the United States amounted to \$375 billion. The U. S. net international position was \$75 billion.¹⁷

The above data clearly illustrate that foreign direct investment is a double-edged sword. Many potential farmers and policymakers feel sympathetic to those (but not the U. S. nation) who opposed the purchase in 1885 of 220,000 acres by William Scully (an Irishman)—land which was located in Illinois, Missouri, Kansas, and Nebraska. On the other hand, what about people in other countries who oppose U. S. direct investment in their farmland? There have been excellent descriptions of recent U. S. purchases abroad. Boswell Bros., Inc., of Los Angeles recently acquired huge tracts of farmland in Australia for the production of cotton. In addition, General Foods, Inc., has invested in Mexico in land which is ideal for growing cauliflower, asparagus, zucchini, and brussel sprouts.¹⁸

IV. FACTORS AFFECTING FOREIGN DIRECT INVESTMENT IN U. S. FARMLAND

What are the incentives for foreign investment in U. S. farmland? Only by clearly delineating the incentives for such investments is it possible to determine the probable extent of foreign control of U. S. agricultural production or the probable effectiveness of alternative policies designed to curtail these investments. If the potential gains to foreign investments are sufficiently large, naive legislation which prohibits foreign ownership of U. S. agricultural land will prove ineffective. Major incentives that will be delineated here can be characterized as (a) tax advantages, (b) economies of

size and transactions cost, (c) relative land prices, and (d) political stability. In addition to these, there are other incentives that in the aggregate are not as important as (a)-(d) but which in the context of particular investors or for particular types of land may indeed prove crucial. These incentives will be characterized as (e) portfolio diversification, (f) credit availability and U. S. agricultural policies, and (g) technology and market nearness.

A. *Tax Advantages*

A report issued by the General Accounting Office suggested that a major reason for foreign investment is embedded in the tax structure; this structure offers significant advantages to foreigners including the potential exemption from a capital gains tax on ultimate land sales and reduced ordinary income taxes over the course of operations established in certain tax treaty countries.¹⁹ The fact that such tax advantages exist has been demonstrated by Nuckton and Gardner²⁰ and in more detail by Rausser, Schmitz, and Warner.²¹ The latter paper focuses especially on the tax implications of foreign direct investment in U. S. farmland. It also focuses on the effects of the new proposed tax law which, if enacted, would greatly reduce the loopholes which now exist for foreign investors. Here we will provide only a brief overview of the issues involved in international taxation with respect to foreign investment in farmland.

The United States employs a worldwide method of taxation which requires U. S. citizens and business entities to include in their tax returns all of their income regardless of its type or the country where earned. The worldwide taxation concept also applies to resident aliens. Therefore, foreigners and foreign business entities resident in the United States will pay full U. S. taxes on their worldwide income.

When considering foreign business entities and aliens, for taxation purposes the source of income and the relationship to an ongoing business activity are important. Generally, foreign entities and individuals pay a fixed-rate tax on income from U. S. sources (i.e., a flat 30 percent U. S. tax). On the other hand, an alien who is considered a resident of the United States or a foreign entity that is determined to have income which is "effectively connected with a U. S. trade or business" will pay the graduated U. S. tax on net income. By way of example, a foreign investor who operates a farm is effectively connected and one who rents his land is not effectively connected. In the resident alien case, taxes are paid on a net worldwide income basis (the same as for U. S. citizens), whereas foreign entities with effectively connected businesses will pay taxes only on net income related to that business.

In connection with capital gains, capital assets used in a trade or business that produces effectively connected income will be taxed at the capital gains rate when sold regardless of the citizenship or residency of the seller. On the other hand, capital assets owned by a nonresident alien that are not used in a trade or business are generally exempt from capital gains taxation when sold. Hence, the ultimate tax effects depend on the manner in which the foreigner conducts business in the United States. Will the land be leased or not? What sort of entity will own the land? As one alternative, the investor can rent out the land to a U. S. farm operator and thus be treated as a nonresident alien who does not own assets used in a trade or business. He will be taxed only a flat 30 percent on operating incomes and he will generally avoid the capital gains tax.

The ideal arrangement for a foreign investor is to form a business corporation in the Netherlands Antilles. In contrast to other business and tax treaties, such a foreign investor may make an annual election with respect to "effective connection." Investors not actively conducting a trade or business in the United States may elect from year to year the basis on which to pay the U. S. tax: (1) current income is taxed on a basis of 30 percent but no capital gains tax is due upon the sale of the property or (2) net income is taxed at U. S. corporate rates but a capital gains tax is owed upon resale. When profits are high, investors may select the second option and may use a rapid depreciation schedule. Then for the years in which the property is sold, the investors may switch to option one. Clearly, some tax treaties offer some important advantages to foreign investors, and it can be expected that astute foreign investors will exercise their most favorable option.

