Nonfarm Equity in Agriculture: Past, Present, and Future

John R. Fiske, Marvin T. Batte, and Warren F. Lee

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The issue of nonfarm equity is inherently a structural issue. This relationship has long been understood. However, the older view generally concentrated on the potentially negative consequences of nonfarm equity capital for the structure of agriculture (Ottoson and Vollmar), while the emerging view, shaped by recent events that have highlighted the vulnerability of that structure, suggests the potential for nonfarm equity capital as a solution to financial stress (Brake and Boehlje).

The structural characteristics of agriculture imply the existence of barriers to the flow of equity capital between the farm and nonfarm sectors as well as inducements to that flow. Most importantly, these characteristics have hampered the development of an efficient equity market in agriculture. Thus, the most significant flows of nonfarm equity capital have largely circumvented existing farm businesses flowing instead into direct ownership of farm assets or shared ownership of newer and generally larger and more technologically innovative farm businesses.

Capital Accumulation in Agriculture

Agriculture has undergone an evolution in the method of capital accumulation and resource control over the last century. As long as the frontier still existed, farmers accumulated capital through developing virtually free government lands rather than through purchase. With the disappearance of the frontier, capital accumulation focused on the purchase and transfer of existing claims. Beginning farmers either climbed the agricultural ladder from hired man to tenant to owner-operator, accumulating capital in small amounts as they progressed, or inherited the farm business from relatives (Brake, 1972). In either

case, capital transfers were financed primarily by the principals, through personal savings, gifts or inheritances. Formal intermediation in agriculture was primitive and unreliable and lenders typically offered only costly, short term credit, even for the purchase of farmland (Barry, Hopkin, and Baker).

The establishment of the Farm Credit System over the years 1916 to 1933 and the Federal Reserve System in 1913 improved financial intermediation in agriculture although an active secondary market for farm mortgages (i.e., an Aggie Mae) has never developed. Improved financial intermediation, in turn, accomodated structural change without yielding ownership of farm assets to nonfarm investors.

The method of capital accumulation has important implications for risk management. In the era of the agricultural ladder, the risks of asset ownership were circumscribed by the dominant role of buyer equity in the purchase and transfer of capital. The development of the farm debt market enhanced the debt capacity of farm assets and encouraged the use of debt. Credit reserves became an important element in risk management. The uncertainty created by financial market deregulation and variable interest rates have demonstrated the limits of reserve credit as a risk management strategy. Similarly, the dissipation since 1981 of some $250 billion in farmland equity have shown the limits of leverage as a growth strategy. These events, too, have left many intermediaries in a weakened financial state and have raised doubts as to the efficacy of the Farm Credit System.

Perhaps the development of an efficient equity market for agriculture is the next step in the evolutionary process. Such a market would allow farmers greater flexibility in attaining the desired capital structure for their business as well as the desired composition of their personal wealth portfolios. But this development will have to surmount significant barriers.

Barriers to Nonfarm Equity Flows

The most important barriers to the flow of nonfarm equity include outright legal restrictions on farm asset ownership, prohibitively high transactions costs, and the peculiarities of the predominating organizational structure of farm business units.

Legal Barriers

Legal restrictions in some states prevent some nonfarm investors, such as corporations and aliens from owning specified farm assets. These restrictions represent attempts to preserve traditional land ownership patterns in agriculture, patterns that are rooted in the Jeffersonian vision of agrarianism that regarded a nation of small landholders as the bedrock of a democratic society (Breimyer, Raup, 1972).

Transactions Costs

Transactions costs refer to the costs borne by farmers in underwriting the sale of stock or limited partnerships as well as the search costs borne by farmer and outside investor in striking a deal. High transactions costs increase the rate of return necessary to induce

farmers to accept outside equity and conversely, the rate of return necessary to induce the flow of outside equity into agriculture. The importance of transactions costs as a barrier to trading equity in a market is likely related to the size and organizational structure of firms in that market. The relatively small size of most farm business units results in high per unit costs of trading equity.

Organizational Structure

The predominating types of business organization in agriculture, the proprietorship, the partnership, and the family corporation vest the ownership and control of assets in a single person or small group of closely related people. It has been argued that typical farm owner-operators accept lower returns on capital than nonproprietor investors because they can include a variety of nonmonetary rewards in their calculation of total return on investment. This is not a market imperfection but only a reflection of the fact that prospective owner-operators have opportunities to value dimensions of intangible wealth that are denied workers in nonproprietary businesses (Raup, 1978). Other arguments have focused on the consumptive value of farmland and its effect on farmland values (Pope).

The Motivations for Nonfarm Equity Capital Flows

Just as the structural characteristics of agriculture have imposed barriers to the flow of nonfarm equity capital they have also provided inducements. The literature on international direct investment offers a useful point of departure for examining this claim (Grubel).