As is well known, tax treaties are generally held to have authority over the I.R.C. The Netherlands Antilles is one example of a tax treaty that allows for an annual trade or business election. Under such tax treaties, it is a simple matter to demonstrate how foreign investors can be more successful than domestic investors in purchasing U. S. agricultural land. Since foreign investors can utilize current treaty commitments of the United States to effectively avoid a capital gains tax while still facing the same operating tax structure as a domestic investor, the bid price of foreign investors will exceed the corresponding bid price of domestic investors by the present value of associated savings in capital gains tax. In other words, if a foreign investor is alike in all respects to a domestic investor (wealth positions, risk aversion, and the like), his bid price would exceed the latter's bid price by the present value of the savings in capital gains taxes.

To illustrate the above observations in concrete terms, assume a discount rate of 10 percent and an asset-holding period of five years. Figure 1 reflects the difference between the bid price of a foreign investor and that of a domestic investor for alternative initial values of land (\$200, \$500, \$1,000, \$2,000, and \$2,500) and alternative rates of land appreciation (5 percent to 25 percent per year). As Figure 1 reveals, for an initial value of \$2,000 per acre, if both a foreign investor and a domestic investor expect the rate of land value appreciation to be 25 percent per year for a five-year planning horizon, a foreign investor could conceivably offer approximately \$700 an acre more than a domestic investor would be prepared to offer as a result of capital gains tax savings alone.

B. *Economies of Size and Transaction Costs*

As the data in Table 7 suggest, much of the foreign investment that takes place in U. S. farmland can be characterized as "large scale." Foreign investors are generally among the wealthiest and do not often allocate small amounts of capital for land investments regardless of their location. This phenomenon is due in large part to the associated transaction cost. In contrast to other countries where foreign agricultural land investment might take place, many U. S. sellers control and can offer for sale large, contiguous properties. This advantage of the U. S. agricultural land market to foreign investors is often overlooked in the literature on the subject. However, a foreign investor and brokers who facilitate the transfer of landholdings are particularly concerned about the transaction cost associated with the exchange. By comparison, the average landholdings by a single entity in other countries is significantly smaller than that found in the United States. Hence, a foreign investor faces a much larger transaction cost per acre of

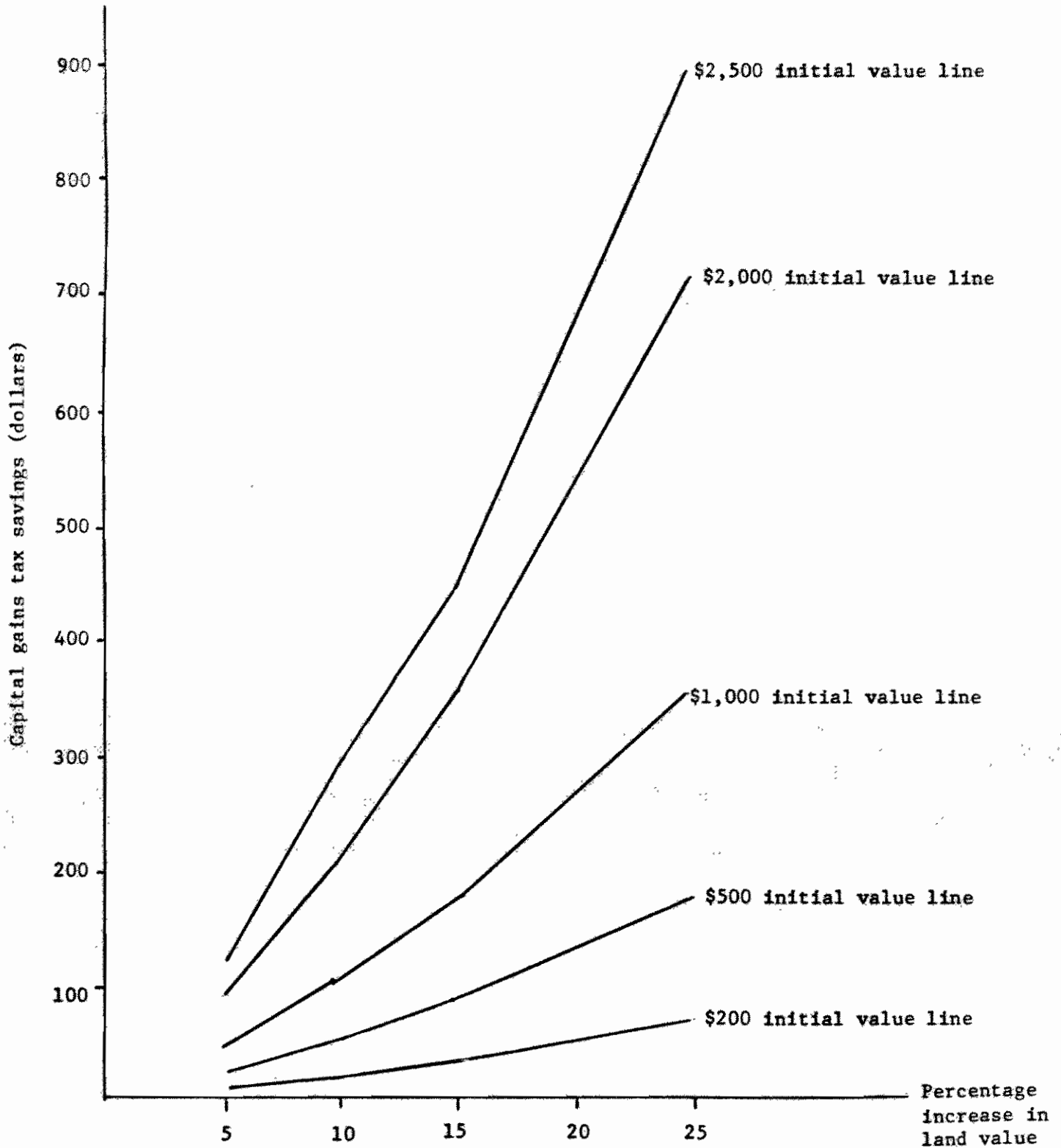


FIGURE 1. Percent of Five-Year Holding Period for Alternative Expected Rates of Land Price Appreciation

TABLE 7
Notable Recent Land Acquisitions (1979 Survey)

Landowner	Acreage	Location
An Italian family	2,120	San Joaquin Valley, California
An Italian group via Liechtenstein Corporation	5,500	A Delta island, Sacramento Valley, California
An Italian family	a/	A Merced County peach orchard, California
Crown Prince Franz Josef II of Liechtenstein	9,000	Arkansas
SAFINCO, an Arab holding company	25,663	U. S. open land
Ferruzzi family, Ravenna, Italy	27,000	Louisiana
Trans-Atlantic Consultants, Munich	17,000	Georgia
Knaus family, West Germany	3,700	Wayne County, Illinois
Prince Lichtenstein of Austria	10,000	Red River, Texas
Lehndorff Vermögens Verwaltung, a Hamburg-based holding company	14,000	Midwest
Metternich family, West Germany	2,135	Iowa
Busoni family, Italy	12,000	Illinois
A Western European	1,215	Midwest
An Italian	315 (citrus)	
Italian investors	5,000	San Joaquin Valley delta region, California
French investors	5,500	San Joaquin Valley delta region, California
Taiwan/Hong Kong Chinese group		Town of Locke and surrounding orchards, Sacramento River Delta, California

a/ Blanks indicate no data available.

Source: C. F. Nuckton and B. D. Gardner, "Foreign Investment in U. S. Agricultural Land--Issues and Perspectives," Journal of the American Society of Farm Managers and Rural Appraisers, Vol. 43 (April, 1979), pp. 41-49.

land in many other parts of the world. To make the same investment in an economically efficient unit in one of the European Economic Community (EEC) countries would require huge transaction costs to form coalitions among a number of sellers of small land plots.

Associated with the incentive of transaction cost is the desire to efficiently utilize available technology and economies of size in agricultural production. As is well known, over the post-World War II period in the United States, the most cost-efficient farming operations, especially in food grain and feed grain production, have steadily increased in scale.²² The size and capital costs of planting and harvesting machinery have increased significantly. The amount of contiguous land required for the efficient utilization of such machinery often requires well over 1,000 acres. Hence, due to the availability of large land parcels offered for sale, the United States has an advantage over the agricultural land markets in many other countries.

Who benefits from the adoption of large-scale technologies? Is it the producers, the middlemen, or the consumers who benefit from the adoption of such technologies? To be sure, for cost-reducing technologies, which result in no change in total output, the principal beneficiaries are the individual farmers. However, even here, the widespread diffusion of such technologies often result in increases in aggregate output.²³ Given an output increase resulting from the adoption of new technology, one of the principal determining factors of who benefits depends upon the elasticity of demand. If the elasticity of demand is greater than one, ceteris paribus, producers will be the principal beneficiaries while, if the elasticity of demand is less than one, producers will ultimately lose from the adoption of the new technology. Empirical evidence strongly suggests that domestic demand within the United

States has an elasticity of less than one.²⁴ Domestic demand, however, is only part of the story. The rapid growth in the international food market since the early 1970s and the Soviet grain deal places increasing weight on the export demand for U. S. food. This export demand has an elasticity significantly greater than one and, when combined with domestic demand, we are left with a total demand whose elasticity exceeds one.²⁵ The declining value of the dollar has enhanced the export demand for U. S. agricultural products; and this phenomenon, along with the elasticity of export demand, has allowed farmers to capture a large portion of the benefits of new technological adoption. In the aggregate this, too, is an important incentive for large-scale foreign investment in U. S. agricultural land.