This literature offers two basic explanations for the flow of direct investment between countries. The rate of return explanation assumes that investors maximize the rate of return on their capital and will thus invest in the assets that yield the higher return. The diversification explanation assumes that investors maximize expected return subject to constraints on risk exposure and will invest in the portfolio of assets that yields the highest utility.

Rate of Return

Under the rate of return explanation, the motive for capital flows is straightforward: capital flows to the sector whose assets yield a higher rate of return. Differences in rates of return are caused by differences in relative factor proportions and factor prices that are maintained through time, because of obstacles to free trade or because of differential rates of growth in the stocks of capital and labor in the two sectors. As stated, however, the rate of return explanation does not explain why capital flows take a specific form (e.g., equity investment versus lending) nor does it explain the occurrence of two-way capital flows.

The explanation for these phenomena would consider how market imperfections induce nonfarm ownership of farm assets. The most important of these imperfections are technical externalities, factor market imperfections and tax law. The first two imperfections are probably more relevant to investment in farming by nonfarm businesses rather than individual investors but the last imperfection has clearly influenced the individual nonfarm investor as well.

Technical externalities may give rise to vertical integration that reduces the firm's cost of production by reducing the costs associated with assuring the timing and quality of input flow. Vertical integration may be achieved through contracts but outright ownership is also an option and an important motivation for the flow of equity capital.

Factor market imperfections would include the case where nonfarm investors have better access to capital, technology or management talent and thus choose to invest directly in agriculture rather than lend to existing farm businesses.

Tax laws constitute a special kind of market imperfection and will often induce direct investment when other factors are not sufficient. Historically, tax laws have offered significant inducement to nonfarm investors to own farm assets. This inducement has arisen because of the interaction of tax law with the earnings characteristics of farm assets and the organizational characteristics of farm businesses. Thus, nonfarm investors have received tax benefits by taking advantage of such things as the cash method of accounting or by preferential tax rates on capital gains.

These imperfections are useful in explaining not only direct equity investment, in contrast with lending, but also two-way investment, since the particular imperfections and benefits can accrue to investors and entrepreneurs in all sectors, not just the one with the greatest relative capital endowment.

Diversification

Under the diversification explanation, capital flows can be attributed to the desire of investors to diversify their wealth portfolios. This explanation encompasses the motivation for direct equity investment in farming as well as lending to that sector. It is also consistent with the occurrence of two-way capital flows. Investors in each sector are motivated to diversify their wealth and may choose to own assets in the other sector.

Diversification has probably not been an important motivation for nonfarm equity flows although it is clearly emerging as an important motivation for farmers to accept nonfarm equity as a substitute for internal wealth in the control of farm assets. The most dominant farm asset, farmland, has been shown to have contributed little systematic risk to a well-diversified portfolio consisting of common stocks, corporate bonds, and government agency issues over the period 1950 to 1977 (Barry). The same study indicated that farmland earned a return to equity in excess of that needed to compensate the investor for this systematic risk.

Classifying Nonfarm Equity Flows

Nonfarm equity may arise in the form of individual investors' wealth or nonfarm business retained earnings. The wealth of individuals notably includes the income of farm operators earned from nonfarm investments or off-farm employment. Nonfarm equity may take the form of direct investment in farm assets, the purchase of undifferentiated

shares of farm businesses, or the purchase of whole farm businesses, either existing or new.

Vertical Integration

Vertical integration is motivated by the desire to gain market power and avoid the imperfections of existing commodity markets (Mighell and Jones). Integrators see the opportunity to gain economies by undertaking the coordination process previously accomplished by markets. There may not be a sufficient concentration of capital within agriculture to facilitate the coordination. Thus, external capital is invested. Vertical integration has been controversial because of its potential impact on market structure, conduct, and performance. Vertical integration has also been an important channel for nonfarm equity capital. A prime example is the broiler industry that was transformed from an industry of many small firms to one of a few large integrated growing and processing operations largely through the actions and investments of a handful of feed manufacturers (Moore).

Leasing

Leasing represents an important flow of nonfarm equity capital into agriculture. The motivation for the nonfarm investor depends on the characteristics of the asset and on the terms of the lease.

The most prominent of leased assets in the agricultural sector is farmland. More than half of all farms with annual sales over $10,000 have some rented land (1982 Census). Farmland is leased under two general arrangements, the cash lease and the crop-share lease. In

either case, the nonfarm investor (usually retired farmers or their survivors) receives a current return plus any price appreciation in the land. The preferential tax treatment of capital gains versus ordinary income has represented an important feature of the farmland investment.

The volume of financial leasing of livestock and farm machinery has grown in recent years although it still represents less than five percent of gross capital expenditures in agriculture (LaDue et al.). The primary incentive for nonfarm investors to become lessors lies in the tax advantages of ownership of farm assets except in the case of the captive leasing companies of major equipment manufacturers who regard leasing primarily as a method of obtaining market share.