C. *Relative Land Prices*

Reasons often cited for European investment in farmland in North America relate the availability of land and its low price, especially in comparison to land prices in Europe. These are certainly factors, especially in view of the appreciation of most European currencies during the 1970s and in view of the protectionist agricultural policies in Europe and countries such as Japan. Tariff policies used by major food importing countries have the impact of increasing producer prices and, hence, the internal price of farmland. In effect, tariffs or other barriers to trade change the relative prices of factors of production on a worldwide scale. The price of land in exporting countries will drop relative to that in importing nations. Nevertheless, if capital is allowed to move, it will move from importing to exporting nations; and part of the flow will eventually reside in land values in exporting countries. Investors from abroad stand to gain, especially if agricultural exports expand to Third World countries and even to European countries as

imports are increased due to tariff reductions. The rapidly expanding international food market has enhanced this expectation.

The effect of relative land prices naturally leads to an examination of international capital flows. This, in turn, requires a brief excursion into the international trade literature related to such capital flow and ultimately some understanding of the world capital market. Unfortunately, the standard and widely accepted general equilibrium model of international trade allows only for product exchange. Factors of production are indigenous to each trading nation and are assumed to be immobile internationally. A country exports those goods in which it has a comparative advantage. This advantage is based on differences in factor endowments among nations. For example, if the United States is endowed with capital relative to another country, it will export those goods which are capital intensive in production. In the standard model a free flow of products among nations brings about an equalization of factor prices and, as a result, there are no incentives for factors to move across national boundaries.

Mundell, in an interesting paper, relaxed the assumption of international capital mobility and developed a model to determine the effect of tariffs or other trade barriers on foreign direct investment.²⁶ He demonstrated that capital flows and product trade are substitutes in the sense that, if trade in products is reduced due to tariffs, a capital-rich country will invest in that country to which the product is shipped in order to produce the good locally rather than export it. Mundell used this model to explain why sizable investments by the United States occurred in eastern Canada where much of Canada's industrial activity is located. The theory of substitutability between foreign direct investment and product trade has been supported in empirical

studies by Bieri and Schmitz²⁷ and by Schmitz²⁸ who tested the impact of the EEC formation on U. S. direct investment to that region. Later, Schmitz and Helmberger developed a model in which primary products were treated separately from manufactured goods.²⁹ They were able to demonstrate that foreign direct investment and product trade can be complements in that product trade can be increased as a result of foreign direct investment.

Vernon developed a model of trade in the product cycle.³⁰ He argued that product innovations are likely to be discovered and initially produced in high-income countries and then diffused to others. The vehicles for diffusion are trade, foreign investment, and imitation. Initially, foreign demands are met through exports but, as input costs change, production spreads abroad—often through direct investment—especially if the innovation is a patentable one.

In two interesting papers, Caves views direct investment in an industrial organization context.³¹ Foreign direct investment occurs mainly in industries characterized by certain market structures in both the lending (home) and borrowing (host) countries. Oligopoly with product differentiation normally prevails where corporations make horizontal investments to produce abroad the same lines of goods that they produce in the home market. Oligopoly (not necessarily differentiated) in the home market is typical in industries which undertake vertical direct investments to produce abroad a raw material or other input to their production process at home. Caves argues that nearly all direct investments involve a foreign corporate parent.

Horizontal investments can occur because a firm has a patented invention or a differentiated product. For example, if the product were not differentiated, the risk of foreign investment would increase since the native

entrepreneur has an advantage due to superior knowledge of economic, social, and cultural conditions in his home market. However, firms generally test a foreign market first by exporting the product and then switching to local production through a subsidiary to minimize transport and transaction costs.

Vertical direct investments generally involve the preparation of raw material inputs (for example, a steel company establishes an iron ore mine) or processing of products generally. Vertical integration is popular when there are only a few sellers. By controlling input sources, the firms can raise the barriers to entry. To be sure, firms must initially be of large absolute size before undertaking foreign investments. As in the case of horizontal investments, the firm that invests abroad will be relatively large and face relatively few competitors at home. This is partly due to the risk of entering foreign markets via foreign direct investment because of the political climate, exchange rate movements, and the like.

The size of the market is also an important determinant of foreign investment and is often cited as the reason why the United States has an advantage in many countries. The U. S. firm can first produce for a large domestic market and then capture further economies of scale by also producing abroad. For example, where economies of scale are present, it is much more difficult for a parent firm in Canada to invest in the United States because it does not have the large domestic market to realize economies of scale prior to undertaking foreign investment abroad.

One can hardly explain Japanese and European investment in cornland in Iowa or wheatland in Kansas on the basis of U. S. tariffs on wheat and corn. The United States is a major exporter of these crops—not an importer. Moreover, the above theories of vertical and horizontal investments fail to apply. The wheat and corn industry is not oligopolistic in nature. Foreign

investors do not have patents on new varieties of corn or expertise in marketing corn. U. S. grain is marketed chiefly by large multinational grain firms; the amount any foreigner could produce and/or market is highly insignificant in the current structure. Corn production and wheat production are highly competitive—not oligopolistic. Thus, investment in Iowa farmland has to be due to a number of other factors including tax advantages and expected land value appreciation rates in the United States vis-à-vis other countries. In summary, the potential for farmland price increases seems to be greater in North America than in Europe and other net food importing countries, partly due to existing barriers to trade which are not likely to increase substantially in the future.

D. *Political Stability*

Confidence in the stability of the U. S. political environment and the remote possibility that the United States will nationalize farming operations are additional reasons for foreign direct investment in U. S. farmland. Related to this stability is the inflow of oil money from countries belonging to the Organization for Petroleum Exporting Countries (OPEC). This money has to be invested somewhere; and land, as Feldstein has recently demonstrated, is an excellent hedge against inflation.³² As Feldstein demonstrates, during periods of rapid inflation, commodities such as gold and land appreciate in value relative to other investable items. This is due to the store of value such investments offer and the difference between ordinary and capital gains tax rates; thus, the effective after-tax interest rate in real terms is often negative.

However, the data in Table 7 suggest that relatively little of the direct investment by foreigners in U. S. farmland comes from the Arab nations. Of

the purchases listed, only one investment was from an oil-exporting country. The data suggest that the substantial money inflows into the United States from Arab nations are not being used for the purchase of U. S. farmland. As the data show, the Italians and Germans seem to be the major buyers.

E. *Portfolio Diversification*

Many foreign investors in U. S. farmland are motivated not by large expected returns but instead by risk reductions in their total investment portfolio. In other words, capital preservation (a principal objective of most wealthy investors) is enhanced by U. S. landownership due to its positive effects on the total risk across all investments. Such incentives are explained by general portfolio diversification theory and need not be elaborated. What is not generally explained by this theory, however, is the combined effects of exchange rates, inflation rates, and interest rates when foreign investments are evaluated.

To illustrate these unique, combined effects, consider a potential foreign investor who has some knowledge of agricultural landownership and holds large amounts of Swiss francs, Deutsche marks, or Japanese yen. Suppose it is mid-1978 and he has held the above currencies or similar currencies for at least a few years. Because of the exchange rate movement over the indicated period, in terms of U. S. dollars this potential farmland investor has indeed been very fortunate. Will he continue to hold his existing currency portfolio or diversify to appropriately manage the risk he faces? If he exchanges some of his existing currency portfolio for U. S. dollars, he will be exposed to the risk of continued inflation in the United States. Even though an investor might expect the rate of inflation to be higher in the United States than, say, West Germany and thus for the U. S. dollar to continue to deteriorate, an

excellent vehicle to hedge this risk is to exchange presently held currencies for dollars and, subsequently, dollars for U. S. farmland. The attractiveness of this strategy is particularly obvious once it is realized that land investments in the United States are expected to increase at a more rapid rate than the rate of inflation (Table 8). The favorable nature of this hedge is made even more attractive when credit financing can be arranged at a fixed interest rate below the rate of inflation. Under these circumstances, the foreign investor wins handsomely in both the expected return and risk dimensions.

From the standpoint of portfolio diversification, another incentive relates to learning or knowledge accumulation. Some investors, particularly those from Japan and Hong Kong, have been known to use investments in U. S. land as a vehicle to eventually diversify their asset portfolio in the United States. Land can be purchased and rented to farm operators—actions which do not require a great deal of skill or, for that matter, knowledge of the U. S. economy. Such investments provide an opportunity for foreign investors to learn about the U. S. economy and other potential investments. It may often be a first step in an investment portfolio diversification strategy for investors of small size relative to, say, multinational corporations.

F. Credit Availability and U. S. Agricultural Policies

Negative real interest rates provide an important incentive to invest in agricultural land. In the late 1970s the United States, in contrast to many other countries where foreign investment might take place, maintained fixed interest rates on long-term debt (i.e., an interest rate not indexed by the rate of inflation). Moreover, the U. S. government has often provided credit subsidies in one form or another to U. S. farmers.³³ These subsidies have

TABLE 8
U. S. Farm Real Estate Values and Consumer Prices
1965-1977

Year	Farm real estate index	Consumer price index
1965	86	94.5
1966	93	97.2
1967	100	100.0
1968	107	104.2
1969	113	109.8
1970	117	116.3
1971	122	121.3
1972	132	125.3
1973	150	133.1
1974	187	147.7
1975	213	161.2
1976	242	170.5
1977	283	181.5