Limited Partnerships and Corporations

In some cases, an investment in an existing farm business may be more feasible than direct ownership of farmland or breeding livestock or other farm assets. For the most part, it is the accessibility of the tax shelter that is important. Limited partnerships were an important source of funds for cattle feeding in the 1960's and early 1970's (Scofield). These investments provided a mechanism for tax deferral through prepayment of expenses for feed and for tax reduction through high leverage and the conversion of ordinary income into capital gains income.

Off-Farm Employment

Wealth arising from off-farm employment of farmers that is invested in farm assets or farm businesses is an important source of nonfarm

equity for part-time farmers. A continuing trend toward a "bimodal" farming population, consisting of a small group of very large commercial farms, and a large number of small part-time farms has already been noted (Office of Technology Assessment). For many farms in the latter group, off-farm employment or nonfarm investments provide the income and wealth to maintain ownership of farm assets. For others, off-farm employment may represent a form of equity infusion designed to lower the firm's leverage ratio in response to higher interest rates and lower commodity prices.

Nonfarm Equity in a Period of Financial Stress

Some of the tax incentives were lost with the tax reform bills of 1976 and 1981, and more are likely to be lost in 1986. Moreover, farmland has suffered an average decline in value since 1981 of 30 percent nationwide, thus altering the perception of capital gains. The strong U.S. dollar
1980-85 discouraged investments by foreigners. The conditions normally associated with financial stress, increasingly volatile commodity prices, interest rates and credit availability, and declining asset values, have demonstrated to some farmers that ownership of farmland is financially infeasible and has provided them with incentives to diversify their wealth portfolios. Such a diversification means asset restructuring. Some examples of voluntary asset restructuring, such as the sale/leaseback of farmland have been reported in the press, but much asset restructuring has occurred on an involuntary basis. For example, the Farm Credit System holds nearly $1 billion of acquired property,

mostly farmland, that represents an equity flow into agriculture, despite its involuntary nature.

Nonfarm Equity Capital in the Future

What is the future for nonfarm equity capital in agriculture? The answer to this question depends on changes in the structure of the sector and how they will affect the barriers to nonfarm equity flows. It also depends on the motivations for equity capital flows and how these are likely to be affected by changes in a host of variables such as tax law, inflation, and farm sector profitability.

The most prevalent view is that agriculture will experience even more consolidation in upcoming years (Office of Technology Assessment). To the extent that consolidation fosters greater concentration of assets and output among large farms, nonfarm equity may become a more prominent source of capital, although consolidation may be accomplished through merging or pooling of existing farm sector equity and may not require additional nonfarm ownership capital. But, consolidation and increasing farm size should diminish some of the barriers to nonfarm equity flows. Larger farms are likely to be more consistent with the formation of an efficient equity market for agriculture and per unit transactions costs will be lower. More importantly perhaps, the owners of large farms are likely to realize the importance of diversification of their personal wealth and will be more receptive to the idea of limited partners or shareholders or the use of financial leasing to acquire control over farm assets. Even so, diversification presents an important practical problem. Farm assets are not easily divisible (the average farmland

transaction in 1985 was 259 acres, valued at $170,000) and significant transactions costs may prevent the attainment of optimal portfolios.

A related question concerns the impact of the development of a viable farm equity market on the structure of agriculture. Without such a development, nonfarm equity that flows into agriculture is probably more likely to displace existing farm businesses than to share ownership with them. With such a development, the opportunities for existing farm businesses to remain in farming are probably enhanced. However, innovative institutional arrangements will be required to facilitate the development.

Tax reform has the potential to diminish the importance of tax shelters in agriculture. But, the elimination or dilution of the investment tax credit and capital gains provisions will influence all sectors of the economy and it remains to be studied how agriculture will fare relative to other sectors.

The outlook on inflation is uncertain but recent trends do not suggest an interest in farmland as an inflation hedge. The interaction between tax law and inflation that Feldstein asserted served to raise the return to land relative to business capital in the 1970's now seems to be working in the opposite direction as evidenced by recent surges in the Dow Jones average. The profitability of the farm sector in terms of current returns is weakened by low commodity prices and sluggish international markets. Foreign investors may show continued interest in U.S. farmland--recent figures indicate a current total of $12 billion invested--but legal restrictions and disadvantageous exchange rates

hamper this flow. Further research is required to assess the welfare implications of foreign direct investment in U.S. agriculture.

The issue of nonfarm equity is inherently a structural issue. But, give the magnitude and direction of structural change that has already occurred in agriculture, the argument that nonfarm equity is a pernicious intruder in the domain of the family farm seems irrelevant. The debate should focus instead on the conditions necessary to insure that nonfarm equity investment is consistent with allocative efficiency and maximum social welfare.

The authors are, respectively, assistant professor, associate professor, and professor, Department of Agricultural Economics and Rural Sociology, Ohio State University.

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