Source: U. S. Department of Agriculture, Agricultural Statistics, 1978.

spillover effects in rural credit markets; specifically, for rural commercial bankers to be competitive, they offer credit terms that are frequently more attractive than those offered by their urban counterparts. Hence, these subsidies have the effect of driving a wedge between rural and urban credit markets. For this reason, the financial markets serving agriculture have often been characterized as isolated and specialized. This isolation leads to what Baker has referred to as the "entrapment" of funds in small local bank deposits.³⁴

Carter and Johnston have noted that the intense pressure toward a heavy reliance on capital markets in order to purchase land and equipment may pose a real threat to the existence of the family farm. In particular, they note that "the proportion of [farmland] transfers on which debt was incurred rose from 58% in 1950 to 88% in 1977 and the ratio of debt to purchase price of credit-financed transfers rose from 57% in 1950 to 77% in 1977. . . ."³⁵

Moreover, recent empirical evidence strongly suggests that (1) larger farmers borrow more; (2) they borrow more to invest in capital; and (3) their ability to borrow more stems, in part, from their higher repayment capacity.³⁶ In 1970, 70 percent of farmers with \$100,000 or more in sales held some form of debt, while only 47 percent of all farms with sales in the range of \$2,500-\$9,999 held some form of debt. With respect to each of points (1) through (3), it can be expected that wealthy foreign investors purchasing large farming units can benefit from the current rural credit market structure. Finally, it should also be noted that, as agricultural land values increase, seller financing becomes a more important credit supply component; foreign investors find such credit sources attractive in an inflationary environment and no doubt operate with the adage, "let the seller name the price and the buyer will be delighted to name the terms."

In addition to the structure of rural credit markets, other incentives for foreign investment are based upon public policy affecting U. S. agriculture. For some years, the U. S. government has actively intervened in agricultural production through support price schemes, acreage controls or set-asides, deficiency payments, target prices based upon the cost of production, subsidization of crop storage, and the like. The most recent U. S. Food and Agricultural Act, 1977, modifies previous forms of governmental intervention; but the heart of the governmental programs remains unchanged.³⁷ Among the principal effects of these programs is an increase in land prices.³⁸ Given that foreign investors expect these programs to continue, some clear incentives exist. Perhaps more importantly, these programs for many crops limit an investor's downside risk. Furthermore, the reduced price risk implied by price-support provisions lowers the variance of returns for all farmers, and it has been shown that larger scale operations benefit more from such reductions than smaller scale operations.³⁹ Hence, since foreign ownership is generally large scale, another incentive exists for its allocation of capital to the purchase of U. S. farmland.

In the event of a worldwide food famine, the above programs will probably not be implemented, but in this case foreign investors holding U. S. agricultural land will not be concerned about downside risk. Instead, the value of their farmland assets will increase at rates well beyond their most optimistic expectations.

Still other incentives emanate from governmental intervention. In particular, the U. S. infrastructure for agriculture is attractive compared to that of less-developed countries. The water price subsidies available under the

1902 Reclamation Act for farms served by federal water projects are particularly attractive. The 160-acre limitation and residency requirement specified by this Act for water subsidies has never been effectively implemented. Given the nature of current technology, it is doubtful that the acre limitation will be imposed.

G. Technology and Market Nearness

In special situations some foreign investors are motivated by horizontal direct investment arguments. These investors may possess information which is not readily available to U. S. farmers. Under these circumstances, they can purchase the land at higher prices than local farmers are willing to pay due to superior information, technology, and managerial expertise for using that land. In a sense these investors have a differentiated product—a variety of production which is expected to do well but is not currently available to local farmers. In addition, this form of direct investment takes place at a multinational firm level, with the parent company located in a foreign country and agriculture production being one of its major production activities in the United States. As a result, such investors can take advantage of economies of scale in production and marketing. At the margin, it is more attractive for these investors to expand the production in the United States than in their home countries.

One could argue that some of the foreign direct investment in California grape land by the French and Italians follows this line of reasoning. Firms which already have expertise in the wine business expand their operation by investing in California. However, it may not be the case that these firms have superior technology in production; rather, a more important factor may

well be that, in order to compete in the U. S. market because of trade barriers and the like, production has to occur in the United States. Tariffs in this case are more important as a determinant of foreign investment than previous examples suggest.

The case of investment in Mexico by General Foods fits the case of vertical direct investment. General Foods is in an oligopolistic industrial structure and processes both differentiated and specialty crops. It is a multinational based corporation which, at the margin, views Mexico as a preferred alternative to grow and process crops, such as broccoli, than the United States. Essentially, General Foods can employ a technology in Mexico superior to that used by local producers. Again, General Foods has the advantage of its large-scale operation in the United States.

V. IMPACTS OF INVESTMENT⁴⁰

Increased foreign direct investment in U. S. farmland has the effect of pushing the price of land upward. The quantification of this effect is beyond the scope of this paper. However, it was not the only factor which gave rise to the rapid increase in U. S. farmland during the 1970s. Other factors included purchases by local farmers to expand their economic units, the increased availability of bank credit for land purchases, government programs, and land purchases by city people for tax reasons and as a hedge against inflation.

The phenomenal increase in U. S. land values was shown earlier in Table 8. Note that the value of U. S. farm real estate has more than tripled since 1965 and that the rate of increase was greater than the increase in the consumer price index by a significant amount.

For farmers or investors selling U. S. farmland, foreign investment is generally looked upon with favor since it increases the sale price. However, local buyers generally oppose foreign investment since it bids up the price, and thus barriers to entry become more formidable; foreign investment is viewed as beneficial by some and harmful by others.

It is important to recognize that foreign investment in a single region of the United States has some impact on the entire U. S. land market. For example, suppose the 25 states which now have rather strict investment laws could enforce them; this would mean that states such as California would receive proportionally more of the total foreign direct investment in U. S. farmland. However, the increase in land values in California due to this investment also has a tendency (aside from the usual transport and transaction costs) to increase land values in the Midwest and other parts of the United States. Factor price equalization tends to occur among regions. As a result, the policy by an individual state in isolation to limit or prohibit foreign investment will eventually be ineffective in tempering increased land values of that state as long as other states allow foreign investment in an unrestrictive fashion.⁴¹

The effect of direct investment on land prices can be greater than, for example, the effect of foreign investment in apartment buildings because, as building prices increase, supply also increases. Land, however, is relatively fixed in supply. Unlike buildings, the supply of farmland is relatively price inelastic. Also, as shown earlier, only a small percentage of U. S. farmland is sold each year. This is unlike the market for wheat and corn where price is determined by demand and total supply, excluding storage. The market for land is thus a "thin market"; hence, even a small additional demand component

(e.g., foreign demand added onto the demand by U. S. residents) can have a significant effect on land values.

In view of the tax advantages of foreign investment alluded to earlier, there is an incentive for foreigners to buy the land and rent it to local farmers or farm management companies, such as Oppenheimer Industries, Inc., in Kansas City. This adds to the already growing trend of increased separation between landownership and operation.⁴² The extent to which this separation occurs varies among states. For example, a much greater percentage of the land in California is farmed on a rental basis than is the case in North Dakota. However, the largest percentage of land leased to farmers is owned by U. S. urban residents. This growing separation between landowners and farm operators has a negative impact on maintaining viable rural communities.

The impact of foreign investment in U. S. farmland on the growth of the U. S. economy partly depends on whether or not technology accompanies the investment. For example, if a foreign entity could buy U. S. farmland and make it more productive through the introduction of a new variety or improved managerial skills, the multiplier effects would be much greater than if money from abroad were used merely to buy U. S. farmland to rent to U. S. residents where farming practices remain unchanged. In terms of the examples cited earlier, the multiplier effects from the investments of General Foods in Mexico appear to be greater than that of German residents investing in Iowa cornland. In the latter case the investment merely bids up the price of farmland with little accompanying increase in output. The resulting increase in real wealth by the owners of U. S. farmland need not contribute to an increase in real gross national product.

From the standpoint of viability of rural communities, large-scale foreign investments have some rather obvious negative impacts. One of their major potential positive impacts is the increase in investment capital available to rural communities. To be sure, if the proceeds from the sale to a foreign investor are deposited in domestic financial institutions, then these dollars are available for a variety of other investment opportunities. If, in fact, foreign purchases do increase the availability of investment capital in rural areas and if there has been a shortage, then foreign purchases could have a stimulating effect on both the agricultural and nonagricultural sectors in rural communities. Unfortunately, there is very little information on how domestic farmers allocate the proceeds from sales to foreign purchasers. Nevertheless, there is a clear potential for foreign purchases of agricultural land to increase the amount of investment capital available in rural communities and thereby a stimulating effect.

VI. CONCLUSIONS

This paper has focused on foreign direct investment in U. S. farmland. The amount of investment, while growing, is very small relative to the total value of U. S. farmland but represents a more sizable share of farmland that exchanges hands each year. From the standpoint of the stock of land available in the United States, the economic impact of foreign investment in U. S. farmland is rather minimal. From the standpoint of the market for land, particularly in local communities, the implications of foreign investment can indeed be significant. In any event, the amount of total foreign direct investment in the United States is small relative to the total U. S. direct investment abroad. Thus, in attempting to limit foreign direct investment in U. S. farmland, retaliatory actions by recipients of U. S. direct investment should be recognized.

In assessing the implications of foreign investment in U. S. farmland, there are important trends in U. S. agriculture that must be kept in mind. First, farm size is increasing rapidly; and more and more farms, including those operated and owned by individual families, are becoming incorporated. Given the recent changes in U. S. tax laws, this is not surprising. Second, a greater proportion of U. S. farmland is operated on an owner-renter arrangement; foreign investment only makes the proportion greater through time. Third, land is viewed as an excellent hedge against inflation by U. S. citizens and residents. Fourth, the debt structure of the farm sector is increasing dramatically. Business practices now employed by U. S. farmers are fast approaching those of successful nonfarm businesses. Lastly, the entry cost to the farm sector has increased substantially in both nominal and real terms. This latter trend has been associated with a steadily increasing age of those owner-operators who continue to farm.

Generally, foreign direct investment in U. S. farmland does not fit the various models of multinational direct investment in manufacturing industries. As a result, the role of tariffs and other barriers to trade can have a different impact on foreign direct investment in U. S. farmland than on direct investment in manufacturing. From the standpoint of overall national policy, one of the principal conclusions of our analysis is that the tax advantages to foreign investment in U. S. agriculture should be eliminated. The basis for this view is reflected dramatically by Figure 1. Aside from national tax policies, other forms of federal government intervention should seriously evaluate the multiplier effects of foreign investment in U. S. farmland.

It is possible to implement selective controls—if, indeed, there should be any—where the amount of investment allowed is positively correlated with the positive size of the domestic multiplier effect. To be sure, some investments generate a large multiplier effect, while others do not.

Individual states which are alarmed by foreign investment can pursue a number of possible options. Because of the issues raised in this paper, the most effective action is to support a national foreign investment land policy. Short of a national policy, an individual state can, through its policy on foreign investment, affect farm entry costs and the economic vitality rural areas. In this setting, it is not clear that the restrictive policy of prohibiting foreign investment, which many states have now implemented, is optimal. This naive legislation is likely to prove ineffective. Given the incentives outlined in Section IV for foreign investment, another policy worth evaluating attempts to channel this foreign investment in an optimal fashion. This legislation would include provisions for young U. S. farmers to manage the land owned by foreign investors, perhaps as a joint venture with various percentages of equity being transferred to the U. S. manager over time (up to some maximum) in accordance with some measure of his or her performance. Moreover, through various property tax schemes or other encouragements, investments that have large rural community multiplier effects could be included in the legislative provisions. If properly constructed, such legislation would recognize the incentives for foreign investment (Section IV) and channel this available capital to mitigate problems of entry costs for young potential U. S. farmers, while simultaneously addressing an important problem facing foreign investors, namely, the search and selection of an effective manager. Also, the foreign capital could be effectively used to help rebuild rural communities.

Appendix TABLE 1

Foreign Ownership of U. S. Farmland: Selected Counties
in Selected States, 1978

State	Number of counties	Total farmland acres in counties	Foreign ownership	
			Number of acres	Percent of total acres
California	3	7,367,730	8,786	0.1
Georgia	11	1,611,010	24,239	1.5
Kansas	3	771,000	2,678	0.3
Missouri	3	1,055,143	9,013	0.8
Oklahoma	5	5,342,872	0	0.0
Total	25	16,147,755	44,716	

Source: U. S. General Accounting Office, Foreign Ownership of U. S. Farmland--Much Concern, Little Data, June, 1978.

Appendix TABLE 2

Foreign Ownership of California Farmland
Selected Counties, 1978

California counties	Total farmland acres in counties	Foreign ownership	
		Number of acres	Percent of total acres
Fresno	2,208,070	960	0.04
Kern	3,822,604	6,884	0.2
Tulare	1,337,056	942	0.07
Total	7,367,730	8,786	

Source: U. S. General Accounting Office, Foreign Ownership of U. S. Farmland--Much Concern, Little Data, June, 1978.

Appendix TABLE 3

Foreign Ownership of Kansas Farmland
Selected Counties, 1978

Kansas counties	Total farmland acres in counties	Foreign ownership	
		Number of acres	Percent of total acres
Doniphan	246,000	2,678	1.1
Leavenworth	277,000	0	0.0
Atchison	248,000	0	0.0
Total	771,000	2,678	

Source: U. S. General Accounting Office, Foreign Ownership of U. S. Farmland--Much Concern, Little Data, June, 1978.

Appendix TABLE 4

Foreign Ownership of Missouri Farmland
Selected Counties, 1978

Missouri counties	Total farmland acres in counties	Foreign ownership	
		Number of acres	Percent of total acres
Mississippi	242,644	3,832	1.6
New Madrid	377,149	368	0.1
Stoddard	435,350	4,813	1.1
Total	1,055,143	9,013	

Source: U. S. General Accounting Office, Foreign Ownership of U. S. Farmland--Much Concern, Little Data, June, 1978.

FOOTNOTES

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